





Department of ECE

Presents

Electronica

Edition 6 (July 2023 - June 2024)

About Department of ECE

Vision

To excel globally in technical education and research in the field of electronics and communication engineering and thus contribute to the welfare of society.

Mission

M1: To establish a unique learning environment to enable the students to face the ever-emerging challenges in electronics and communication engineering.

M2: To equip the students with a broad intellectual spectrum and prepare them for diverse and competitive career paths.

M3: To provide practical orientated education and foster tie-up with national/International educational institutes, research bodies, and industry to support students and faculty development pursuits.

M4: To provide ethical and value-based education by promoting activities addressing societal needs.

Program Educational Objectives (PEOs)

PEO1: Be able to successfully practice electronics and communication engineering with acquired skills and knowledge.

PEO2: Be receptive to new technologies and attain professional competence through advanced education, research work, and other professional activities.

PEO3: To prepare graduates who will practice their profession with ethics, integrity, and social responsibility in a global context.

PEO4: To develop leadership qualities with demonstrable attributes and to contribute to societal needs.



From Director's Desk

It gives me great pleasure to announce that the latest edition of the ECE Newsletter is ready for our readers. A college newsletter serves as a reflection of the institution's achievements and provides a valuable platform to showcase its accomplishments to the wider community. It highlights the dedicated efforts of our faculty, staff, and students, all of whom work tirelessly to elevate the institution to new heights.

In keeping with this tradition, this issue of Nexus showcases the remarkable contributions of the entire PIET family, across various fields of expertise, and highlights our collective progress as a college. I extend my heartfelt congratulations to everyone for their invaluable contributions and look forward to the continued dedication in the future.

A special thanks to the editorial team for their hard work in bringing this edition to life.

Best wishes for your continued success!

Prof. (Dr.) JS Saini (Director)





From HOD's Desk

Dear Readers
Greetings to you!!

The newsletter is a forerunner of all departmental technical activities. With the well qualified faculty & energetic students, the club aims and continuously works for the technical enhancement. The newsletter covers the activities & achievements of the students & faculty. I am pleased to present the issue before the readers.

Educational tours and industrial visits are also arranged to get in touch with the latest technologies used in the industries. In order to prepare the students for industrial exposure, they are given personality development classes to enrich their interpersonal skills. The students are placed in leading hardware and software companies of the country and abroad.

"Winners don't do different things. They do things differently" – Shiv Khera

Dr. Manoj Arora (HOD, ECE)



Editor's Note

It is with immense pride and great pleasure that we present to you the latest issue of the Department of Electronics and Communication Engineering (ECE) Newsletter. This publication represents the collective achievements, progress, and milestones of our dynamic and ever-evolving department.

As editors, we have put forth our wholehearted efforts to craft a newsletter that not only celebrates the laudable achievements of our students, faculty, and staff, but also provides a platform for showcasing the innovation, creativity, and collaborative spirit that thrives within the ECE department. We have strived to ensure that this edition offers a comprehensive and vibrant portrayal of the department's activities, highlighting the various events, seminars, projects, and research breakthroughs that reflect the department's commitment to excellence.

Please feel free to drop in your suggestions to:

sapna.ece@piet.co.in

Ms. Sapna Arora Assistant Prof. ECE Department



Student Editor's Note

It is an honor for us to contribute as student editors to the ECE Department's newsletter. The ECE Department at PIET has long been a hub of innovation and academic excellence, equipping students with the skills needed to excel in a rapidly evolving technological world.

We also want to acknowledge the Yantra Club for fostering hands-on learning and technical exploration. Their dedication has offered students valuable opportunities to engage in projects, workshops, and competitions, deepening their passion for electronics and communication engineering.

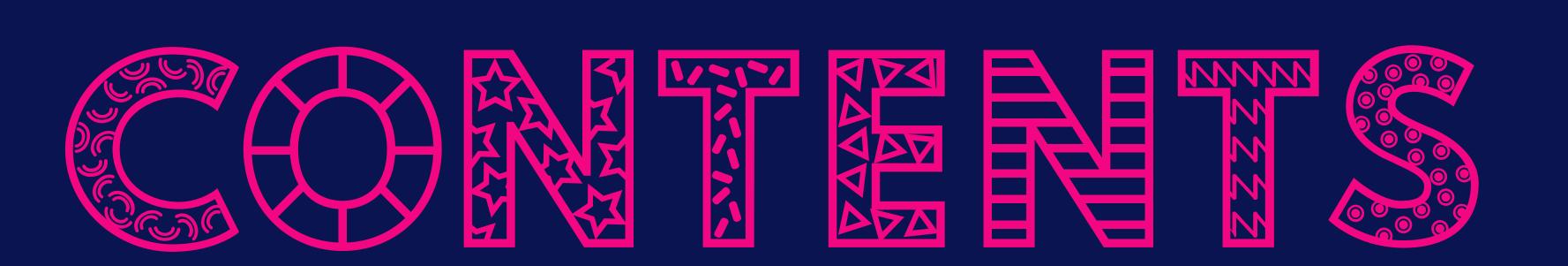
We look forward to many more achievements from our vibrant ECE community and the continued success of the Yantra Club.



Chief Editor
Dikshant



Co-Editor
Khushi Bagga



- In-House Training Program: Basic Electronics for IoT
- Industrial Visit 2023 Cone Factory
- Faculty Development Program on "Internet of Things" (IoT)
- Industrial Visit 2023 National Brain Research Centre (NBRC)
- Expert Lecture by Dr. Michele Di Lauro
- Alumni Talk on Semiconductor Industry
 & Opportunities
- Daughter's Day Celebration
- Edu Fiesta-2023
- Expert Lecture By DR. Arvind Selwal, on "Recent Trends In Biomteric Systems and Smart Applications"
- National Science Day
- Alumni Talk on Start-ups and Career
 Opportunities in Electronics and Communication
- Ethnic Day

In-House Training Program: Basic Electronics for IoT

The Department of Electronics and Communication Engineering (ECE) successfully conducted a comprehensive 4 week in-house training program from 17 July to 11 August 2023 titled "Basic Electronics for IoT." This initiative aimed to fulfill the summer training requirement for first-year students, equipping them with essential skills and knowledge in electronics and IoT.

The training program was designed to impart fundamental knowledge in electronics, focusing on IoT applications. It emphasized hands-on experience, allowing students to explore various aspects of electronics and its real-world applications.

The event has been well hosted by Er. Vikas Goyal (Incharge), Er. Vishal Jain and Mr. Rajesh Kumar (Co-Ordinator) with the full support of Dr. Manoj Arora (HOD ECE), Dr. Poonam Jaglan (Associate Professor, ECE) was a grand success with participation of 25 students.

Prof. (Dr.) J.S. Saini, Director, PIET addressed the participants that an engineer with good practical knowledge in emerging field will surely get success in their future life.

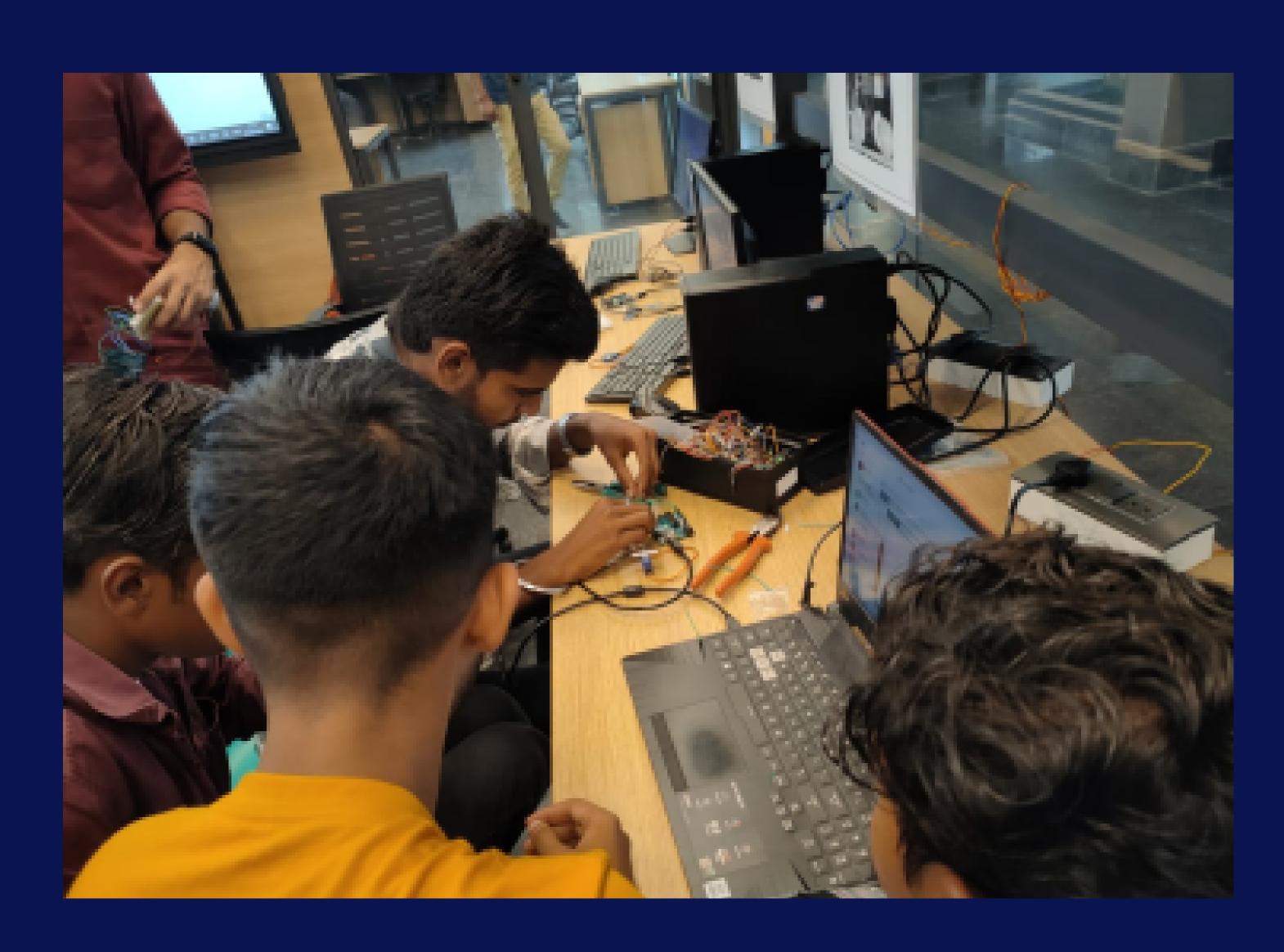














Industrial Visit - 2023

On 10th August 2023, students from the 3rd semester of the Electronics & Communication Engineering (ECE) department at PIET, Samalkha, visited The Cone Company in Sonipat, Haryana. The visit was organized to provide hands-on industrial exposure to the students, allowing them to observe automation and packaging processes in a real-world setting.

The primary goal of the visit was to expose students to real-world industrial environments, demonstrate how electronics and IoT concepts are applied in production, and understand quality control, automation, and resource management processes.

Students were given a tour of the facility and later attended a session with the Senior Manager of Production, where they discussed future industry trends and the importance of being industry-ready. The visit concluded with a lunch provided by the company and a group photograph outside the premises.

The students expressed their gratitude to the faculty members, management, and The Cone Company for this invaluable learning experience.

Glimpses from the event:

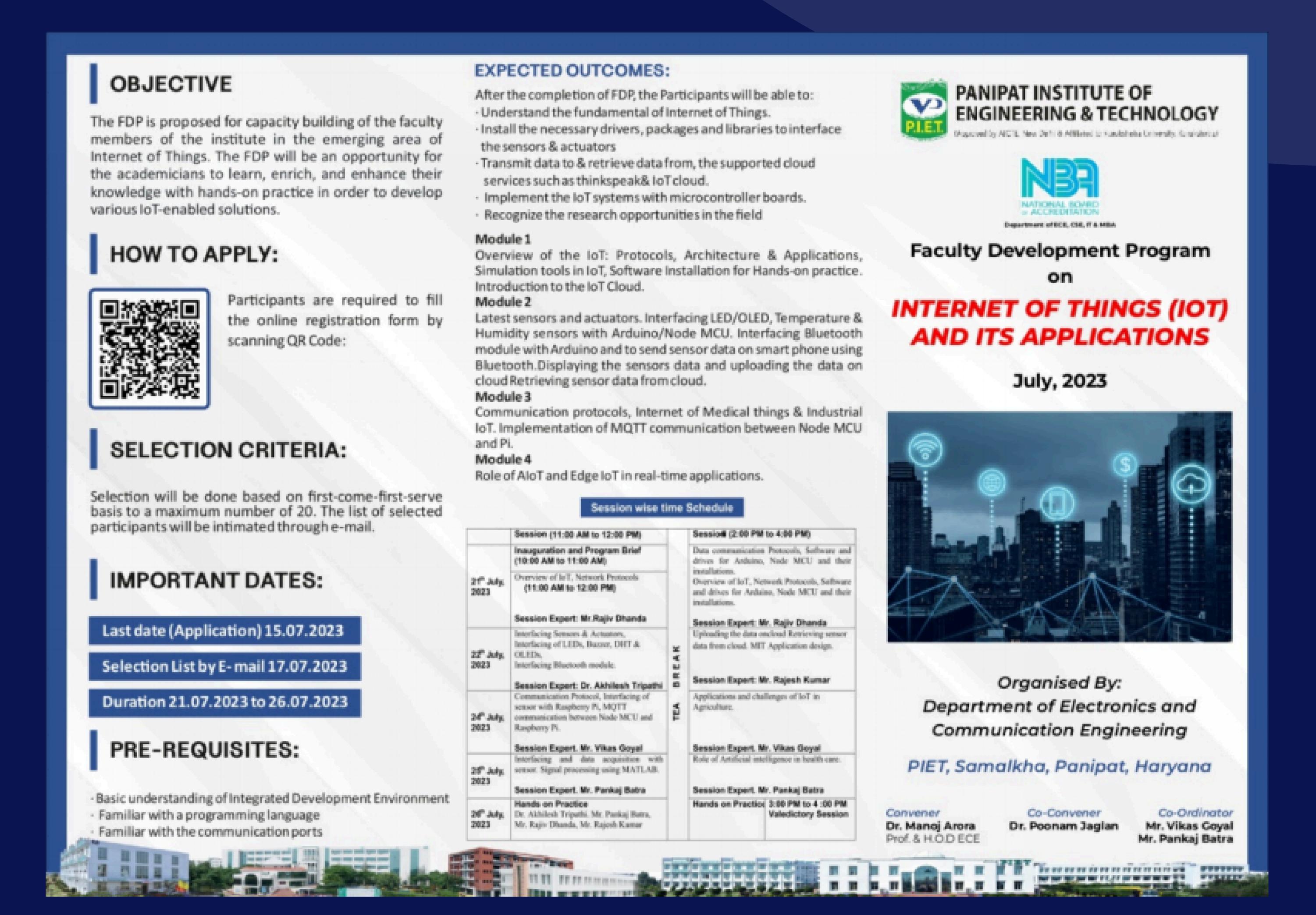


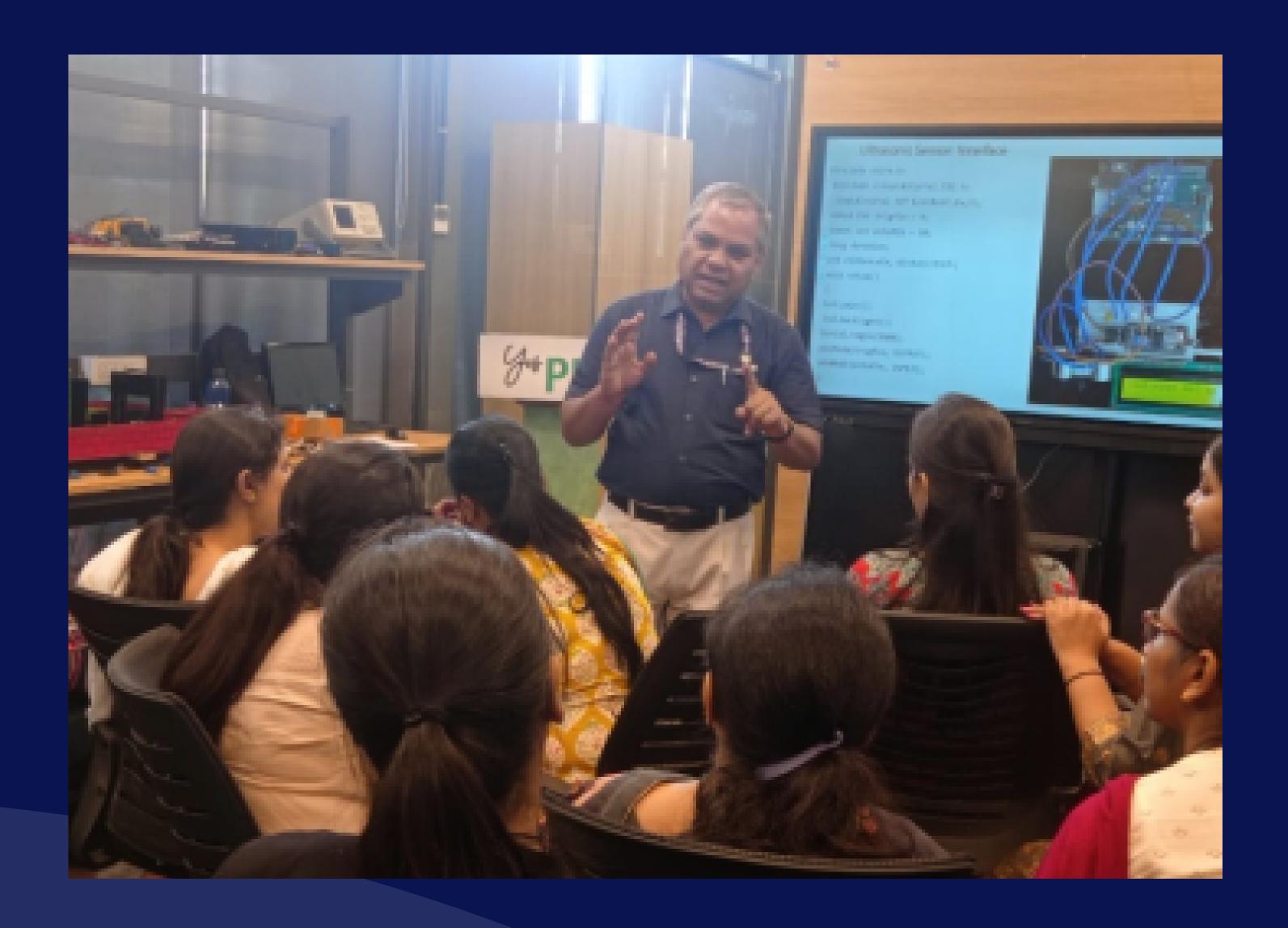




Faculty Development Program on "Internet of Things" (IoT)

A Faculty Development Program (FDP) on "Internet of Things" (IoT) was held at Panipat Institute of Engineering & Technology (PIET). The program aimed at enhancing the loT knowledge and hands-on skills of faculty members, with a focus on developing IoT-enabled solutions. Participants gained insights into IoT fundamentals, sensor interfacing, cloud data transmission, and implementing systems with microcontroller boards. Keynote speaker Prof. (Dr.) J.S. Saini, Director of PIET, highlighted the societal impact of IoT, while Mr. Rakesh Tayal, Vice Chairman, PIET, emphasized the importance of being both skilled engineers and responsible citizens. The event was successfully organized by Dr. Manoj Arora, Dr. Poonam Jaglan, Er. Vikas Goyal, and Er. Pankaj Batra, with 30 faculty members in attendance. The FDP concluded with positive feedback, and a vote of thanks was delivered by Er. Vikas Goyal.















Faculty Development Program on "Internet of Things" (IoT)

On September 15, 2023, Panipat Institute of Engineering & Technology (PIET) celebrated National Engineer's Day, honoring the legacy of Sir Mokshagundam Visvesvaraya. The CSE-AIDS, CSE-CS, and ECE departments organized various activities, including a Coding Competition, Poster Making Competition, and a Technical Quiz, fostering a spirit of innovation among students. The technical quiz, led by Ms. Sapna Arora, saw participation from 36 students in 12 teams, with 5 teams advancing to the final rounds. The day also marked the inauguration of the Infomaniac Club,' spearheaded by Ishu Kadian and Ridham, and featured an inspiring session by motivational speaker Mr. Sahil Sahore on "Be a HUMANENGINEER." Esteemed guests, including Director Sir, Rakesh Tayal Sir, Registrar Sir, and other faculty members, graced the event. The competitions highlighted student creativity and technical prowess, with Yogya winning the Coding Competition, Manan topping the Poster Making, and Komal and Karuna securing first place in the Technical Quiz. The event was a grand success, showcasing student talent and promoting analytical and problem-solving skills.





Industrial Visit - 2023 National Brain Research Centre (NBRC)

On September 19, 2023, students from the Electronics & Communication Engineering (ECE) department of Panipat Institute of Engineering & Technology (PIET) visited the National Brain Research Centre (NBRC) in Manesar, Gurgaon. The visit, led by Dr. Akhlesh Tripathi (Associate Professor, ECE) and Er. Vikram Verma (Assistant Professor, CSE), included 29 ECE students and one CSE student. The aim of the visit was to give students real-world exposure to industry practices, bridging the gap between theoretical knowledge and practical applications, particularly in areas such as IoT and electronics.

The students were warmly welcomed by Mr. Jatinder, in charge of the MRI Centre, who introduced them to NBRC's research operations and the function of MRI systems. They also toured the Molecular Lab, where they learned about the molecular and cellular bases of NeuroAIDS, NeuroCOVID, and the Zika virus. A highlight of the visit was a demonstration by Ms. Himanshi Arora and her team on how the brain functions, including the display of preserved brains from humans, crows, and rats. Students also explored the auditory system in humans.

The visit concluded around 4:30 PM, after which the students enjoyed refreshments and a group photograph outside the NBRC premises. The students expressed gratitude to the management, Director Prof. (Dr.) J.S. Saini, HOD Dr. Manoj Arora, Dr. Poonam Jaglan, and Mr. Sudhir Mahajan for their support in organizing this enriching industrial experience.





Expert Lecture by Dr. Michele Di Lauro

On October 11, 2023, the Department of Electronics & Communication Engineering and Applied Science & Humanities at Panipat Institute of Engineering & Technology, Samalkha, hosted an expert lecture titled "Organic Electronic Materials & Devices and Enabling Features for Sensing & Neuroelectronics." The session, held from 1:00 PM to 2:30 PM in the APJ Auditorium, was attended by students from all academic years.

Dr. Michele Di Lauro, a post-doctoral researcher at IIT CTNSC in Ferrara, shared his insights on next-generation neural interfaces aimed at achieving efficient communication with the central nervous system while minimizing neuroinflammatory responses. He emphasized the collaboration between neuroscientists, materials scientists, and nanotechnologists in developing low-power, biocompatible devices.

The event featured a warm welcome from the Vice Chairman and a speech by Dr. (Prof.) J.S. Saini, Director of PIET Samalkha, followed by a vote of thanks from Dr. (Prof.) Vinay Khatri, HOD of Applied Science & Humanities. The lecture provided valuable insights into innovative research in organic electronics.



कैंसर को खत्म करता है आर्गेनिक न्यूरो इलेक्ट्रॉनिक्स

 इटली के साथ मिल कर करेगा टेक्सटाइल व आइटी में शोध करेगा पाइट

हरिभूमि न्यूज ▶▶। पानीपत

इटली के इटेलियन इंस्टीटयूट ऑफ टेक्नॉलोजी (ऑइआइटी) के सीनियर रिसर्चर मिशेल डी लॉरो ने कहा कि आर्गेनिक न्यूरो इलेक्ट्रॉनिक्स के माध्यम से कैंसर जैसी जटिल बीमारियों को जड़ से खत्म कर सकते हैं। यहां तक की कैंसर के खात्मे के बाद शारीरिक रूप से कोई दिक्कत भी नहीं



पानीपत। पाइट में इटालियन विद्वानर लॉरो को सम्मानित करते हुए राकेश तायल, शुभम तायल, डॉ. जेएससैनी, डॉ बीबी शर्मा। फोटो इरिभूमि

आएगी। किसी तरह के साइड इफेक्ट भी नहीं होंगे। इतना ही नहीं, अगर इंजीनियरिंग विंग के स्टूडेंटस और मेडिकल के स्टूडेंटस मिलकर रिसर्च करें तो दुनिया को कई

क्रांतिकारी आविष्कार मिल सकते हैं। दरअसल, डी लॉरो यहां पाइट कॉलेज में छात्र-छात्राओं से मुखातिब थे। उन्होंने छात्रों के प्रश्नों के उत्तर दिए और उन्हें प्रैक्टिली

कुछ रिसर्च के बारे में भी बताया। पाइट सीनियर सेकेंडरी स्कूल एनएफएल में भी छात्र-छात्राओं को मिशेल ने प्रेरित किया। मिशेल ने कहा कि रिसर्च के लिए इससे बेहतर युग नहीं हो सकता। एआइ पर दुनिया काम कर रही है। आइटी के क्षत्र में बड़े बदलाव आ रहे हैं। इस अवसर पर पाइट के बोर्ड सदस्य शुभम तायल, डीन डॉ.बीबी शर्मा, विभाग की अध्यक्ष डॉ.विनय खत्री, रजिस्ट्रार डॉ.मनोज अरोड़ा, डॉ.विनोद दहिया, डॉ.सुमन, डॉ.रेन्, डॉ.अनीता, डॉ.दिनेश मौजूद रहे। डॉ.विनोद और राधिका ने मंच संचालन किया।

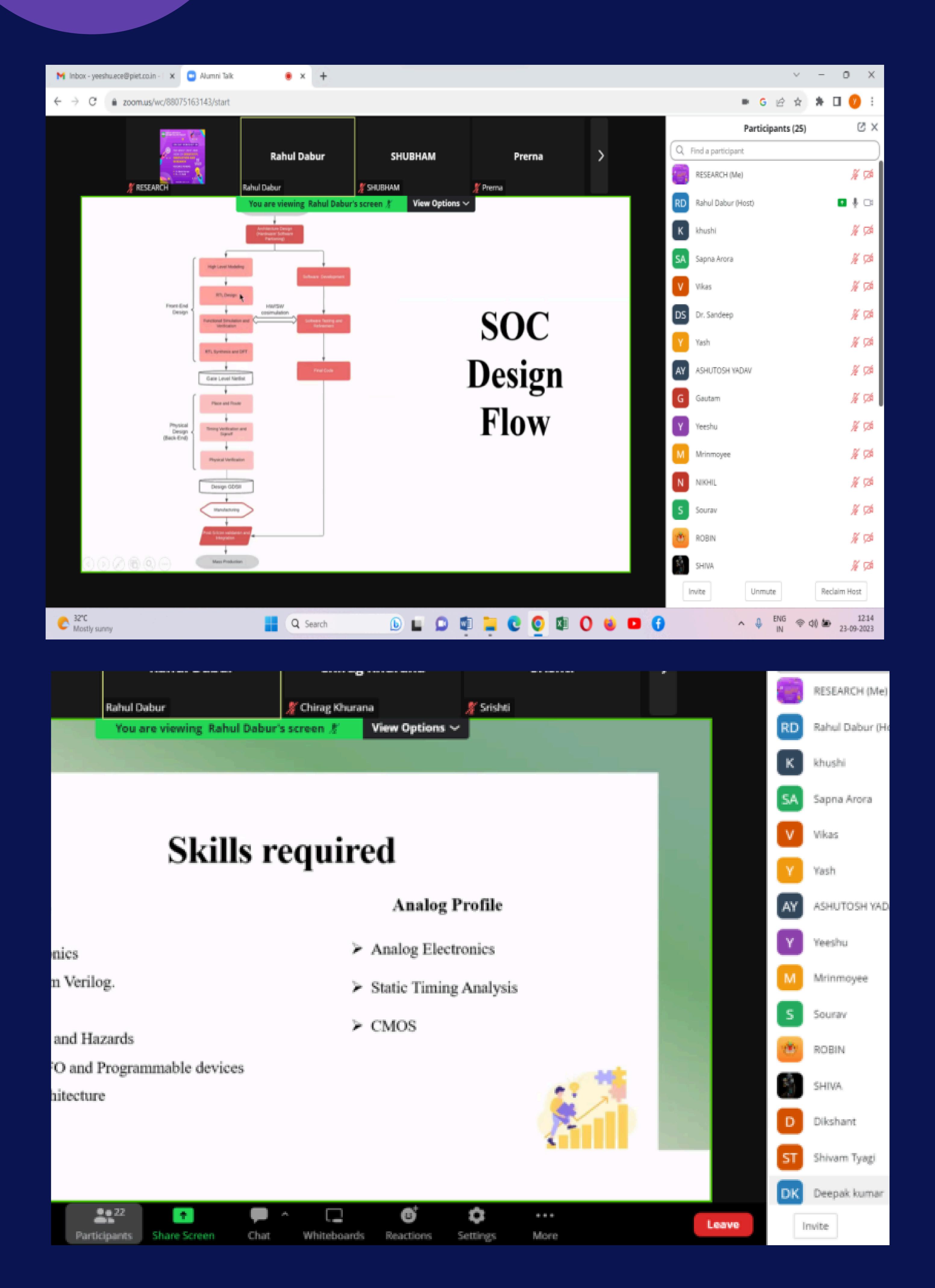
Alumni Talk on Semiconductor Industry & Opportunities

On September 23, 2023, the Department of Electronics and Communication organized an Alumni Talk on the Semiconductor Industry & Opportunities via Zoom. The session aimed to provide valuable insights to Electronics and Communication Engineering (ECE) students regarding various career prospects in the semiconductor sector, both in India and abroad.

Mr. Rahul Dabur, a Graphics Hardware Engineer at Intel Bangalore, was the resource person for the session. He highlighted the essential skills and qualifications needed to enter this dynamic and rapidly evolving field. The event concluded with a Q&A session, allowing students to clarify specific topics and interact with Mr. Dabur.

The session was attended by 32 ECE students and was coordinated by Mr. Yeeshu Ralhen, Assistant Professor in the ECE department, under the guidance of Dr. Manoj Arora, HOD of ECE. Overall, the talk provided a valuable learning experience that empowered students to make informed career decisions in the semiconductor industry.





Daughter's Day Celebration

On the occasion of Daughter's Day, the Youth Red Cross (YRC) at PIET NCR College, Samalkha, organized a poetry competition to celebrate the invaluable contributions of daughters to our lives. The event highlighted the joy, love, and laughter that daughters bring while also raising awareness about critical issues such as infanticide, dowry, foeticide, the need for education, and child marriages.

Under the guidance of Dr. Meenakshi Sharma and Ms. Sapna Arora, the event encouraged students from various departments to express their feelings through poetry. The competition was judged by Dr. Akhilesh Mishra, HOD of the MBA Department, and Ms. Garima Mittal, Assistant Professor in the Pharmacy Department.

The event witnessed enthusiastic participation, with many students sharing their original poems. At the conclusion of the competition, the winners were announced: Aarti secured first place, Tanya came in second, and Neeyati took third. Each winner was honored with a memento and a certificate.

The celebration was a heartfelt tribute to the incredible daughters in our lives and served as a reminder of their strength and significance.









Industrial Visit to TBRL

On December 5, 2023, an Industrial Visit was organized by the Panipat Institute of Engineering and Technology, Panipat, under the coordination of Dr. Akhlesh Tripathi and Dr. Manjeet Kaur. The primary objectives of the visit were to enhance students' knowledge of industrial practices, familiarize them with the latest technologies, and provide insights into research and development activities within the industry.

A total of 44 participants attended the event, including 42 students and 2 faculty members. The highlight of the visit was the interaction with Sh. Manoj Kumar, a Technical Officer from TBRL, DRDO, Panchkula, who shared valuable insights into the organization's operations and technologies.

Participants expressed their appreciation for the experience, noting the excitement of the tour, exposure to various equipment, and interesting research and development activities. Testimonials from students reflected a strong engagement with the practical applications of their studies.

Overall, the Industrial Visit proved to be an enriching experience, bridging the gap between theoretical knowledge and real-world applications in the field of engineering.





Edu Fiesta-2023

K.R. Mangalam University hosted the grand and vibrant annual festival "Edu Fiesta-2023" on November 24-25, 2023, filled with joy, enthusiasm, and a wide array of events. The festival featured various competitions, including Mind Benders, Brushing Life Into Fabric (T-Shirt Painting), Write Reveal (Debate Competition), Form to Frock 3.0 (Chef Competition), and Gaming Rumble (Battleground Mobile India Challenge).

One of the notable competitions was Mind Benders, which combined hardware and software elements, allowing students to showcase their talents. Two teams from PIET, Samalkha participated in this competition—one focused on hardware and the other on software.

The hardware team performed commendably and was awarded a consolation prize of ₹1000. The festival not only highlighted the creativity and talent of students but also fostered collaboration and innovation among participants.

Expert Lecture By DR. Arvind Selwal, on "Recent Trends In Biomteric Systems and Smart Applications"

The Department of Electronics & Communication Engineering organized an expert lecture titled "Recent Trends in Biometric Systems and Smart Applications" by Dr. Arvind Selwal, Assistant Professor at the Central University of Jammu, on 29th February 2024. Dr. Selwal, an expert in biometric security, cyber security, and machine learning, shared his extensive knowledge on the evolving field of biometric technologies such as facial recognition, voice, fingerprint, and iris scanning. He emphasized how these technologies are becoming more affordable and precise, while also raising significant concerns regarding privacy, data security, and potential misuse of stored biometric information. Dr. Selwal addressed the growing use of surveillance cameras in cities and their impact on individual privacy, underscoring the need to balance innovation with ethical considerations. The session was well-received by students from B.Tech (ECE, CSE, Cyber Security, and AIDS), offering them valuable insights into the future of biometric systems and their broader implications.





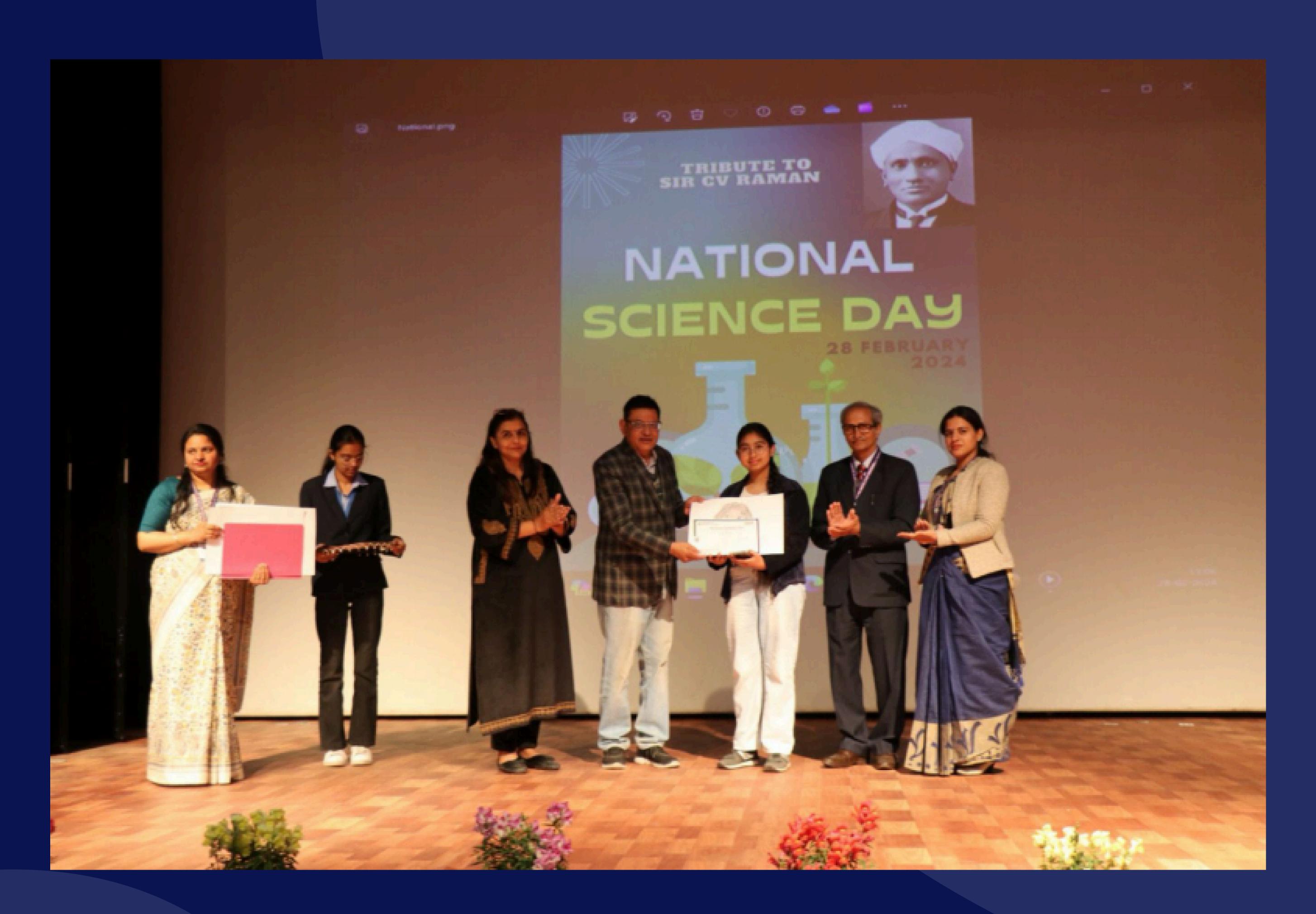


National Science Day

On February 28, 2024, the Departments of Applied Sciences and Humanities and Electronics and Communication Engineering celebrated National Science Day with a Poster Making Competition, a Pencil Sketching Competition, and an Expert Talk under the theme "Indigenous Technologies for Viksit Bharat." The event was led by Dr. Vinay Khatri, HOD of ASH, Dr. Poonam Verma, and Ms. Sapna Arora.

The inauguration featured Sh. Hari Om Tayal, Chairman of PIET, along with other dignitaries who honored Sir C.V. Raman's portrait. Over 70 students participated in the competitions held in the G Block seminar hall, judged by Dr. Sakshi Gupta, Dr. Garima, and Mr. Hardik Arora.







Alumni Talk on Start-ups and Career Opportunities in Electronics and Communication

The Department of Electronics and Communication Engineering organized an alumni talk on 4th April 2024, titled "Start-ups and Career Opportunities in Electronics and Communication." The session, held in B-202, B Block, was led by Mr. Sourabh Sharma, a Robotics Instructor at Melwirt, with coordination by Mr. Yeeshu Ralhen, and guidance from Dr. Manoj Arora, HOD, ECE.

The talk aimed to provide students with valuable insights into emerging trends in the Electronics and Communication industry, including IoT, Robotics, 5G technology, and AI applications. Mr. Sharma highlighted the importance of staying updated on the latest advancements to remain competitive in the field. He also discussed the startup ecosystem, sharing key details about funding opportunities, incubation support, and networking strategies that are essential for aspiring entrepreneurs.

The session concluded with an engaging Q&A where students had the opportunity to ask questions about technical challenges and career paths. A total of 37 students from the ECE department attended the event, benefiting from the enriching discussion and practical advice provided by Mr. Sharma.



Department of Electronics & Communication Engineering



Mr. Sourabh Sharma

Robotics Instructor at MELWIRT

Topic: Start-ups and Career Opportunities in Electronics and Communication

Date: April 4th, 2024 | Time: 1 PM

ue: B-202, B Block, Department of ECE



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GOODBYEGALA 2024

The "Goodbye Gala 2K24" took place on May 29, 2024, at the G Block Seminar Hall, celebrating the B.Tech final year students of the Electronics and Communication Engineering (ECE) department. The event opened with an inaugural ceremony featuring Dr. Poonam Jaglan, Dr. Akhlesh, Mr. Sudhir Mahajan, and Dr. Vishal Jain lighting a ceremonial lamp, followed by a Saraswati Vandana dance by Ms. Bhawana Saini. The head of the department expressed gratitude to the students, and reflections were shared on their academic journey. Cultural performances included solo and group dances, singing, and a ramp walk judged by Dr. Jaglan and Ms. Sapna Arora, with titles awarded such as Mr. and Ms. Farewell. Outstanding achievements were recognized, and third-year students presented personalized gifts to their seniors. The event concluded with group photographs, capturing the cherished friendships and memories created during their time together.





All the jury members and staff cultural coordinators



Director Sir Dr. J.S. Saini lighting up the lamp



Students performing Tilak ceremony



Students and staff singing National anthem



Jury members giving certificate to the winner

