KPR Institute of Engineering and Technology
(Autonomous)
Avinashi Road, Arasur, Coimbatore - 641 407
LEARN BEYOND

Department of Electronics and Communication Engineering
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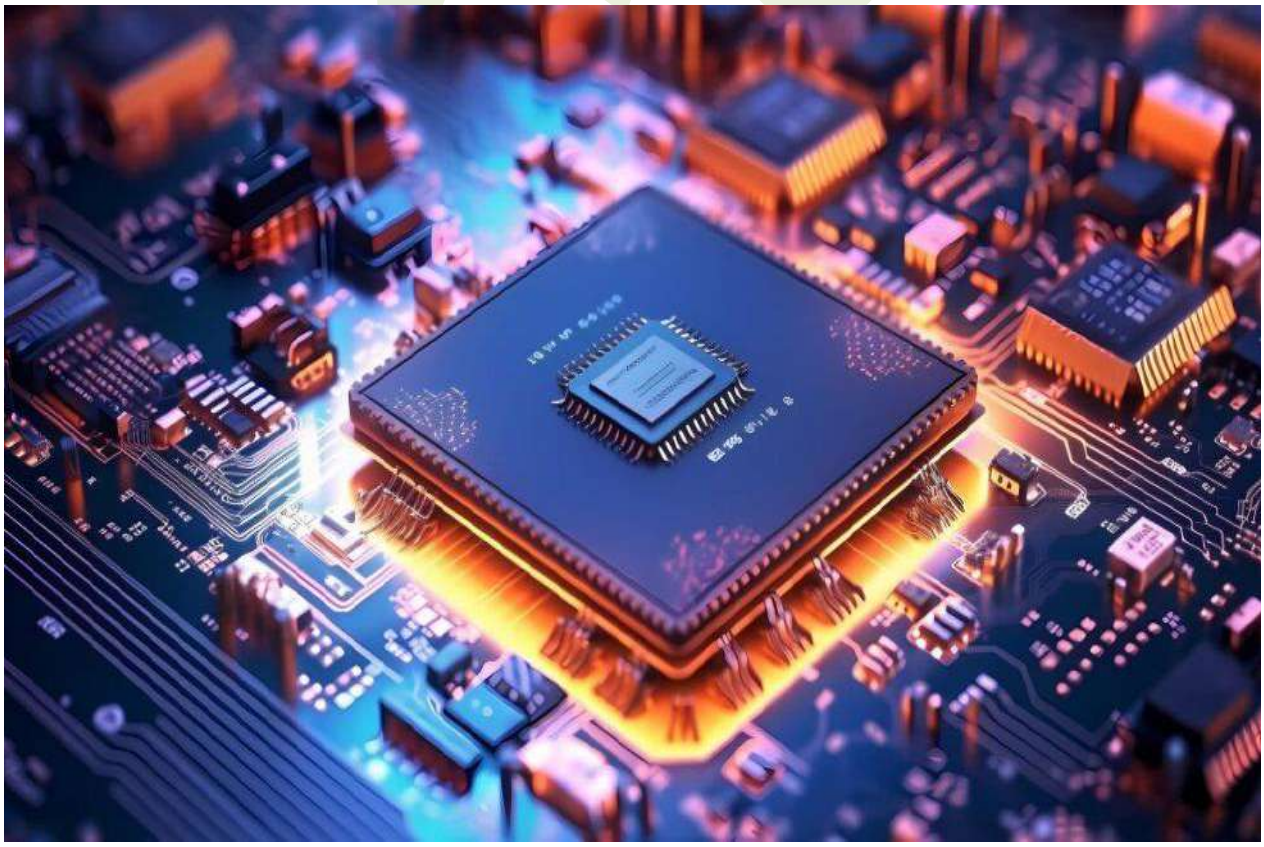


EDITORIAL BOARD

Vision

To be a center of excellence for education, research and development in the field of Electronics and Communication engineering to meet the growing needs of society.

Mission

- Develop competencies in emerging technologies through skill-based education collaborating with industries of repute
- Provide conducive environment for research and innovation to cater to the needs of society
- Inculcate professionalism, ethical values and lifelong learning

Program Educational Objectives

- PEO1: Apply principles of Electronics and Communication Engineering to provide solutions to the emerging problems in society.
- PEO2: Embrace technological challenges through skill upgradation or higher education or research.
- PEO3: Exhibit leadership qualities with professional and ethical values

EVENTS ORGANIZED

Learner-Centered Education

On 6th February 2025, the Department of Electronics and Communication Engineering (ECE), in association with the Office of Autonomous Affairs, organized a department-level workshop on "Learner-Centered Education" for faculty members. The on-campus session, convened by Ms. Sharmila S, was attended by 20 participants and conducted from 9:00 AM to 4:00 PM.

The workshop aimed to equip educators with innovative strategies and practical tools to foster a more engaging and student-driven classroom environment. Interactive discussions and activities focused on enhancing classroom dynamics, promoting active learning, and encouraging students to take greater ownership of their educational journey. The initiative supported the institution's commitment to Quality Education (SDG 4) by empowering faculty to adopt learner-centered pedagogies for improved academic outcomes.

Expert Lecture on Mobile Computing

The Department of ECE organized an Expert Lecture on Mobile Computing on 15th February 2025, from 9:30 AM to 4:30 PM, conducted on campus. This institute-level expert talk was conducted for the benefit of the faculty members and aligned with SDG 4: Quality Education and SDG 9: Industry, Innovation and Infrastructure.

The session was coordinated by Dr. Arijit De and featured Ms. Anjali Thirukumaran, Managing Director of SAT Infosys, as the resource person. The session involved 20 academic participants and 1 industry participant, engaging over seven academic hours.

The resource person, Ms. Anjali Thirukumaran, delivered an in-depth lecture covering the core principles of Mobile Computing, including its architecture, communication models, and practical applications in today's mobile-driven world. The lecture also addressed the latest developments in mobile platforms, network infrastructure, and emerging trends such as mobile cloud computing, edge computing, and IoT integration.

Key Takeaways for the Participants:

- Insight into mobile computing fundamentals and its significance in modern technology landscapes.
- Exposure to real-world applications and case studies demonstrating mobile computing solutions.
- Understanding of mobile operating systems, connectivity protocols, and security challenges.
- Opportunities to engage in interactive discussions with an industry expert.

The expert lecture enriched faculty members' knowledge of mobile computing technologies and their practical implications. Participants appreciated the relevance of the session, which bridged the gap between academic theory and current industry practices. The event successfully fostered technical upskilling, encouraged further research-oriented discussions, and paved the way for academic-industry collaboration in the area of mobile systems.

Two Day Workshop on PCB Manufacturing

The Department of ECE, in association with the IEEE Communication Society of KPRIET, organized a two-day hands-on workshop on PCB Manufacturing on 14th and 15th February 2025 at the Centre for PCB Design, coordinated by Dr. Finney Daniel Shadrach and Dr. Venugopal D. The sessions, conducted by the Centre for PCB Design, focused on the complete PCB development lifecycle, including schematic design, layout, board fabrication, etching, soldering, and assembly, using industry-standard

tools and safety procedures. Over 60 second-year ECE students participated actively, fabricating their own single-layer PCBs and gaining practical exposure to electronic hardware development. The workshop offered real-time technical support and fostered a strong understanding of PCB manufacturing, significantly boosting students' confidence and competence in the domain.

Career Opportunities in 5G and Beyond

The Department of ECE, in collaboration with the IEEE Communication Society of KPRIET, organized a guest lecture titled "Career Opportunities in 5G and Beyond" on 18th February 2025 at Thanam Hall, from 11:00 AM to 12:30 PM, featuring Dr. Hui-Kai Su, Professor at National Formosa University, Taiwan, as the resource person. The session, convened by Dr. Venugopal D, was attended by over 120 students and provided valuable insights into the 5G architecture, key technologies such as eMBB, URLLC, and mMTC, and their applications in domains like healthcare, transportation, and smart cities.

Dr. Su also discussed emerging areas like 6G research, terahertz communication, software-defined networking, and AI-driven wireless systems, highlighting global career opportunities, essential skillsets, and research avenues for students. The session concluded with an interactive Q&A, encouraging active student participation and enhancing their understanding of current trends and career pathways in wireless communication technologies.

Alumni Lecture Series VII: Personal Finance Management

The Department of ECE, in association with the Office of Alumni Relations (OAR), successfully organized a guest lecture on "Personal Finance Management" on February 22, 2025, from 11:00 AM to 12:30 PM. This department-level alumni engagement activity was conducted in hybrid mode and aligned with SDG 4: Quality Education and SDG 8: Decent Work and Economic Growth. The event aimed to educate students on essential financial literacy and planning skills to help them make informed financial decisions in their personal and professional lives. The session was coordinated by Dr. Murugan K and Ms. Supriya M. The resource person for the event

was Mr. Arunagiri, an alumnus and SAP Developer at Maventic Innovative Solutions Pvt. Ltd. His industry experience and real-world insights added practical relevance to the session.

A total of 40 external participants attended the session, which included students and faculty members who joined both online and offline. During the session, Mr. Arunagiri covered a wide range of important financial topics, including budgeting and expense management, savings and investment strategies, debt handling and credit score management, retirement planning, and tips on achieving financial independence. His talk emphasized the significance of cultivating disciplined financial habits early in life, especially for young professionals and students preparing to enter the workforce.

The interactive nature of the session encouraged students to ask questions and share personal experiences related to finance, making the session both practical and engaging. Participants gained clarity on common financial challenges and learned effective strategies for managing their money wisely. This alumni activity greatly enhanced financial awareness among students and faculty members, empowering them with the knowledge and tools needed to plan their financial future. The session reflects KPRIET's commitment to holistic student development by promoting life skills that complement academic and technical education.

PCB Manufacturing

The Department of ECE successfully organized a Value Added Course (VAC) on "U21VEC02 – PCB Manufacturing" from 20th to 22nd February 2025, between 09:00 AM and 04:00 PM at the Centre for PCB Design. The sessions were conducted by Dr. Finney Daniel Shadrach S, Associate Professor, KPRIET. The course offered students a comprehensive blend of theoretical knowledge and practical hands-on training in PCB design and manufacturing. Participants were introduced to schematic design, layout techniques, software tools, and prototype development, enabling them to understand and execute the complete workflow from circuit design to board fabrication. The course enhanced students' technical competencies and prepared them for hardware design projects.

AICTE Training and Learning (ATAL) Academy Sponsored FDP on "Empowering Healthcare with AI and ML: Advances and Applications"

The Department of ECE, KPR Institute of Engineering and Technology, successfully organized a One-Week Online Faculty Development Program (FDP) titled "Empowering Healthcare with AI and ML: Advances and Applications" from February 17 to February 22, 2025, sponsored by AICTE Training and Learning (ATAL) Academy. The coordinators of the program were Dr. Murugan K and Ms. Supriya M. The program featured distinguished resource persons from reputed institutions and industries. Dr. M. Brindha, Associate Professor, CSE, NIT Trichy, and Dr. V. Divya,

Consultant, KG Hospitals, delivered expert sessions on the role of AI in clinical diagnostics. Dr. Sharba Bandyopadhyay, Assistant Professor Grade-I, E&ECE, IIT Kharagpur, and Dr. Sukomal Dey, Associate Professor, EE, IIT Palakkad, discussed advanced machine learning techniques for healthcare data analysis. Contributions from Dr. D. Jude Hemanth, Professor, ECE, Karunya Institute of Technology and Sciences, and Dr. R. Rajkumar, Neurosurgeon, KG Hospitals, focused on applied AI in imaging and surgery support systems.

Industry insights were shared by Mr. Ravi, Mr. Mohan, and Mr. Sri Vignesh, Product and Application Specialists from Wellesda Healthcare (Butterfly Ultrasound, USA), emphasizing real-time AI solutions in ultrasound imaging. Dr. Gitanjali Wadwa, Research Scientist at ScaDS.AI, TU Dresden, Germany, highlighted international research trends in AI for precision healthcare. Additionally, Prof. Kyung-tae Kim, Emeritus Professor, ICE, Hannam University, South Korea, shared global perspectives on AI implementation. The FDP also featured a session by Dr. V. Chandran, Freelancing Nvidia Ambassador, who focused on practical tools and platforms for AI development in medical applications.

This National-level FDP was conducted with the objective of enhancing faculty expertise in the integration of Artificial Intelligence (AI) and Machine Learning (ML) within healthcare domains, aligning with SDG 3 (Good Health and Well-being), SDG 4 (Quality Education), SDG 9 (Industry, Innovation, and Infrastructure), and SDG 17 (Partnerships for the Goals).

🔹 Applications of AI and ML in diagnostics, disease prediction, and healthcare automation

🔹 Hands-on sessions with real-time healthcare datasets

🔹 Expert talks from leading researchers and industry professionals

🔹 Case studies on smart healthcare systems and wearable technology

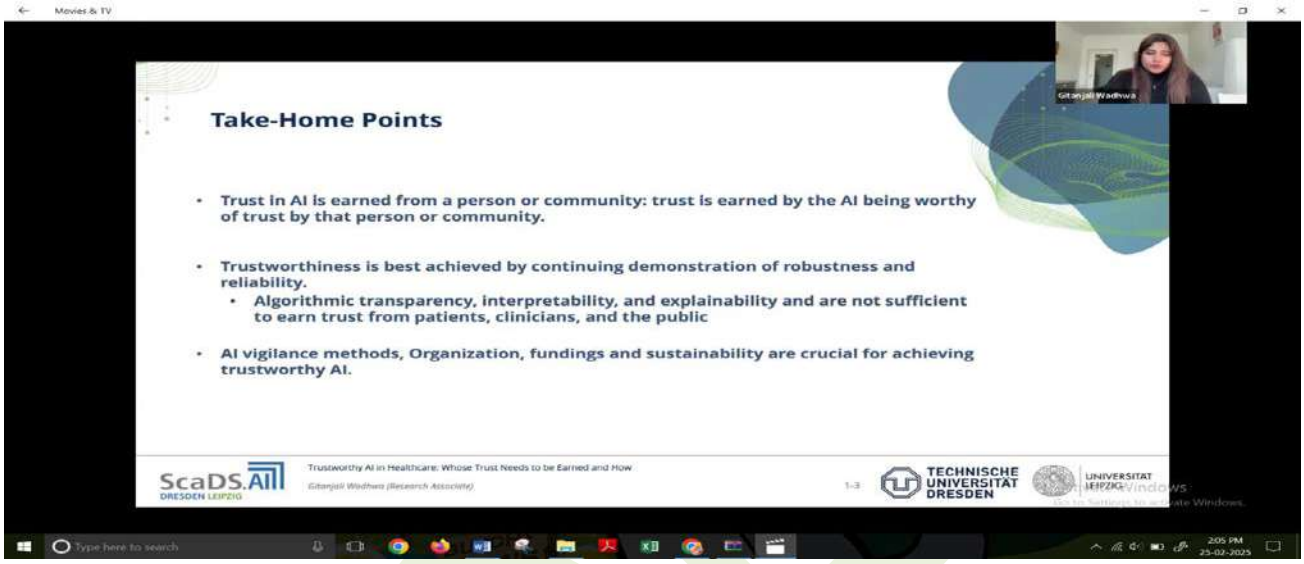
🔹 Discussions on ethical AI, data privacy, and responsible innovation in healthcare

✅ Strengthened the participants' ability to apply AI/ML in solving complex healthcare challenges.

✅ Encouraged interdisciplinary collaboration between healthcare and technology

domains.

✓ Enhanced awareness of current trends, tools, and research directions in intelligent healthcare.



Technical Session on "Basics to Advanced Antenna Design: Techniques for Improved Gain and Polarization Purity"

The Department of ECE, KPR Institute of Engineering and Technology, in association with IEEE Antenna and Propagation Society, organized a technical session titled "Basics to Advanced Antenna Design: Techniques for Improved Gain and Polarization Purity" on 22nd February 2025. The session was exclusively conducted for second-year ECE students as part of enhancing their practical and theoretical understanding of antenna systems. The session was coordinated by Dr. Debashish Pal and co-convened by Dr. Arijit De. The expert talk was delivered by Dr. Sk Rafidul, Lead Engineer at HCL Technologies Pvt. Ltd, who served as the resource person. His session covered key concepts ranging from fundamental antenna principles to advanced design strategies for optimizing gain and polarization purity, bridging the gap between academic learning and industry applications.

This academic event supported SDG 4 (Quality Education) and SDG 9 (Industry, Innovation, and Infrastructure), aimed at introducing students to advanced concepts in antenna theory and design with a focus on real-time simulation and software implementation.

Key Highlights of the Training:

🔹 Maxwell's Equations and Fundamentals of Electromagnetic Theory

🔹 HFSS (High-Frequency Structure Simulator) Overview

🔹 Practical Design Techniques to Improve Gain and Polarization Purity

🔹 Live Demonstration on Antenna Simulation Using HFSS to assess students' understanding.

Learning Outcomes

✅ Students gained conceptual clarity on electromagnetic principles governing antenna design

✅ Hands-on understanding of HFSS simulation software for designing and analyzing antennas

✅ Learned techniques to enhance antenna gain and minimize polarization errors

✅ Boosted student interest in RF, microwave, and wireless system design skills.

ASIC Flow on Physical Design Tools

The Department of ECE successfully conducted a One Credit Course (OCC) titled "ASIC Flow on Physical Design Tools" on February 15 and 22, 2025, from 9:00 AM to 5:00 PM, at the DSN Lab, KPR Institute of Engineering and Technology. This department-level course was organized for undergraduate students and was aligned with Sustainable Development Goal (SDG) 9: Industry, Innovation, and Infrastructure. The

objective of the course was to provide students with hands-on industry-oriented experience in Application-Specific Integrated Circuit (ASIC) design, particularly focusing on the physical design flow.

The course was coordinated by Ms. Archita Hore, who ensured the smooth conduct of the sessions. The resource persons for the OCC were Mr. Krishna Prabhu, Chief Executive Officer and Founder of Puncham Semicon, Bengaluru, and Mr. Swapnil Anand, Senior Design Engineer at Puncham Semicon, Bengaluru. Both resource persons brought in-depth industrial knowledge and experience, providing students with valuable exposure to real-world VLSI design environments.

A total of 37 students participated in the course and actively engaged in the sessions. The course was conducted in two phases. On February 15, 2025, the students were introduced to the ASIC design flow from an industrial perspective. This session covered the basics of Register Transfer Level (RTL) design and included hands-on Verilog programming using the EDA Playground, an online simulation tool. The students learned how to write and simulate hardware description language (HDL) code, which forms the foundation of digital integrated circuit design.

The second session, held on February 22, 2025, focused on the physical design flow of ASICs. Topics such as synthesis, floorplanning, placement, clock tree synthesis, routing, and sign-off techniques were discussed in detail. The resource persons shared insights into how these stages are implemented using industry-standard EDA (Electronic Design Automation) tools, thereby bridging the gap between academic theory and practical applications.

The course enabled students to gain hands-on skills in digital design and exposed them to the backend flow of chip development, which is crucial for careers in VLSI and semiconductor industries. It also provided a platform for direct interaction with experienced professionals, enriching the learning experience through real-time problem-solving and knowledge-sharing.

This One Credit Course reflects KPRIET's dedication to providing industry-integrated education and enhancing the technical competencies of its students by offering practical exposure to contemporary tools and workflows used in the electronics and semiconductor sectors.

QUIZ-O-MANIA

The Department of ECE in association with the IETE Students Forum, successfully conducted a competition titled "QUIZ-O-MANIA" on February 22, 2025, from 2:00 PM to 4:00 PM at Room D105, KPR Institute of Engineering and Technology. This club-level event was organized exclusively for students and aligned with SDG 4: Quality Education. It aimed to foster curiosity, critical thinking, and a spirit of healthy competition through a multi-round quiz competition featuring both technical and non-technical themes.

The event was coordinated by Mr. Jakir Hussain G K and involved active student coordination from Ms. Nithyashree C (II ECE B) and Mr. Hemadhakshan S (II ECE A). A total of 20 student participants engaged in this intellectually stimulating experience, showcasing enthusiasm and a strong commitment to learning.

The session commenced promptly at 2:00 PM and was divided into three engaging rounds:

🔹 Round 1 – Non-Technical Questions:

This round tested participants' general knowledge, current affairs awareness, and logical reasoning skills. Designed to ensure inclusivity, it allowed students from diverse academic backgrounds to participate on an equal footing. The wide variety of questions made this round fun, fast-paced, and accessible.

🔹 Round 2 – Technical Questions:

Focused on electronics, programming, and core engineering principles, this round

challenged participants to apply domain-specific knowledge. It tested their conceptual understanding and real-time problem-solving abilities in a more competitive setting.

🔻 Round 3 – Advanced Technical Questions:

This final round pushed participants to their limits through complex, application-based problems, case studies, and scenario-driven technical questions. It helped identify students who demonstrated mastery of concepts under pressure, emphasizing critical thinking and in-depth technical expertise.

At the conclusion of the event, winners were announced and recognized for their outstanding performance:

🏆 1st Prize (Winners):

• Jayasurya D R – II ECE A

• Eswar V – II ECE A

2nd Prize (Runners-up):

• Nandhini D – II IT

• Jeya Shri S – II IT

The event successfully fulfilled its objective of encouraging students to expand their knowledge base, think critically, and collaborate in a team environment. It also provided an excellent platform for networking among students from different disciplines.

Quiz-O-Mania was highly appreciated by all participants for its structure, variety of questions, and the friendly yet competitive atmosphere. The feedback highlighted the event's engaging format, smooth organization, and professional execution by the IETE Students Forum. It was a memorable and enriching experience that left participants excited for future editions.

Cadence Placement Training

On 5th March 2025, the Department of ECE organized a one-day Cadence Placement Training program exclusively for third-year B.E. ECE students. The training session was conducted on campus from 09:30 AM to 04:20 PM, under the coordination of Mr. Venkatesh T (AP-III), with active involvement from faculty members Dr. B. Jaishankar, Mr. Ram Nivas, Ms. Supriya M, Dr. J. Muralidharan, and Dr. J. Prasad.

The core objective of the session was to equip students with essential skills in Cadence Electronic Design Automation (EDA) tools, crucial for VLSI design and industry-focused placements. The hands-on sessions and expert-led discussions emphasized practical knowledge in analog/digital design, simulation techniques, and industry workflows, preparing students for careers in semiconductor and EDA industries. A total of 34 students participated actively, gaining insights into real-time applications of Cadence software and enhancing their employability in the core sector.

Design of Digital Electronics – Encoder and Decoder

The Department of ECE, in association with the IEEE KPRIET Communication Society, organized an invited guest lecture on “Design of Digital Electronics – Encoder and Decoder” on 6th March 2025 from 03:00 PM to 04:30 PM at the ECE Board Room, coordinated by Dr. Finney Daniel Shadrach and Dr. Venugopal D. The session was delivered by Prof. Dr.-Ing. Bernhard Glück, Professor at Brandenburg University of Technology, Germany. This enriching session provided students with an in-depth

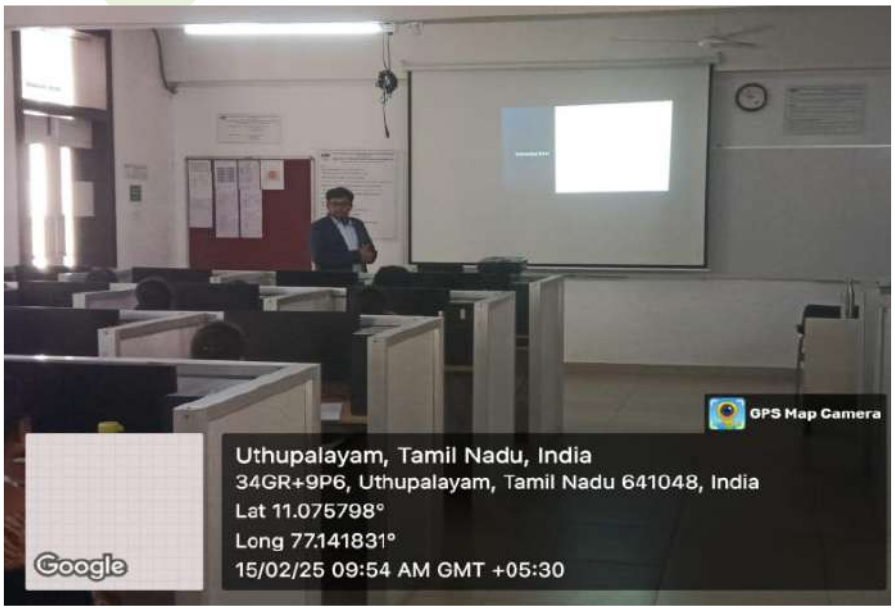
understanding of encoder and decoder circuits, their design techniques, practical applications, and recent trends in digital logic design. It served as an excellent platform for students to interact with an international expert, thereby broadening their knowledge and global perspective in the field of digital electronics.

Handling Honors Course U21ECP04 (CMOS Analog Circuit Design) by Industry Expert

On 7th March 2025, the Department of ECE conducted a hybrid expert session on the Honors Course U21ECP04 – CMOS Analog Circuit Design, facilitated by industry experts from Puncham Semicon. The session was held at the DSN Lab and attended by 23 participants, including faculty and students.

The program was structured in a hybrid format, with two days of in-person sessions and two days conducted online, aiming to bridge academic learning with practical industry insights. Participants received hands-on training in CMOS analog circuit design, gaining exposure to design methodologies, simulation tools, and layout techniques used in real-world analog IC development.

This initiative significantly enhanced the technical competencies of participants in the VLSI design domain, aligned with the course objectives, and provided valuable industry-aligned knowledge, reinforcing the department's commitment to delivering quality education and industry-integrated learning.



The Importance of Programming for Electronics Engineers

The Department of ECE, in association with the IEEE Student Branch, successfully organized an expert discussion titled “The Importance of Programming for Electronics Engineers” on March 7, 2025, from 10:30 AM to 12:45 PM at II ECE B Classroom, KPR Institute of Engineering and Technology. This institute-level event was designed for second-year ECE students and was aligned with SDG 4: Quality Education, emphasizing the growing role of programming in core electronics domains.

The session was coordinated by Mr. Ram Nivas D and Ms. Saranya M D, under the guidance of Dr. Kathirvelu M, who served as the convenor of the event. The expert speaker was Mr. M. Sathya, Technical Lead – Networking and Wireless QA at VVDN Technologies, who brought valuable industry insights to the student audience.

A total of 40 external participants were present for the session, which covered Subject Hour 3 and Hour 4. The session was conducted on-campus in an interactive format, where students were encouraged to engage directly with the speaker. The expert lecture focused on the critical role of programming in various domains of electronics engineering. Mr. Sathya explained how programming forms the backbone of embedded systems, circuit simulation, automation, and hardware-software co-design. He also emphasized its relevance in areas such as microcontroller applications, FPGA development, and real-time systems.

The session provided industry-relevant insights by introducing students to current trends, tools, and real-world applications of programming in electronics and wireless communication. Through engaging examples and personal experiences, the speaker highlighted the growing demand for programming proficiency in modern electronics careers. As part of skill development, students were introduced to essential programming languages like C, Python, and Verilog, along with debugging techniques, optimization strategies, and best practices for writing efficient code.

In the career guidance segment, Mr. Sathya discussed various job opportunities in embedded systems, IoT, VLSI design, and wireless technologies, motivating students to strengthen their programming skills to remain competitive in the evolving tech landscape. The session concluded with a real-time interactive Q&A, where students

raised questions and received practical advice on transitioning from academic learning to industry applications. The discussion encouraged students to reflect on their current skills and plan for their professional development.

Overall, the event served as an eye-opener for students, highlighting how programming is an indispensable skill for electronics engineers and how mastering it can significantly enhance their career prospects in both core and interdisciplinary fields.

Workshop on Antenna Design, Fabrication, and Testing

The Department of ECE, in collaboration with IETE and Spartranz, successfully organized an international workshop on “Antenna Design, Fabrication, and Testing” on March 14, 2025, from 11:00 AM to 12:30 PM at the IV ECE C classroom, KPR Institute of Engineering and Technology. This workshop was an association activity aligned with SDG 4: Quality Education, and was primarily organized for students.

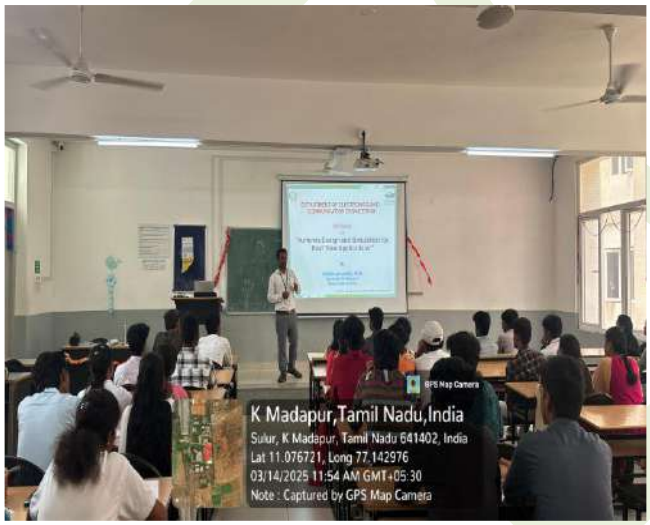
The event was coordinated by Dr. J. Prasad and Mr. Jakir Hussain G K, with guidance from Prof. V. Seethalakshmi, the Faculty In-Charge. A total of 237 external participants from various colleges attended the workshop, making it a highly successful and engaging learning experience.

The objective of the workshop was to bridge the gap between theoretical knowledge and practical application in the field of antenna technology. The event provided participants with a comprehensive understanding of antenna design, fabrication, and testing, essential for careers in wireless communication, radar, and satellite systems. The session began with theoretical discussions, focusing on the fundamentals of antenna design, types of antennas, and their applications in communication systems. Key topics included antenna fundamentals, performance

parameters such as gain, radiation patterns, and bandwidth, as well as the importance of selecting appropriate materials for fabrication.

A key highlight of the event was the hands-on session, where participants actively engaged in antenna design and fabrication. They also had the opportunity to visit the Smart Antenna Lab within the ECE department, where they were able to apply theoretical knowledge in practical settings, enhancing their understanding of real-world applications of antenna technology.

The workshop concluded with an interactive session, allowing participants to ask questions and share insights gained from the session. The event successfully fostered technical curiosity and innovation among the participants, encouraging them to explore further advancements in the field of antenna technology. Overall, the workshop was an enriching learning experience that equipped students with the essential skills to pursue careers in wireless communications and antenna design. It successfully provided both theoretical knowledge and practical exposure to the rapidly evolving field of antenna technologies.



Workshop on IoT

The Department of ECE, in association with IETE and Spartranz, successfully organized an international-level workshop titled “Workshop on IoT” on March 14, 2025, from 11:00 AM to 12:30 PM. The session was conducted on campus at the Centre for IoT, KPR Institute of Engineering and Technology, as part of the Fiestaa'25 technical celebration. The event was aligned with SDG 4: Quality Education and aimed

to provide students with practical insights into the rapidly evolving world of the Internet of Things (IoT).

The workshop was convened by Dr. Prasad J and Mr. Jakir Hussain G K, and the resource persons included Dr. R. Jaikumar, Mr. Balamurali S, and Mrs. S. Priyadharshini, Assistant Professors from KPR Institute of Engineering and Technology. Their combined expertise enabled a well-rounded and engaging session for all attendees. With an impressive participation of over 224 students from various institutions, the workshop served as a comprehensive introduction to IoT technologies, tools, and real-world applications. The session covered fundamental topics such as IoT system architecture, hardware-software integration, sensor networks, communication protocols like MQTT and HTTP, and security considerations within IoT ecosystems.

The workshop was highly interactive, blending theoretical discussions, live demonstrations, and hands-on activities that allowed students to work with basic IoT setups and development tools. Participants explored the structure and functionality of IoT systems and learned how to build simple projects, integrate sensors, and transmit data securely across networks.

By the end of the session, students were not only familiar with the tools and platforms used in IoT development but also gained confidence in applying their knowledge to build and test IoT prototypes. The event significantly contributed to the students' technical competence and encouraged them to explore future career and research opportunities in smart systems, embedded technologies, and industrial IoT.

Overall, the Workshop on IoT provided a valuable learning platform for aspiring engineers, combining foundational knowledge with industry-relevant skills and

practical exposure. The success of the session reaffirmed the department's commitment to offering experiential learning through high-impact academic-industry collaborations.

Workshop on PCB Design and Fabrication

The Department of ECE, in collaboration with IETE and Spartranz, successfully organized an international-level workshop titled "Workshop on PCB Design and Fabrication" on March 14, 2025, from 11:00 AM to 12:30 PM at the Centre for PCB, KPR Institute of Engineering and Technology. This event was conducted as part of the Fiestaa'25 celebrations and aligned with SDG 4: Quality Education, aiming to provide students with hands-on experience in PCB technologies and design processes.

The workshop was convened by Dr. Prasad J and Mr. Jakir Hussain G K. The expert resource persons included Dr. B. Jaishankar, Dr. Finney Danniel, and Ms. Archita Hore, all faculty members from KPR Institute of Engineering and Technology with extensive experience in electronic hardware design and prototyping.

The session attracted more than 248 enthusiastic participants, offering a comprehensive learning experience covering the entire PCB development lifecycle, including schematic design, layout using EDA tools, fabrication procedures, and final testing methodologies.

Participants were guided through:

- Designing circuits using professional PCB CAD tools
- Understanding layering, trace routing, and component placement
- Fabrication processes like photoresist etching and drilling
- Soldering techniques and post-fabrication testing for circuit functionality

Through live demonstrations and practical discussions, the session emphasized the importance of adhering to industry standards and safety protocols. The resource persons also discussed real-world applications of PCB design in fields such as consumer electronics, automotive systems, telecommunication devices, and healthcare instrumentation. This hands-on workshop not only bridged the gap between theory and practice but also enabled students to gain confidence in circuit prototyping and hardware implementation, preparing them for future academic projects and careers in core electronics domains.

The Workshop on PCB Design and Fabrication proved to be a highly impactful event that enriched the participants' technical knowledge and encouraged them to explore innovation in electronic hardware development.

Music Debugging

The Department of ECE, in collaboration with IETE and Spatranz, successfully organized an international-level association activity titled "Music Debugging" on March 14, 2025, from 2:00 PM to 3:30 PM at Room D-108, KPR Institute of Engineering and Technology. This engaging event was conducted under the guidance of Dr. Murugan K and convened by Dr. Prasad J and Mr. Jakir Hussain G K. The activity was aligned with SDG 16: Peace, Justice and Strong Institutions, emphasizing collaboration and constructive interaction through the medium of music.

"Music Debugging" was a creative and interactive team-based event where participants applied their musical instincts and analytical skills to identify, interpret, and complete musical challenges. With 70 enthusiastic participants competing in teams of two or three, the event was structured into three innovative and engaging rounds:

- Round 1 – Tune Detective: Teams had to identify songs based solely on instrumental background music, testing their auditory memory and recognition skills.
- Round 2 – Missing Piece: This round challenged participants to complete lyrics from well-known tracks, assessing their lyrical familiarity and attention to detail.

🔻 Round 3 – Reverse Journey: In a creative twist, teams were given a verse from the middle of a song and asked to identify the correct starting line, testing contextual recall and song structure awareness.

The event was designed to blend fun with learning, promoting teamwork, quick thinking, and collaboration. The competitive yet friendly environment encouraged students to think on their feet and showcase their musical knowledge, listening accuracy, and creative instincts.

The Music Debugging event was not only an entertaining experience but also helped participants develop soft skills such as communication, collaboration, and time-bound decision-making. The positive response from participants, coupled with the smooth organization by the student forum and faculty team, made the event a resounding success, leaving behind cherished memories and strengthening the community's shared passion for music and innovation.

Big Screen Challenge

The Department of ECE, in association with Spatranz, successfully organized an international-level association activity titled “Big Screen Challenge” on 14th March 2025, from 2:00 PM to 3:30 PM at the Centre for IoT, ECE Block, KPR Institute of Engineering and Technology. The event was convened by Dr. J. Prasad and Mr. Jakir Hussain G K, and coordinated by Dr. N. Sathishkumar. This initiative aligned with SDG 3: Good Health and Well-being, emphasizing stress-free learning and student engagement through fun-filled interactive activities.

“Big Screen Challenge” was a cinematic-themed quiz event designed for movie and series enthusiasts, providing a space for students to unwind while fostering collaboration and entertainment. The event consisted of three engaging rounds:

🔻 Round 1 – Easy Mode: Participants warmed up with basic trivia from Marvel, DC, and iconic television series.

🔻 Round 2 – Medium Mode: The level of difficulty increased, testing deeper knowledge of fan-favorite universes.

🔻 Round 3 – Hard Mode: Designed for the ultimate fans, this round challenged students with intense questions on legendary cinematic moments.

The event witnessed enthusiastic participation from 20 students, including 14 external participants, who competed in teams. The quiz encouraged quick thinking, spontaneity, and collaborative problem-solving. The lighthearted yet challenging atmosphere allowed students to enjoy a pressure-free environment filled with laughter, energy, and camaraderie.

The "Big Screen Challenge" was not only an entertaining success but also served as a platform for students to bond and relax while showcasing their interests and knowledge. The positive feedback from participants highlighted the significance of such recreational and inclusive events in enhancing student well-being and building a vibrant campus culture.

Doodle Detectives

The Department of ECE successfully organized an international-level association activity titled “Doodle Detectives” on 14th March 2025, from 2:00 PM to 3:30 PM at D-106, as part of Fiestaa ‘25 celebrations at KPR Institute of Engineering and

Technology. The event was convened by Dr. J. Prasad and Mr. Jakir Hussain G K, and coordinated by Dr. Venkatesh T. This initiative was aligned with SDG 3: Good Health and Well-being, promoting cognitive engagement through creative activities.

"Doodle Detectives" was a fun-filled event designed to enhance teamwork, creativity, and communication skills among students. The event featured two interactive rounds:

🔹 Round 1 – Draw & Guess: In this activity, one team member had to draw clues representing a movie or series while the other team member guessed the title. This round encouraged artistic expression and intuitive thinking under time constraints.

🔹 Round 2 – Match It Up: Participants tested their cinematic knowledge by matching clues—movie titles, songs, heroes, and heroines—scattered across different papers. This round challenged memory, observation, and logical association.

The event drew enthusiastic participation from 31 external students, organized into teams of two. Students from various disciplines actively engaged in the competition, showcasing quick thinking, collaboration, and creativity. The lively atmosphere encouraged bonding among participants and provided a refreshing break from academic routines.

"Doodle Detectives" successfully delivered an enriching and entertaining experience, reinforcing the department's commitment to holistic learning, well-being, and student-centered engagement. The event was highly appreciated by participants and contributed to the overall vibrance of the Fiestaa'25 fest.

Paper Presentation

The Department of ECE successfully organized an international-level association activity titled “Paper Presentation” on 15th March 2025, from 10:00 AM to 12:00 PM at D-207, ECE Block, as part of Fiestaa’25. The event was convened by Dr. J. Prasad and Mr. Jakir Hussain G K, and coordinated by Mr. Balamurali S. This academic initiative was aligned with SDG 4: Quality Education, aiming to promote research communication and analytical thinking among students.

The primary objective of the event was to offer a platform for students to present their technical papers, communicate research findings, and demonstrate innovation and critical thinking. Participants were evaluated on various parameters including clarity of communication, technical depth, novelty of contribution, visual presentation, time management, and response to questions. A total of 236 students participated, presenting in four parallel sessions held and the event featured an esteemed panel of jury members including Dr. S. M. Ramesh, Dr. Arijit De, Mrs. Archita Hore, Mrs. Rima Deka, Dr. Debashish Pal, Mr. Ashish Ranjan Shadangi, and Mr. Himangshu Deka, all faculty members from KPR Institute of Engineering and Technology.

Participants delivered presentations on diverse topics across electronics, communication, computing, and interdisciplinary domains. The event fostered an intellectually stimulating environment, promoting research articulation, academic discussion, and knowledge exchange. Students demonstrated higher-order thinking and technical clarity through their responses to queries from the jury.

The “Paper Presentation” event successfully enhanced students’ confidence, research communication skills, and exposure to peer feedback. The engaging format and constructive critiques provided by the jury helped participants reflect on their academic growth and research direction. The event was highly appreciated by attendees and reinforced the department’s commitment to academic excellence, innovation, and professional development.

Solder War

The Department of ECE organized an international-level association activity titled “Solder War” on 15th March 2025, from 11:00 AM to 12:30 PM at the Processor and System Design (PSD) Lab, KPR Institute of Engineering and Technology. This technical event was conducted under the banner of the SPARTANZ Student Association and the IETE Society, aligned with SDG 9: Industry, Innovation and Infrastructure. The event was convened by Dr. J. Prasad and Mr. Jakir Hussain G K, with Ms. Supriya M serving as the event coordinator and jury.

The objective of “Solder War” was to provide students with a hands-on platform to demonstrate their practical skills in circuit assembly through precision soldering and desoldering techniques. Participants were evaluated based on their ability to follow circuit schematics, solder components with accuracy, and troubleshoot under time constraints.

The competition witnessed the participation of 16 external students, grouped into teams. Each team was tasked with assembling a predefined electronic circuit within a fixed time limit. The evaluation criteria included solder joint quality, component placement accuracy, teamwork, time efficiency, and functional verification of the final circuit. The PSD Lab was energized with focus and collaboration as students applied their skills in real-time, showcasing their knowledge of soldering tools, flux application, joint inspection, and desoldering techniques. The event promoted experiential learning and enhanced the participants' understanding of PCB-level circuit assembly.

“Solder War” successfully bridged the gap between theoretical knowledge and practical implementation. It was praised by participants for encouraging innovation, problem-solving, and technical craftsmanship. The event highlighted the department’s dedication to skill-based learning and industry-relevant engineering practices, reinforcing its role in preparing students for the demands of modern electronics and embedded system design.

Project Presentation

The Department of ECE organized an international-level association activity titled “Project Presentation” on 15th March 2025, from 01:30 PM to 03:30 PM, as part of Fiestaa'25. The event was held on campus at the Project Lab, ADC Lab, and Multiband Lab, KPR Institute of Engineering and Technology, and was aligned with SDG 9: Industry, Innovation and Infrastructure. The event was convened by Dr. Prasad J and Mr. Jakir Hussain G K, with Dr. Jai Shankar B serving as the event coordinator. Jury members included Dr. B. Jaishankar, Dr. M. Murugan, Dr. Arijit De, and Dr. T. Jagadesh from the ECE Department.

The event aimed to encourage innovation, critical thinking, and effective communication by providing a platform for students to showcase their technical projects. A total of 130 student participants, including 104 external students, presented their work in the presence of an expert jury panel.

Each presentation was evaluated based on problem statement clarity, technical methodology, novelty, presentation effectiveness, visual aids, time management, and Q&A handling. The sessions offered students an opportunity to receive constructive

feedback, explore real-world problem-solving, and demonstrate their project development skills.

The Project Presentation event was a resounding success. It not only highlighted the innovative capabilities of students but also nurtured a spirit of collaboration, technical excellence, and professional growth. The event helped in building confidence among budding engineers while encouraging further research, development, and interdisciplinary learning. Outstanding projects were recognized, motivating students to pursue their ideas with greater depth and impact.

Trivia Forge

The Department of ECE organized an international-level association activity titled “Trivia Forge” on 15th March 2025, from 11:00 AM to 12:30 PM, at D-105, ECE Block, KPR Institute of Engineering and Technology. The event aligned with SDG 3: Good Health and Well-being and was organized on campus. The event was convened by Dr. Prasad J and Mr. Jakir Hussain G K, with Ms. S. Suganyadevi serving as the event coordinator and jury.

“Trivia Forge” was conducted as a technical quiz competition to challenge and enhance the technical knowledge, analytical reasoning, and problem-solving skills of student participants. The event featured three progressive rounds:

- Round 1: Easy Mode – Focused on fundamental technical concepts.
- Round 2: Medium Mode – Increased complexity with trickier industry-relevant questions.

- Round 3: Hard Mode – Advanced challenges designed for high-performing teams.

With 30+ external student participants, the event fostered a competitive yet collaborative environment for students passionate about electronics, embedded systems, and communication technologies. Participants were tested on core engineering knowledge, application-based scenarios, and the latest advancements in the ECE domain.

The event successfully encouraged teamwork, quick thinking, and effective decision-making under pressure, all while reinforcing curriculum-based learning. Trivia Forge served as an excellent platform for students to gauge their technical proficiency and engage in peer learning, further strengthening the academic and professional culture of the department.

Link & Sync

The Department of ECE organized an international-level association activity titled “Link & Sync” on 15th March 2025, from 2:00 PM to 3:30 PM, at D-107 Classroom, KPR Institute of Engineering and Technology. The event was conducted on campus in association with IETE and Spartranz, aligning with SDG 3: Good Health and Well-being. The event was convened by Dr. Prasad J and Mr. Jakir Hussain G K, with Mr. D. Ram Nivas serving as the coordinator and jury.

“Link & Sync” was a fun and intellectually stimulating team-based connection game, designed to promote teamwork, problem-solving, and cross-disciplinary thinking. Students participated in teams of two, and the main objective was to connect clues (in the form of pictures or concepts) to arrive at a correct technical word or term.

The event incorporated a blend of logical puzzles, creativity, and rapid problem-solving under time constraints.

The event attracted 92 external student participants, creating a vibrant atmosphere filled with collaboration and friendly competition. The multi-round format tested students' critical thinking, visual interpretation, and technical vocabulary, while also emphasizing communication and strategic teamwork.

The success of "Link & Sync" highlighted the ECE Department's dedication to experiential learning and student engagement, fostering a balanced blend of education and entertainment. Positive feedback from participants emphasized the event's role in enhancing lateral thinking and reinforcing the value of teamwork.

Embedded Program for IoT

The Department of ECE successfully conducted an expert talk on "Embedded Programming for IoT" on March 17, 2025, from 9:30 AM to 4:15 PM at the IoT Lab, KPR Institute of Engineering and Technology. This department-level event was organized for students and aligned with SDG 4: Quality Education and SDG 9: Industry, Innovation, and Infrastructure, aimed at providing practical exposure to IoT development and embedded programming.

The event was coordinated by Ms. Priyadharsini S, who facilitated the logistics and execution of the session. A total of 15 participants attended the expert talk, including 1 industry professional and 14 students, primarily from the ECE department. The resource person for the session was Mr. Karthick Raja T, Embedded Automotive Software Test Engineer at Robert Bosch, who shared his industry expertise in embedded systems and IoT. During the session, Mr. Karthick Raja provided an in-depth

exploration of IoT system architecture, the fundamentals of embedded programming, and firmware development for microcontrollers. He demonstrated practical approaches for integrating sensors and implementing communication protocols like MQTT, HTTP, and Bluetooth.

The primary objective of the session was to enhance students' technical expertise in developing embedded IoT solutions. Participants gained hands-on experience in designing, programming, and deploying IoT devices tailored to real-world applications. They also learned to effectively integrate sensors and communication modules to ensure seamless operation within an IoT ecosystem.

Key learning outcomes from the event included:

- Understanding the core components of IoT system architecture and the role of embedded programming.
- Developing firmware for microcontrollers and integrating it with IoT devices.
- Applying industry-standard communication protocols like MQTT, HTTP, and Bluetooth for device communication.
- Designing and implementing real-world IoT applications for various industries.
- Gaining relevant industry skills for pursuing careers in embedded systems and IoT development.

Overall, the expert talk provided participants with valuable insights into the practical applications of embedded programming in the IoT domain, equipping them with essential skills to thrive in an industry-focused environment.

AIoT Course for Honors Students

The Department of ECE organized a Value-Added Course (VAC) on “Artificial Intelligence of Things (AIoT)” on 17th March 2025, from 09:00 AM to 04:30 PM, exclusively for second-year ECE Honors students. The session was coordinated by Dr. Jaikumar R and delivered by Dr. Hee Yong Youn, Endowed Professor from Sungkyunkwan University, South Korea, who served as a Professor of Practice at KPRIET from 17th March to 9th May 2025. The 40-hour course covered both foundational and advanced concepts in AIoT, providing students with globally relevant,

practical insights into the convergence of AI and IoT technologies. The initiative fostered international academic collaboration and stimulated interest among faculty for future joint research and publication opportunities. The course contributed toward SDGs 4 (Quality Education), 8 (Decent Work and Economic Growth), 9 (Industry, Innovation and Infrastructure), and 15 (Life on Land).

Five-Day Seminar on AI-Driven Wireless Future: Next Gen Communication

The Department of ECE at KPR Institute of Engineering and Technology successfully organized a five-day national-level online seminar titled “AI-Driven Wireless Future: Next Gen Communication” from March 18 to March 22, 2025, conducted daily from 6:00 PM to 7:00 PM. The seminar was aligned with SDG 4: Quality Education and was open to academicians, research scholars, students, and industry professionals across the country.

The seminar was convened by Dr. Kalirajan K and coordinated by Dr. Rima Deka, who jointly ensured the smooth planning and execution of the event. The objective of the seminar was to shed light on the emerging research challenges, technological trends, and collaborative opportunities in the field of AI-integrated wireless communication systems.

A total of 75 participants attended the seminar, including 42 students, 30 faculty members, and 3 industry professionals from various institutions. The event witnessed

enthusiastic participation and featured interactive sessions that encouraged real-time Q&A and peer discussions.

The seminar hosted four distinguished resource persons, each contributing unique perspectives on AI in wireless technologies:

- Dr. Sabyasachi Bhattacharyya, Assistant Professor, Barak Valley Engineering College, Assam
- Dr. Basudha Dewan, Assistant Professor, Poornima University, Rajasthan
- Dr. Ishu Sharma, Associate Professor, Chandigarh Engineering College, Punjab
- Dr. Atiquzzaman Mondal, Postdoctoral Research Fellow, COSINC Research Group, Istanbul Medipol University, Türkiye

Across the five days, these experts delivered insightful sessions covering topics such as AI-enhanced signal processing, intelligent wireless networks, next-gen mobile communications, and machine learning applications in communication protocols. The sessions provided valuable exposure to state-of-the-art technologies and future research directions.

Participants actively engaged with the speakers, which fostered knowledge exchange and encouraged academic-industry collaboration. The seminar successfully met its objective of creating awareness about the AI-driven transformation in wireless communication, while also encouraging participants to explore research opportunities and collaborative initiatives.

The event was highly appreciated for its timely relevance, quality of expert talks, and interactive learning format, making it a meaningful contribution to the academic community's ongoing pursuit of innovation in communication technologies

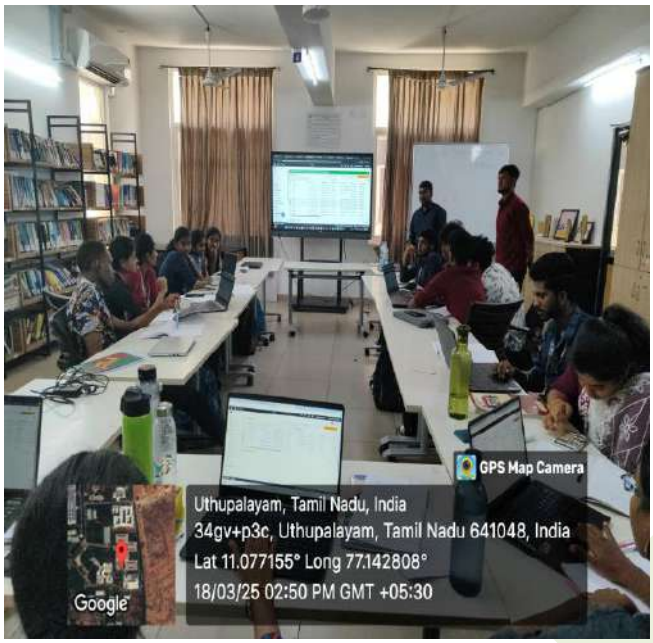
Industry Expert Lecture for Honors Students

The Department of ECE successfully organized an industry expert lecture for second-year ECE Honors students on March 18, 2025, from 9:30 AM to 4:30 PM at the ECE Board Room, KPR Institute of Engineering and Technology. This department-level expert talk was conducted in off-campus mode and was aligned with SDG 4: Quality Education, with the goal of enhancing students' practical exposure to current industry practices.

The event was coordinated by Mr. Jaikumar R, who ensured the smooth execution of the program. A total of 26 participants took part in the session, which was specifically curated to benefit students enrolled in the Honors track of the ECE program. The resource person for the lecture was Mr. Soundar S, Director at Top Class Entertainment, who delivered a comprehensive and interactive session focused on the application of cloud computing in real-world scenarios. Drawing on his extensive industry experience, Mr. Soundar provided students with a deep dive into cloud-based technologies, platforms, and services, emphasizing their significance in the modern technology landscape.

Throughout the session, students gained real-time and hands-on experience with various aspects of cloud computing. The workshop-style format allowed participants to engage directly with tools and simulations that reflected real industry environments. Key topics included cloud infrastructure, deployment models, storage and computing resources, and security considerations. The lecture not only enhanced students' technical proficiency in cloud technologies but also bridged the gap between theoretical knowledge and industrial application. It helped students understand how emerging digital technologies are transforming the electronics and communication domain.

Overall, the expert lecture proved to be a valuable experiential learning opportunity, equipping Honors students with practical insights and motivating them to pursue advanced skills relevant to their career aspirations in the tech industry.



Industry Expert Lecture for Honors Students

The Department of ECE organized an Industry Expert Lecture for Honors students on 28th March 2025, from 09:30 AM to 04:30 PM, at the ECE Board Room. The session was coordinated by Dr. Jaikumar R and delivered by Mr. Soundar S, Director, Top Class Entertainment. The session included a hands-on training on Amazon Web Services (AWS), where students explored the fundamentals and practical implementation of cloud-based services. This expert talk aimed to bridge theoretical knowledge with industry demands, aligning with SDGs 4 (Quality Education), 8 (Decent Work and Economic Growth), 9 (Industry, Innovation and Infrastructure), 12 (Responsible Consumption and Production), and 15 (Life on Land).

Demystifying the Smartphone Diagnostics

The Department of ECE is set to conduct a One Credit Course (OCC) titled "Demystifying the Smartphone Diagnostics" on April 4, 2025, from 9:00 AM to 4:00 PM at the Project & Innovation Lab, KPR Institute of Engineering and Technology. This department-level course is specifically designed for II- ECE students and is aligned with SDG 4: Quality Education, aiming to bridge academic learning with practical technological applications in mobile device diagnostics.

The course will be coordinated by Mr. Jakir Hussain G K and will feature expert resource persons from New Technology Solutions, Coimbatore. The sessions will be handled by Dr. B. Krishna Kumar and Mr. R. Karthi, both serving as engineers at New Technology Solutions. Their expertise in mobile diagnostics and troubleshooting will provide participants with hands-on exposure to real-world tools and methodologies.

This One Credit Course is designed to offer students a comprehensive understanding of how smartphones function as diagnostic tools, highlighting their role in health monitoring, hardware testing, and performance optimization. Participants will gain in-depth knowledge of diagnostic techniques used to assess smartphone hardware and software functionality. The course also aims to introduce students to the internal architecture of smartphones, including sensors, diagnostic applications, and firmware-level testing.

By the end of the session, students are expected to have developed a foundational understanding of smartphone troubleshooting, familiarity with diagnostic tools, and

insights into current industry practices. This OCC will serve as a practical learning experience, equipping students with relevant skills applicable in service centres, embedded systems, and mobile technology industries.

Innovsense 2025

The Department of CIIED from KPR Institute of Engineering and Technology (KPRIET) organized INNOVSENSE 2025, an exciting two-day event that celebrated innovation and creativity across disciplines. The first day, held on 4th April 2025, showcased more than 150 interdisciplinary projects presented by student teams from various departments. The Electronics and Communication Engineering (ECE) department made a significant impact with 31 innovative projects, demonstrating the students' technical brilliance and entrepreneurial spirit. A distinguished jury panel evaluated all the projects, and the top 32 teams were shortlisted for the grand finals, held on 5th April 2025 at Kalai Arangam Hall.

The ECE department proudly secured multiple awards in the finals. Team SEIKOZEN 2 won a Special Award and ₹10,000 for their project Smart Prosthetics, mentored by Dr. Indra J, Professor, ECE. Team Avail, under the guidance of Mr. Ram Nivas D, Assistant Professor II, ECE, also received a Special Award and ₹10,000 for their Vision System for Real-Time Path Guidance. Team Inglorious Tech earned the Best Genesis Award and ₹10,000 for their innovative Underwater Inspection using Submerge Bot, guided by Dr. Jagadesh T, Assistant Professor III, ECE. Similarly, Team Spartanz won the Best Genesis Award and ₹10,000 for their project on Adaptive Headlights, mentored by Dr. Jaikumar R, Associate Professor, ECE.

The Department of ECE extends its heartfelt congratulations to all the winners and participants for their outstanding efforts and for bringing pride to the institution.

Industry Expert Lecture on Electromagnetic Fields from Basic Theory to Cutting Edge Technologies

The Department of ECE, in association with the IEEE Communication Society, successfully organized an industry expert lecture titled “Electromagnetic Fields: From Basic Theory to Cutting Edge Technologies” on April 5, 2025, from 11:00 AM to 12:00 PM via Google Meet. This department-level webinar was aligned with SDG 4: Quality Education, aiming to provide students with a deeper understanding of electromagnetic field theory and its modern-day applications in advanced technologies.

The event was convened by Mr. Jagadesh T, who played a key role in organizing and coordinating the session. A total of 50 participants, primarily students from the ECE department, attended the session.

The resource person for the session was Mr. Darshak Kavad, an Application Engineer at Jyoti Electronics, Ahmedabad. During the webinar, Mr. Kavad shared his industry expertise and knowledge on the topic, beginning with fundamental concepts of electromagnetic fields and progressing to their applications in cutting-edge technologies.

Key topics covered in the lecture included:

- Basic theory of electromagnetic fields and their significance in communication systems.
- Real-world applications of electromagnetic field theory in advanced technologies such as wireless communication, 5G networks, and microwave engineering.
- Emerging trends in electromagnetic wave propagation, antennas, and communication infrastructure.

The lecture provided valuable insights into the practical applications of electromagnetic field theory, which is a critical component in the design of modern communication systems and technologies. Students had the opportunity to interact with the expert, raising questions and gaining practical insights from the field of electromagnetic engineering.

Overall, the webinar was a great success in enhancing students' understanding of the fundamental and advanced aspects of electromagnetic fields, while offering industry-relevant perspectives on the topic.

Brainstorming Session -1 on Ideation, Project Development, Documentation, and Presentation for IEEE Grants

The Department of ECE, in association with the IEEE Advisory Team, successfully organized a brainstorming session for members of the IEEE Circuits and Systems Society on April 5, 2025, from 9:00 AM to 1:00 PM at the ECE Board Room, KPR Institute of Engineering and Technology. This department-level presentation session was aligned with SDG 4: Quality Education and SDG 9: Industry, Innovation, and Infrastructure, aimed at enhancing students' skills in ideation, project development, documentation, and presentation in the context of applying for IEEE grants.

The session was coordinated by Mr. Balamurali S, who provided leadership and guidance throughout the brainstorming process. A total of 13 participants attended, consisting of IEEE Circuits and Systems Society members and other key office bearers from the department.

The session focused on generating technical project ideas, identifying problems to be solved, developing comprehensive projects, and improving the overall content writing and presentation skills required to apply for IEEE grants. Mr. Balamurali S, as the resource person, facilitated the brainstorming activities, ensuring that students received hands-on experience in translating theoretical knowledge into practical, innovative projects suitable for IEEE funding opportunities.

Key objectives of the session included:

🔹 Ideation: Encouraging creative thinking to come up with innovative solutions for current technological problems.

🔹 Project Development: Guiding participants through the steps of developing and refining technical projects.

🔹 Content Writing: Providing techniques to enhance the clarity, quality, and technical accuracy of project documentation.

🔹 Presentation Skills: Helping students improve their ability to present technical projects effectively, with a focus on both verbal and visual communication.

🔹 IEEE Grants Application: Offering insights into the application process and requirements for IEEE grants.

The session was highly interactive, with students actively participating in discussions and project development activities. By the end of the session, participants gained valuable skills that will help them in applying for IEEE grants, contributing to their professional growth and future success in technical research and development.

Parent Teachers Meeting

The Department of ECE organized a Parent-Teacher Meeting for III-year students on 5th April 2025, from 6:30 PM to 7:30 PM, conducted in online mode. The event was coordinated by Mr. Murugan K and aligned with SDG 17: Partnerships to achieve the Goal. It witnessed the participation of 115 parents and guardians, aimed at

fostering active collaboration between the department and families for the students' academic and holistic development.

The session began with a keynote address by Dr. M. Kathirvelu, Professor and Head of the Department, who shared the vision and mission of both the institution and department, emphasizing the department's commitment to academic excellence, industrial collaboration, ethical values, and student-centered growth.

Key highlights of the meeting included:

- Academic Milestones:
  - Department achievements such as NBA Accreditation, increased student intake (240), and international admissions were emphasized.
  - The end-semester results reflected strong performance with pass percentages of 94.24% (II year), 91.97% (III year), and 95.57% (IV year).
  - CIAT-1 results for III year showed an overall 84% pass rate, with specific attention to Section A's performance (79.41%).
- Placement Achievements:
  - The 2024 placement cycle achieved a 95.5% success rate, with 227 offers from 40+ companies including Amazon, Autodesk, and ABB.
  - The highest CTC offered was 54 LPA, with an average package of 5.5 LPA.
  - 2025 placements are progressing well, currently at 81%, with 220 offers secured.
  - Students pursuing higher education also excelled, with 19 admissions to prestigious universities such as Aston University (UK) and University of Adelaide (Australia).
- Student Achievements:
  - Participation in 341 co-curricular activities, with 86 prize wins, including 36 hackathons, 27 paper presentations, and 52 NPTEL certifications.
  - Initiatives like 3 student-led startups demonstrated entrepreneurial spirit.
- Infrastructure and Industry Connect:
  - Showcased cutting-edge labs such as Smart Antenna Systems, VLSI Design Lab, and IoT Centre, with investments totaling ₹2.25 crore.

- Collaborations with industries including Tessolve and Salzar Electronics were highlighted.

To ensure effective communication, batch-specific WhatsApp groups (ECE A/B 2022–2026) were promoted. Faculty mentors also shared contact information for personalized student support.

In conclusion, Dr.M. Kalamani expressed gratitude to parents for their active participation, acknowledged the efforts of the faculty team, and praised the students' accomplishments. She reaffirmed the department's ongoing dedication to nurturing technically proficient and ethically responsible graduates.

Antenna Design and Simulation for Real-Time Applications

On 8th April 2025, the IEEE KPRIET Antenna and Propagation Society (APS), in association with the Department of Electronics and Communication Engineering, organized a seminar titled "Antenna Design and Simulation for Real-Time Applications" exclusively for ECE students. The session was conducted from 2:00 PM to 4:00 PM at I ECE-A, with Dr. N. Sathishkumar, Assistant Professor-III, ECE, serving as the chief guest and resource person.

The objective of the seminar was to bridge theoretical knowledge with practical implementation through advanced simulation tools and real-world antenna design

techniques. The session provided students with a detailed understanding of antenna design principles, simulation methodologies, and their relevance in current technology landscapes such as wireless communication, satellite systems, and IoT.

Coordinated by Mr. T. Venkatesh and Mr. N. Sathishkumar, and supported by IEEE Student Branch Counselor Dr. Dinesh Chellappan, the seminar witnessed the participation of 60 students. Student coordinators Swethaa M and Nandha Kishore V.S efficiently managed the event logistics.

The session was highly informative and interactive, equipping students with the necessary exposure to industry-relevant tools and design practices. The participants appreciated the clarity of content and practical relevance, making the seminar a valuable learning experience aligned with SDG 4: Quality Education.

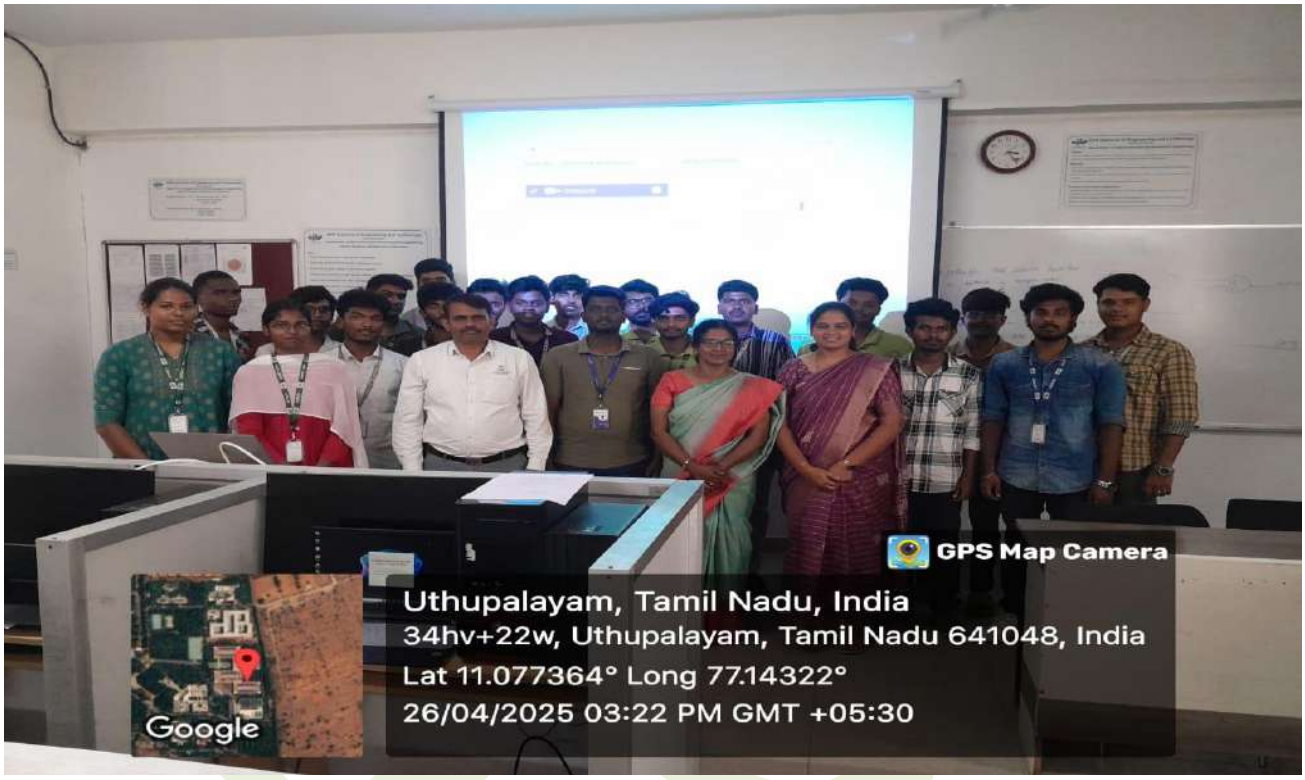
Hands-on Training on PCB Schematic to Prototyping

The Department of ECE is organizing a One Credit Course titled "U21OEC11 – Hands-on Training on PCB Schematic to Prototyping" for second-year ECE students. The program is scheduled to take place on 25th April 2025 from 08:45 AM to 04:15 PM at the IoT Lab, KPR Institute of Engineering and Technology.

This department-level event is being conducted in association with Enthu Technology Solutions India Pvt. Ltd., Coimbatore, and aligns with SDG 4: Quality Education. The training will be delivered by Mr. R. Elangovan, Technical Engineer, who will provide expert guidance on the complete PCB development cycle — from schematic design to prototyping.

The convenor of the program is Dr. V. Seethalakshmi, with Mrs. S. Suganyadevi and Mr. K. Kalirajan serving as co-convenors. This hands-on session is aimed at bridging theoretical knowledge with practical industry exposure and enhancing students' technical competencies in PCB design, layout, and fabrication processes.

The course is planned to be conducted over four days from 25.04.2025 to 29.04.2025, and it will contribute toward building students' design thinking, engineering skills, and industry readiness in the field of electronics hardware development.



Ideation, Project Development, Documentation, and Presentation for IEEE Grants

On 26th April 2025, the Department of ECE, in association with the IEEE Advisory Team, organized the second brainstorming session on Ideation, Project Development, Documentation, and Presentation for IEEE Grants, from 01:00 PM to 04:00 PM. The session was coordinated by Mr. S. Balamurali, Assistant Professor (II), at KPRIET.

The workshop was conducted exclusively for IEEE Circuits and Systems Society student members to support their technical project and paper submissions. The focus was on idea generation, problem identification, project planning, improving

documentation quality, enhancing presentation skills, and understanding the IEEE grant proposal process.

With 15 participants, primarily office bearers, the session provided guidance on transforming raw ideas into structured project frameworks, refining technical content for effective communication, and aligning proposals with IEEE standards. This initiative not only empowered students to seek global opportunities through IEEE but also contributed to building innovation and research skills in alignment with SDG 4: Quality Education and SDG 9: Industry, Innovation and Infrastructure.

Pathway to Excellence – Your Ultimate Guide to Top Universities Worldwide

On 29th April 2025, the Department of ECE organized an expert talk titled "Pathway to Excellence – Your Ultimate Guide to Top Universities Worldwide", from 2:00 PM to 3:00 PM at D-210, exclusively for students aspiring to pursue higher education abroad. The session was coordinated by Ms. Priyadharsini S and Mr. Jaikumar R, Assistant Professors, and featured industry experts Mr. Naresh Kumar, Assistant Destination Manager, and Ms. Rajlaxmi, Senior Counsellor from IDP Education India Pvt Ltd.

The speakers provided comprehensive insights into the admission processes of globally reputed universities, focusing on key criteria such as academic excellence, standardized testing requirements, and extracurricular achievements. The session emphasized the importance of early preparation, goal setting, and maintaining a strong academic and personal profile. Attendees also received practical advice on writing compelling applications and personal statements. The talk proved to be highly motivating and informative, equipping students with the knowledge and confidence to explore international education opportunities, aligning with SDG 4: Quality Education.

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FACULTY& STAFF PARTICIPATION

S. No.	Name of the Faculty/Staff	Title of FDP/STTP/OFDP/ Conference/Online Course	Organization Name	Date
1	Dr.Seethalakshimi V	Recent Advancements and Challenges in Integration of IoT and 5G/6G Wireless Communication: Building the Next Gen Connectivity.	KPRIET	03/02/2025
2	Dr.T.Jagadesh	Reviewed article in scopus indexed journal	KPRIET	12/02/2025
3	Dr. Archita Hore	Workshop on Python Programming	KPRIET	14/02/2025
4	Ashish Ranjan Shadangi	Workshop on Python Programming	KPRIET	14/02/2025
5	Dr.T.Jagadesh	Universal Peace Foundation	KPRIET	15/02/2025
6	Dr. Jai Shankar B	Empowering Healthcare with AI and ML: Advances and Applications	KPRIET	17/02/2025
7	Ms. Nithya S	Faculty Development Program on Wearable Electronics for Biomedical Applications	KPRIET	17/02/2025
8	Dr.Sathishkumar N	Empowering Healthcare with AI and ML: Advances and Applications	KPRIET	17/02/2025

9	Dr.Seethalakshimi V	Wearable Electronics for Biomedical Applications	KPRIET	17/02/2025
10	Mr.Shanmugaraja T	Empowering Healthcare with AI and ML: Advances and Applications	KPRIET	17/02/2025
11	Mr. Muralidharan J	ATAL FDP - Empowering Healthcare with AI and ML Advances and Applications	KPRIET	17/02/2025
12	Dr. T Venkatesh	AICTE Training and Learning (ATAL) Academy Faculty Development Program on Empowering Healthcare with AI and ML: Advances and Applications	KPRIET	17/02/2025
13	Mr. Pradeep Kumar G	Empowering Healthcare with AI and ML: Advances and Applications	KPRIET	17/02/2025
14	Ms.M.D.Saranya	Empowering Healthcare with AI and ML: Advances and Applications	KPRIET	17/02/2025
15	Dr.T.Jagadesh	ATAL FDP	KPRIET	17/02/2025
16	Dr.Ramesh S M	Outcome Based Pedagogic Principles for Effective Teaching	KPRIET	17/02/2025
17	Dr. Kalamani M	ATAL FDP on Revolutionizing Electric Vehicle Powertrains: The Role of Wide-Bandgap Semiconductors in Overcoming Challenges and Shaping Future Trends	KPRIET	17/02/2025

18	Dr. J. Prasad	ATAL Academy Faculty Development Program on Empowering Healthcare with AI and ML: Advances and Applications	KPRIET	17/02/2025
19	Ms. Priyadharsini S	Revolutionizing Electric Vehicle Powertrains: The Role of Wide Bandgap Semiconductorsin Overcoming Challenges and Shaping Future Trends	KPRIET	17/02/2025
20	Dr. Archita Hore	Empowering Healthcare with AI and ML: Advances and Applications	KPRIET	17/02/2025
21	Dr. Arijit De	Empowering Healthcare with AI and ML: Advances and Applications	KPRIET	17/02/2025
22	Dr.Debashish Pal	Empowering Healthcare with AI and ML: Advances and Applications	KPRIET	17/02/2025
23	Dr.Ashish Ranjan Shadangi	Empowering Healthcare with AI and ML: Advances and Applications	KPRIET	17/02/2025
24	Dr.Himangshu Deka	Empowering Healthcare with AI and ML: Advances and Applications	KPRIET	17/02/2025
25	Dr. Jai Shankar B	Lab Visit	IIT Palakkad	19/02/2025
26	Dr.T.Jagadesh	Lab Visit	IIT Palakkad	19/02/2025
27	Dr. Murugan K	Research Lab Visit	IIT Palakkad	19/02/2025
28	Ms. M. Supriya	Research Lab Visit	IIT Palakkad	19/02/2025

29	Dr. Archita Hore	Guest Lecture on Mixed Signal IC Design Testing	KPRIET	19/02/2025
30	Dr.T.Jagadesh	IEEE International Conference Reviewer	KPRIET	21/02/2025
31	Dr. Murugan K	Smart Communication In IoT : Security & Future Applications And Possiblities	KPRIET	24/02/2025
32	Dr. T Venkatesh	NEP 2020Orientation and Sensitization Programme	KPRIET	24/02/2025
33	Ms. M. Supriya	Smart Communication In IoT: Security & Future Applications and Possiblities	KPRIET	24/02/2025
34	Mr.D.Ram Nivas	FDP on Generative AI: Applications in Signal and Image Participation	Dr.Mahalingam College of Engineering and Technology	24/02/2025
35	Dr. J. Prasad	NEP 2020 orientation & sensitization Programme	KPRIET	24/02/2025
36	Dr. Archita Hore	Webinar on AI Accelerators: Reliability and Security perspectives	KPRIET	05/03/2025
37	Dr.Ramesh S M	PCB Workshop	PA and christ the king polytechnic	06/03/2025
38	Dr.Ashish Ranjan Shadangi	NEP 2020 orientation & sensitization Programme	KPRIET	06/03/2025
39	Dr.Himangshu Deka	NEP 2020 orientation & sensitization Programme	KPRIET	06/03/2025

40	Dr. Archita Hore	Training on Innovatation Ambasaddor (Foundation Level)	KPRIET	08/03/2025
41	Dr.Ramesh S M	Academic Audit	Shree Venkateshwara Hi-Tech Engineering College	20/03/2025
42	Dr. Archita Hore	Trading: A Cutting-Edge Vertical of ASIC/FPGA Application	IISC	21/03/2025
43	Dr.Ashish Ranjan Shadangi	Trading: A Cutting-Edge Vertical of ASIC/FPGA Application	IISC Bengaluru	21/03/2025
44	Dr. Jaikumar R	Company Visit	KPRIET	26/03/2025
45	Dr.Seethalakshimi V	International Industry/Institute visit	Universiti Technologi Brunei, University of Brunei, Darusallam, BLNG, Shell	15/04/2025
46	Ms.M.D.Saranya	Teachers for New Gen Learners	KPRIET	16/04/2025
47	Dr.Himangshu Deka	Teachers for New Gen Learners	KPRIET	16/04/2025
48	Dr.Ramesh S M	Question paper scrutiny process	Dr.NGP Institute of Technology	21/04/2025
49	Dr. J. Prasad	ICSIE 2025 Conference	Prince Shri Venkateshwara Padmavathy Engineering College	26/04/2025
50	Dr. J. Prasad	Conference Presentation	Prince Shri Venkateshwara	26/04/2025

			Padmavathy Engineering College	

Department of ECE – IEEE KPRIET ComSoc Society Secures $2000 Grant

The Department of Electronics and Communication Engineering (ECE) at KPR Institute of Engineering and Technology (KPRIET) proudly announces that the IEEE KPRIET Communications Society (ComSoc) Student Branch Chapter has been awarded a prestigious grant of $2000 for conducting the Student Leadership Tech Conference.

This remarkable achievement reflects the department's ongoing commitment to fostering technical leadership, innovation, and active student engagement in emerging communication technologies. The grant will support the successful organization of the conference, which aims to empower student leaders, encourage knowledge exchange, and explore the latest trends shaping the technology landscape.

The chapter's success has been guided and mentored by dedicated faculty advisors Dr. Finney Daniel Shadrach, Associate Professor, ECE and Dr. Venugopal D, Professor, ECE, whose continuous support and leadership have been instrumental in this accomplishment.

The Department of ECE congratulates the IEEE ComSoc Student Branch Chapter, its faculty advisors, and all student members for bringing this honor to the institution.

STUDENT PARTICIPATION

S.No	Event Name	No of students participated
1	Online course	55
2	Workshop	17

3	Contest (Quiz, Coding Contest, club events, etc.)	27
4	Paper presentation	44
5	Internship	74
6	Project Presentation	2
7	NSS, YRC activities	2

STUDENT ACHIEVEMENT

S.No	Name of the Student(s)	Achievements /Awards / Acitivities	Title of the Event	Organized by (Name of the College and club)
1.	Abishek M - II EC A Meena S – II EC A	I prize with Cash prize ₹ 1500	Bio-Blitz	SNS College of Technology
2.	Abishek M - II EC A, Meena S – II EC A, Kiruthika Devi D – II EC A, Kawin V B – II EC A	I prize with Cash prize ₹ 5000	THIRAN 2025 - Technospectra	Sri Eshwar College of Engineering
3.	Abishek M - II EC A, Meena S – II EC A, Kawin V B – II EC A, Kiruthika Devi D – II EC A	I prize with Cash prize ₹ 500	THIRAN 2025	Sri Eshwar College of Engineering
4.	M. Ahileswari A- II EC A Guruprriya R S - II EC A Jerlinjeba M J	I Prize In EPOCH 2k25	EPOCH 2k25	Kongu Engineering College

	- II EC A			
5.	M. Ahileswari A- II EC A Guruprriya R S - II EC A Jerlinjeba M J - II EC A	I Prize	Varnam'25	Karpagam Institute Of Technology
6.	Amrutha Varshini M - II EC A Larisa Maria V-II EC A Harshini J- II EC A Rubika N – II EC B	I Prize in Hackathon	Techwhiz-Kriya25	PSG College of Technology
7.	Arun Prassath G K – II EC A Arjun V- II EC A	I prize with Cash prize ₹ 1000	Robolynx'25	Dhaanish Ahmed Institute of Technology
8.	Arjun V- II EC A	I prize with Medal	Med Maverickz'25	Dhaanish Ahmed Institute of Technology
9.	Arun Prassath G K – II EC A	I prize with Cash prize ₹ 1000	Meta Verse 2k25	Karpagam Academy Of Higher Education
10.	Arun Prassath G K – II EC A	I prize with Cash prize ₹ 1000	SparkFest 2k25	Karpagam Academy Of Higher Education
11.	Arun Prassath G K – II EC A	I prize with Cash prize ₹ 1000	Tronix 2k25	Karpagam Academy Of Higher Education

12.	Arjun V – II EC A , Harish V – II EC A, Indhumadhi V – II EC A Arun Prassath G K – II EC A	I prize with Cash prize ₹ 1000	Tronix 2k25	Karpagam Academy Of Higher Education
13.	Arun Prassath G K – II EC A	I prize with Cash prize ₹ 1000	Mesica 2k25 (symposium)	Kongu Engineering College
14.	Arun Prassath G K – II EC A	I prize with Cash prize ₹ 1000	Mesica 2k25 (Project expo)	Kongu Engineering College
15.	Aswath S – II EC A	I prize	Yugam'25	Kumaraguru Institution
16.	Aswath S – II EC A	I prize with Cash prize ₹ 1000	Yeesist (project)	Jansons Institute Of Technology
17.	Aswath S – II EC A	I prize with Cash prize ₹ 2500	Vihansa (Drone)	Sri Ramakrishna Institute Of Technology
18.	Dhesika P M – II EC A	I prize with Cash prize ₹ 1500	Digiavinya 2k25 (paper presentation)	RVS college of engineering and technology
19.	Dhesika P M – II EC A	I prize	Hackathon	Coimbatore Institute Of Technology
20.	Dhesika P M – II EC A	I prize	Pitch Master	Coimbatore Institute Of Technology
21.	Harish Kumar S– II EC A, Ilakkiya.V – II EC A	I prize with Cash prize ₹ 1500	Digiavinya 2k25 (paper presentation)	RVS college of engineering and technology
22.	Harish Kumar S– II EC A,	I prize with Cash prize ₹ 500	Digiavinya 2k25 (Quiz)	RVS college of engineering and technology

23.	JayaSurya D R – II EC A, Kavin Soorya S – II EC A	I prize with Cash prize ₹ 1000	Nexus 25	Kongu Engineering College
24.	Pravinkumar AK – II EC B , Vignesh M – II EC B, Sitnison E – II EC B	1st prize	Xenviron '25	Karpagam Academy Of Higher Education
25.	Pravinkumar AK – II EC B , Vignesh M – II EC B, Sitnison E – II EC B, Siva Saran S – II EC B, Nandha Kishore V S – II EC B	1st prize	Vision X -A National Bio Pitchathon	Raise Centre For Biotechnology, Aic Raise
26.	Pravinkumar AK – II EC B , Vignesh M – II EC B, Sitnison E – II EC B, Nitheshwar K S – II EC B	1st prize	Yeesist (project)	Jansons Institute Of Technology
27.	Pravinkumar AK – II EC B , Vignesh M – II EC B, Sitnison E – II EC B,	1st prize	Futurepreneurs-Business Spark	Kalaignarkarunanidhi Institute of Technology
28.	Pravinkumar AK – II EC B , Vignesh M – II EC B,	1st prize	RoboFiesta	Sri Ramakrishna Engineering College

	Sitnison E – II EC B,			
29.	Rahul J – II EC B	I prize	Acumen 25	Kongu Engineering College
30.	Rithika P – II EC B, Rubika – II EC B	I prize with Cash prize ₹ 10000	Kurukshetra'25	Anna University
31.	Sanjay K – II EC B	I prize	Missing Code	Coimbatore Institute Of Technology
32.	Rubika A – II EC B	I prize with Cash prize ₹ 1000	Kanam’25	Dr. NGP Institute of Technology
33.	Rubika A – II EC B, Ramya – II EC B, Samyukta – II EC B	I prize with Cash prize ₹ 40000	Dekathon	St. Thomas College of Engineering and Technology
34.	Rubika A - II EC B, Fortune F Muberekwa - II EC B, Sheik shagul mohammed harish – II EC B	I prize with Cash prize ₹ 1000	MedSparkz'25	Sona College of technology
35.	Rubika K – II EC B, Mithun – II EC B	I prize with Cash prize ₹ 1000	Innovatix	Kongu engineering college
36.	Rubika K – II EC B, Fortune F Muberekwa - II EC B,	I prize with Cash prize ₹ 1000	Synergy	Bannari Amman Institute of technology

37.	Sarvesh R – II EC B	I prize with Cash prize ₹ 1000	Elect-era 25 (Drone)	Coimbatore Institute Of Technology
38.	Sarvesh R – II EC B	I prize	Prathiyogitha ‘25	Kongu engineering college
39.	Sarvesh R – II EC B	I prize	Prathiyogitha ‘25(symposium)	Kongu engineering college
40.	Selva Kumar S	I prize with Cash prize ₹ 2000	Kanam’25	Dr. NGP Institute of Technology
41.	Shanmuka Sri S V - II EC B, Nidhin s – II EC B, Swethaa M – II EC B, Mirudhula M – II EC B	I prize	Pragyan 25	National Institute of Technology
42.	Shree Nakulan S – II EC B	I prize with Cash prize ₹ 1000	Javaris	Chennai Instituion of Technology
43.	Sindhuja K – II EC B	I prize with Cash prize ₹ 10000	Kurukshetra'25	Anna University
44.	Akshitha Poovezhil R – III EC A, Diviyashree P – III EC A, Jaya Dharshini N D – III EC A, Macario Vinoth Fernandez – III EC A, Madhumita T S – III EC A, Sanjai Sree N – III EC ,	I prize with Cash prize ₹ 50000	TechXcelerate	BITS PILANI

	Santhiya S – III EC A, Sanajeyan B – III EC b, Shivasakthi I – III EC B, Sri Sundar M K – III EC B, Subakarini S – III EC B, Vidhyasri P – III EC B, Udaya V – III EC B			
45.	Anushree S – III EC A, Gowtham R – III EC A, Harsana S – III EC A	I prize with Cash prize ₹ 1000	Mystery Box	NGP Arts and Science College
46.	Ari Sakthi Velan S J- III EC A	I prize with Cash prize ₹ 2000	Nexus 25	Kongu Engineering College
47.	Mukesh S – III EC A, Nakul Prasath M – III EC A	I Prize	Acumen'25	Kongu engineering college
48.	Richard Jonson M – III EC A	I Prize	Line Follower	Bannari Amman Institute of technology
49.	Sekar Nagul A I – III EC A, Santhosh Kumar K – III EC A, Manoj M, Manoj Kumar	I prize	Hackverse 25	PSG College of Technology

	K A – III EC A, Santhosh R – III EC A			
50.	Shivasakthi I – III EC B	I prize with Cash prize ₹ 10000	Innovsense	Kongu Engineering College
51.	Kishore Kumar S – III EC B	I Prize	Technovegenza 25	Coimbatore Institute Of Technology
52.	M. Ahileswari A- II EC A Guruprriya R S - II EC A Jerlinjeba M J - II EC A	II Prize	Kanam'25	Dr.N.G.P.Institutr Of Technology
53.	M. Ahileswari A- II EC A Guruprriya R S - II EC A Jerlinjeba M J - II EC A	II Prize	Udhayam'25	Kalaignarkarunanidhi Institute of Technology
54.	Amrutha Varshini M - II EC A Larisa Maria V-II EC A Harshini J- II EC A RUBIKA N	II Prize in Hackathon	Ideathon Kriya'25	PSG College of Technology
55.	Aswath S – II EC A	II prize with Cash prize ₹ 2000	Vihansa (Drone)	Sri Ramakrishna Institute Of Technology
56.	Daslin Princy A – II EC A, Kanishka M – II EC A	II prize	Innov papers	Dr. NGP Institute of Technology
57.	Dhesika P M – II EC A	II prize with Cash prize ₹ 1500	Digiavinya 2k25 (Quiz)	RVS college of engineering and technology

58.	Gokul M	II prize with Cash prize ₹ 2000	SpectraX	KPRIET
59.	Harish Kumar S– II EC A, Ilakkiya.V – II EC A	II prize	Digiavinya 2k25 (Awards)	RVS college of engineering and technology
60.	Harsanya A – II EC	II prize	Sparkathon	Coimbatore Institute Of Technology
61.	Harsanya A – II EC, Lakshnya S II EC A	II prize	Udhayam 2k25	KIT -Kalaignar Karunanidhi Institute Of Technology
62.	Harsanya A – II EC	II Prize	Sparkathon (Project)	Coimbatore Institute Of Technology
63.	Karthick S – II EC A	II prize	Papertrix	Kongu Engineering College
64.	Pranaya P – II EC B, Nehaa M R – II EC B, Varshini S – II EC B	II prize with Cash prize ₹ 2000	Varanam 25 (project presentation)	Karpagam Academy Of Higher Education
65.	Ragavappranesh S – II EC B, Shri Soumitra K. S – II EC B	II prize with Cash prize ₹ 500	Tech trench adventure	Coimbatore Institute Of Technology
66.	Rithika P – II EC B	II prize with Cash prize ₹ 2500	Hackthon	KCG College Of Technology
67.	Rubika K – II EC B, Fortune F Muberekwa – II EC B	II prize with Cash prize ₹ 2000	Udhayam 2k25	Kalaignarkarunanidhi Institute of technology
68.	Rubika K – II EC B	II prize with Cash prize ₹ 750	Innovatix	Kongu engineering college

69.	Sarvesh R – II EC B	II prize	Prathiyogitha ‘25	Kongu engineering college
70.	Shanmuka Sri S V - II EC B	II prize with Cash prize ₹ 500	Synergy-25	Bannari Amman Institute of technology
71.	Shanmuka Sri S V - II EC B, Swethaa M – II EC B	II prize with Cash prize ₹ 2500	Quantum 25	Sona college of Technology
72.	Shree Nakulan S – II EC B	II prize with Cash prize ₹ 1500	Robofiesta	KPRIET
73.	Shree Nakulan S – II EC B	II prize with Cash prize ₹ 2000	Expelliarmus	KPRIET
74.	Shree Nakulan S – II EC B	II prize with Cash prize ₹ 3000	Javaris	Chennai Instituion of Technology
75.	Sindhuja K – II EC B	II prize with Cash prize ₹ 7000	Kurukshetra'25	Anna University
76.	Ajay N – II EC A, Bharath S – II EC A, Joel Raj L – II EC A, Harish Karthigaya B R – II EC A	II prize	Robo Tracer	Coimbatore Institute Of Technology
77.	Sureya J M – II EC B	II prize	RoboFiesta	Sri Ramakrishna Engineering College
78.	Akshitha Poovezhil R – III EC A, Diviyashree P – III EC A, Madhumita T S – III EC A, Shanmitha P – III EC B,	II prize with Cash prize ₹ 10000	Hack Odyssey	Kalasalingam Academy of Research and Education

	Sri Sundar M K – III EC B			
79.	Udaya V – III EC B, Vidhya Sri P – III EC B, Jaya Dharshini N D – III B, Santhiya S – III EC B	III Prize with cash ₹ 3000	Virtus codicis	Sri Eshwar College of Engineering
80.	Kishore Kumar S – III EC B	III Prize	Technovegen za 25	Coimbatore Institute Of Technology

IIPC ACTIVITIES

Faculty Industry & Field Visit to IIT Palakkad

As part of ongoing IIPC initiatives to strengthen industry-academia collaboration and provide enhanced opportunities for students, several faculty members from the Department of Electronics and Communication Engineering undertook industry visits during February 2025.

- On February 19, 2025, Dr. B. Jaishankar, Dr. T. Jagadesh, and Mr. T. Shanmugaraja visited IIT Palakkad to explore potential research collaborations with faculty members and research scholars, focusing on interdisciplinary innovation and technical partnership.
- On February 6, 2025, Dr. B. Jaishankar and Dr. T. Jagadesh visited Machdatum Private Limited for the renewal of the existing MoU, aiming to further strengthen collaborative projects, internships, and student training programs.
- On the same day, Dr. T. Jagadesh visited Universal Circuits to discuss possibilities for PCB design consultancy services, opening avenues for technical guidance and industry projects.
- Dr. T. Jagadesh also visited Dvolt Automation on February 15, 2025, where discussions were held regarding potential internship opportunities for ECE students in the field of automation and control systems.

- Mr. M. Ramesh visited Park AMC Polytechnic College, Senthur Polytechnic College, Andavar Polytechnic College, and Maharani Polytechnic College on February 21, 2025, coordinating the planning and execution of PCB training sessions to enhance practical skills among diploma students.

Industrial Visit to Mobitech Wireless Solutions Private Limited

On February 8, 2025, Mr. S. Satheeshkumar, accompanied by the I -ECE-B students, visited Mobitech Wireless Solutions Private Limited, Coimbatore, as part of the department's field visit program under IIPC activities. The visit aimed to introduce students to the fundamentals of industrial wireless technologies and embedded solutions.

During the visit, students were briefed on various aspects of wireless product development, including RF module integration, IoT device prototyping, and firmware programming. The team at Mobitech demonstrated live projects and showcased the development process from circuit design to final product testing.

Students gained insights into:

- PCB layout design and fabrication processes used in wireless products.

- Embedded systems integration in wireless modules and sensor-based devices.
- Testing and validation techniques used in product quality assurance.
- The importance of standards, certifications, and real-time applications in industrial environments.

This visit not only enhanced the students' understanding of core electronics and communication concepts but also inspired them to explore career opportunities in wireless communication, IoT, and embedded systems.

Industrial Visit to Vijay Technocraft

On February 19, 2025, Dr. N. Sathishkumar visited Vijay Technocraft, Coimbatore, as part of the department's Industry-Institute Partnership Cell (IIPC) activities, with a focus on fostering meaningful academic-industry collaboration. The visit aimed to explore avenues for industry-integrated learning, student exposure to manufacturing practices, and collaborative development of technical skill sets.

Key highlights of the visit included:

- Discussions on integrating industry-relevant content into academic syllabus, ensuring students are equipped with up-to-date skills aligned with current industrial demands.

- Identification of opportunities for internships, industrial training, and plant visits for students to enhance practical exposure.
- Consideration of joint academic initiatives, such as faculty development programs, industrial expert lectures, and live case study-based learning.
- Talks on collaborative project development in areas like precision fabrication, tool and die making, production optimization, and industrial automation, aligning with Vijay Technocraft's domain expertise.
- Emphasis on problem-solving based student projects, co-guided by faculty and industry mentors, to strengthen application-based learning.
- Exploring options for MoU signing to formalize long-term academic partnerships, research collaborations, and knowledge exchange.

Industrial Visit to Salzer Electronics Limited

On February 22, 2025, Mr. G.K. Jakir Hussain and Mr. S. Satheeshkumar, accompanied by the I - ECE-B students, visited Salzer Electronics Limited, Coimbatore, as part of the department's Industry-Institute Partnership Cell (IIPC) field visit initiative. This industrial exposure aimed to provide students with an understanding of real-time applications of electronics in electrical manufacturing and automation.

The students were given a guided tour of the production units, where they observed:

- Automated and semi-automated assembly lines used for manufacturing electrical switches and control panels.
- CNC-based precision machining and injection molding used for product casing and enclosures.
- Testing and quality control processes ensuring adherence to ISO standards and electrical safety norms.
- Insights into supply chain integration, inventory handling, and final packaging of finished products.
- The role of Embedded Systems and Microcontrollers in smart switching and control devices.

Industry experts also interacted with the students, discussing topics such as:

- The importance of design reliability and component lifecycle management.
- Career pathways in industrial automation, electrical product design, and embedded firmware development.
- An overview of global market demands, export processes, and industrial certifications like CE, UL, and RoHS.

The visit helped bridge the gap between theoretical learning and industrial implementation, inspiring students to apply engineering principles in practical scenarios and encouraging interest in manufacturing technology, electromechanical systems, and industry 4.0 trends.

Industry Visit To Ozotech

On February 22, 2025, Mr. G. Pradeepkumar visited Ozotech, Coimbatore, as part of the institution's ongoing Industry-Institute Partnership Cell (IIPC) activities. The visit aimed to foster deeper engagement between academia and industry to bridge the skill gap and align educational objectives with evolving industrial demands.

During the meeting, detailed discussions were held on:

- Executive training programs attended by industry professionals and how faculty can leverage such programs for knowledge exchange and continuous upskilling.
- Inclusion of industry-relevant modules and case studies into the curriculum and obtaining structured industry inputs for Board of Studies (BoS) deliberations.
- Opportunities to co-author technical research papers focusing on real-time industrial challenges, application-based innovations, and emerging technologies.

- Scope for student project mentorship, internship pipelines, and joint technical workshops/seminars in collaboration with Ozotech's R&D team.
- Exploring the potential for collaborative patent filing, applied research, and prototype development in domains such as sensor technology, embedded design, and smart automation.

The visit served as a valuable step toward strengthening academic-industry synergy, enhancing curriculum relevance, and promoting collaborative innovation in emerging engineering domains.

Industry Visit To ZENFET Technologies

On February 24, 2025, Dr. N. Sathishkumar visited ZENFET Technologies, Coimbatore, as part of the department's ongoing Industry-Institute Partnership Cell (IIPC) outreach initiatives. The objective of the visit was to foster collaboration in the areas of emerging technologies, industrial research, and academic engagement.

During the visit, discussions were held on:

- Incorporating advanced semiconductor device concepts, VLSI design methodologies, and IoT-based hardware development into the academic framework.
- Identifying potential areas for student internships, industrial training, and hands-on mini projects aligned with ZENFET's core competencies in embedded systems and electronics design.

- Exploring joint faculty-industry research opportunities in the domains of smart electronics, sensor integration, and low-power system design.
- Conducting expert technical sessions, guest lectures, and technology talks to strengthen the industry connect among students and faculty.
- Planning for collaborative activities such as proof-of-concept projects, product design mentoring, and curriculum-level consultations with ZENFET engineers.

The visit served as a step forward in establishing a strong academic-industrial partnership, helping to align institutional efforts with cutting-edge industrial advancements in the field of electronics and embedded system design.

Industry Laboratory visit to Indian Institute of Science

On March 1, 2025, Dr. K. Kalirajan, Dr. M. Singaram, and Mr. G. Pradeepkumar visited the Department of Electronics and Communication Engineering Research Laboratory at the Indian Institute of Science (IISc), Bengaluru, as part of the department's initiative to strengthen research collaborations, academic networking, and faculty development. The visit focused on aligning institutional research goals with national-level innovation strategies and creating opportunities for interdisciplinary collaboration.

Key highlights of the visit included:

- In-depth interaction with IISc faculty members and research scholars working in advanced areas such as RF systems, VLSI design, MEMS, next-gen wireless networks, AI-integrated signal processing, and photonics.
- Exploration of collaborative possibilities in funded research projects (DST, SERB, DRDO, ISRO, and AICTE) and joint proposal writing for national and international grants.
- Observing world-class laboratory infrastructure, including facilities for semiconductor fabrication, antenna design, real-time hardware emulation, and cleanroom environments.
- Discussion on establishing faculty research immersion programs, short-term research fellowships, and joint Ph.D. supervision models to support future scholars.

- Opportunities for technical paper co-authorship, industry-collaborated research, and student internships under IISc research projects.
- Planning for future technical symposiums, guest lectures, and collaborative workshops to strengthen knowledge exchange between the two institutions.

The visit reinforced the department's vision of cultivating a robust research ecosystem, enhancing faculty research capabilities, and providing students with exposure to frontier technologies and high-impact research environments.

Industry Visits & Field Engagements to Enthu Technology Solutions

On March 8, 2025, Dr. T. Jagadesh organized a field visit to Enthu Technology Solutions, Coimbatore, for the second-year ECE-B students as part of the IIPC's experiential learning initiative. The visit aimed to provide students with practical exposure to industry-grade IoT technologies, embedded solutions, and real-time product development cycles.

During the visit, students gained hands-on insights into:

- Sensor integration and wireless communication modules used in IoT-based applications.
- Embedded system prototyping using microcontrollers such as Arduino and ESP32.
- PCB testing, validation techniques, and real-time debugging of electronic circuits.
- Overview of the product development lifecycle from concept to deployment.

- Demonstrations on cloud-based monitoring, data logging, and automation using IoT gateways.

Industry professionals at Enthu also interacted with students, sharing case studies on smart agriculture, industrial automation, and home automation systems developed in-house. The session concluded with an interactive Q&A, where students clarified technical doubts and explored career paths in IoT engineering, product design, and embedded development.

This visit greatly enhanced the students' understanding of how academic knowledge in electronics and communication is applied to solve real-world challenges through smart and connected technologies.

- On March 6, 2025, Dr. S. Finney Daniel and Mr. M. Ramesh visited Government Polytechnic College and Christ the King Polytechnic College to coordinate the planning and execution of PCB training programs. The discussion included designing the training curriculum, practical sessions, and certification modules to enhance technical competency in PCB design and fabrication.
- On March 8, 2025, Dr. T. Jagadesh visited Soft Electronet and Excel Automation, Coimbatore, to explore student internship opportunities and potential avenues for consultancy projects in areas such as embedded systems, automation, and electronic product development.

- On March 22, 2025, Dr. T. Jagadesh also visited ControGen and E-Links, where discussions were held regarding internship offers for students and the establishment of a formal Memorandum of Understanding (MoU) to facilitate long-term academic-industry collaboration and joint initiatives.
- On March 27, 2025, Dr. T. Jagadesh visited Aplus Group, Coimbatore, and engaged in discussions about offering internships for ECE students, allowing them to gain practical exposure in the fields of electronics manufacturing, system integration, and automation.

These visits played a vital role in building strategic industry linkages, enabling students to gain first-hand insights into current technologies and practices, and opening up new avenues for collaborative research, training, and project development.

Consultancy Activities with Pioneer Circuits

Dr. S. Finney Daniel, Mr. G. K. Jakir Hussain, Dr. S. Nithya, and Dr. T. Jagadesh successfully completed a consultancy project valued at ₹27,000 for Pioneer Circuits, Coimbatore. The project involved providing comprehensive technical consultancy in PCB (Printed Circuit Board) design, layout optimization, and signal integrity analysis, catering to the client's requirements for customized industrial-grade circuit solutions.
Key highlights of the consultancy included:

- Design and development of multi-layer PCBs tailored for high-precision applications.
- Component placement and routing strategies to minimize EMI/EMC and improve electrical performance.
- Validation and DRC (Design Rule Check) to ensure manufacturability and standard compliance.
- Collaborative interaction with industry engineers to understand real-time design constraints and production limitations.

The successful completion of this consultancy not only strengthened the department's industry engagement portfolio but also showcased the faculty's expertise in translating academic knowledge into practical, industry-ready solutions. It also

opened doors for further collaborative research, internships, and technical training opportunities with Pioneer Circuits and similar electronics firms.

Industry Visit To Sai Sharan Electronics and Anims Infocare Systems

On March 8, 2025, Dr. N. Sathishkumar visited Sai Sharan Electronics and Anims Infocare Systems, Coimbatore, as part of the department's Industry-Institute Partnership Cell (IIPC) initiatives to explore collaborative opportunities in the domains of electronics manufacturing, embedded systems, and IT services. The visit focused on establishing connections for student internships, industry-aligned projects, and technical knowledge sharing.

Key discussions included:

- Curriculum enhancement through industry-relevant content and expert involvement in academic forums.
- Opportunities for mini-projects and final-year project mentoring based on real-time industrial problems.
- Exploration of technical training programs for students in areas such as PCB fabrication, microcontroller-based design, and software solutions.
- Prospects for faculty development programs (FDPs) and joint workshops/seminars with company experts.

The visit further reinforced the department's commitment to building long-term academic-industry partnerships that provide practical exposure and skill development opportunities for students in both electronics and IT sectors.

Industry Visit to Gee Keyy Engineering and Co, Mechmet Engineers, & Akira Controls

On March 26, 2025, Dr. M. Kalamani, Dr. R. Jaikumar, and Mrs. S. Priyadharshni visited Gee Keyy Engineering & Co, Mechmet Engineers, and Akira Controls, Coimbatore, under the aegis of the Industry-Institute Partnership Cell (IIPC). The visit aimed to strengthen academic-industry ties by exploring avenues for student internships, live industry projects, and technical collaboration in the fields of mechanical systems, automation, and control engineering.

Key outcomes and highlights of the visit included:

- Detailed discussions on aligning academic curriculum with current industrial trends, especially in areas like CNC machining, automated assembly, and control system integration.
- Identifying internship opportunities and short-term industrial training modules for pre-final and final year students to gain practical exposure in mechanical-electronics interfacing.
- Proposal of guest lectures and technical seminars by company engineers to bridge the knowledge gap between classroom instruction and field application.
- Introduction of potential consultancy projects, where faculty expertise could contribute to solving industry-specific challenges.
- Exploration of industry-driven final-year projects, enabling students to apply theoretical knowledge to real-world problem statements under joint mentorship.
- Discussions on future MoU signing to formalize collaborations involving project-based learning, industrial certification programs, and joint skill development workshops.

The visit underscored the department's commitment to industry-aligned education and provided a platform to expose students to emerging technologies in mechanical engineering, automation, and system control, paving the way for enhanced employability and innovation readiness.

Industry Collaboration with Kerala Electrical and Allied Engineering Co.Ltd

On April 8, 2025, the first-year ECE-C Section students visited Kerala Electrical and Allied Engineering Co. Ltd. (KEL), Kochi, as part of the department’s Industrial Visit Program under the Industry-Institute Partnership Cell (IIPC). The visit aimed to provide students with exposure to industrial-scale electrical and electronic system manufacturing, fostering a deeper understanding of how theoretical concepts are implemented in practical engineering environments.

During the visit, students were taken through various functional departments of KEL, including:

- Transformer production units, where they observed coil winding, core assembly, oil filling, and testing procedures.
- High-voltage testing laboratories, where the reliability and efficiency of large transformers and alternators are verified under simulated operating conditions.
- Assembly lines for control panels and switchgear systems, offering insights into panel wiring, control circuitry, and protection devices.
- The integration of electronics, embedded systems, and programmable logic controllers (PLCs) in automated monitoring and fault detection systems.
- Demonstrations of quality control processes, safety testing, and real-time data monitoring involved in high-voltage electrical manufacturing.

Students also interacted with industry experts and engineers who shared practical insights on:

- The importance of precision and reliability in power sector equipment.
- Career opportunities in power systems, electronics hardware, and industrial automation.
- Trends in energy-efficient designs, smart grid applications, and IoT-enabled power infrastructure.

This visit served as a valuable learning experience, helping students relate foundational engineering concepts to real-world industrial practices and encouraging them to pursue core domain career paths with a better understanding of the industry's expectations.

Consultancy project visit to Sri Varshini Fibres

On April 15, 2025, Dr. J. Muralidharan visited Sri Varshini Fibres, Coimbatore, to explore potential areas for consultancy projects focusing on process optimization, automation of textile production lines, and monitoring systems using embedded technology. The discussion highlighted the possibility of leveraging faculty expertise to address specific industrial challenges such as:

- Reducing energy consumption and wastage in fiber processing.
- Implementing sensor-based quality monitoring systems.
- Developing custom control modules for improved operational efficiency.
- Joint development of low-cost automation solutions for MSMEs.

The visit laid the foundation for a long-term partnership in applied research, consultancy, and student project involvement based on real-time industrial needs.

- On April 17, 2025, Dr. T. Jagadesh visited Indus Novatech Softech and Amar Metering Pumps, Coimbatore, to discuss structured internship opportunities for ECE students and avenues for academic-industry collaboration. Key areas of discussion included:
    - Offering internships with exposure to software design, industrial instrumentation, and IoT-based control systems.
    - Enabling students to participate in live industrial projects, guided jointly by faculty and company engineers.
    - Conducting guest lectures, workshops, and hands-on training sessions by industry professionals on emerging technologies like cloud integration for smart pumps, microcontroller-based automation, and flow measurement systems.
    - Exploring the signing of a Memorandum of Understanding (MoU) for long-term partnerships in skill development and joint innovations.

These visits not only enhanced the department's industry connect but also aligned institutional goals with industry 4.0 practices, helping equip students with future-ready skills and encouraging faculty-industry knowledge transfer.

Dr. T. Jagadesh visited to Superpower Systems on December 7, 2024, discussing internship opportunities in power electronics and embedded systems.

- IVA Technos Private Limited on December 12, 2024, where the focus was on internships for students in core electronics and automation domains.

These industry interactions provide valuable internship opportunities, hands-on learning experiences, and potential consultancy projects, ensuring students are well-prepared for real-world engineering challenges.

Consultancy Activity in Antenna Testing

- Dr. T. Jagadesh successfully completed a consultancy project on Antenna Testing, generating a revenue of ₹2,950.
- Dr. S. Finney Daniel conducted a comprehensive training program on "PCB Design and Manufacturing" for students from Nandha College of Technology, resulting in a revenue generation of ₹9,000.

MoU Signing – Strengthening Industry Collaboration

On April 17, 2025, the Department of Electronics and Communication Engineering (ECE) formally signed a Memorandum of Understanding (MoU) with Entuple Technologies Pvt. Ltd., Bengaluru, a premier industry leader in Electronic Design Automation (EDA) tools, semiconductor IP, and next-generation technology training. The partnership is aimed at fostering a collaborative ecosystem for students and faculty to gain hands-on exposure, enhance employability, and participate in cutting-edge research and development.

Key objectives and benefits of this collaboration include:

- Student Upskilling:
    - Hands-on training and certification programs in VLSI design, FPGA prototyping, SystemVerilog, AMS (Analog Mixed Signal) design, and EDA tool flow.
    - Exposure to industry projects and capstone mentoring in collaboration with Entuple's domain experts.
- Faculty Development & Curriculum Enhancement:
    - Faculty access to latest EDA tools and simulation environments used in industry.
    - Joint development of industry-integrated course modules, mini-projects, and lab content aligned with NEP 2020 outcomes and AICTE model curriculum.
    - Participation in train-the-trainer programs, enabling faculty to stay updated with evolving trends in semiconductor technologies, digital IC design, and signal integrity modeling.
- Research & Innovation:
    - Scope for collaborative research publications, IP generation, and sponsored projects in domains like low-power design, antenna modeling, RF & microwave circuits, and AI-EDA convergence.
    - Access to simulation support for UG/PG thesis, doctoral research, and consultancy services.
- Infrastructure & Academic Integration:
    - Provision of licensed EDA software and remote access labs.
    - Opportunities to establish a Center of Excellence (CoE) in VLSI, jointly branded with Entuple Technologies.
    - Hosting of industry bootcamps, tech fests, and hackathons to drive innovation and practical exposure.

This collaboration is a major step in transforming the department into a center for semiconductor innovation, supporting the national vision of "Make in India" and

"Design in India" by nurturing skilled engineers equipped with industry-relevant competencies and research acumen.

Distinguished Academic Visit to University of Calcutta

On April 18, 2025, the Department of Electronics and Communication Engineering (ECE) was honored to host Dr. Arjit De, Professor and renowned researcher from the University of Calcutta, as part of the department's initiative to promote inter-institutional academic exchange and collaborative research engagement. The visit focused on fostering intellectual collaboration and enhancing the research ecosystem within the department through the following key activities:

- Expert Lecture:

  Dr. Arjit De delivered a technical session on "Recent Trends in Ultrafast Optics and Photonics Research", which provided students and faculty with insights into advanced topics such as nonlinear optics, laser-matter interaction, femtosecond spectroscopy, and photon-based quantum systems.

- Research Interaction:

  Detailed discussions were held with faculty and research scholars on potential collaborations in emerging fields such as quantum photonics, optoelectronic integration, and nano-fabrication. He also reviewed ongoing UG/PG student projects related to photonics and signal processing, offering expert guidance and suggestions for improvement.

- Collaborative Opportunities:

  The visit paved the way for exploring:

  - Joint research proposals under funding agencies like DST, SERB, and BRNS.
  - Co-guidance for doctoral research and cross-institutional mentoring.
  - Organization of faculty development programs (FDPs), research workshops, and international conferences jointly with the University of Calcutta.
  - Establishing student exchange programs to offer students exposure to research labs and interdisciplinary projects in premier institutions.

- Academic Enrichment:

  The interaction inspired young researchers and created a platform for faculty to expand their research networks and contribute to high-impact publications in journals and conferences.

Dr. Arjit De's visit was a valuable step toward building strong academic linkages, promoting research-driven education, and enhancing the department's national and global academic footprint.

Industry Visit – Strengthening Collaboration with Inno Mektronis & Super Power Systems

On April 23, 2025, Dr. N. Sathishkumar from the Department of Electronics and Communication Engineering visited Inno Mektronis and Super Power Systems, Coimbatore, as part of the department's Industry-Institute Partnership Cell (IIPC) initiatives. The visit aimed to explore collaborative opportunities in industrial automation, power systems, embedded solutions, and to enhance student engagement through real-time learning experiences.

Highlights of the Visit:

- Internship & Project Opportunities:

  Discussions were held to facilitate industrial internships for pre-final and final-year students in domains such as:

  - Mechatronic system integration

- Microcontroller-based automation
- High-efficiency power supplies and inverter systems

- Consultancy Scope:
  Opportunities for faculty-led consultancy projects were identified in the areas of:
  - Sensor integration in industrial applications
  - Embedded firmware development for motor control
  - Design and testing of energy conversion systems
- Curriculum Enhancement & Knowledge Sharing:
  The visit opened the possibility of:
  - Conducting guest lectures and technical seminars by industry engineers on SCADA, PLC, power drives, and embedded diagnostics.
  - Establishing course content alignment to include case studies and practical modules based on real industrial problems.
- Future MoU and Collaboration Plans:
  Discussions included a roadmap to sign a Memorandum of Understanding (MoU) focusing on:
  - Setting up mini-project mentorship from industry professionals.
  - Co-hosting hands-on workshops, prototype exhibitions, and innovation bootcamps.
  - Faculty upskilling in industry-relevant tools and platforms like MATLAB/Simulink, Proteus, and IoT frameworks.
- Infrastructure and R&D Exposure:
  The visit also included a walkthrough of their design labs, embedded testing setups, and high-power system testing bays, giving insights into industrial standards for testing, safety compliance, and automation protocols.

This visit marked a significant step in the department's journey to bridge academia with industrial excellence, preparing students to meet the expectations of modern industries while also empowering faculty with cutting-edge practical exposure and research engagement.