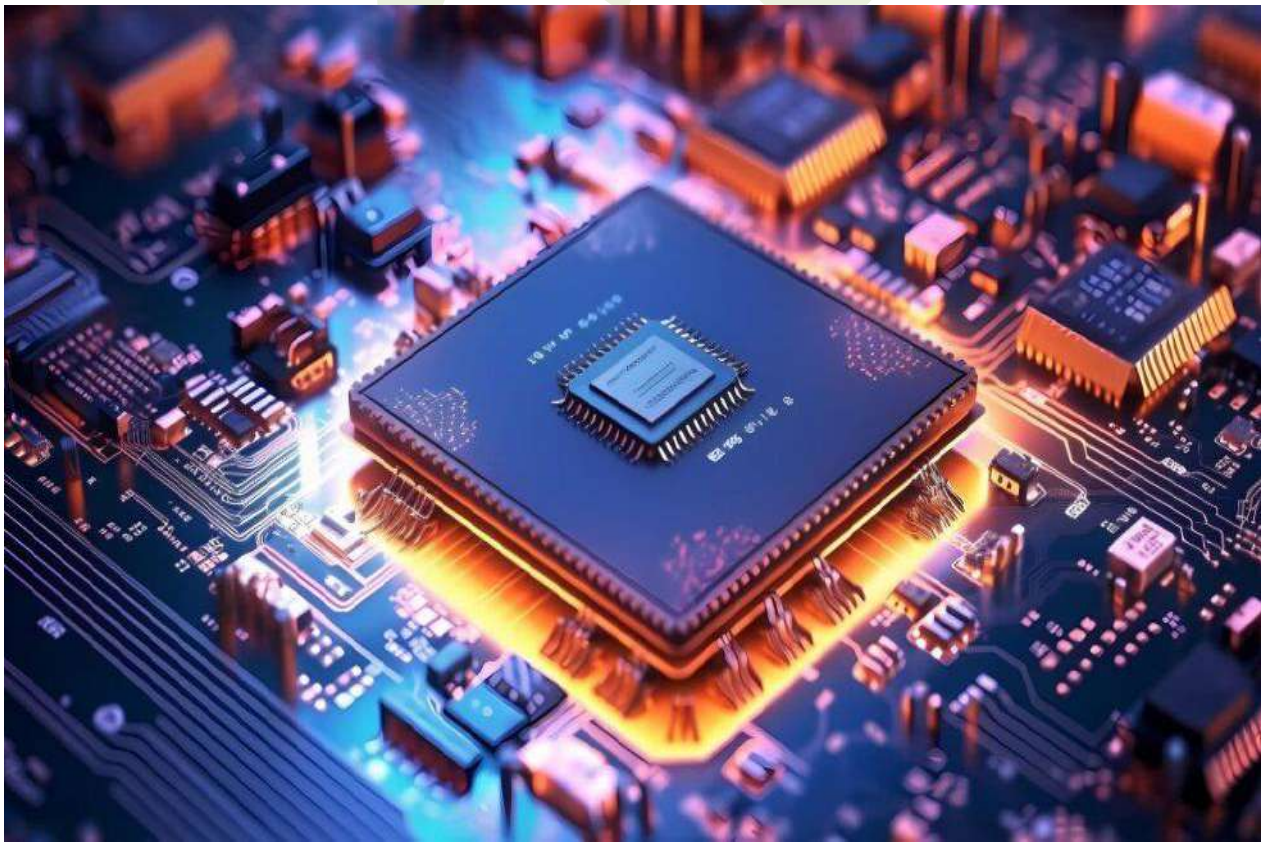
KPR Institute of Engineering and Technology
(Autonomous)
Avinashi Road, Arasur, Coimbatore - 641 407

LEARN BEYOND

Department of Electronics and Communication Engineering
(Accredited by NBA)

Volume No.10 - Issue 2



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

Digital Profile Building - Mastering LinkedIn for digital networking

The Department of Electronics and Communication Engineering (ECE), in association with the Alumni Association and ISTE, organized an insightful guest lecture on "Digital Profile Building: Mastering LinkedIn for Digital Networking" on November 4, 2024, from 11:00 AM to 12:30 PM at Room D-209, KPRIET. This department-level session, aligned with SDG 4: Quality Education, saw the participation of 80 students eager to enhance their digital networking skills. Empowering Students with Digital Networking Skills led by Mr. Chandramohan S, a KPRIET alumnus (Batch 2019–2023) and SAP ABAP CRM Developer at Maventic Innovative Solutions Pvt Ltd, Bengaluru, the session provided students with practical strategies to optimize their LinkedIn profiles and build strong professional networks.

Key Highlights of the Guest Lecture

- Optimizing LinkedIn Profile: Guidance on crafting a compelling headline, summary, and experience section to stand out.
- Networking Strategies: Insights into connecting with industry professionals, alumni, and recruiters effectively.
- Engagement Tips: Techniques to post relevant content, share insights, and interact with industry discussions for greater visibility.
- Job Search & Recruitment: Utilizing LinkedIn’s job search tools, recruiter expectations, and best practices for career growth.

Role of Simulation Technology in Industrial Revolution

The Department of Electronics and Communication Engineering (EC) organized an insightful guest lecture on "Role of Simulation Technology in the Industrial Revolution" on November 7, 2024, from 2:45 PM to 3:20 PM at the IoT Lab. This off-campus session, aligned with SDG 4: Quality Education, brought together 16 participants, including students and faculty, for an engaging discussion on the transformative impact of simulation technology on modern industries.

Exploring the Future of Industry with Simulation.

Led by industry experts, the session provided a comprehensive understanding of digital twins, predictive modelling, and virtual testing, emphasizing their role in:

🔹 Enhancing manufacturing efficiency and optimizing product design.

🔹 Reducing production risks and improving sustainability in industrial applications.

🔹 Streamlining product development through advanced simulation tools like Dassault’s solutions.

🔹 Accelerating time-to-market with data-driven virtual testing.

Impact and Key Takeaways

✅ Practical Applications: Demonstrations on how industries use simulation to improve design accuracy and efficiency.

✅ Sustainability & Innovation: Emphasis on eco-friendly manufacturing and risk reduction through virtual testing.

✅ Interactive Q&A Session: Students engaged with industry experts, exploring

research collaborations and future career opportunities.

✅ Future Prospects: Participants expressed enthusiasm for integrating simulation technology into their academic and professional pursuits.

The event successfully bridged the gap between theoretical learning and real-world industrial applications, inspiring students to embrace simulation-driven innovation for efficient, sustainable, and future-ready industries.

Three-day hands-on training on “System Design using FPGA”

The Department of Electronics and Communication Engineering (EC), in collaboration with the student association SPARTRANZ, successfully organized a three-day hands-on training program on "System Design using FPGA" from November 7 to November 9, 2024, at the VLSI Laboratory. This intensive training, aligned with SDG 4: Quality Education and SDG 9: Industry, Innovation, and Infrastructure, aimed to enhance students’ practical knowledge in digital hardware design and FPGA-based system development.

Event Overview

The training was conducted by Ms. R. Shayamal Devi, ASIC Verification Engineer at Mobiveil Global Logic, Chennai, and was attended by 23 enthusiastic participants. The sessions focused on equipping students with advanced FPGA design techniques, digital system modelling, and HDL programming.

Key Highlights of the Training:

🔹 Day 1: Fundamentals of Digital Electronics and VLSI, including combinational & sequential logic, finite state machines, and CMOS VLSI design. A quiz was conducted

to assess students' understanding.

🔹 Day 2: Introduction to ASIC vs. FPGA Design Flow, followed by a practical Verilog coding session covering adders, subtractors, multiplexers, and demultiplexers.

🔹 Day 3: Overview of Verilog System Design and hands-on implementation of finite state machines. The session concluded with a discussion on differences between VHDL, Verilog HDL, and System Verilog.

Learning Outcomes

✅ Mastered combinational & sequential logic circuits and FSM design.

✅ Gained insights into the role of ASIC and FPGA in VLSI Engineering.

✅ Acquired hands-on experience in Verilog HDL coding.

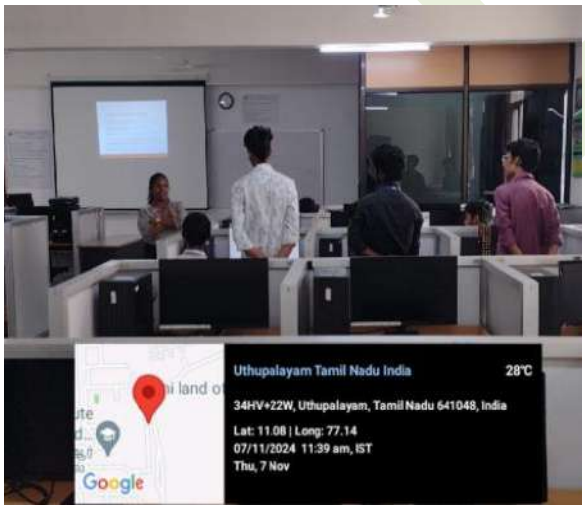
✅ Understood System Verilog applications for complex logic circuits.

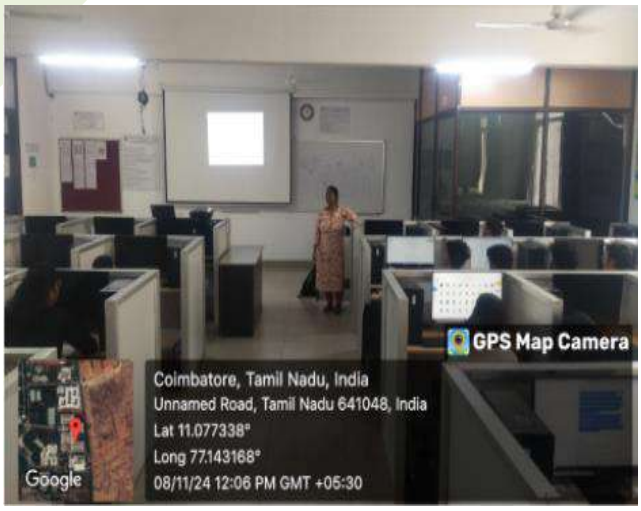
✅ Explored career opportunities in the VLSI industry.

Impact and Student Feedback

The interactive discussions and real-world applications of FPGA and ASIC design enriched students' knowledge, preparing them for careers in VLSI and semiconductor industries. Students expressed appreciation for the comprehensive coverage of digital design methodologies and FPGA programming.

This training program provided a strong foundation in digital system design, reinforcing KPRIET's commitment to fostering innovation and industry-relevant skills.





Embedded Computing for IoT Systems

The Department of Electronics and Communication Engineering (EC) successfully conducted a four-day Value-Added Course (VAC) on Embedded Computing for IoT Systems from November 11 to November 14, 2024, at the Project and Innovation Lab. This department-level training program, aligned with SDG 4: Quality Education, aimed to provide students with a practical and in-depth understanding of embedded systems and IoT applications.

Coordinated by Mr. Balamurali S and led by a team of expert resource persons from KPRIET, including Balamurali S, Jakir Hussain GK, Sathish Kumar N, Venkatesh T, Supriya M, Allwyn Gnanadass A, and Saravanan K, the course engaged 27 participants in an immersive learning experience.

Course Highlights

The VAC covered a structured progression from fundamental concepts to advanced IoT applications, ensuring a holistic learning experience for students.

🔹 Day 1: Introduction to embedded systems and IoT, microcontroller basics, and system architecture.

🔹 Day 2: Sensor and actuator interfacing, data acquisition techniques, and communication protocols.

🔹 Day 3: Real-time data processing, edge computing, and IoT networking protocols (MQTT, CoAP).

🔹 Day 4: Project development—students built and presented small-scale IoT systems.

Through hands-on training with microcontrollers like ARM and ESP32, students developed real-world IoT solutions. The final session featured expert insights into emerging trends in IoT and embedded computing, enriching participants' technical knowledge.

A workshop on Generative AI by NxtWave Technologies

A workshop on Generative AI by Mr. Harish Babu from NxtWave Technolgies, Hyderabad has been arranged by ECE department for II and II years students on 13.11.24 between 09.00 am to 01.00 pm. Harish Babu led this insightful workshop focused on using generative AI tools to enhance various aspects of career-building. The session covered practical ways to leverage AI for resume building, writing effective cold emails, and efficiently searching for paid internships. Harish demonstrated how AI-driven platforms can help users create tailored resumes that highlight relevant skills and experiences, making job applications more competitive. He showed students how to customize cold emails using AI templates to improve outreach to potential employers and industry contacts. Additionally, the session explored how AI can streamline the process of finding internship opportunities by using specific filters and alerts. Harish also discussed how AI-powered career platforms can provide personalized advice, helping students identify growth areas and emerging skills are valuable in their fields. The interactive format of the workshop allowed students to try out AI tools in real-time, applying them too specifically. career scenarios. Students appreciated the hands-on experience, with many notes that Harish's clear instructions made complex AI tools accessible and easy to implement. The Q&A; session provided further insights into tailoring AI applications to individual needs, with Harish addressing questions on maximizing AI's potential in job searches and professional communication. Students found the workshop eye-opening and left feeling more confident about integrating AI tools into their job-seeking strategies. Overall, Harish Babu's guidance highlighted the

transformative potential of AI for those entering the placements, inspiring students to incorporate these technologies into their career planning and development strategies.

GNU Radio and SDR based transmission and reception

The Department of Electronics and Communication Engineering (EC) successfully organized a One Credit Course (OCC) on GNU Radio and SDR-Based Transmission and Reception on November 28, 2024, from 09:00 AM to 04:00 PM at the Multiband Communication Lab. The event was coordinated by Dr. Nithya S and Dr. Seethalakshmi V. This event was conducted as a department-level initiative under SDG 4: Quality Education, aimed at providing students with hands-on experience in Software-Defined Radio (SDR) and GNU Radio frameworks.

The session featured an insightful lecture and practical demonstrations by Mr. S. Raja, Product Development Manager at Silicon Systems, who served as the Chief Guest. Under his expert guidance, participants explored real-time transmission and reception of signals, signal processing techniques, and custom flowgraph design using GNU Radio. With 31 enthusiastic participants, the course provided an engaging platform for students to enhance their knowledge of SDR applications in modern wireless communication. Through interactive sessions and lab activities, attendees gained practical insights into designing and implementing radio communication systems using open-source tools.

The event concluded with a Q&A session, where students actively engaged with the resource person, discussing real-world applications and advancements in SDR technology. The department extends its gratitude to all involved in making this event a success, fostering innovative learning experiences in the field of wireless communication.

Building Blocks of Communication: Understanding Childhood Speech, Language, and Hearing Development in Normal, Deviated, and Age-Related

The Department of Electronics and Communication Engineering (EC) successfully conducted an online ISR activity titled “Building Blocks of Communication: Understanding Childhood Speech, Language, and Hearing Development in Normal, Deviated, and Age-Related Disorders” on January 27, 2025, from 7:00 PM to 8:00 PM via Google Meet. This national-level session, aligned with SDG 3 (Good Health and Well-being), SDG 4 (Quality Education), SDG 5 (Gender Equality), SDG 11 (Sustainable Cities and Communities), and SDG 17 (Partnerships for the Goals), aimed to enhance awareness about speech, language, and hearing development in individuals across different age groups.

Event Overview

📌 Resource Person: Ms. R. Sangeetha, Audiologist & Speech Therapist, Anchal Hearing Care, Tirupur

📌 Organized For: Professionals, educators, and caregivers

📌 Participants: 40 external faculty members and 30 other attendees

📌 Key Organizers:

🔹 Dr. Indra J (Convenor)

🔹 Mr. Pradeep Kumar G (Co-Convenor)

Key Takeaways

🔹 Understanding Normal vs. Deviated Speech & Language Development – Explored typical milestones and variations in childhood communication.
🔹 Early Diagnosis & Intervention – Importance of early screening for speech and hearing disorders to improve developmental outcomes.
🔹 Age-Related Communication Disorders – Addressed speech and hearing challenges in the elderly and strategies for effective management.
🔹 Role of Audiologists & Speech Therapists – How professionals can support individuals with speech delays, hearing loss, and communication impairments.

Impact and Feedback

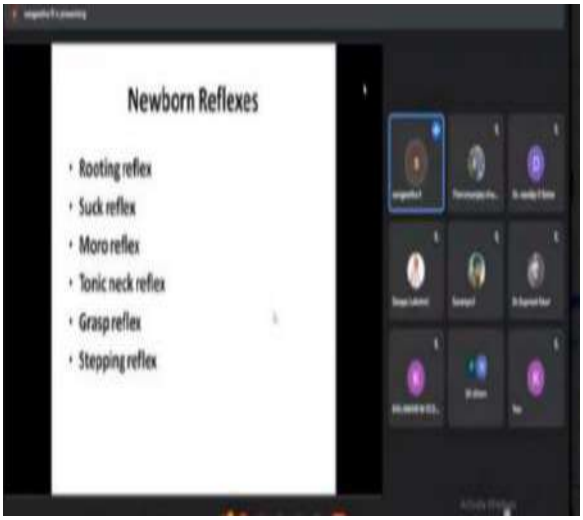
✅ Raised awareness on the importance of early intervention in speech and hearing development.

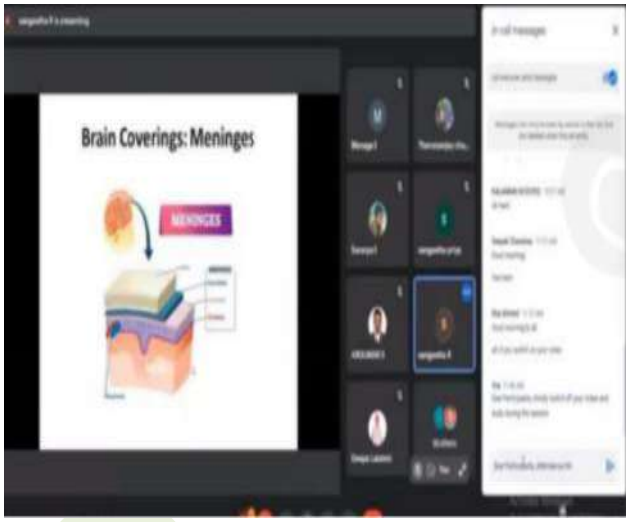
✅ Provided practical insights into identifying and managing speech and language disorders.

✅ Encouraged interdisciplinary collaboration between educators, healthcare professionals, and speech therapists.

✅ Engaged participants in an interactive Q&A session, fostering discussions on improving communication accessibility.

This session reinforced KPRIET's commitment to knowledge sharing and community engagement, empowering attendees with practical strategies to enhance speech and language development across various age groups.





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- K. Balasamy, & V. Seethalakshmi. (2025). HCO-RLF: Hybrid classification optimization using recurrent learning and fuzzy for COVID-19 detection on CT images. Biomedical Signal Processing and Control, 100, 106951. https://doi.org/10.1016/j.bspc.2024.106951.
- S. Allwin Devaraj, D. Magdalin Mary, P. Kannan, S. Esakki Rajavel, Cynthia Anbuselvi Thangaraj, K. B. Gurumoorthy & Blanie Scrimshaw William. (2024). A Modified 2:1 Multiplexer-Based Low Power Ternary ALU for IoT Applications. Journal of Engineering Science and Technology Review, 17(5), November 2024. [Scopus Indexed].
- K. B. Gurumoorthy, A. Arunraja, Cynthia Anbuselvi Thangaraj, R. Chandru, S. Esakki Rajavel, S. Allwin Devaraj (2024). Design of monopole circular patch antenna based on DGS for UWB applications. Antennas for Industrial and Medical Applications with Optimization Techniques for Wireless Communication, 16–32. https://doi.org/10.1201/9781003560487-2.
- D. Kalpanadevi; S. Nandhini Devi; Silas Stephen D; Sunita Jadhav; P M D Ali Khan; Muralidharan J (2024). Temperature variation modelling in mushroom growing hall with Ian-bidirectional GRU model. 2024 4th International Conference on Sustainable Expert Systems (ICSES), 1050–1055. https://doi.org/10.1109/icses63445.2024.10763227.

- Archana B, K. Kalirajan. (2024). An Intelligent Magnetic Resonance Imaging-Based Multistage Alzheimer's Disease Classification Using Swish-Convolutional Neural Networks. Medical & Biological Engineering & Computing, November 2024. [SCI Indexed, Q1]. https://link.springer.com/article/10.1007/s11517-024-03237-2.
- Amanullakhan M, Sridhar P, Indra J, Sridevi R. (2024). BCD-TransNet: Automatic Breast Cancer Detection and Classification Using Transfer Learning Approach. Technology and Health Care, December 25, 2024. [SCI Indexed, Q3]. https://doi.org/10.1177/09287329241296354.
- K. Murugan, R. Dhivya, C. N. Sangeetha, & Manjunathan Alagarsamy. (2025). Design and Analysis of a Highly Sensitive Terahertz Biosensor for Early Cancer Detection Using Silver Surface Plasmon Resonance Metasurfaces and Elastic Reflection Starling Murmuration Equivariant Quantum Decision Networks. ECS Journal of Solid-State Science and Technology, 14(1), January 2025. [SCI, Impact Factor: 1.8, Q2]. https://iopscience.iop.org/article/10.1149/2162-8777/ada4da.
- Caleb S, John Justin Thangaraj S, Padmapriya G, Nandhini T J, Finney Daniel Shadrach & Latha R. (2025). Revolutionizing fault detection in self-healing network via multi-serial cascaded and adaptive network. Knowledge-Based Systems, 309, January 2025. [SCI Indexed, Impact Factor: 7.2, Q1]. https://www.sciencedirect.com/science/article/pii/S0950705124013662.
- N. Sabiyath Fatima, G. Deepika, Arun Anthonisamy, R. Jothi Chitra, J.Muralidharan, Manjunathan Alagarsamy & Kummari Ramyasree. (2025). Enhanced Facial Emotion Recognition Using Vision Transformer Models. Journal of Electrical Engineering & Technology, 29 January 2025. [SCI Indexed].
- G. Balamurugan, K.B. Gurumoorthy, S. Suganyadevi, K. Balasamy. (2025). Improving the Traffic Prediction Process Efficiency Using Novel Cohesive

Model. Computers and Electrical Engineering, Vol. 123, pp. 110082, January 2025. [SCI Indexed, Q2]. https://www.sciencedirect.com/science/article/pii/S0045790625000254.

- Amsaveni Govindasamy, Ponmurugan Ponnusamy, Punietha Prabhu, Ramesh S. M. (2025). Deep Lichen-Net: Clasificación y Segmentación Automática de Líquenes en los Ghats Occidentales de India Basada en Aprendizaje Profundo. BLACPMA - ISSN 0717 7917, Published by MS-EDITIONS, Volume 24, Number 3, January 2025 (Online). [SCI Indexed, Q2]. DOI: https://doi.org/10.37360/blacpma.25.24.3.24.
- G. Naga Chandrika, Rini Chowdhury, Prashant Kumar, Sangamithrai K, Glory E, M. D. Saranya (2025). Conjugated Pixel Grouping Scheme for COVID-19 Detection from X-Ray Images Using Adversarial Learning. Journal of Electronics, Electromedical Engineering, and Medical Informatics, Vol. 7, No. 1, January 2025. [Scopus Indexed, Q4]. Link: https://www.scopus.com/authid/detail.uri?authorId=57216902192.
- Ishwarya Niranjana M, Jeya Daisy I, Saranya M D, Gayathree K, Awadhesh Chandramauli, & Raminder Singh. (2024). Nano technology - Infused Azolla Manure: Improving Rice Stem Thickness in Sustainable Agriculture. E3S Web of Conferences, 588, 01012. https://doi.org/10.1051/e3sconf/202458801012.
- Poovi Nandhini S, Mark Richard M, Ramesh S. M., S. Preethi, & S. Rohit. (2024). Quantum Networking-based smart jacket for monitoring the health conditions of patients using IOT. Advances in Computational Intelligence and Robotics, 275–290. https://doi.org/10.4018/979-8-3693-8135-9.ch016 .
- J. Indra, G.U. Chittesh, K. Dhanushpriya, Elayabharathi, K., & Gokula Krishnan, S. (2024). Design and development of Smart Chair for physically challenged persons. Challenges in Information, Communication and Computing Technology, 702–706. https://doi.org/10.1201/9781003559092-121.
- R. Jaikumar, S.A. Sanjai, C. Sanjay, C., S. Syed Abdul Kalam, & P. Nithish Kumar. (2024). Ai-powered weed bot for Sustainable Precision Farming.

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- R. Rathiya, M. Kalamani, R.P. Narmadha ., L. Sreenivasa Perumal, & R. Kalpana. (2025). Performance evaluation of children at risk for schizophrenia using ensemble learning. Smart Factories for Industry 5.0 Transformation, 269–281. https://doi.org/10.1002/9781394200467.ch14
- R. Denslin Brabin, J. Muralidharan , Sharath Kumar Jagannathan and Ruth Ramya Kalangi (2024). AI-Enhanced Drug Discovery for Alzheimer's, AI-Driven Alzheimer's Disease Detection and Prediction. https://www.igi-global.com/chapter/ai-enhanced-drug-discovery-for-alzheimers/353409.

FACULTY& STAFF PARTICIPATION

S. No.	Name of the Faculty/Staff	Title of FDP/STTP/OFDP/ Conference/Online Course	Organization Name	Date
1	Mr. Muralidharan J	Temperature Variation Modelling in Mushroom Growing Hall with IAN-Bidirectional GRU Model	2024 4th International Conference on Sustainable Expert Systems (ICSES)	3/12/2024
2	Dr. Jai Shankar B	Motivation and Change Management	KPRIET	04/11/2024
3	Mr. Balamurali S	Special lab visit	IISC	08/11/2024
4	Mrs. Saranya M D	Nano technology - Infused Azolla Manure: Improving Rice Stem Thickness in Sustainable Agriculture	Euro-Asian Conference on Sustainable Nanotechnology, Environment,	08/11/2024

			& Energy (SNE2-2024)	
5	Mr. Balamurali S	VAC on Embedded Computing for IoT Systems	KPRIET	14/11/2024
6	Dr. Ramesh S M	4th DC Meeting	KPRIET	14/11/2024
7	Dr. Sathishkumar N	Collaborative Learning Tools for Digital Classroom	KPRIET	18/11/2024
8	Dr. Finney Daniel Shadrach S	Applied AI: Practical Implementations	KPRIET	18/11/2024
9	Dr. Venkatesh T	Collaborative Learning Tools for Digital Classroom	KPRIET	18/11/2024
10	Dr. Venkatesh T	IEEE 2nd International Conference on Advances in Computing, Communication and Information Technology (ICAICCIT-2024)	KPRIET	28/11/2024
11	Ms. Saranya M D	Learner Centered Education	KPRIET	28/11/2024
12	Mr. Balamurali S	IEEE Sensor Council sponsored seasonal school on “The Next-Gen Semiconductor Devices with collaboration of IoT Enabled Sensor Technology for Industry 6.0”	Vel Tech Rangarajan Dr. Sagunthala R&D; Institute of Science and Technology	02/12/2024

13	Dr. Kalirajan K	Future Perspectives of AI and Data Sciences: Algorithms and Applications	KPRIET	02/12/2024
14	Dr. Venkatesh T	AICTE Training And Learning (ATAL) Academy Faculty Development Program on Antenna & RF Components for Next Gen Wireless Applications	Kalaignar Karunanidhi Institute Of Technology	02/12/2024
15	Mr. Pradeep Kumar G	Emerging Trends in Wearable Device and The Future of Healthcare	KPRIET	09/12/2024
16	Dr. Jai Shankar B	Futuristic Development Through IIoT 5.0 with Integration of Sustainable goals	Nehru Institute of Engineering and Technology	09/12/2024
17	Dr. Prasad J	AICTE ATAL Faculty Development Program on Unlocking Potential of AI in VLSI System Design and IC Packaging	KPRIET	16/12/2024
18	Mr. Balamurali S	School Visit	SVN MHSS	26/12/2024
19	Dr. Prasad J	Fifth International conference on Advances in Electrical, Computing, Communications and Sustainable Technologies	Shankarachary a Technical Campus (SSTC)	09/01/2025

		(ICAECT 2025)		
20	Dr. Prasad J	one-week Faculty Development Program on Emerging Trends and Innovations in Biomedical Engineering: From Diagnostics to Marketable Solutions	Department of Biomedical Engineering, KPRIET.	27/01/2025

FACULTY PATENT PUBLICATIONS

S.No.	Faculty Name	Title of the Patent	Date of Publication
1	Dr. K. Murugan	Blockchain Enhanced adaptive control and fault Detection in IIoT Driven smart factories	01.11.2024
2	Dr. J. Prasad	Novel CNN approach (yolo v5) to detect plant diseases and estimation of nutritional facts for raw and cooked foods	08-11-2024
3	Dr.D.Venugopal	Blockchain and AI-Based Secure Voting System for Real-Time Election Monitoring and Fraud Prevention	14/11/2024
4	Dr. K. Murugan	Methods and compositions for enhancing plant stress tolerance through genetic modifications	15/11/2024
5	Ms. M. Supriya	Automated software debugging and optimization in cloud-based environments using ai-driven code analysis	22/11/2024

6	Dr. Gurumoorthy. K.B	Smart IoMT-Based Anomaly Detection System for Real-Time Health Monitoring	29/11/2024
7	Mr.Shanmugaraja T	Dynamic federated learning framework for privacy-centric ai in clous ecosystems	06/12/2024

FACULTY – WINTER INTERNSHIP

S. NO	Faculty Name	Company/Organization (Full Address)	Internship Period From	Internship Period To	Total No. of Days
1	Mr.S.Balamurali	ABB global services Ltd, Bangalore	06/01/2025	10/01/2025	5
2	Ms.M.D.Saranya	Wind Power Coimbatore Private Limited	02/01/2025	10/01/2025	10
3	Dr.J.Prasad	Tricom Technologies, Banglore	22/01/2025	28/01/2025	6
4	Dr.R.Jaikumar	Tricom Technologies, Banglore	22/01/2025	28/01/2025	6
5	Dr.N.Sathishkumar	Quatek Technologies India Private Limited, Madurai	20/01/2025	25/01/2025	6
6	Dr.T.Venkatesh	Quatek Technologies India Private Limited, Madurai	20/01/2025	25/01/2025	6
7	Dr.K.Murugan	ABB Global Industries , Banglore	07/01/2025	10/01/2025	4
8	Mrs.S.Priyadharshini	Enthu Technology , Coimbatore	09/01/2025	13/01/2025	5
9	Dr.K.B.Gurumoorthy	Tricom Technologies, Banglore	22/01/2025	28/01/2025	6
10	Dr.T.Jagadesh	Quatek Technologies India Private Limited, Madurai	20/01/2025	25/01/2025	6
11	Mr.S.Satheeshkumar	ABB Global Industries , Banglore	07/01/2025	10/01/2025	4

12	Dr.J.Muralidharan	Smart Tec Engineering	20/12/2024	26/12/2024	5
13	Mr.D.Ram Nivas	Kone Elevators	06/01/2025	31/01/2025	20

ONE CREDIT COURSE / VALUE ADDED COURSE

S.NO	Date	Course Title	Resource Person	Year of Students
1.	06.11.2024 & 07.11.2024	Demystifying the Smartphone Diagnostics	Mr. Sajith & Mr. Karthikeyan, New Technology Solutions, Coimbatore.	3rd Year ECE Students
2.	08.11.2024 & 09.11.2024	Demystifying the Smartphone Diagnostics	Dr. B. KrishnaKumar & Mr. R. Karthik, New Technology Solutions, Coimbatore.	2nd Year ECE Students
3.	29.11.2024 & 30.11.2024	Matlab to Python for Industrial Automation	Mr. Karthickraja Thiruppathi,Embedded Automotive Software Test Engineer, Robert Bosch, Coimbatore.	2nd Year ECE Students
4.	28.11.2024 & 29.11.2024	GNU Radio and SDR based Transmission and reception	Mr. Raja Product Development Manager, Silicon Systems, Kalapatti, Coimbatore.	3rd Year ECE Students
5.	29.11.2024 & 30.11.2024	Hands on Training on PCB Schematic to Prototyping	Mr. Elangovan R Technical Engineer, Enthu Technology Solutions India Pvt Ltd, Coimbatore	2nd Year Students

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.	D.Buvan Ganesh - III EC A	1st prize with Cash prize ₹ 1,500	Codeathon	Sri Ramakrishna Institute of Engineering and Technology
2.	Shanmitha - III EC B	1st Prize in Poster Presentation	ZINNIA' 24	Government College of Engineering, Erode
3.	M. Abe Roshan - III EC A Lipnee Anand - III EC A	1st Prize with cash of ₹ 3000 in 36 Hour Medical Device Hackathon	MEDHA 2024 National Level Hackathon	BETIC IIT Bombay
4.	K.Indhumathi -II EC S.Santhiya -III EC A.Shreeharini -III EC I.shivasakthi -III EC V.Udaya -III EC A.Oviya -III EC	I Prize	Genesis 2k 24 Paper presentation	Şri Ramakrishna Engineering collage

5.	S.Kishore Kumar-II EC	I Prize, Cash	Genesis 2k 24 Paper presentation	Şri Ramakrishna Engineering College
6.	M.V.Jothisha -III EC A S.Dharshini -III EC A S.Kishore Kumar - III EC A	I Prize with Trophy	Paper Presentation INTER O FEST 2K25	Sri Shakthi Engineering College (AUTONOMOUS)
7.	Madhavan S -Alumini (ECE) Sreyas L A - I ECE C	I Prize with gold	Pushpak (Drone)	ARC Participated in Roboveda'24 National Level Technical Event at SNIST, Hyderabad
8.	P.Pravin - II EC	2nd Prize in RC Boat Race	Tathva'24 National Level Technical Even	NIT Calicut
9.	P.Pravin - II EC	2nd Prize in ALBATROSS (RC PLANE)	Tathva'24 National Level Technical Event	NIT Calicut
10.	K.Arunkumar -EC III	II Prize	Brianiacs	KPRIET
11.	T.N .Assel - ll EEE A.Harsanya -ll ECE S.Lakshnya -ll ECE	2rd Prize	ARC Participated in INTER O FEST 2K25 National Level Technical Event	Sree Sakthi Engineering College
12.	P.Pravin -II ECE M.Darshan -I CSE A	2nd Prize Silver	Pushpak (Drone)	ARC Participated in Roboveda'24 National Level Technical Event at SNIST, Hyderabad
13.	P.Pravin -II ECE	2nd Prize Silver	Sarvagami (ATV Race)	ARC Participated in Roboveda'24 National

				Level Technical Event at SNIST, Hyderabad
14.	P.Pravin -II ECE	2nd Prize Silver	Samanvayi (Cozmo)	ARC Participated in Roboveda'24 National Level Technical Event at SNIST, Hyderabad
15.	P.Pravin- II EC B	AQUA BOT 1st Prize with Gold	ARC Participated in VertechX'24 National Level Technical Event	MVJ College of Engineering, Bengaluru, Karnataka.
16.	Team 1:M.Abe Roshan Harshathkumar Keerthana Lipnee Anand III-EC A Team 2: Akshitha Poovezhil Macario T.S.Madhumita Shanmitha III-EC B	Prize: Each team Rs.10000	HACK4GOOD 2024	NIT Calicut, Kerala
17.	P.Balaji IV-EC	South west Zone Inter University Karate Championship-2024	Karate-Men (Kumite)	LNCT University,Bhopal
18.	K.Lalith - EC (Alumni)	1st prize with Gold	Robo Oceana Shaastra'25	Indian Institute Of Technology - Madras,Chennai
19.	T.G.Akil Krishna -III EC	1st prize with Gold	Petrichor'25 National Level Technical Event	Indian Institute Of Technology - Palakad, Kerala

20.	S.Pasupathi - III EC	2nd Prize with silver	Robo Oceana Shaastra'25	Indian Institute Of Technology - Madras,Chennai
21.	T.G.Akil Krishna -III EC	2nd Prize with silver	Riptide - 2nd Wave Shaastra'25	Indian Institute Of Technology - Madras,Chennai
22.	T.G.Akil Krishna - III EC P.Pravin -II EC	3rd Prize with Bronze	Robo Oceana Shaastra'25	Indian Institute Of Technology - Madras,Chennai
23.	S.Madhavan - EC (Alumni)	3rd Prize with Bronze	Petrichor'25 National Level Technical Event	Indian Institute Of Technology - Palakad, Kerala
24.	Mr.M.Abe Roshan Ms.S. Keerthana Ms. Lipnee Anand III-EC	Cash	HACK4GOOD	National Institute of Technology Calicut,Kozhikode,Kerala.

IIPC ACTIVITIES

Industrial Visits to Signal & Telecommunication Workshop

The students of II ECE B embarked on an industrial visit to the Signal and Telecommunication Workshop on November 4, 2024, accompanied by Dr. T. Jagadesh and Mr. D. Ram Nivas.

The visit provided students with practical exposure to railway signalling and telecommunication systems, essential for ensuring safe and efficient train operations. Industry experts explained various signalling mechanisms, interlocking systems, and modern communication protocols used in railway networks. Students also gained insights into automation in railway signalling, fault detection techniques, and the role of embedded systems in real-time communication.

This visit proved to be a valuable learning experience, helping students connect their theoretical knowledge with real-world applications in the field of electronics and communication engineering.

Industrial Visit to Kaynes Technology India Limited and LeePra Technologies Private Limited

On November 8, 2024, the students of II ECE B, accompanied by Mr. D. Ram Nivas, visited Kaynes Technology India Limited and LeePra Technologies Private Limited as part of their industry exposure program.

At Kaynes Technology India Limited, students explored PCB manufacturing, surface mount technology (SMT), embedded system design, and IoT-based applications. Experts demonstrated electronic component assembly, quality testing, and automation in electronics manufacturing, providing valuable insights into modern industry practices.

The visit to LeePra Technologies Private Limited introduced students to industrial automation, electronic product design, and advanced testing methodologies. The team gained knowledge about automated testing equipment, embedded software development, and system integration, helping them understand the role of electronics in automation and smart technology.

This visit offered students first-hand exposure to the latest trends and technologies in electronics manufacturing and embedded systems, bridging the gap between academic learning and industry applications.

Industrial Visit to Kerala Electrical & Allied Engg. Co. Ltd and Traco Cable Company Limited

The students of II ECE A embarked on an enriching industrial visit to Kerala Electrical & Allied Engineering Co. Ltd (KEL) and Traco Cable Company Limited on November 9, 2024. The visit was organized to provide students with practical exposure to electrical and allied engineering industries.

Accompanied by Dr. V. Seethalakshmi and Dr. N. Sathishkumar, the students had the opportunity to witness firsthand the manufacturing processes, quality control measures, and technological advancements in electrical components and cable production. Experts at both industries explained the intricacies of transformer manufacturing, switchgear production, and cable insulation techniques, giving students valuable insights into industry standards and real-world applications of their academic curriculum.

The visit was highly informative and interactive, offering students a deeper understanding of industrial operations, automation techniques, and career prospects in the electrical and electronics sector. The department extends its gratitude to KEL and

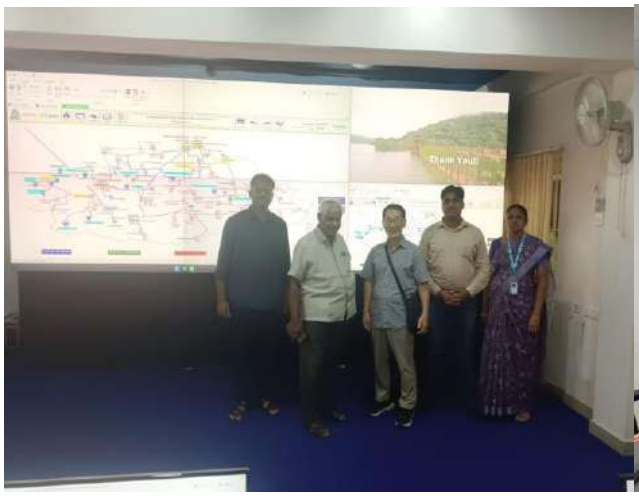
Traco Cable Company Limited for their hospitality and for facilitating this engaging learning experience.

Industry Visit to Axis Global Automation and Caliber Interconnect Company Limited

On November 9, 2024, Dr. M. Kalamani and Mr. Kyung-tae Kim visited Axis Global Automation and Caliber Interconnect Company Limited as part of an initiative to explore advancements in automation and semiconductor technology.

At Axis Global Automation, they gained insights into cutting-edge industrial automation solutions, PLC programming, robotics, and control systems. The discussions focused on the integration of AI and IoT in automation and how these innovations are shaping the future of industrial processes.

The visit facilitated meaningful interactions with industry experts, fostering potential collaborations for research and development. The insights gained from this visit are expected to benefit students and researchers, bridging the gap between academia and industry innovations.



Industry Engagements and Academic Collaborations

The Department of Electronics and Communication Engineering (ECE) continues to strengthen its industry connections through faculty visits to leading organizations, fostering internship opportunities, research collaborations, and curriculum enhancements.

On November 15, 2024, Mr. M. Singaram visited the CII Edu-Tech Expo at CODISSIA, Coimbatore, where he explored the latest advancements in educational technology and industry-driven learning solutions. The expo provided insights into emerging trends in engineering education, skill development programs, and industry-academia collaborations.

On November 26, 2024, Mr. M. Singaram visited Indofil Industries Ltd., Coimbatore, to discuss student internship opportunities, including options for paid internships. The discussions aimed at providing students with hands-on industry exposure in chemical and process industries, enhancing their practical knowledge and career prospects.

On November 30, 2024, Dr. K. Kalirajan visited VACT Technologies, Coimbatore, where discussions focused on student internships and integrating industry inputs into the curriculum and Board of Studies (BoS). This collaboration aims to align academic coursework with current industry requirements, ensuring students are equipped with relevant skills and knowledge.

On the same day, Dr. K. Kalirajan also visited Prashan Medical Technologies, Coimbatore, engaging in discussions on industry research, consultancy projects, and

incorporating industry insights into the curriculum/BoS. The visit emphasized bridging the gap between biomedical technology and academic research, paving the way for potential collaborative projects and innovations in medical electronics.

These visits mark important milestones in the department's commitment to enhancing industry-academia partnerships, providing students with real-world exposure, skill development opportunities, and research engagements in cutting-edge technologies.

MoU and MoA Signed for Academic-Industry Collaboration

The Department of Electronics and Communication Engineering (ECE) has taken a significant step toward strengthening industry-academia collaboration by signing two key agreements in November 2024.

On November 21, 2024, the department signed a Memorandum of Understanding (MoU) with Salzer Electronics to facilitate student internships, consultancy projects, and collaborative research initiatives. This partnership aims to provide students with hands-on experience in electrical and electronic manufacturing, bridging the gap between academic learning and industry applications.

Further, on November 25, 2024, the department entered into a Memorandum of Agreement (MoA) with IEP Solutions to offer student internships, specialized training programs, and project opportunities. This collaboration will enhance students' technical

expertise in emerging technologies, industrial automation, and embedded systems, equipping them with industry-relevant skills.

These agreements mark a significant milestone in fostering industry partnerships, enabling students to gain practical exposure, skill development, and career opportunities in the dynamic field of electronics and communication engineering.

On November 23, 2024, Dr. T. Jagadesh and Dr. B. Jaishankar visited three prominent companies—Elmer LED, Instrument Calibration and Test Centre, and Grindex Engineering Company—to explore potential student internships, industrial visits, and consultancy opportunities.

At Elmer LED, discussions centered on internship opportunities for students and consultancy prospects in PCB design and manufacturing. The visit provided valuable insights into the latest trends in LED technology, circuit design, and product development, which could enhance student learning and research activities.

During their visit to the Instrument Calibration and Test Centre, the faculty engaged in discussions regarding internship programs and industrial visits, aiming to provide students with hands-on experience in calibration, testing, and quality assurance—critical aspects in the electronics and instrumentation industry.

At Grindex Engineering Company, the focus was on various consultancy projects, fostering potential collaborations between academia and industry. Discussions covered precision engineering, automation solutions, and product development, paving the way for real-world problem-solving initiatives and joint research opportunities.

These visits mark a significant step toward strengthening academic-industry partnerships, ensuring that students gain practical exposure, industry knowledge, and research opportunities in emerging technological fields.

Faculty Visit to Radio Astronomy Centre and ITI Limited

As part of strengthening academic-industry collaborations and research exposure, Dr. N. Sathishkumar and Dr. T. Venkatesh visited two prestigious institutions—Radio Astronomy Centre, Ooty, on December 12, 2024, and ITI Limited, Kerala, on December 14, 2024.

At the Radio Astronomy Centre, Ooty, the discussions focused on radio telescope technology, signal processing techniques, and advancements in astronomical research. The visit provided insights into high-frequency signal reception, data analysis in radio astronomy, and cutting-edge innovations in space communication technologies, paving the way for potential research collaborations in these domains.

During their visit to ITI Limited, Kerala, they explored telecommunication and electronics manufacturing advancements. Discussions covered the latest trends in telecom infrastructure, electronic component manufacturing, and opportunities for student internships and collaborative projects. The visit aimed at integrating industry insights into the curriculum, ensuring students gain exposure to real-world applications of communication technologies.

These visits serve as a stepping stone for future research collaborations, industry-academia knowledge exchange, and practical training opportunities for students, aligning with the department's vision of enhancing technical education and industrial partnerships.

Industry Collaboration with Spark Drive Automation

On December 13, 2024, Dr. K. Kalirajan visited Spark Drive Automation, Coimbatore, to explore opportunities for industry research and consultancy projects. The discussions focused on collaborative research in automation technologies, industrial drive systems, and control solutions. The visit aimed at strengthening industry-academia partnerships, enabling faculty and students to engage in real-world

problem-solving, product development, and innovation in automation and embedded systems.

This initiative is expected to enhance research opportunities, encourage technology-driven projects, and provide students with practical exposure to industrial automation and control engineering.

Industry Engagement with Inno Mektronic

On December 13, 2024, Mr. S. Balamurali visited Inno Mektronic, Coimbatore, to discuss consultancy services provided to the industry.

The discussions focused on collaborative projects, industry-oriented problem-solving, and technical consultancy in areas such as mechatronics, automation, and embedded systems. This engagement aims to enhance knowledge exchange between academia and industry, fostering opportunities for real-world applications, product development, and innovation.

The visit marks a step forward in strengthening industry-academia collaborations, ensuring that the expertise of faculty members is leveraged to address industry challenges while providing students with exposure to cutting-edge technologies.

Industry Collaboration with Pioneer Circuits

On December 13, 2024, Mr. S. Balamurali visited Pioneer Circuits, Coimbatore, to discuss consultancy services provided to the industry and potential student internship opportunities.

The discussions focused on technical consultancy in PCB design, manufacturing processes, and electronic circuit optimization. Additionally, opportunities for student internships were explored, aiming to provide hands-on training in printed circuit board (PCB) fabrication, testing, and quality assurance.

This collaboration is expected to enhance industry-academia interactions, allowing students to gain practical exposure to real-world manufacturing environments while also enabling faculty to contribute their technical expertise to industry-driven projects.

Strengthening Industry-Academia Ties through Faculty Visits

The Department of Electronics and Communication Engineering (ECE) continues its efforts to enhance industry collaborations by engaging with leading companies to discuss student internships and consultancy opportunities.

On December 13, 2024, Dr. B. Jaishankar and Mr. M. Ramesh visited multiple companies, including:

- Pragati Hi-Tech Circuits, where they discussed student internship opportunities and the scope for consultancy activities in PCB design and manufacturing.
- Electro Track, where the discussions focused on student internship programs to provide practical exposure in electronics manufacturing.
- RBV Electronics, where they explored various consultancy projects, aiming to bridge the gap between academic research and industrial applications.
- Endeavourtronics, where they discussed student internships and consultancy opportunities in PCB-related projects.

On the same day, Mr. G. K. Jakir Hussain visited Spartk Drives and Automation, discussing internship opportunities for students to gain hands-on experience in industrial automation and drive systems.

On December 23, 2024, Dr. B. Jaishankar and Mr. M. Ramesh continued their industry outreach with visits to:

- ECI Systems Private Limited, where they discussed internship programs for students in embedded systems and electronics manufacturing.
- Vasantha Advanced Systems, exploring internships and consultancy activities in PCB design and testing.

- Balaji Electronics, where they discussed internships and potential consultancy projects in PCB-related technologies.

- 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.

Strengthening Industry-Academia Collaboration through Faculty Visits

The Department of Electronics and Communication Engineering (ECE) continues to expand its industry partnerships through faculty visits to leading companies, fostering opportunities for student internships, placements, curriculum development, and research collaborations.

On January 27, 2025, Dr. T.S.M. Ramesh visited Vetal HiTech Machines Pvt. Ltd., Coimbatore, where discussions focused on executive programs attended by industry professionals, integrating industry inputs into the curriculum/Board of Studies (BoS), and co-authoring research papers with industry experts. The collaboration aims to enhance skill-based learning, industry-relevant curriculum design, and joint research initiatives.

On the same day, Dr. T.S.M. Ramesh also visited Dev Enterprises, Coimbatore, to discuss industry inputs in curriculum/BoS and joint research publications. This engagement is expected to bridge the gap between academic research and industrial applications, ensuring students gain practical knowledge aligned with industry trends.

On January 29, 2025, Dr. M. Singaram visited Sinetec Automation Pvt. Ltd., Coimbatore, where discussions revolved around student internships, placements, and guest lectures/seminars by industry professionals. The visit aims to provide students with hands-on industrial exposure and career opportunities while fostering knowledge exchange between academia and industry experts.

Additionally, on the same day, Dr. M. Singaram visited Aishwarya Enterprises, Coimbatore, exploring internship and placement opportunities for students. The discussions aimed to facilitate industry-ready training programs, ensuring students are equipped with practical skills and employment opportunities in the evolving engineering sector.

These strategic industry engagements reaffirm the department’s commitment to enhancing technical education, research collaborations, and career prospects for students, creating a dynamic learning environment through industry-driven initiatives.