MANGALORE INSTITUTE OF TECHNOLOGY & ENGINEERING
(A Unit of Rajalaxmi Education Trust®, Mangalore)
Autonomous Institute affiliated to VTU, Belagavi, Approved by AICTE, New Delhi
Accredited by NAAC with A+ Grade & ISO 9001:2015 Certified Institution

Department of Electronics & Communication Engineering
(*Accredited by NBA*)

ELECTRONICS & COMMUNICATION STUDENT'S ASSOCIATION (ECSA)

ECSA
Electronics & Communication
Students' Association

ANNUAL REPORT

Academic Year 2024-25

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

(*Accredited by NBA*)

Preamble

The Department of Electronics and Communication Engineering fosters holistic development by encouraging students to participate in both curricular and extracurricular activities through its dedicated student forum, the Electronics & Communication Student's Association (ECSA). Established on April 16, 2009, ECSA serves as a dynamic platform where students can explore and enhance their skills beyond academics. Every student within the department is a member of the ECSA forum. ECSA provides abundant opportunities for students to discover and showcase their technical, presentation, and communication skills through a variety of events. These include invited talks and technical sessions by experts from academia and industry, workshops, aptitude sessions, GATE training, and more.

ECSA organizes a wide range of extracurricular activities that cater to various interests, promoting creativity, teamwork, and leadership among students. The forum regularly hosts cultural events, sports competitions, and social service initiatives, enabling students to unwind, showcase their talents, and contribute to the community. These activities provide a break from academic rigors and help students develop interpersonal skills, time management, and a sense of responsibility.

The forum also publishes a newsletter periodically, offering students a platform to express and share knowledge, while also providing a comprehensive overview of departmental activities and achievements by both staff and students. Additionally, ECSA honours class toppers and winners in various co-curricular activities with certificates of appreciation recognizing their achievement. Moreover, ECSA encourages student participation in intercollegiate competitions, where they can represent the department and gain exposure to diverse challenges and perspectives. Through ECSA students can pursue their passions and collaborate on innovative projects.

ECSA's commitment to student development extends to organizing leadership programs, personality development workshops, and team-building exercises, all of which equip students with essential life skills. By nurturing a well-rounded personality through these extracurricular activities, ECSA ensures that students are not only academically proficient but also prepared to face the complexities of the professional world with confidence and poise.

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List of Activities During the AY 2024-25

Activity-1

Title	:	**Hands-on Workshop on "Driving Forward: Radar Innovations for Next-GeN ADAS"**
Resource Person	:	**Ms. Vandana G S,** **Head R&D, Sri Shasha Prayathi Technologies, STEP, NITK Surathkal, Mangalore.**
Date	:	**27/09/2024 & 28/09/2024**

The Department of Electronics & Communication Engineering in association with MITE ISTE chapter organized a Hands-on Workshop on "Driving Forward: Radar Innovations for Next-GeN ADAS" on 27.09.2024 & 28.09.2024. The objective of this event was to boost the knowledge in the domain of Advanced Driving Assistance System using RADAR technology and also to explore RADAR and LIDAR technology for future mobility.

About the Resource Person:

Ms. Vandana G S, the resource person for the hands-on workshop on "Driving Forward: RADAR Innovations for Next-Gen ADAS," is the Head of R&D at Sri Shasha Prayathi Technologies Pvt. Ltd., STEP, NITK Surathkal. With a strong academic background in Electronics and Communication Engineering, she holds a B.Tech from VTU and an M.Tech in Digital Electronics and Communication from N.M.A.M Institute of Technology. Ms. Vandana has made significant contributions to radar technology, with 15 peer-reviewed IEEE conference papers and two journal publications. Her expertise lies in radar signal processing, real-time radar applications, and target tracking. She has also been instrumental in five defence-related projects, leveraging her deep knowledge in radar systems to tackle advanced challenges in the field.

About the Event:

The workshop focused on exploring innovative ideas, technologies, and applications that push the boundaries of radar systems. It introduced the latest advancements in radar technology, explored novel radar applications and brainstormed how radar can be used in new domains such as autonomous vehicles. The event sponsored by the Department of Electronics & Communication Engineering and MITE ISTE chapter contributed to a productive learning experience.

The first day started with an introduction to RADAR and detailed about its fundamental principles, and applications. The session on the Radar Range Equation and Types of Radar provided an indepth exploration of the various classifications of radar systems. The participants initially learnt about the types of radar signals, their characteristics, and the signal processing techniques used to interpret and analyze radar data. On the second day, participants learned about the fundamental concepts, operational principles, and practical applications of FMCW radar, emphasizing its growing relevance in various industries, particularly in automotive and industrial settings. The session on "Radar Sensors Operating at Different Frequencies" presented an overview of the challenges associated with different frequency radar systems. The session on "Overview of ADAS, MMWave Lidar, and Radar in ADAS Applications" provided participants with a comprehensive understanding of Millimeter Wave (MMWave) LIDAR and RADAR technologies within these systems.

Key Outcomes:

The workshop provided students with an in-depth understanding of the fundamentals of RADAR, equipping them with both theoretical knowledge and practical skills. Participants benefited from hands-on training in MATLAB, which enabled them to grasp radar equations and signal processing algorithms effectively. The sessions encouraged critical thinking by presenting real-world challenges in radar signal processing and fostering the development of innovative solutions. Additionally, students gained valuable real-time experience in radar sensor data collection, processing, and analysis. Overall, the workshop offered insightful exposure to both the technical and applied aspects of radar technology, inspiring further exploration and innovation in the field.

Poster of the Workshop

Ms. Vandana G S, presenting the hands-on session on "Driving Forward: Radar Innovations for Next-GeN ADAS"

Ms. Vandana G S, delivering the key foundational concepts on "Driving Forward: Radar Innovations for Next-GeN ADAS"

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Activity - 2

Title : **Invited Talk on "Ethical Decision Making"**

Resource Person : **Dr. Amith Donald Menezes, Assistant Professor, Dept. of MBA, MITE**

Date : **21/11/2024**

The Department of Electronics & Communication Engineering organized an insightful and thought-provoking invited talk on the topic "Ethical Decision Making" on 21.11.2024. The event was specifically tailored for the pre-final year and final year students of the department, aiming to prepare them for the ethical challenges they might encounter in their academic and professional journeys. Held at 11:30 AM in Auditorium 2, located on the 2nd Floor of the Main Block, the session witnessed enthusiastic participation from students and faculty members alike. The primary goal of the talk was to enlighten students about the importance of ethics in decision-making processes, particularly in the field of engineering.

About the Resource Person:

The session was graced by Dr. Amith Donald Menezes, an accomplished academician and researcher with 23 years of experience. Dr. Menezes is an Assistant Professor and holds multiple qualifications, including a Ph.D., MBA, MCom., and BBA, and has cleared NET-Management. His areas of interest include Banking and Finance, and he has an extensive teaching portfolio, having handled subjects such as Accounting for Managers, Management Accounting, Financial Management, Financial Services, and Strategic Management. Dr. Menezes has attended 10 international and 38 national conferences and has a strong publication record.

About the Event:

In a world increasingly driven by technology, engineers often face scenarios that demand a fine balance between innovation and ethical responsibility. The session was designed to:

- Highlight the role of ethics in engineering and technology development.
- Provide frameworks and tools for ethical decision-making.
- Encourage critical thinking when confronted with moral dilemmas.

- Motivate students to prioritize integrity and accountability in their professional conduct.

Dr. Menezes began his talk by emphasizing the evolving nature of ethical challenges in the 21st century, particularly in the context of advancements in Artificial Intelligence, Machine Learning, and the Internet of Things. He elaborated on how these technologies, while revolutionary, pose significant ethical concerns, such as data privacy, algorithmic bias, and environmental impact.

Key highlights of the session included:

Introduction to Ethical Decision-Making Frameworks: Dr. Menezes introduced models like the Utilitarian Approach, the Rights-Based Approach, and the Virtue Ethics Framework. He explained how these frameworks could guide engineers in making balanced and morally sound decisions. Real-world case studies were presented to illustrate ethical dilemmas faced by engineers. These included:

- The implications of designing surveillance technologies.
- Balancing cost reduction with safety in manufacturing.
- Ethical concerns in handling user data for software applications.

The talk concluded with an engaging Q&A session where students posed questions about their concerns regarding ethical conflicts in specific engineering scenarios. Dr. Menezes' insightful responses provided clarity and guidance.

The event witnessed active participation from the students, with over 200 attendees filling the auditorium. Students expressed their appreciation for the relevance of the topic and the practical insights shared. Many noted that the session gave them a new perspective on approaching ethical challenges in their projects and future workplaces.

The invited talk on "Ethical Decision Making" was a resounding success, achieving its objective of instilling awareness and responsibility among budding engineers. The Department of Electronics & Communication Engineering is committed to organizing more such events to ensure

students are well-equipped to contribute ethically and innovatively to society. The department extends its heartfelt gratitude to Dr. Amith Donald Menezes for his valuable contribution and to all the students and faculty members who made the event a grand success.

Key Outcomes:

The invited talk on "Ethical Decision Making" successfully heightened students' awareness of the ethical responsibilities inherent in engineering practice. Participants gained a strong understanding of various ethical frameworks and how to apply them in real-world scenarios, especially within emerging technologies like AI and IoT. The session encouraged critical thinking, fostering a mindset of integrity, accountability, and informed decision-making. Students left with a deeper appreciation of the importance of ethics in both academic projects and future professional roles. Overall, the event equipped attendees with practical tools to navigate ethical challenges confidently and responsibly.

Poster of the Workshop

Dr. Amith presenting the session on Ethical Decision Making

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Activity – 3

Title	:	**Hands-on Workshop on "Machine Learning from Basics to Implementation"**
Resource Person	:	**Dr. Subramanya Bhat** **Associate Professor, Department of E&CE, NMAMIT, Nitte**
Date	:	**27/11/2024**

The Department of Electronics & Communication Engineering organized a Hands-on Workshop titled "Machine Learning from Basics to Implementation" on 27.11.2024. The objective of the event was to provide participants with a strong foundation in machine learning concepts and hands-on experience in implementing ML algorithms for real-world data processing and classification tasks. It aimed to enhance their problem-solving abilities and equip them with practical skills in AI and ML model development.

About the Resource Person:

Dr. Subramanya Bhat, obtained his Ph.D from VTU Belagavi in the field of Electrical and Electronic Engineering Sciences in the year 2018 for the thesis titled "DSP Based Implementation of Buck-Boost Converter System". He has 18 years of teaching experience and 2 years of Industry experience at Adithya Birla Group. He got many Best paper & Best Teacher Awards during his teaching career. He got STTP grant of Rs. 3 Lakh from AICTE for "Advanced Topics of Machine Learning and its Applications in Engineering and Technology". He got an ISRO grant of Rs. 75,000/- for conducting FDP. He organized many FDPs and workshops for Faculty and Students. He published12 papers in the International & National Journals, 19papersInternational & National Conferences all over India. Published papers in peer reviewed journals like Elesvier, Springer and Inderscience. Also published 02 book chapters in Springer. Presently Guiding Four Research Scholars in Machine Learning Applications to Battery Management and Machine Learning Applications for Basic Sciences. Narosa Publishers, New Delhi accepted to publish a book authored; titled "Machine Learning –A Simplified Approach". He is a reviewer for international Journals and conferences. He delivered many technical talks in the area of signal processing, power

electronics and Image processing. He is serving as Reviewer for Inspire Awards for High school students' projects from National Innovation Foundation- Autonomous Body of Department of Science & Technology (DST), Govt. of India. He served as Judge for the event "TOYCATHAN" organized from Ministry of Education, Ministry of MSM, Ministry of Women and Child development, Ministry of Textiles, Govt. of India. This was a Govt, initiative for developing Toys for Make in India. His areas of interest are Signal processing, Power Electronics and Machine Learning.

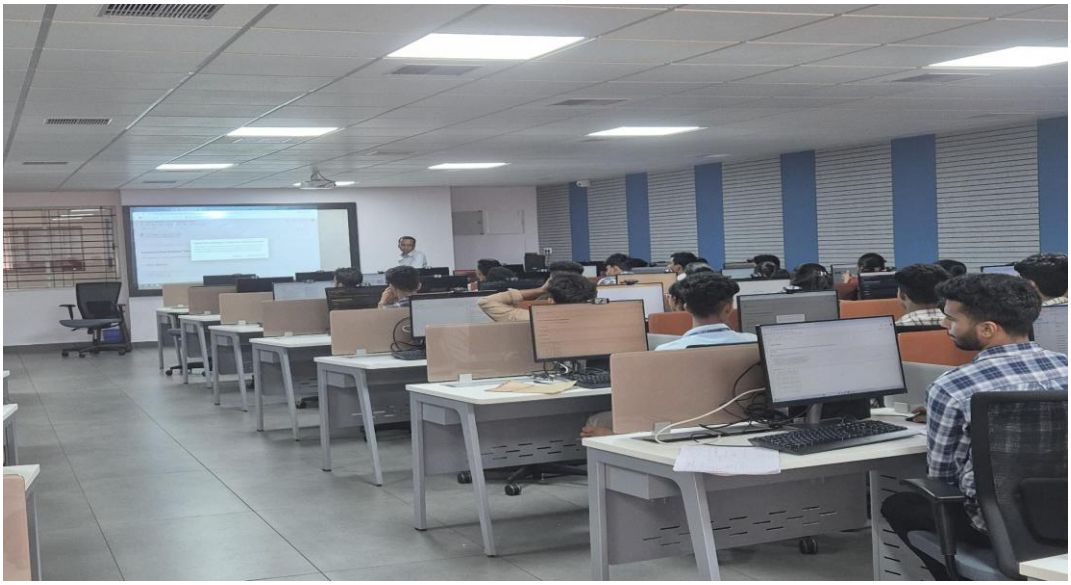
About the Workshop:

The event was aimed at providing a comprehensive introduction to machine learning (ML) concepts and hands-on implementation practices. The resource person, Dr. Subramanya Bhat, brought his extensive expertise to guide participants through the fundamentals and applications of ML in the field of data processing. The primary objective of the workshop was to equip participants with a solid understanding of artificial intelligence (AI) and ML concepts a Hands-on exposure to data pre-processing, model training, and evaluation techniques and ability to approach real-world problems through ML algorithms and data classification models.
The workshop began with an introduction to machine learning, offering an overview of its relevance in modern technology and its wide range of applications across industries. Participants gained valuable insights into the foundational principles of artificial intelligence and machine learning, setting the stage for the rest of the session. Key topics covered included data pre-processing, where participants learned how to prepare and clean data for efficient analysis, and an in-depth exploration of prominent machine learning algorithms such as linear regression, decision trees, K-Nearest Neighbors (KNN) regression, and neural networks. The importance of model training and evaluation techniques, including validation and performance metrics, was also emphasized. Hands-on sessions formed a significant part of the workshop, featuring real-world case studies that allowed participants to directly implement the discussed machine learning algorithms. They were designed to foster critical thinking and problem-solving skills, enabling attendees to approach challenges independently and develop effective solutions.

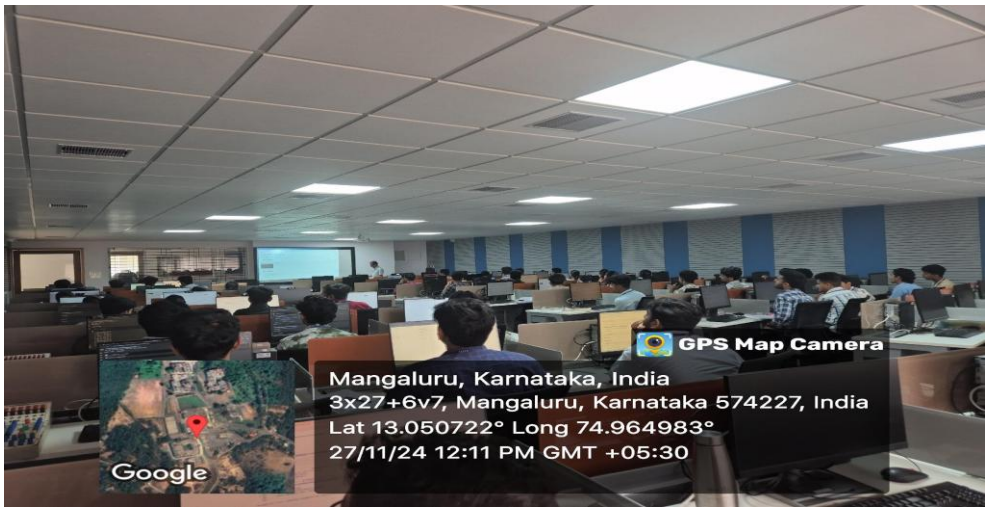
Key Outcomes:

The workshop successfully achieved its objective of empowering participants with essential machine learning skills. Attendees gained the ability to understand and effectively apply ML models in real-world scenarios. They learned to solve data classification and processing problems using various machine learning algorithms and developed the capacity to think critically and implement solutions independently across diverse application domains. This hands-on experience helped participants build confidence in addressing practical challenges through AI and ML techniques.

Poster of the Workshop



Dr.Subramanya Bhat delivering the session on "Machine Learning from Basics to Implementation"



Dr. Subramanya Bhat delivering the session on "Machine Learning from Basics to Implementation"

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Activity – 4

Title	:	**Hands-on Workshop on "Process-driven Innovation in Embedded Systems for Prototype Development"**
Resource Person	:	**Mr. Vallinath S** **DGM for Embedded Products, JIO Platforms, Bengaluru** **&** **Mr. Harish H** **Technical Lead, Capgemini, Bengaluru** **&** **Mr. Lepaksh Nagappa** **Senior Technical Manager, Capgemini, Bengaluru**
Date	:	**07/03/2025 to 08/03/2025**

The Department of Electronics & Communication Engineering organized a Hands-on Workshop on "Process-driven Innovation in Embedded Systems for Prototype Development" on 07.03.2024 & 08.03.2024. The objective of the workshop was to provide participants with a comprehensive understanding of embedded systems development, including microcontroller programming, real-time operating systems, and hardware-software integration. It aimed to equip them with practical skills in interfacing, debugging, and implementing real-time embedded applications.

About the Resource Persons:

Mr. Harish H is a seasoned Technical Architect with over two decades of experience in embedded systems, platform software, and IoT solutions. Currently a Technical Lead at Capgemini, he specializes in embedded Linux porting, kernel optimization, and software integration for platforms like Microchip PolarFire SoC and Jetson. His expertise includes Wind River Linux OS, Android base porting, high-speed Ethernet, OpenBMC, and Arduino-based IoT platforms. Proficient in C, C++, Python, and Java, he brings strong skills in debugging, system architecture, and solving complex technical challenges in 5G, consumer electronics, and building automation domains.

Mr. Lepaksha Nagappa is a Senior Technical Manager at Capgemini with over 20 years of experience in telecom and network switching software. With a background in embedded Linux, PHY device drivers, and platform software integration, he has contributed significantly to companies like WindRiver, Aricent, and Dasan Networks. He is currently engaged with Juniper Networks, focusing on Junos software enhancements, L2 protocol development, and high-speed Ethernet platform integration. His technical arsenal includes C, Linux/VxWorks, and tools like GDB and Valgrind, along with deep domain knowledge in ZebOS, IOS, and JUNOS.

Mr. Vallinath S, currently the Deputy General Manager for Embedded Products at Jio Platforms, has 16 years of experience in firmware development and embedded solutions. He has worked at Tejas Networks, Toshiba, and Bosch, contributing to optical, Ethernet, wireless, and industrial automation systems. His skills span embedded hardware design using tools like ORCAD and Altium, real-time Ethernet stacks, MEMS sensors, and IoT platforms. Proficient in SDLC models like Agile and V-Model, he is also known for his leadership in system design, customer support, and product certification. Beyond work, he enjoys Kannada literature and badminton.

About the Event:

This workshop is an immersive, hands-on training program designed to provide participants with a comprehensive understanding of embedded system development, covering both fundamental concepts and advanced wireless communication techniques. Designed for students, engineers, and enthusiasts, this workshop covered essential topics such as microcontrollers, real-time operating systems, and hardware-software integration. Workshop explored embedded systems and microcontrollers, programming with Embedded C, working with sensors and actuators, and interfacing with communication protocols like UART, I2C, and SPI. Additionally, the workshop aimed into real-time applications, debugging techniques, and live project implementations. Through interactive sessions the workshop featured live demonstrations, coding exercises, and project-based learning.

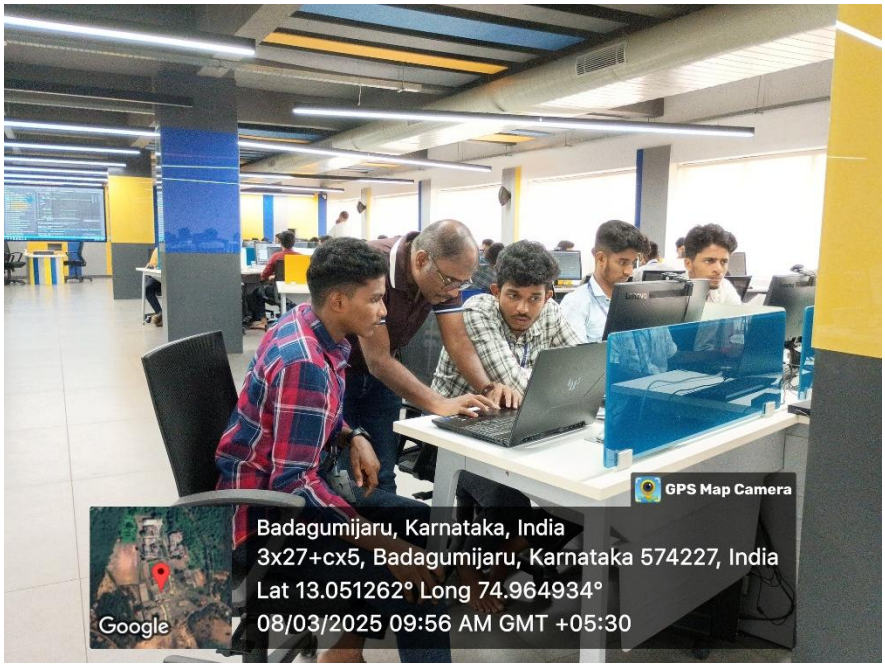
This session introduced participants to the core architecture of embedded systems, emphasizing the role of microcontrollers and their fundamental components. Attendees gained insights into key aspects such as memory organization, I/O ports, and peripheral interfaces, which are critical for designing real-world applications. The hands-on aspect of this session covered writing, compiling, and flashing Embedded C programs onto microcontrollers. Special focus was given to debugging methodologies, including GDB and OpenOCD, to diagnose issues at both hardware and software levels. Various use cases from Industry 4.0 were discussed, demonstrating how embedded systems play a vital role in automation, smart monitoring, and predictive maintenance. Industry use cases were explored, demonstrating how these protocols enable seamless data exchange in networking devices, industrial automation, and consumer electronics. The workshop ensured that attendees leave with a clear understanding of embedded systems and practical experience in working with hardware and software components.

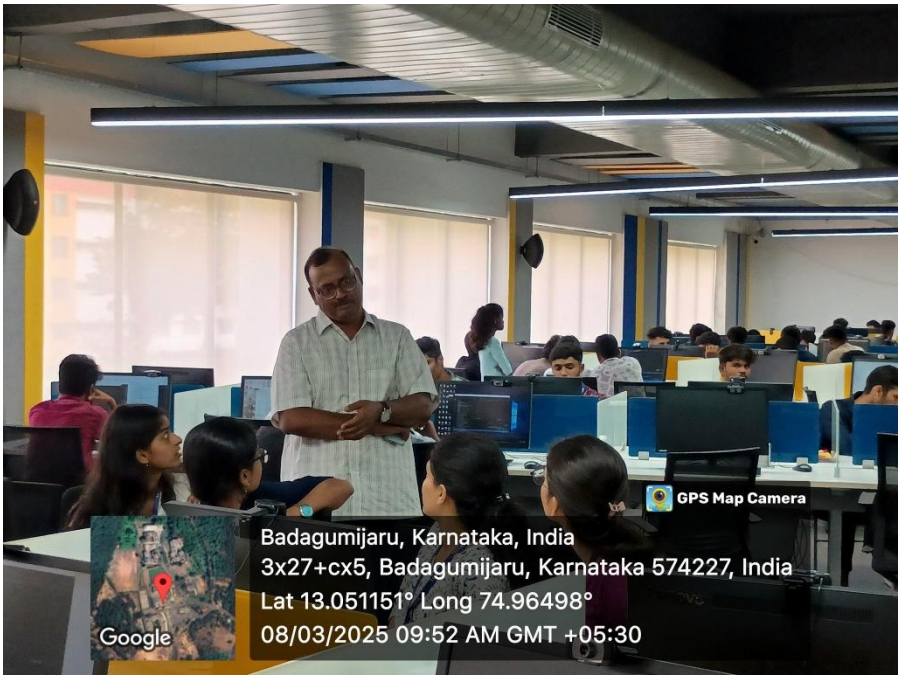
Key Outcomes:

The workshop provided participants with a strong foundation in embedded systems, enabling them to understand the architecture and functionality of microcontrollers, real-time operating systems (RTOS), and the integration of hardware and software components. Through practical sessions, attendees developed essential programming skills in Embedded C, learning to interface effectively with sensors, actuators, and communication protocols such as UART, I2C, and SPI. The training also emphasized debugging techniques, equipping participants with the ability to identify and resolve issues in real-time applications using industry-standard tools. A key highlight of the workshop was the opportunity to implement and test a live embedded system project, which reinforced theoretical concepts through hands-on experience. Additionally, the program nurtured participants' problem-solving abilities and logical thinking by engaging them in troubleshooting tasks and real-world application scenarios, preparing them to tackle complex engineering challenges confidently.

Poster of the Event

Resource Persons delivering Hands-on session on Process-driven Innovation in Embedded Systems for Prototype Development





Hands-on session by the resource persons

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Activity – 5

Title	:	**Hands-on Workshop on "Chip Crafting: VLSI Layouts, Process Design Development for Microelectronic Systems"**
Resource Person	:	**Mr. Sujay Kumar** **Senior Design Engineer, Team Lead,** **KarMic Design Pvt. Ltd., Manipal** **&** **Ms. Pavithra Shetty** **Senior Design Engineer, Team Lead,** **KarMic Design Pvt. Ltd., Manipal** **&** **Mr. Sriganesh Bhat** **Design Engineer-2,** **KarMic Design Pvt. Ltd., Manipal**
Date	:	**27/03/2025 to 29/03/2025**

The Department of Electronics & Communication Engineering organized a Hands-on Workshop titled "Chip Crafting: VLSI Layouts, Process Design Development for Microelectronic Systems" from 27.03.2025 to 29.03.2025. The objective of the workshop was to provide participants with a thorough understanding of VLSI design principles, focusing on the layout and fabrication of integrated circuits using MOS transistors and standard cell methodology. It aimed to equip students with practical skills in circuit simulation, layout design, and awareness of industry-relevant applications and technologies in the semiconductor domain.

About the Resource Persons:

Mr. Sujay Kumar is currently working as a Senior design engineer and heading as team lead in KarMic Design Pvt. Ltd., Manipal. He worked with Texas Instruments on modules and Testchips for Power Management blocks like DC-DC converter, LDO and Data converters - ADC and DAC. His extensive expertise helped for quality deliverable of mixed signal layouts for 65nm, 150nm, 180nm and 400nm technology and drives appreciation from the customers and managers. Mr. Sujay's expertise includes Audio modules, USB, Power management chips and module level

layout design experience in - Low-Drop Out Voltage regulators (LDO), Switch Regulators (BUCK), Clock Generators (PLL), Reference Generators (Bandgap) & Bias Generators.

Ms. Pavithra Shetty is currently working as a Senior design engineer and heading as team lead in KarMic Design Pvt. Ltd., Manipal. Her expertise area is Analog Mixed-Signal Layout Design. She worked with companies like Texas Instruments, SiTime, and ON-Semi on projects including product and test chips for WLAN modules, voltage regulators, PLL, LDO, ADC and DAC. For quality and timely delivery of mixed signal layouts, she got appreciation from the customers and managers particularly in 65nm, 150nm, 180nm and 400nm technology.

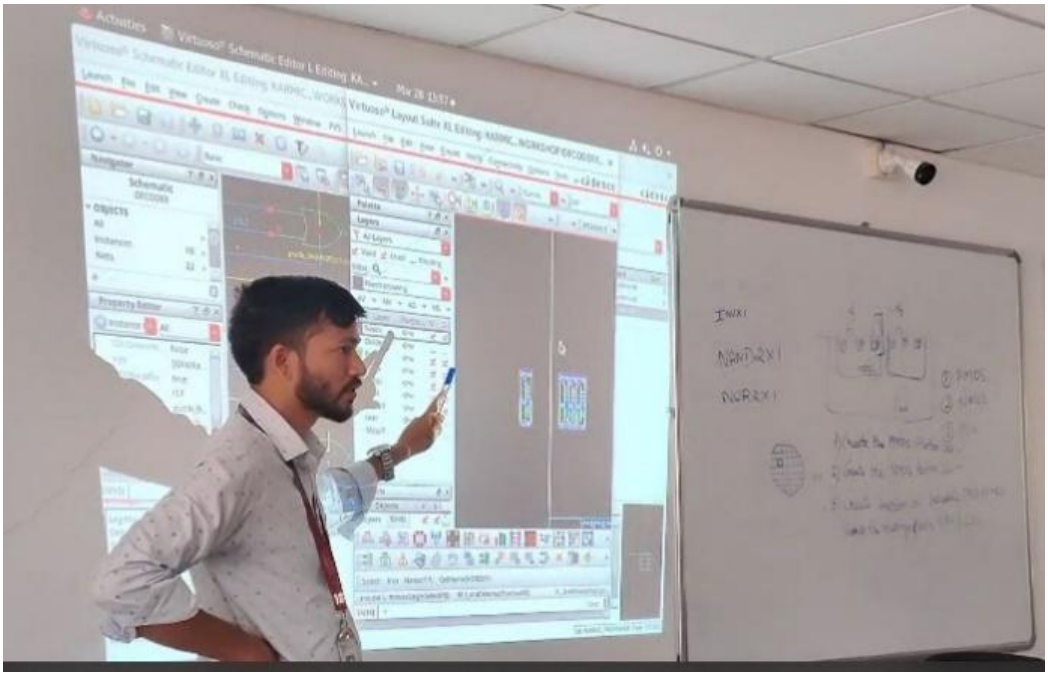
Mr. Sriganesh Bhat currently working as Design engineer-2 in KarMic Design Pvt. Ltd., Manipal. He is working for High Voltage Device Layout team. Mr. Bhat having good experience in the field of Analog mixed signal and RF layout design. He has worked with Texas Instruments and Qualcomm on modules and Testchips for RX, TX, PLL, Power management block, LDO and BGR.

About the Event:

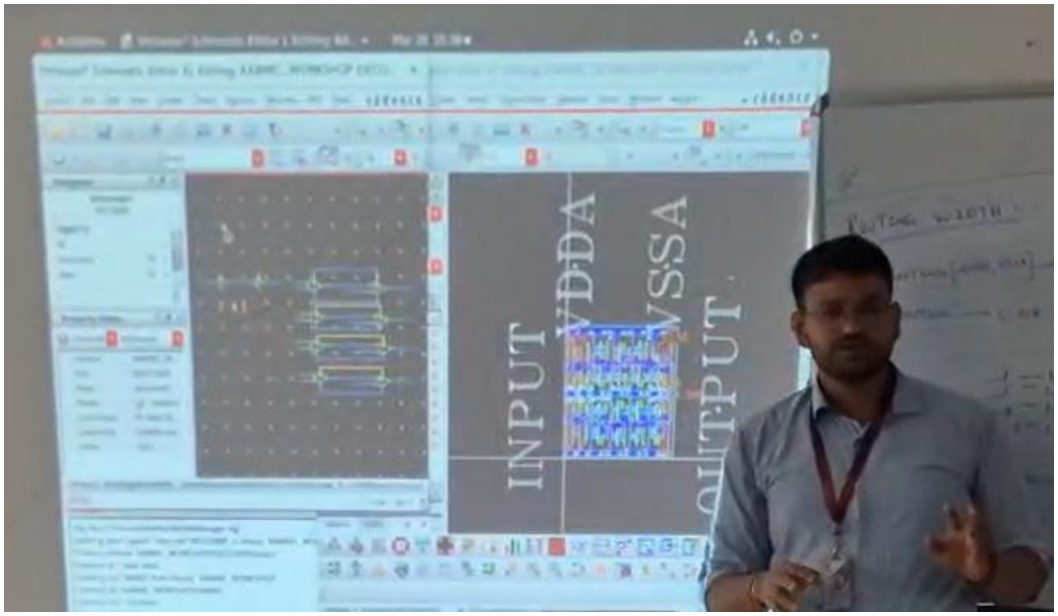
This workshop is an immersive, hands-on training program designed to provide participants with a comprehensive understanding of VLSI Layouts, covering fundamental building blocks MOS transistors, standard cells, metal layers consideration, P well and N well house PMOS and NMOS transistors. This workshop covered VLSI as an IC manufacturing technology that involves the integration of more than 10,000 transistors onto a single chip. VLSI ICs and VLSI design have become the heart of modern electronics, as this technology is allowing us to develop more complex ICs having features like very small size and low power consumption. Workshop explored the layout designs using different generic process design kits using cadence tool making it as the backbone of the most modern digital systems. VLSI design is also used to develop high performance GPU ICs used in gamming consoles, used to develop compact and low-power ICs for smartwatches and other wearable devices, Chips used in autonomous vehicles for navigation, object detection, lane detection, etc. are also designed using VLSI technology. VLSI design is also used for developing ICs used in telecommunication networks for high-speed data transfer. live demonstrations, coding exercises, and project-based learning.

Key Outcomes:

The workshop enabled participants to gain a solid understanding of the fundamentals of VLSI design, including the principles of integrated circuit (IC) design and fabrication. Through hands-on sessions, attendees were introduced to industry-standard VLSI tools used for circuit design, simulation, and layout, enhancing their practical skills. The program also focused on developing competencies in analog circuit design, allowing participants to create complex circuits tailored to real-world applications. In addition, the workshop provided insights into the latest advancements in semiconductor technology, preparing students to stay abreast of emerging trends. Overall, the workshop served as a valuable platform to equip students with the technical knowledge and practical skills essential for pursuing careers in electronics, communication, and embedded systems industries.



Mr. Sujay Kumar delivering the session on Chip Crafting: VLSI Layouts, Process Design Development for Microelectronic Systems



Mr. Sriganesh Bhat delivering session during the workshop

Dr. Vinayambika S Bhat, HoD, addressing during the workshop

Students performing hands-on activity during the workshop

Group Photo of the participants during the event

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Activity – 6

Title : **Exposure Visit to KPTCL (Karnataka Power Transmission Corporation Limited)**

Date : **28/03/2025 & 29/03/2025**

The Department of Electronics & Communication Engineering organized a exposure visit to KPTCL (Karnataka Power Transmission Corporation Limited) on 28.03.2025 & 29.03.2025. The objective of the visit was to provide students with a practical understanding of high-voltage power transmission systems and the operational structure of KPTCL. It aimed to bridge theoretical knowledge with real-world practices in electrical energy transmission, substation functioning, and loss minimization techniques.

About the Industry:

Karnataka Power Transmission Corporation Limited is a registered company under the Companies Act, 1956 was incorporated on 28-7-1999 and is a company wholly owned by the Government of Karnataka with an authorised share capital of Rs. 2182.32 crores. KPTCL was formed on 1-8-1999 by carving out the Transmission and Distribution functions of the erstwhile Karnataka Electricity Board. Karnataka Power Transmission Corporation Limited is mainly vested with the functions of Transmission of power in the entire State of Karnataka and also Construction of Stations & Transmission Lines and maintenance of 400/220/110/66 KV Sub-Stations. Many new lines and Sub-Stations were added & existing stations were modified in the Transmission network. It operates under a license issued by Karnataka Electricity Regulatory Commission.

About the Visit:

The industrial exposure visit to Karnataka Power Transmission Corporation Limited (KPTCL) Kemar offered students an in-depth understanding of the critical role played by transmission systems in the electrical power sector. Mr. Uday and Mr. Ganesh Acharya, the facilitators of the visit, began with an insightful briefing on how KPTCL operates as a crucial link between power generation stations and distribution units. Students were introduced to the power flow process, wherein electricity generated at sources such as the Varahi Hydropower Plant and Udupi Power Corporation Limited (UPCL) is initially produced at 11kV and then stepped up to 220kV using

power transformers. This step-up is essential for high-voltage transmission, which significantly reduces transmission losses such as copper and iron losses that are more pronounced at lower voltages. The speakers highlighted the importance of AC power transmission infrastructure, noting that since AC power cannot be stored, it must be continuously routed through bus conductors and substation equipment.

During the visit, students had the opportunity to observe key substation components and learn about their functionality in real-world operations. They were shown how dual bus systems are used to ensure uninterrupted power flow, allowing load transfers during maintenance activities. The presence of lightning arresters to protect the system from surge currents was also explained. A detailed demonstration of power transformers helped students understand how transformer windings, though shown separately in diagrams, are compactly housed and require robust cooling mechanisms due to constant current flow. Two types of cooling methods were presented: an oil-based overhead tank system and air coolers positioned beneath the transformer. Additionally, the role of Buchholz Relays in fault detection, such as internal short circuits or overheating, was discussed, emphasizing the importance of preventive maintenance and safety systems in high-voltage transmission. Overall, the visit provided students with practical insights into the operation, safety, and reliability of power transmission systems, bridging the gap between academic concepts and industrial application.

Poster of the Exposure Visit

Explanation during the Visit by the Electrical Engineer, at KPTCL, Kemar

Key Outcomes:

The industrial visit to KPTCL Kemar provided students with a comprehensive understanding of high-voltage power transmission infrastructure and its operational significance within Karnataka's electrical grid. They gained clarity on KPTCL's crucial role as an intermediary between power generation sources like the Varahi Hydropower Plant and UPCL, and the distribution networks, learning how voltage is stepped up from 11kV to 220kV to minimize transmission losses. The hands-on exposure to 220kV substations allowed students to observe key equipment such as transformers, bus conductors, and lightning arresters, reinforcing their classroom learning with practical insights. Additionally, the session highlighted the importance of high-voltage transmission in reducing copper and iron losses, deepening their appreciation for energy efficiency in power systems and enhancing their understanding of real-world grid operations.

Group photo of the participants during the Visit

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Activity – 7

Title : **Hands-on Workshop on "Embedded System Design Roadmap: Process and Prototyping for Innovative Solutions"**

Resource Person : **Mr. Vilas Shetty**
Senior Product Engineer, Tantragyaan Solutions, Bengaluru

Date : **19/04/2025 & 21/04/2025**

The Department of Electronics & Communication Engineering organized a hands-on workshop on "Embedded System Design Roadmap: Process and Prototyping for Innovative Solutions" from 19.04.2025 to 21.04.2025. The objective of the workshop was to equip participants with a comprehensive understanding of embedded system design, from conceptualization to hands-on prototyping using the Raspberry Pi Pico. It aimed to develop practical skills in embedded programming, peripheral interfacing, and communication protocols, enabling students to apply their knowledge to real-world problem-solving.

About the Resource Person:

Mr. Vilas Shetty has a professional experience of 4 years in embedded industry. He is currently a Senior Product Engineer in Tantragyaan Solutions, Bengaluru, responsible for the design and development of embedded and IoT systems in terms of product architecture design, firmware development, Linux device driver design and product testing.

About the event:

The two-day workshop on embedded system design offered participants a structured and practical introduction to the entire embedded development lifecycle, with a strong focus on real-world applications and hands-on learning. The program began with a comprehensive session outlining the fundamentals of embedded systems, including their architecture, role in various industries such as automotive, IoT, and consumer electronics, and how they differ from traditional computing systems. Participants were introduced to the Raspberry Pi Pico, an affordable and powerful microcontroller, and the Visual Studio Code (VS Code) platform, which served as the primary

development environment throughout the workshop. Emphasis was placed on configuring the development tools, understanding the architecture of the Raspberry Pi, and writing, debugging, and flashing embedded C/C++ code to perform various tasks. Through this process, attendees were equipped with the essential knowledge and skills needed to embark on their own embedded system projects.

The hands-on component of the workshop was particularly impactful. Participants engaged in interfacing exercises involving both digital and analog components such as LEDs, sensors, and displays. They were also guided through the implementation of standard communication protocols like UART, I2C, and SPI, with live demonstrations showcasing how the Raspberry Pi Pico could effectively communicate with multiple external modules. This interactive experience helped demystify peripheral interfacing and data transmission, reinforcing theoretical concepts with practical execution. The program concluded with an open discussion session where participants brainstormed innovative project ideas, such as smart home automation systems and wearable health monitoring devices. These discussions encouraged critical thinking and problem-solving, as students were motivated to identify real-world challenges and consider embedded systems-based solutions. Overall, the workshop successfully blended theory with practical implementation, providing a well-rounded learning experience that prepared participants for future exploration in the field of embedded systems.

Key Outcomes:

The workshop enabled participants to gain a solid understanding of the fundamentals of VLSI design, including the principles of integrated circuit (IC) design and fabrication. Through hands-on sessions, attendees were introduced to industry-standard VLSI tools used for circuit design, simulation, and layout, enhancing their practical skills. The program also focused on developing competencies in analog circuit design, allowing participants to create complex circuits tailored to real-world applications. In addition, the workshop provided insights into the latest advancements in semiconductor technology, preparing students to stay abreast of emerging trends. Overall, the workshop served as a valuable platform to equip students with the technical knowledge and practical skills essential for pursuing careers in electronics, communication, and embedded systems industries.

Poster of the Workshop

Mr. Vilas Shetty delivering session on Embedded System Design Roadmap: Process and Prototyping for Innovative Solutions

Group Photo of the participants during the workshop

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Activity – 8

Title	:	**Expert talk on "Shaping Innovation: Process and Prototype Design for Emerging Technologies"**
Resource Person	:	**Mr. Mithun Marmakki** **Team Lead, HTC Global Services** **Bengaluru.**
Date	:	**25/04/2025**

The Department of Electronics & Communication Engineering organized a Expert talk on "Shaping Innovation: Process and Prototype Design for Emerging Technologies" on 25.04.2025. The objective of the talk was to introduce students to emerging technologies like artificial intelligence and quantum computing, while encouraging them to adapt, innovate, and remain future-ready in a rapidly evolving technological world. It aimed to inspire curiosity, critical thinking, and a lifelong commitment to learning and innovation.

About the Resource Person:

Mr. Mithun Marmakki is a seasoned Team Lead at HTC Global Services, with over a decade of experience in Android application development. Throughout his impressive career in the tech industry, he has led and contributed to the creation of high-impact mobile solutions across various domains, including infotainment, food delivery, and OTT streaming. His portfolio includes work on widely used applications such as Discovery+, PayTm, McDelivery, and more. At HTC Global Services, Mr. Mithun plays a pivotal role in architecting scalable and user-centric mobile experiences, driving innovation and excellence in every project he undertakes.

About the Event:

The guest lecture delivered by Mr. Mithun M., a distinguished alumnus, offered students a compelling and forward-looking perspective on the evolving landscape of technology, with a particular focus on artificial intelligence and quantum computing. The session began with an engaging icebreaker that encouraged attendees to reflect on the potential roles AI and other

emerging technologies could play in shaping their personal and professional futures. Mr. Mithun emphasized the importance of not just adapting to technological change but thriving within it. His explanation of quantum computing was especially impactful breaking down the complex concept of qubits and illustrating how they differ from classical bits. He elaborated on how quantum computing holds the potential to revolutionize problem-solving across multiple industries, including drug discovery, materials science, and finance, by performing computations that are currently beyond the reach of traditional computers.

In the second half of the session, Mr. Mithun shifted focus toward the future of education in a technology-integrated society. Through an interactive activity, he prompted students to envision a learning environment where traditional exams are replaced by AI-driven assessments that measure genuine understanding. This sparked a lively discussion on how education systems must evolve to foster creativity, critical thinking, and real-world problem-solving skills. He encouraged students to adopt a mindset of curiosity and innovation by posing "what if" questions that challenge conventional norms and drive new ideas. Concluding the session, Mr. Mithun offered practical advice for preparing for the future—suggesting students track an emerging technology for 30 days, work on a passion-driven project, and seek guidance from near-peer mentors. His dynamic presentation left the audience inspired, instilling a sense of urgency and excitement about the opportunities and responsibilities that come with the rapid advancement of technology.

Key Outcomes:

The session led by Mr. Mithun M. resulted in several key outcomes, beginning with an enhanced awareness among participants about emerging technologies like artificial intelligence and quantum computing. Students were introduced to the fundamental concept of qubits and gained insight into how quantum systems have the potential to solve problems far beyond the scope of classical computers. The session emphasized the importance of adaptability in a rapidly evolving tech landscape, encouraging students to remain curious, flexible, and proactive in their learning. The interactive icebreaker activity prompted critical reflection on how technology could personally impact their futures, fostering a deeper connection to the subject matter. Most importantly, the talk

inspired a mindset of lifelong learning and innovation, motivating students to continuously explore, question, and engage with new advancements in the field of technology.

Poster of an invited talk on "Shaping Innovation: Process and Prototype Design for Emerging Technologies".

Session by Mr. Mithun M

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Activity – 9

Title	:	**Expert talk on "Reenvisioning MBA: A Design-led Journey"**
Resource Person	:	**Ms. Nidhi Shetty** **Management Trainee, Piramal Pharma Ltd,** **Mumbai.**
Date	:	**25/04/2025**

The Department of Electronics & Communication Engineering organized a Expert talk on "Reenvisioning MBA: A Design-led Journey" on 25.04.2025. The objective of the talk was to help students recognize the deeper, transformative value of the MBA journey beyond academics by encouraging personal growth, purposeful ambition, and intentional decision-making. It aimed to inspire students to actively shape their experiences, build meaningful connections, and align their goals with self-awareness and authenticity.

About the Resource Person:

Ms. Nidhi Shetty is a driven professional with prior experience in the Life Sciences domain at Tata Consultancy Services. She recently completed her MBA from K J Somaiya Institute of Management, Mumbai. As part of her MBA journey, she interned with Piramal Pharma Ltd., where her exceptional performance led to a Pre-Placement Offer (PPO). She is set to join Piramal Pharma Ltd. as a Supply Chain Management Trainee in June 2025, embarking on a promising career in the pharmaceutical and supply chain sector.

About the Event:

The talk by Ms. Nidhi Shetty offered an introspective and motivational perspective on the true essence of an MBA journey, going far beyond academics, grades, or resume-building. Through her personal experiences and thoughtful insights, she emphasized that some of the most valuable lessons are not found in textbooks but within lived experiences that need to be acknowledged, articulated, and shared. Nidhi encouraged students to embrace the present moment, emphasizing that waiting for a "perfect time" is futile—what truly matters is the intention behind one's actions.

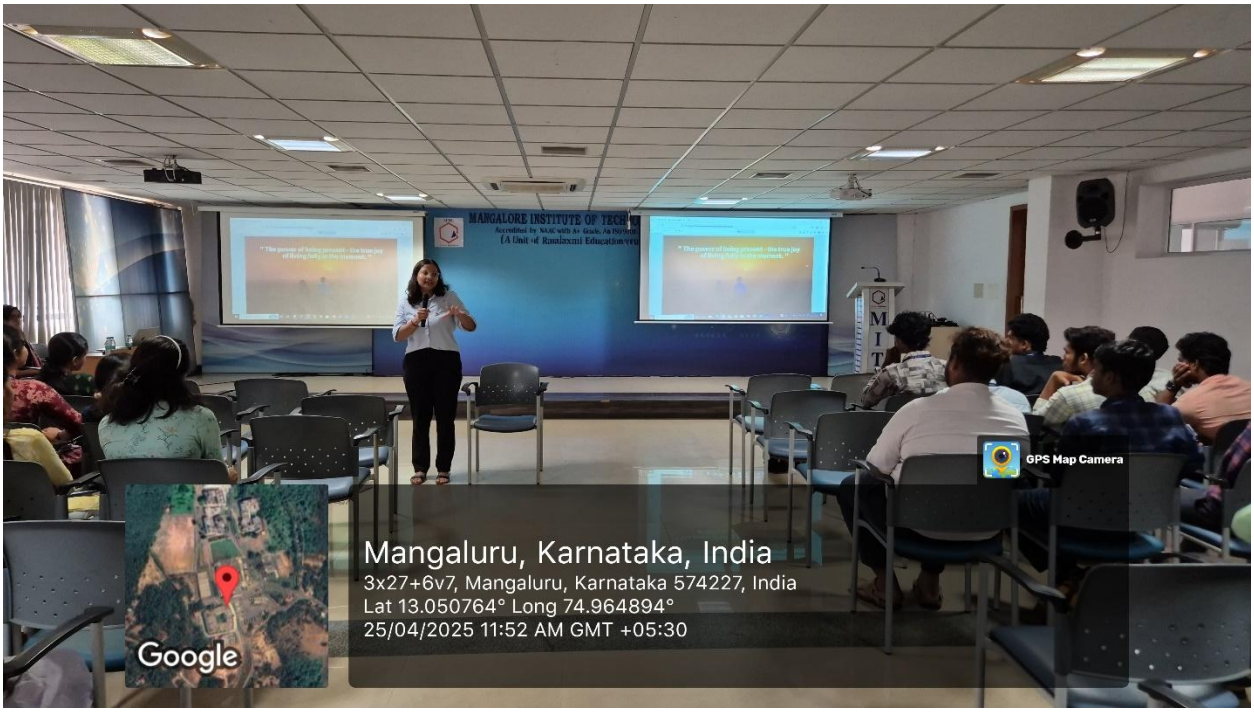
She advocated for a more meaningful approach to ambition, one that is rooted in awareness, informed decision-making, and honest dialogue. Her words inspired the audience to reflect on the deeper purpose of their academic and professional journeys, motivating them to act with authenticity and courage.

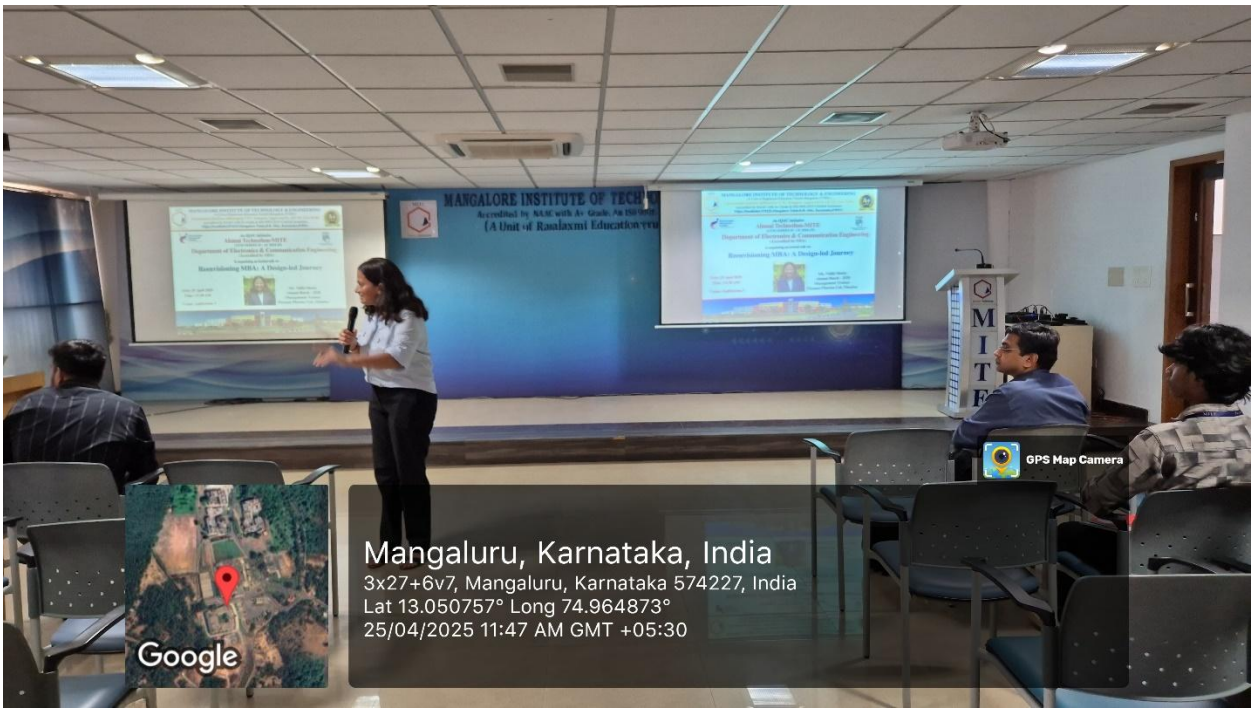
In the second part of the session, Nidhi highlighted the importance of actively shaping one's MBA experience rather than passively going through it. She stressed that growth comes from stepping out of comfort zones, saying "yes" to new opportunities, and consistently showing up with an open mind. Rather than piling on tasks, she emphasized managing time, relationships, and self more effectively. Encouraging students to pursue purpose over placements, she advised them to seek career paths aligned with their values and passions. On networking, she offered a refreshing perspective—urging students to form genuine, collaborative relationships rather than viewing connections as transactional. Concluding her talk, Nidhi reinforced the idea of the MBA journey as one of self-discovery, where the combination of pressure, the right environment, and continuous learning unlocks a person's true potential. Her session left students inspired to approach their MBA with mindfulness, intentionality, and a renewed sense of purpose.

Key Outcomes:

The session with Ms. Nidhi Shetty led students to realize the deeper value of the MBA journey, highlighting that it is not just about academic success but about personal growth, self-reflection, and meaningful engagement. Participants came to appreciate the power of articulating and sharing real-life experiences as a means of unlocking valuable life lessons and fostering collective growth. The talk encouraged mindfulness and the importance of acting with intention, reinforcing that waiting for the "perfect time" often hinders progress. Students were inspired to redefine ambition by aligning it with self-awareness, relevant insights, and purposeful communication. Overall, the session motivated them to make honest, intentional decisions in both their personal and professional lives, guided by values, authenticity, and continuous learning.

Poster of the Event





Ms. Nidhi Shetty delivering session on "Reenvisioning MBA: A Design-led Journey"

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Activity – 10

Title	:	**Expert talk on "Beyond Coding: Designing and Prototyping your IT Career Path"**
Resource Person	:	**Mr. Nithin Y B,** **Technical Lead, Robosoft Technologies,** **Udupi.**
Date	:	**26/04/2025**

The Department of Electronics & Communication Engineering organized a Expert talk on "Beyond Coding: Designing and Prototyping your IT Career Path" on 26.04.2025. The objective of the talk was to provide students with a comprehensive understanding of the evolving IT industry, highlighting both technical and non-technical career opportunities across various sectors. It aimed to inspire students to view IT as a dynamic field for real-world problem solving, innovation, and interdisciplinary collaboration.

About the Resource Person:

Mr. Nithin Y B is a seasoned Technical Lead at Robosoft Technologies Pvt. Ltd., bringing over a decade of experience in software development. He has successfully led and contributed to the creation of innovative software solutions across diverse platforms and industries. With a strong foundation in engineering and a passion for technology, Mr. Nithin is deeply committed to technical leadership and mentoring. His career reflects a consistent dedication to nurturing emerging talent and driving the development of scalable, efficient, and impactful systems, making him a valued leader and technology advocate in the field.

About the event:

The session conducted by Mr. Nithin Y B, a distinguished alumnus and Technical Lead at Robosoft Technologies Pvt. Ltd., offered students a well-rounded perspective on the dynamic and evolving

nature of the IT industry. He began by tracing the industry's transformation from a service-driven model to a key enabler of innovation across diverse sectors such as healthcare, finance, education, and entertainment. By contextualizing IT as more than just a field of programming, Mr. Nithin encouraged students to view it as a platform for addressing real-world challenges and driving societal change. He highlighted how digitalization and globalization have reshaped the technology landscape, expanding the scope and relevance of IT in today's world. The talk was particularly engaging as it provided relatable insights into how IT is woven into everyday life, from personalized learning platforms to health monitoring systems and financial technologies.

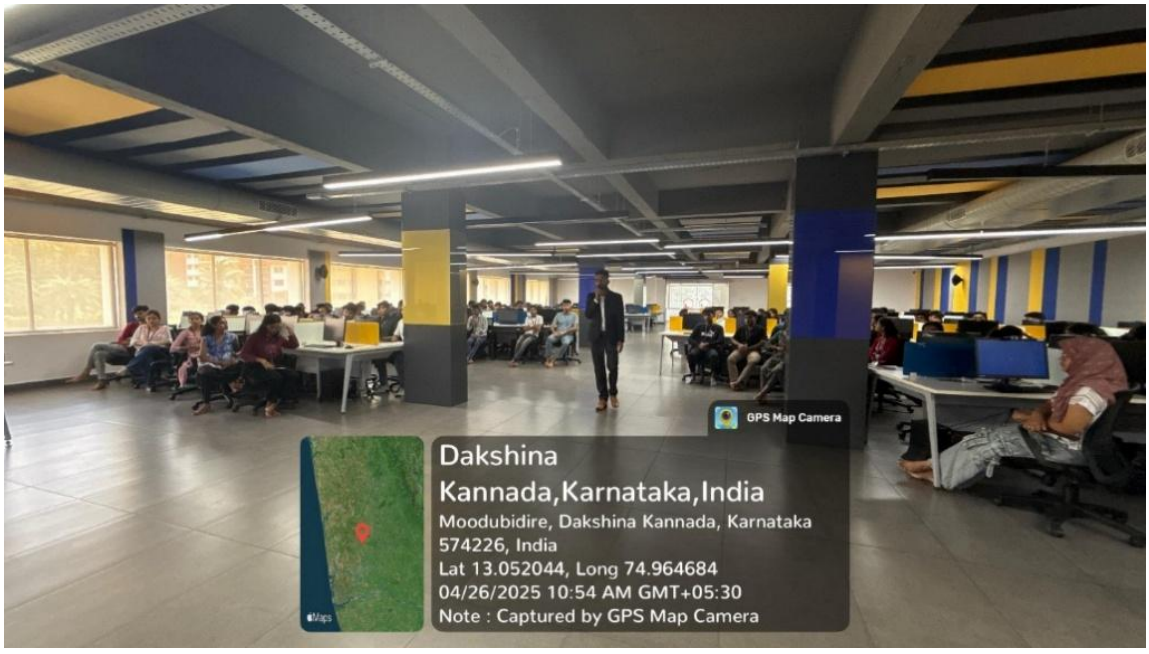
Mr. Nithin further deepened students' understanding by demystifying the internal structure of a software company. He elaborated on the roles and interconnections of various departments including development, quality testing, UI/UX design, product management, technical writing, marketing, and customer support. This gave students a comprehensive view of how a product is conceptualized, developed, and delivered in the real world. He also outlined diverse career pathways—both technical and non-technical—available to IT graduates, stressing that meaningful contributions can be made even by those without strong programming backgrounds. Mr. Nithin emphasized the importance of core computer science knowledge, continuous learning through certifications, and project-based skill development. The session concluded with an overview of emerging technologies such as AI, blockchain, IoT, and green tech, equipping students with a forward-looking mindset and inspiring them to pursue careers that align with innovation and problem-solving in the ever-evolving IT domain.

Key Outcomes:

The session provided students with a broadened understanding of the IT industry, showcasing its influence across various sectors such as healthcare, finance, education, and entertainment, far beyond conventional software roles. Mr. Nithin Y B emphasized that the IT field offers diverse career opportunities, including non-coding roles like UI/UX design, product management, and technical writing, encouraging students to explore paths aligned with their interests and strengths. Attendees gained valuable insights into the structure of software companies and the collaborative roles of departments such as development, testing, and customer support. They were also

introduced to Agile and DevOps methodologies, highlighting the importance of iterative development and cross-functional teamwork. The session inspired students to view IT as a powerful means of solving real-world problems, fostering innovative thinking and purposeful career planning.

Poster of the Event "Beyond Coding: Designing and Prototyping your IT Career Path"



Mr. Nithin Y B delivering a talk on "Beyond Coding: Designing and Prototyping your IT Career Path"

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Activity – 11

Title	:	**Expert talk on "From Idea to Impact: Career Prototyping through AI, Web3 and Blockchain"**
Resource Person	:	**Mr. Pathanjali Sharma, Co-founder and Managing Partner, Panoray Ventures, Bengaluru.**
Date	:	**26/04/2025**

The Department of Electronics & Communication Engineering organized a Expert talk on "From Idea to Impact: Career Prototyping through AI, Web3 and Blockchain" on 26.04.2025. The objective of the talk was to inspire students to adopt a "career prototyping" mindset, encouraging them to explore, experiment, and adapt their career paths in response to the rapidly evolving tech landscape. It aimed to equip them with an understanding of emerging technologies like AI, Web3, and Blockchain, and to highlight the importance of creativity, innovation, and entrepreneurship in shaping meaningful, future-ready careers. The session also sought to empower students to become active problem-solvers and potential job creators in a world increasingly driven by digital transformation.

About the Resource Person:

Mr. Pathanjali Sharma is the Co-Founder and Managing Partner of Panoray Ventures, a venture capital firm focused on early-stage investments in transformative technologies such as Web3, artificial intelligence, and blockchain infrastructure. With a strong background in marketing, business development, and go-to-market strategies, Sharma plays a key role in helping startups scale from ideation to market readiness. At Panoray Ventures, Sharma has led the firm to become a significant force in the venture capital ecosystem, with a sharp focus on decentralized finance (DeFi) and real-world asset tokenization. The firm is known for its emphasis on transparency, fractional ownership, and the strategic integration of AI to drive innovation across sectors. Sharma's professional journey spans roles from Program Lead to AVP, giving him a nuanced understanding of both corporate and startup dynamics. A respected voice in the Web3 space, he frequently shares his insights at major industry events, including the Web3 Sankalpa Tour and Token 2049. Beyond his investment activities, Sharma is passionate about building collaborative communities within the tech ecosystem. He actively encourages co-creation and knowledge-

sharing, making him a key enabler for emerging founders and innovators in the rapidly evolving digital landscape.

About the Event:

The session introduced students to the forward-thinking concept of "career prototyping," which encourages them to move beyond traditional career trajectories and adopt a mindset of exploration, experimentation, and adaptability. In a rapidly evolving technological landscape, this approach empowers students to test different paths early in their careers and pivot as needed, instead of rigidly adhering to predefined roles. Mr. Sharma emphasized the importance of harnessing emerging technologies such as Artificial Intelligence, Web3, and Blockchain—not just as technical tools, but as enablers of transformative innovation. He underscored that in the age of automation and digital transformation; creativity and original thinking are not just valuable but essential. By applying these technologies to real-world problems, students have the potential to shape their futures while contributing meaningfully to society.

Throughout the session, Mr. Sharma captivated the audience with real-life stories of young entrepreneurs who leveraged cutting-edge technology to launch successful ventures and disrupt conventional industries. A major highlight was his announcement of funding opportunities for student-led projects, which immediately sparked excitement and idea generation among attendees. Encouraging students to dream big, he called on them to pitch projects that were innovative, feasible, and socially impactful. He also urged them to think beyond job-seeking and consider job creation through entrepreneurship. By showcasing the potential of decentralized systems powered by Web3 and Blockchain, Sharma painted a picture of a future where students could build resilient, transparent, and inclusive digital economies. The session concluded with a powerful reminder that today's learners are tomorrow's leaders, and with the right mindset and tools, they can become the innovators and change-makers of the future.

Key Outcomes:

The session led by Mr. Sharma resulted in several impactful outcomes, beginning with the adoption of a "career prototyping" mindset, where students were encouraged to embrace exploration, experimentation, and adaptability in shaping their professional journeys. It provided valuable insights into leveraging emerging technologies such as Artificial Intelligence, Web3, and Blockchain to build innovative, future-ready careers. Emphasizing the importance of creativity

and original thinking, the talk inspired students to see these qualities as essential skills in today's rapidly evolving tech landscape. Students were also urged to remain agile and open to change, understanding that the ability to pivot is crucial for success in a dynamic digital world. Most importantly, the session reinforced the idea that innovation is not optional but a necessity in the age of automation and transformation, motivating students to move beyond traditional problem-solving and think boldly about their impact.

Poster of an invited talk on "From Idea to Impact: Career Prototyping through AI, Web3 and Blockchain".

Mr. Pathanjali Sharma delivering the talk on "From Idea to Impact: Career Prototyping through AI, Web3 and Blockchain"

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Activity – 12

Title : **Farewell – Batch of 2021**

Date : **30/05/2025**

The Department of Electronics & Communication Engineering organized the Farewell as a heartfelt and memorable occasion on 30.05.2025 to honor the outgoing Batch of 2021. As these students approach the end of their academic journey, the event aimed to celebrate their growth, achievements, and contributions to the department and the institution. It also served as a platform for final-year students to relive cherished memories, share experiences, and receive well-deserved appreciation from peers and faculty members. The occasion was not only about bidding goodbye, but also about acknowledging the strong bond formed between the students and the department over the last four years. The event was conducted in a vibrant and emotional atmosphere, ensuring that the Batch of 2021 leaves with fond memories etched in their hearts. The objective of the farewell event was to celebrate the achievements of final-year students, recognize their contributions, and provide a meaningful platform for sharing experiences and fostering inter-batch bonding. It also aimed to strengthen the sense of unity within the department by encouraging gratitude, inspiration, and connection between juniors and seniors.

About the Event:

The farewell event for the Batch of 2021 was a thoughtfully organized celebration that struck a perfect balance between sentiment and festivity. With a structured agenda designed to engage and resonate emotionally with all attendees, the event provided a heartfelt send-off to the graduating class. One of the standout moments was the launch of the department's newsletter, *"SIGNAL HUB,"* which emerged from a student-led naming process and symbolized a new chapter in departmental communication. This bi-annual publication aims to capture the vibrancy of student life, highlight academic and extracurricular achievements, and showcase technological innovations, fostering a culture of knowledge-sharing and pride within the department.

The cultural performances brought energy and color to the celebration, showcasing the rich talents of the students through a mix of traditional dances, witty skits, and emotional video montages. The ramp walk, in particular, left a lasting impression, serving as a symbolic gesture of transition and

celebration. The farewell speeches from seniors were filled with genuine reflections and valuable advice, offering juniors both inspiration and practical guidance for their own journeys. After the formalities, the event transitioned into a warm, informal setting where students, faculty, and guests shared refreshments, clicked photographs, and exchanged heartfelt goodbyes—marking a beautiful closure to an important chapter.

Feedback from faculty and students was overwhelmingly positive, with particular appreciation for the smooth coordination and emotional depth of the event. The ECSA organizing team was commended for their meticulous planning, creativity, and ability to maintain an uplifting and respectful tone throughout. More than just a farewell, the event served as a celebration of growth, camaraderie, and the transformative journey of the graduating batch. It also laid the groundwork for stronger alumni engagement and the continuation of departmental traditions, ensuring that the legacy of the Batch of 2021 remains alive through their contributions and the inaugural issue of *SIGNAL HUB*.

Key Outcomes:

The farewell event successfully honored the achievements and contributions of the graduating Batch of 2021, creating a memorable and emotionally rich experience for all attendees. It fostered a strong sense of unity within the department by encouraging meaningful interaction between juniors and seniors. The launch of the *SIGNAL HUB* newsletter marked the beginning of a new tradition, aimed at capturing and celebrating departmental milestones. Students were inspired by the mentorship shared by their seniors, gaining valuable insights for their academic and professional journeys. Overall, the event strengthened community bonds and set the tone for continued alumni engagement and future departmental initiatives.

Highlights of the Event

Farewell Words by passing out batch student

Farewell Words by Dr. Vinayambika S Bhat, HoD, E&CE

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Activity – 13

Title : **International Day of Yoga "Yoga for One Earth, One Health"**

Resource Person : **Dr. Jnaneshwar Nayak**
Former Medical officer Mangalore City Corporation,
Certified Yoga Trainer from Govt. of INDIA
Deputy Chief of Karnataka Pathanjali Yoga Peet Haridhwara

Date : **21/06/2025**

The Department of Electronics & Communication Engineering in association with MITE NSS and Student Welfare Committee organized International Day of Yoga "Yoga for One Earth, One Health" on 21.06.2025. International Day of Yoga is observed every year on June 21 to raise awareness about this ancient practice and to celebrate the physical and spiritual prowess that yoga has brought to the world. Yoga is a practice which plays an important role in relaxing the mind and body and boosting people's immune system.

About the Resource Person:

Dr. Jnaneshwar Nayak is a highly respected figure in the field of holistic health and wellness, with a distinguished background as the Former Medical Officer of Mangalore City Corporation. He is a certified yoga trainer accredited by the Government of India and currently serves as the Deputy Chief of Karnataka Patanjali Yoga Peeth, Haridwar. With extensive experience in both modern medicine and traditional yoga practices, Dr. Nayak is known for his passionate advocacy of yoga as a means to achieve physical well-being, mental peace (*Prashanthi*), and spiritual growth (*Sath Esha*). His insightful guidance and dedication to promoting yoga have made him an inspiring mentor to students and practitioners alike.

About the Event:

The International Day of Yoga celebration at MITE was a vibrant and meaningful event that highlighted the holistic benefits of yoga for physical, mental, and emotional well-being. The program began with a traditional lamp-lighting ceremony led by Dr. Jnaneshwar Nayak, Former Medical Officer of Mangalore City Corporation and a certified yoga trainer from the Government of India. Dr. Nayak delivered an insightful talk on the vision and structure of International Yoga

Day, emphasizing the concept of *Prashanthi*—a peaceful mind—and the spiritual essence of *Sath Esha*, or divine blessings, that yoga brings into one's life. He reminded students that health is the true wealth and encouraged them to adopt yoga as a lifelong practice to maintain a balanced and fulfilling lifestyle. The event was graced by Dr. Prashanth C. M., Principal of MITE, who addressed the gathering and emphasized the importance of incorporating yoga into daily routines for enhanced well-being and adaptability to individual needs.

The yoga session commenced with warm-up exercises, followed by the guided performance of various asanas and pranayama techniques. Students actively participated in foundational yoga poses such as Tadasana, Vrikshasana, Trikonasana, and Suryanamaskara, as well as meditative and therapeutic postures like Shashakasana, Vakrasana, and Ushtrasana. Each pose was accompanied by a brief explanation of its physical and psychological benefits, making the session both educational and experiential. Organized collaboratively by the MITE NSS Unit, the Department of Electronics and Communication Engineering, and the Student Welfare Committee, the event drew around 150 enthusiastic participants. The celebration concluded with pranayama and relaxation techniques, leaving attendees feeling refreshed, centered, and inspired to embrace yoga as a daily practice. Overall, the program was a resounding success, reinforcing the message of unity, health, and inner peace through the ancient practice of yoga.

Key Outcomes:

The International Yoga Day event at MITE resulted in several meaningful outcomes, beginning with enhanced awareness among students about the holistic benefits of yoga for physical, mental, and spiritual well-being. Under the guidance of Dr. Jnaneshwar Nayak, participants gained hands-on experience in performing a variety of asanas and pranayama techniques, helping them improve flexibility, focus, and relaxation. The session inspired many to adopt yoga as a regular part of their lifestyle, recognizing its value in managing stress and promoting long-term health. Additionally, the event offered rich cultural and spiritual insights into the traditional roots of yoga, deepening students' appreciation of India's ancient wellness practices. With active participation from around 150 students, the program fostered a strong sense of community and collective commitment to healthier living.

Poster of the Event

Students performing Yogasana

Group photo with guest Dr.Jnaneshwar Nayak Certified Yoga Trainer from Govt. of INDIA and Deputy Chief of Karnataka Pathanjali Yoga Peet Haridhwaraalong with Students of MITE

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Activity – 14

Title	:	**Innovating the Future: IEEE Day-2024**
Resource Person	:	**Dr.G S Hiremath** **IEEE SAC Chair Mangalore subsection**
Date	:	**10/10/2024**

The Department of Electronics & Communication Engineering in association with IEEE Student Branch on the occasion of IEEE Day organized a talk on " Innovating the Future: IEEE Day-2024The objective is to explore and showcase how IEEE (Institute of Electrical and Electronics Engineers) empowers and supports upcoming innovators in the field of technology. A total of 379 students from the E&CE and Mechatronics Department participated in the session.

About the Resource Person:

Dr. G. S. Hiremath is a distinguished academician and professional serving as the IEEE Student Activities Committee (SAC) Chair for the IEEE Mangalore Subsection. He is affiliated with Sahyadri College of Engineering and Management, where he plays a key role in mentoring students and promoting technological innovation and research. With a strong commitment to fostering student engagement through IEEE platforms, Dr. Hiremath actively contributes to organizing events, workshops, and initiatives that bridge the gap between academia and industry. His leadership within the IEEE SAC focuses on empowering young engineers through access to global resources, professional development, and collaborative opportunities, reinforcing his dedication to advancing technology for the benefit of society.

About the Event:

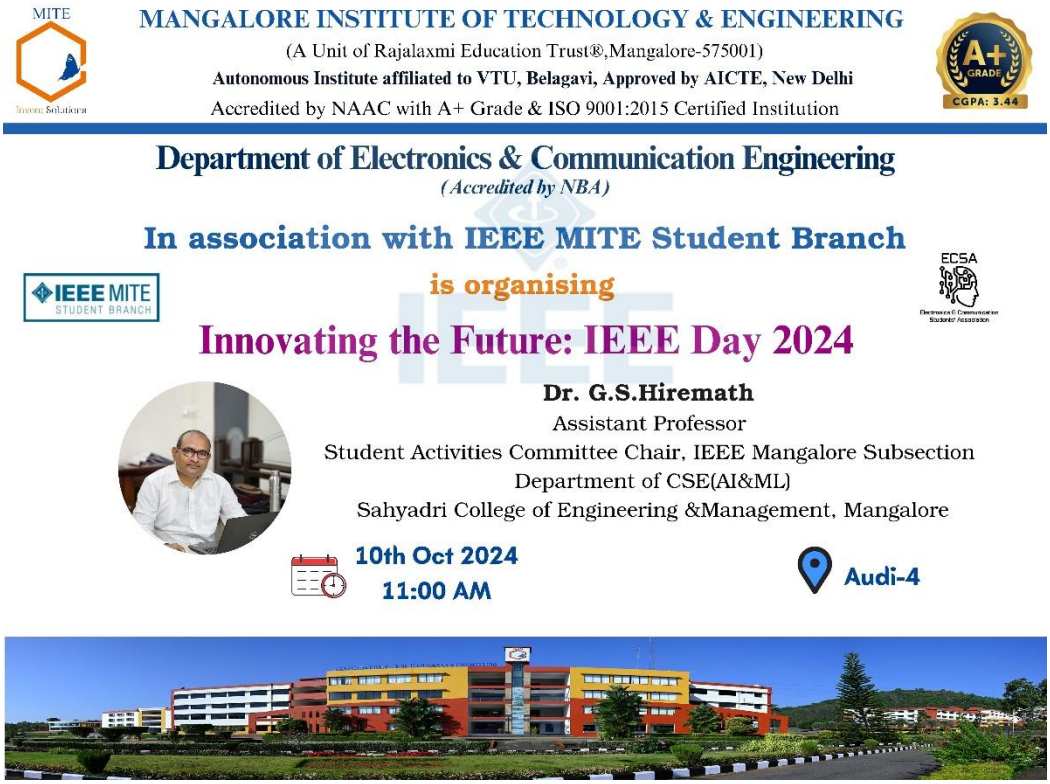
The session offered an in-depth exploration of the multifaceted role of IEEE in advancing global technology while nurturing the next generation of innovators and leaders. It began with an overview of IEEE's mission—to advance technology for the benefit of humanity—and emphasized the organization's unwavering commitment to fostering innovation, collaboration, and research in an increasingly dynamic technological landscape. Through this lens, the session highlighted how IEEE not only supports technological growth but also creates an inclusive platform where academic and industry minds can converge to share ideas, publish cutting-edge research, and contribute to meaningful change. Discussions on current and emerging trends such

as Artificial Intelligence, Internet of Things (IoT), and blockchain illustrated how IEEE helps shape these domains by enabling knowledge exchange and global standard development.

Further, the session delved into IEEE's wide array of initiatives aimed at supporting young talent and shaping future career paths. Participants were introduced to various programs, scholarships, and educational resources offered by IEEE that empower students and early-career professionals. Particular emphasis was placed on mentorship opportunities, research grants, and the importance of active participation in IEEE societies and conferences. The speaker also elaborated on how IEEE helps individuals navigate the complex technology job market by providing insights into diverse career pathways and facilitating industry connections. Through these discussions, attendees were encouraged to see IEEE not merely as a professional body, but as a dynamic ecosystem that supports lifelong learning, global networking, and impactful contributions to society through technology.

Key Outcomes:

The session led by Dr. G. S. Hiremath resulted in several key outcomes, significantly enhancing students' understanding of the opportunities and support systems available through IEEE. Participants gained valuable insights into current and emerging technology trends such as AI, IoT, and blockchain, along with their wide-ranging impact across industries. The session also highlighted IEEE's role in promoting innovation through research grants, academic publications, and platforms that encourage intellectual collaboration. Students were introduced to a variety of IEEE programs, scholarships, and mentorship opportunities designed to support emerging talent and guide them in their academic and professional journeys. Additionally, the event offered clarity on diverse career pathways in the technology sector and emphasized how IEEE serves as a catalyst for networking, skill development, and global exposure, leaving students motivated to actively participate in the IEEE ecosystem.



Poster of the Event

Dr. G. S. Hiremath delivering session during "Innovating the Future: IEEE Day-2024"

Dr. G. S. Hiremath delivering session during "Innovating the Future: IEEE Day-2024"

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Activity-15

Title	:	**Hands-on Workshop: Innovating with Flutter: A Hands-on Approach to Application Development**
Resource Person	:	**Mr. Shashank S. Mayya,** **Freelance Software Developer and former Software Engineer at Mindstack Technologies, Mangalore**
Date	:	**17/10/2024 to 19/10/2024**

The Department of Electronics & Communication Engineering in association with IEEE Student Branch organized a Workshop titled "Innovating with Flutter: A Hands-on Approach to Application Development".The workshop aimed to provide participants with a comprehensive introduction to Flutter, focusing on practical application development skills. Over three days, attendees engaged in hands-on activities, gaining insights into Flutter's capabilities for building modern applications.

About the Resource Person:

Mr. Shashank S. Mayya is a seasoned Freelance Software Developer specializing in Flutter-based mobile applications for both Android and iOS platforms. With a background that blends app development, content creation, and technical blogging, he also shares his expertise as a YouTuber. His notable accomplishments include successfully conducting hands-on workshops such as the "Mob-App Development using Flutter" program, where he guided 36 participants through Flutter fundamentals, UI design, and REST API integration. Additionally, Mr. Mayya has authored and launched several Flutter apps, including a popular Dota 2 companion app that has garnered over 10,000 downloads and 1,500 monthly active users.

About the Event:

The three-day Flutter workshop provided participants with a structured and hands-on introduction to mobile app development using Flutter. On Day 1, Mr. Mayya laid the foundation by introducing the basics of Flutter, including its setup, development environment, and application architecture. Participants successfully installed the required tools and created a simple app, gaining a clear understanding of Flutter's widget-based structure and reactive programming model. This initial

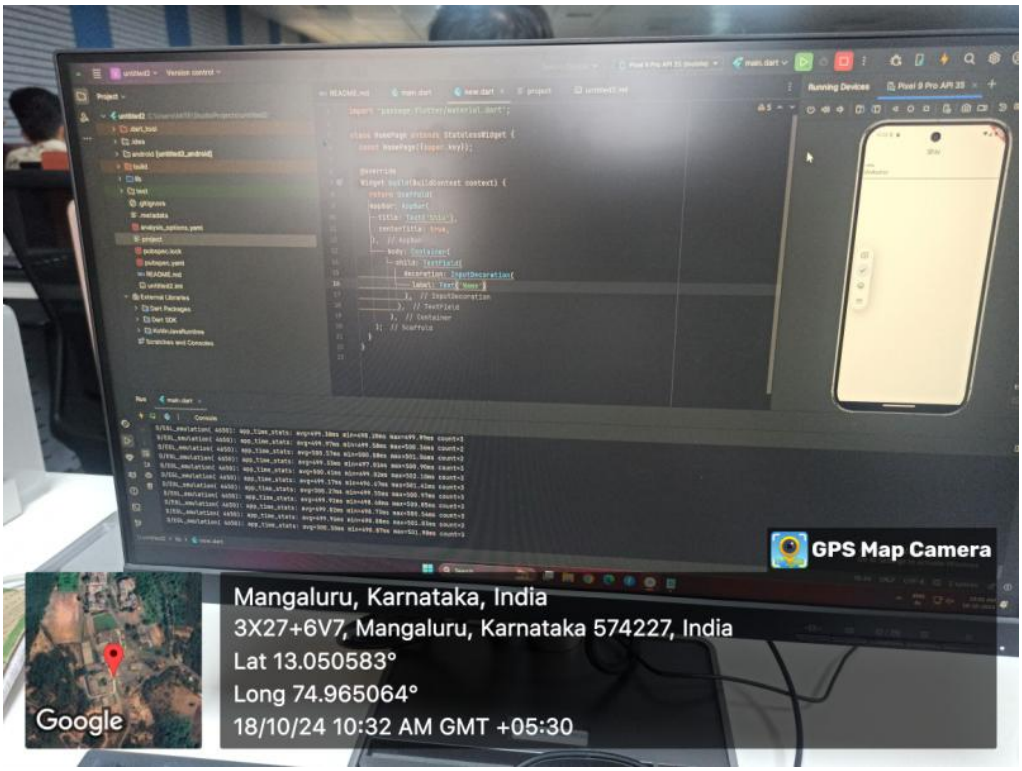
session ensured that attendees were comfortable with the development workflow and ready to progress to more advanced concepts.

Day 2 and 3 focused on practical implementation and enhancing user experience. Using the TMDB API, participants built a movie catalog app, learning how to fetch and display external data while incorporating best practices for API integration. On the final day, the focus shifted to improving the app's visual appeal through animations and interactive design elements. Mr. Mayya demonstrated key animation techniques, helping participants enhance their apps with smooth transitions and engaging user interfaces. The workshop concluded with an interactive Q&A session, solidifying participants' learning and encouraging them to explore future projects with confidence. Overall, the event was a successful and enriching experience that empowered attendees with essential Flutter development skills.

Key Outcomes:

The Flutter workshop conducted by Mr. Shashank S. Mayya resulted in several valuable outcomes for participants, particularly in enhancing their practical skills in mobile application development. Attendees gained a strong foundational understanding of Flutter, from environment setup to building functional UI components. Through hands-on projects like the movie catalog app, they learned to integrate external APIs, manage data, and apply best practices in app architecture. The final day's focus on animations introduced participants to user interface enhancements that improve user engagement and experience. Overall, the workshop not only equipped students with end-to-end development capabilities using Flutter but also sparked interest in mobile app development as a potential career path or innovation platform.

Poster of the Event



Glimpses of the Workshop

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Activity-16

Title : **"Harness the Power of Machine Learning-Hands on workshop on Machine Learning & It's Applications"**

Resource Person : **Dr. Raghvendra S, Associate Professor, MIT, Manipal and Mr. Shivaprasad, Asst. Professor, VCET, Puttur**

Date : **23/10/2024 & 24/10/2024**

The Department of Electronics & Communication Engineering in association with IEEE Student Branch organized a Hands-on workshop on Machine Learning & it's applications in data processing on 23.10.2024 and 24.10.2024.The primary objective of the workshop is to learn the fundamentals of Machine learning and it's Applications in data processing domain. Topics to be covered: Introduction to Machine learning, Data pre-processing and Classification, Decision tree learning, ensemble learning with hands on sessions. A total of 48 students participated in the session.

About the Resource Persons:

Dr. Raghavendra S serves as an Associate Professor in the School of Computer Engineering at MIT, Manipal, holding a B.E. in CSE, M.Tech in BMSP&I, and a Ph.D. in Computer Science & Engineering . His research and teaching focus on cutting-edge domains such as cloud computing, deep learning, machine learning, and the Internet of Things. Dr. Raghavendra has a robust publication record including recent articles in *IEEE Access* on topics like underwater object detection and secure medical data communication, underscoring his commitment to advancing technology through academic excellence.

Mr. Shivaprasad H S is an experienced Assistant Professor at VCET, Puttur, with over 14 years in academia and one year of industry experience. He holds a B.E. and M.Tech, specializing in Digital Electronics, with research interests in computer vision, machine learning, and signal processing. Mr. Shivaprasad has contributed to scholarly work with multiple national and international publications, reflecting his dedication to academic research and teaching.

About the Event:

The two-day workshop on Machine Learning and Signal Processing, held on 23rd and 24th October 2024, was formally inaugurated by Mr. Shivaprasad, Assistant Professor from VCET, Puttur. During his inaugural address, he highlighted the importance of such workshops in equipping students with deeper insights into emerging technologies and industry-relevant tools. The Day 1 sessions, conducted by Mr. Shivaprasad, introduced students to foundational concepts in data processing, noise effects, and noise filtering techniques. He elaborated on key machine learning algorithms such as linear regression, k-means clustering, artificial neural networks (ANN), and k-nearest neighbors (KNN). The session emphasized the importance of understanding both time and frequency domain signal representations and explored real-time applications in signal processing. The hands-on component used Python, enabling students to practically engage with data classification, regression models, and apply ML techniques to sample datasets, offering them a tangible introduction to AI and deep learning.

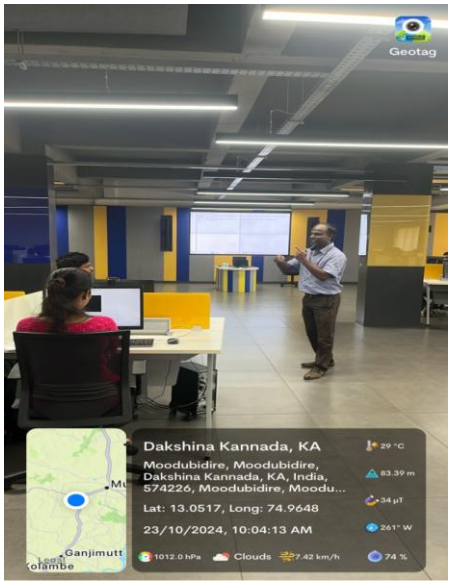
On Day 2, the sessions were led by Dr. Raghavendra S, Associate Professor from MIT Manipal. He provided a comprehensive overview of machine learning, with a focus on supervised and unsupervised learning paradigms. Emphasis was placed on essential data preprocessing techniques, including data cleaning, transformation, and feature selection—critical steps in building efficient and accurate ML models. Students were introduced to the “RapidMiner” software, a user-friendly, drag-and-drop tool that helped them visually understand ML workflows and model-building processes. With real-time datasets, participants applied ML algorithms such as decision trees, k-means clustering, and linear regression models, gaining firsthand experience through interactive demonstrations. The workshop was highly successful in bridging theoretical knowledge with practical skills, empowering students with the confidence to explore and implement machine learning solutions in real-world scenarios.

Key Outcomes:

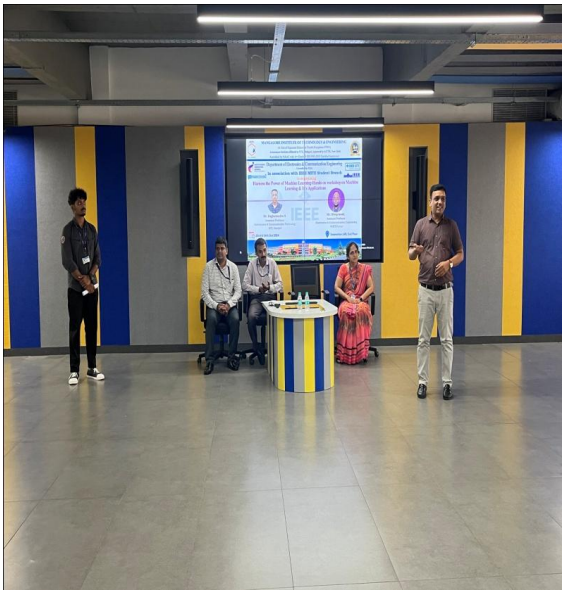
The workshop successfully enhanced participants' understanding of fundamental and advanced machine learning concepts, along with their practical applications. Students gained hands-on experience in data preprocessing, classification, regression, and clustering techniques using both Python and RapidMiner tools. They developed practical skills in applying algorithms like linear regression, k-means clustering, decision trees, ANN, and KNN to real-world datasets. The sessions

helped them grasp the significance of data cleaning, transformation, and feature selection in building effective models. Overall, the workshop fostered confidence among students in using ML tools and provided a strong foundation for further exploration in the fields of machine learning, signal processing, and AI.

Poster of the Event



Mr. Shivaprasad delivering the session



Dr. Raghavendra addressing the participants

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Activity-17

Title	:	**"Industry to Institute conclave on Electronics, Computation, and Communication technology (I2CONECCT- 2025)**
Resource Person	:	**Dr. Santhosha Rao,** **CEO, Manipal Universal Technology Business incubator, Manipal** **&** **Mr. Ramapriya C.G,** **SoC Design Engineer, Intel Technologies, Bangalore**
Date	:	**19/04/2025**

About the Event:

The IEEE MITE Student Chapter, in collaboration with the IEEE Mangalore Subsection, successfully organized the "Industry to Institute Conclave on Electronics, Computation, and Communication Technology (I2CONECCT-2025)" on 19.04.2025 at MITE, Moodabidri. As the flagship annual event of IEEE Mangalore Subsection, I2CONECCT aims to bridge the gap between industry and academia by showcasing innovative project ideas from budding engineers and fostering a culture of technical networking and collaboration among students. The event was inaugurated at 9:30 AM with distinguished guests including Dr. Santhosha Rao, CEO of Manipal Universal Technology Business Incubator, as the chief guest, and Mr. Ramapriya C.G, SoC Design Engineer at Intel Technologies, Bangalore, as the guest of honour. Dr. C.R. Rajashekhar, Vice-Principal of MITE presided over the function, while Dr. Sri Krishna Shastri welcomed the gathering and Dr. S. V. Sathyanarayana, Chair of IEEE MSS, provided an insightful overview of the event's purpose and vision.

Following the inauguration, Dr. Santhosha Rao delivered a compelling keynote address on "The Startup Mindset for Student Innovators Solving for Bharat @ 2047," emphasizing the importance of nurturing innovation, adaptability, and entrepreneurial thinking from an early stage. Post the keynote, over 80 student project teams from various engineering colleges showcased their working models across four key thematic areas: VLSI/Embedded/Signal Processing, AI/ML/Robotics, Networking/IoT/Cyber Security, and Innovation/Humanitarian Technology/Sustainable Development. IEEE executive committee members served as jury members and evaluated the projects based on innovation, scientific approach, and novelty. The valedictory session held at 3

PM included a summary of the day's proceedings by Dr. Sri Krishna Shastri and prize distribution to the best two projects in each theme. The event concluded with closing remarks by Dr. S. V. Sathyanarayana, marking a successful platform that celebrated innovation, collaboration, and technical excellence.

Key Outcomes:

The I2CONECCT-2025 conclave provided an excellent platform for students to showcase their innovative project ideas and interact with industry experts, thereby strengthening the academia-industry connect. Participants gained valuable exposure to emerging technologies and practical insights into areas such as VLSI, embedded systems, AI/ML, cybersecurity, and sustainable development. The keynote session by Dr. Santhosha Rao inspired students to adopt a startup mindset, emphasizing value-driven innovation and entrepreneurial thinking tailored toward India's vision for 2047. The event also promoted interdisciplinary collaboration, enhanced technical communication skills, and encouraged problem-solving through real-world applications. The jury-based evaluation process helped students understand industry expectations and recognize the importance of scientific rigor and innovation in their projects.

Brochure of the Conclave

Dr. Santhosha Rao, CEO of Manipal Universal Technology Business Incubator, delivering his guest speech

Students demonstrating their projects during the competition

Dr. S. V Sathyanarayana Distributing the prize to the winning team

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Activity-18

Title	:	**Peer to Peer Learning - "Career Connect"**
Resource Person	:	**Mr Rohan Gowda S.** **Student, 6th-Semester E&CE, MITE**
Date	:	**19/04/2025**

The Department of Electronics & Communication Engineering in association with IEEE Student Chapter MITE, organized a peer-to-peer learning session on 19.04.2025. The objective is to equip students with a clear understanding of the end-to-end interview process in IT service and product companies, while providing practical strategies for résumé building, aptitude preparation, and effective communication to enhance their selection outcomes. The session also aims to foster an open, interactive environment that encourages juniors to clarify doubts and demystify common myths around recruitment processes.

About the Event

The "Career Connect" session, organized by the Electronics & Communication Students' Association (ECSA), served as a timely and impactful initiative to bridge academic learning with the real-world demands of IT campus recruitment. With the 2026 placement season approaching, the session featured Mr. Rohan Gowda S., a well-accomplished pre-final-year student with successful internship experiences. His peer-led, experience-driven talk effectively decoded the typical end-to-end interview pipeline adopted by both IT service and product firms. From explaining the distinctions between technical and HR rounds to providing actionable insights on evaluation patterns and time management, the session offered a structured overview of the recruitment process. Mr. Rohan also introduced students to modern résumé-building strategies using ATS-friendly formats, portfolio websites, and GitHub-based project showcases—key tools for standing out in today's competitive hiring landscape.

A highlight of the session was the in-depth breakdown of the technical round, including tips for live coding, time-space complexity trade-offs, and effective communication of solutions using dry-run techniques. ECE students were particularly encouraged to leverage their domain expertise in embedded systems, Verilog, and signal processing, which are increasingly relevant in product company assessments. The session also emphasized soft skills such as project articulation and

behavioral storytelling, vital for HR interviews. Importantly, "Career Connect" cultivated a supportive, question-friendly environment that encouraged juniors to demystify myths around online assessments, coding platforms, and virtual interviews. With overwhelmingly positive feedback from participants, ECSA plans to institutionalize this student-led initiative every semester, ensuring that all ECE graduates are not just placement-aware, but thoroughly placement-ready.

Key Outcomes:

The session empowered students with a clear, structured understanding of the complete IT interview process, reducing placement-related anxiety and uncertainty. Attendees gained practical insights into technical and HR expectations, coding test strategies, and real-world project articulation. Exposure to modern résumé-building tools, such as ATS-friendly templates and Git-based project portfolios, enhanced their preparedness for shortlisting and interviews. The session also highlighted the relevance of core ECE skills in product company hiring, encouraging students to leverage their domain strengths. Most importantly, the interactive and peer-led format fostered an open learning environment where juniors could freely clarify doubts, making the session not only informative but also highly relatable and motivational.

Poster of the Event

Mr. Rohan Gowda, delivering his session on Career Connect

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Activity-19

Title : **Awareness Program on "Boundless Innovation: A Tech Awareness Event" at Swami Vivekananda High School, Yedapadavu**

Date : **30/10/2024**

The Department of Electronics & Communication Engineering (E&CE) organized an engaging awareness program titled "Boundless Innovation: A Tech Awareness Event" for the students of Swami Vivekananda High School, Yedpadavu, Moodabidri on 30.10.2025. This event, conducted as part of the AICTE Activity Point and NSS program, aimed to introduce the high school students to the latest advancements in technology and provide them with a practical understanding of various electronics and communication applications. The program was executed by 52 final-year students from the E&CE Department, who took on the responsibility of demonstrating innovative technologies and their real-world uses.

About the Event:

The event featured a series of engaging demonstrations. Mr. Prbalraj and his team introduced the Dancing LED, which blinked and changed patterns based on music. This interactive display demonstrated how LEDs can be programmed to respond to external stimuli like sound, sparking the students' interest in the integration of electronics with audio-visual elements. Mr. Lloyd Moras and his team then showcased the Load Device for testing DC power supplies, teaching the students about the importance of power regulation in electronic devices.

Mr. Akhil M B and his team presented a Gesture Control Vehicle, highlighting wireless communication and control systems. The demonstration gave students insight into how remote technologies can be applied in various fields. Ms. Ruthu V Nayak and her team introduced a Smart Wheelchair designed with features such as automatic navigation and obstacle detection, emphasizing the role of technology in improving mobility for individuals with disabilities. Mr. Sharvan and his team followed with a demonstration of a Smart ICU Unit, which integrates health-monitoring devices to assist doctors in providing timely care to patients in critical conditions.

Mr. Ullas Pai presented 3D Printing Technology, demonstrating how objects are created from digital files and explaining its diverse applications in industries like healthcare and manufacturing.

Following this, Mr. Shanak and his team showcased Robotics and Automation, discussing how robots are used to perform tasks with minimal human intervention, thereby increasing productivity and efficiency in various industries.

Ms. Maitheryi and her team highlighted technology for the Early Detection of Ovarian Cancer, explaining how advanced diagnostic tools can improve early diagnosis and treatment outcomes. Lastly, Ms. Navya and her team introduced the concept of Smart Farming, demonstrating how IoT sensors and automation can optimize agricultural practices, reduce resource consumption, and increase crop yields.

These demonstrations provided the high school students with a broad understanding of current technological advancements and their real-world applications. The event successfully achieved its goal of sparking interest in technology and innovation among the students, inspiring them to explore future career paths in these fields. The involvement of final-year E&CE students further enhanced the event by allowing them to share their knowledge and expertise while developing their communication skills.

Sanpshot of the awareness on "Boundless Innovation: A Tech Awareness Event"

Sanpshot of the awareness on "Boundless Innovation: A Tech Awareness Event"

Sanpshot of the awareness on "Boundless Innovation: A Tech Awareness Event"

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Activity – 20

Title : **Awareness Program on "Blueprints of Tomorrow: Project Insights " at Sarvodaya High School, Kallamundkur and Govt. High School, Prantya, Moodabidri.**

Date : **08/11/2024**

The Department of Electronics & Communication Engineering (E&CE) organized an engaging awareness program titled *Blueprints of Tomorrow: Project Insights* at Sarvodaya High School, Kallamundkur, and Govt. High School, Prantya, Moodabidri. This event, conducted as part of the AICTE Activity Point and NSS program, aimed to introduce high school students to the latest advancements in technology while providing them with a practical understanding of various applications in electronics and communication. The program was executed by 71 final-year students from the E&CE Department, who took the lead in demonstrating innovative technologies and explaining their real-world uses.

About the Event:

The event featured a series of engaging demonstrations, starting with Ms. Sakshi and her team, who explained the working principles of various healthcare sensors, including those used to measure body temperature, heart rate, and blood pressure. They demonstrated how these sensors are integrated into wearable health devices, giving students an understanding of their role in real-time health monitoring. Following this, Mr. Omkar and his team introduced the use of *machine learning* to identify Parkinson's disease. They showcased how AI tools analyze medical data to detect early symptoms of the disease, emphasizing the growing importance of machine learning in healthcare diagnostics.

Mr. Sanjan Kumar and his team presented on *solar power usage*, demonstrating how solar panels harness energy from the sun. They explained the significance of renewable energy sources in addressing global power consumption challenges. Ms. Rakshitha P and her team then demonstrated the *use of image processing technology* to control herbicide application in agriculture. By detecting and targeting weeds with computer vision, they showed how this technology promotes more efficient and environmentally friendly farming practices.

Mr. Harshth S Devadiga followed with a demonstration on *autonomous vehicles*, explaining how self-driving cars use sensors and algorithms to navigate without human intervention. The students were fascinated by the potential of autonomous vehicles to revolutionize transportation. Mr. Prathosh and his team demonstrated an *Automatic Fruit Vending Machine*, showcasing how automation, through sensors and microcontroller technology, enhances efficiency and convenience in retail and vending systems.

Mr. Swastik T S and his team presented a *medical assistance tool for health monitoring*, which integrates sensors to track vital signs and alert healthcare providers in case of abnormal readings. This tool was explained as a useful device for hospitals to monitor patient health in real time. Mr. Prajwal and his team showcased a *gesture-controlled vehicle*, where students saw how hand gestures could control the movement of a vehicle. They explained how gesture recognition technology can be applied to various fields, including gaming and accessibility. Finally, Ms. Amisha and her team introduced an *air quality monitoring system*, which uses sensors to measure pollutants in the air. They demonstrated how this data is used to ensure clean air, highlighting the importance of environmental monitoring for public health. Through these engaging demonstrations, the students gained hands-on experience with the latest technological advancements. The final-year E&CE students effectively conveyed complex concepts in an accessible way, sparking interest among the high school students in the field of electronics and communication. This event not only raised technology awareness but also encouraged the students to explore potential career paths in science and technology.

Key outcomes:

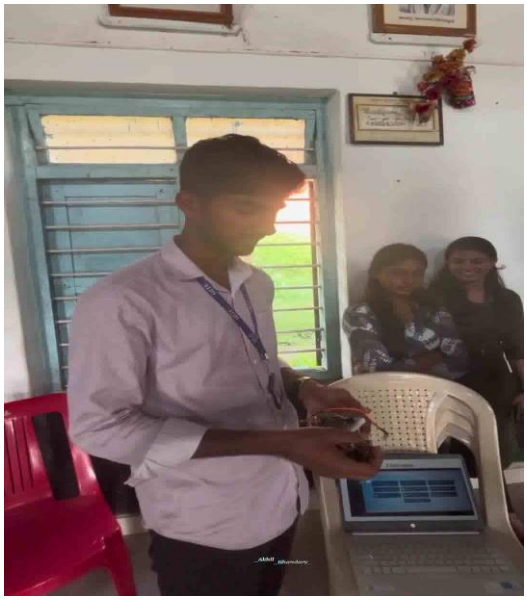
The event successfully enhanced technological awareness among students by providing hands-on exposure to a diverse range of real-world applications in electronics and communication. Through interactive demonstrations on healthcare sensors, machine learning in medical diagnostics, renewable energy, smart agriculture, autonomous vehicles, and environmental monitoring, students gained practical insights into how modern technologies address societal challenges. The final-year E&CE students effectively simplified complex concepts, making them accessible and engaging, especially for the high school attendees. These demonstrations not only sparked curiosity and interest in emerging technologies but also inspired students to consider careers in

science, engineering, and technology-driven fields, thereby promoting innovation and future readiness.

Sanpshot of the awareness on "Blueprints of Tomorrow: Project Insights at Govt. High School"

Sanpshot of the awareness on "Blueprints of Tomorrow: Project Insights at Sarvodaya High School"






Sanpshot of the awareness on "Blueprints of Tomorrow: Project Insights at Sarvodaya High School"

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Activity – 21

Title : **Swachh Moodabidri Abhiyan**

Date : **04/12/2024**

The Department of Electronics & Communication Engineering organized an NSS activity under the NCMC and AICTE Activity Program on 'Swachh Moodabidri Abhiyan' at a locality in Moodabidri city on 04.12.2025. The objective of the Swachh Moodabidri Abhiyan program is to promote cleanliness, hygiene, and sustainable waste management practices within Moodabidri town. The program encourages active community participation in cleaning public spaces, proper waste segregation, and reducing plastic usage. It seeks to instill a sense of responsibility towards maintaining cleanliness in residential, commercial, and educational areas. Through collaborative efforts, the initiative aspires to create a cleaner, greener, and healthier Moodabidri, fostering civic pride and contributing to a sustainable future.

About the Event:

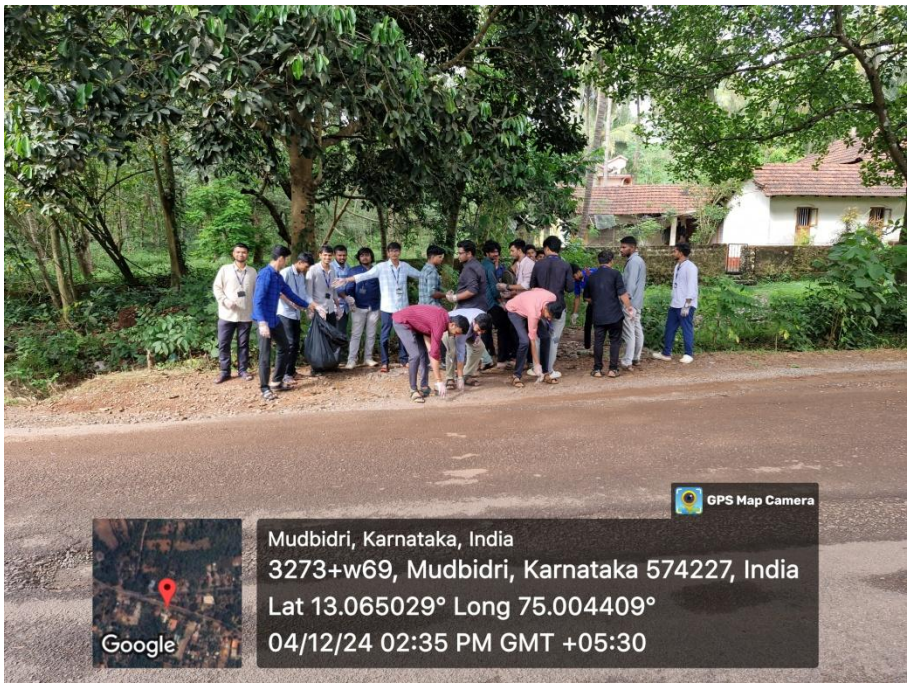
The Swachh Moodabidri Abhiyan was an inspiring initiative undertaken by a group of enthusiastic students, demonstrating their commitment to environmental conservation and social responsibility. Held in the picturesque town of Moodabidri, the campaign was a collective effort to raise awareness about cleanliness, waste management, and the importance of maintaining a healthy living environment. The event was meticulously planned and executed over a day filled with impactful activities. The campaign began with an awareness rally, where students carried placards bearing powerful messages on cleanliness and waste management. They marched through the streets, chanting slogans to encourage residents to take action toward keeping their surroundings clean. Following the rally, the students divided into teams and undertook a comprehensive cleaning drive across key locations in Moodabidri, including markets, public parks, bus stands, and residential areas. Armed with gloves, and cleaning tools, the teams worked tirelessly to remove litter, segregate waste, and dispose of it responsibly. Special emphasis was placed on segregating biodegradable and non-biodegradable waste to highlight the importance of recycling and composting. A key highlight of the event was the enthusiastic participation of local residents, shopkeepers, and municipal workers. Many were inspired by the students' dedication and joined the efforts to clean their neighborhoods. This collaboration fostered a sense of unity and collective

responsibility, strengthening the bond between the students and the community. The Swachh Moodabidri Abhiyan was more than just a cleanliness drive—it was a movement that inspired people to take charge of their surroundings and prioritize sustainability. The students' commitment and hard work set an example for others to follow, paving the way for a cleaner, healthier, and more vibrant Moodabidri.

Key Outcomes:

The Swachh Moodabidri Abhiyan resulted in several impactful outcomes, most notably raising significant awareness about cleanliness, responsible waste management, and environmental sustainability among both participants and the local community. The event empowered students to take active roles in social responsibility and environmental stewardship, while also fostering civic engagement through their collaboration with residents, shopkeepers, and municipal workers. By emphasizing waste segregation and promoting recycling and composting practices, the campaign encouraged sustainable habits within the community. The visible transformation of public spaces and the shared sense of purpose inspired by the initiative contributed to a stronger community bond and a collective commitment to maintaining a clean and healthy living environment. The students' dedication served as a powerful example, sparking a local movement towards long-term environmental responsibility.

Students participating in "Swachh Moodabidri Abhiyan" event.



Students participating in "Swachh Moodabidri Abhiyan" event.

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Activity – 22

Title : **Awareness Program on "Tourism Promotion : An Innovative Approach"**
Date : **29/03/2025 to 16/05/2024**

The Department of Electronics & Communication Engineering successfully conducted an AICTE activity point program titled "Tourism Promotion: An Innovative Approach." This program ran from 29.03.2025 to 16.05.2025. The primary objective of this event was to promote unfamiliarized tourism places within the Karnataka region. The initiative specifically aimed to identify and document lesser-known tourist destinations, then leverage digital platforms for effective information dissemination, ultimately enhancing public awareness about these hidden gems. A significant goal was also to provide participating students with practical experience in project management, data collection, digital content creation, and public outreach. A total of 264 students from the second and third years of the Electronics & Communication Engineering department actively participated in this comprehensive program.

About the Event:

The event was meticulously organized into several key phases to ensure a structured and effective execution. All 264 participating students were systematically divided into 53 distinct batches, with each batch comprising 5 to 6 members. From March 29 to April 7, 2025, each student batch was tasked with identifying unfamiliarized tourism places across Karnataka. The focus was squarely on discovering locations that are not widely known or frequently visited by tourists. Following the identification phase, from April 8 to April 12, 2025, each batch diligently collected comprehensive data for their chosen locations. This crucial information included the GPS location of the identified place, its distance from the nearest main city, relevant photographs, a brief historical overview, and details about nearby bus/railway stations to aid accessibility.

Subsequently, from April 14 to April 26, 2025, each batch was responsible for creating a dedicated Google Website for their identified tourism place. A key requirement for these websites was to present all collected information in both Kannada and English languages, ensuring broader accessibility and reach.

Through their diligent efforts, the students successfully identified and developed websites for a diverse array of 53 unfamiliarized tourism places throughout Karnataka. These included:

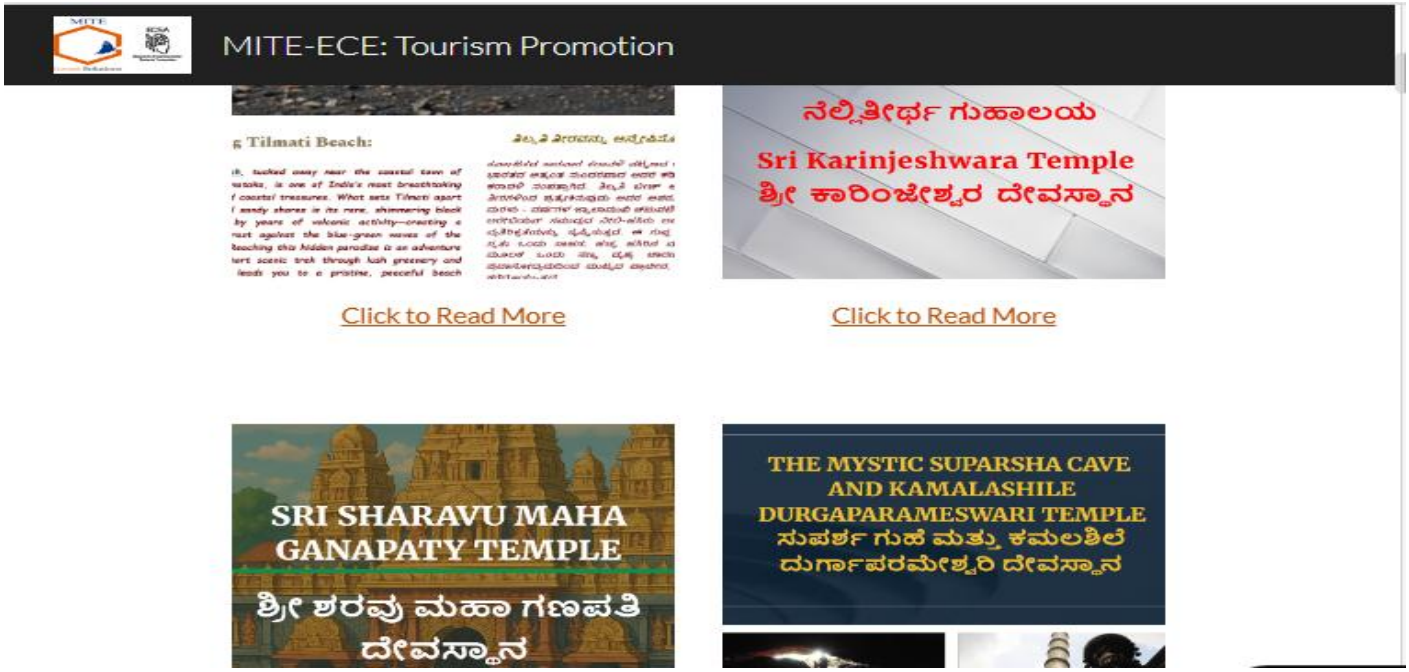
1. The Black sand beach	2. Nelitheertha Cave Temple	3. Sri Sharavu Maha Ganapathy Temple
4. Suparsha Cave and Kamalashile Temple	5. Shri Kaje Mahammayee Temple	6. Shri Idagunji Temple
7.Shri Parvati Brahmeshwara Temple	8. K Gudi	9. Barkur- Capital of Tulunadu
10. Kamandala Ganpathi Temple	11. Nagundi Falls	12. Anjanadri Hill and Tungabahadra dam
13. Hariharapura Mata	14. Veerabhadra Temple	15. Chamadakka Falls
16. Dabbe Falls	17. Kalmeshwara Temple	18. Arbi Falls
19. Achakanya Falls	20. Kapileshwara Temple	21. Hasta Shilpa Heritage Museum
22.Varanga Lake Temple	23. Koti Chennaya Theme Park	24. Kudlu Theertha Falls
25. Padukere Beach	26. Innoli Somanatheshwara Temple	27. Bluge Flag Beach
28. Porkodi Somanatheshwara Temple	29. Didupe Water Falls	30. Pernakila Mahalingeshwara Temple
31. Eemail Falls	32. Sri Somanatheshwara Temple	33. Kote Betta
34. Maidadi	35. Kopeshwara Temple	36. Nakre Rock Hills
37. Kabbinale Falls	38. Gundiadka Falls	39. Vadabhandeshwara Temple
40. Kundadri Hills	41. Ettala Temple	42. Adhinatheshwara Temple
43. Permude Temple	44. Kallu Ganapathi Temple	45. Antaragange Temple
46. Shivarateshwara Temple	47. Badabankapura	48. Hanumagiri & Gejjegiri
49. Bolle & Neerathana Falls	50. Lakshmi Janardhana Temple	51. Chnadramouleshwara Temple
52. Konajekallu	53. Gadai Kallu	

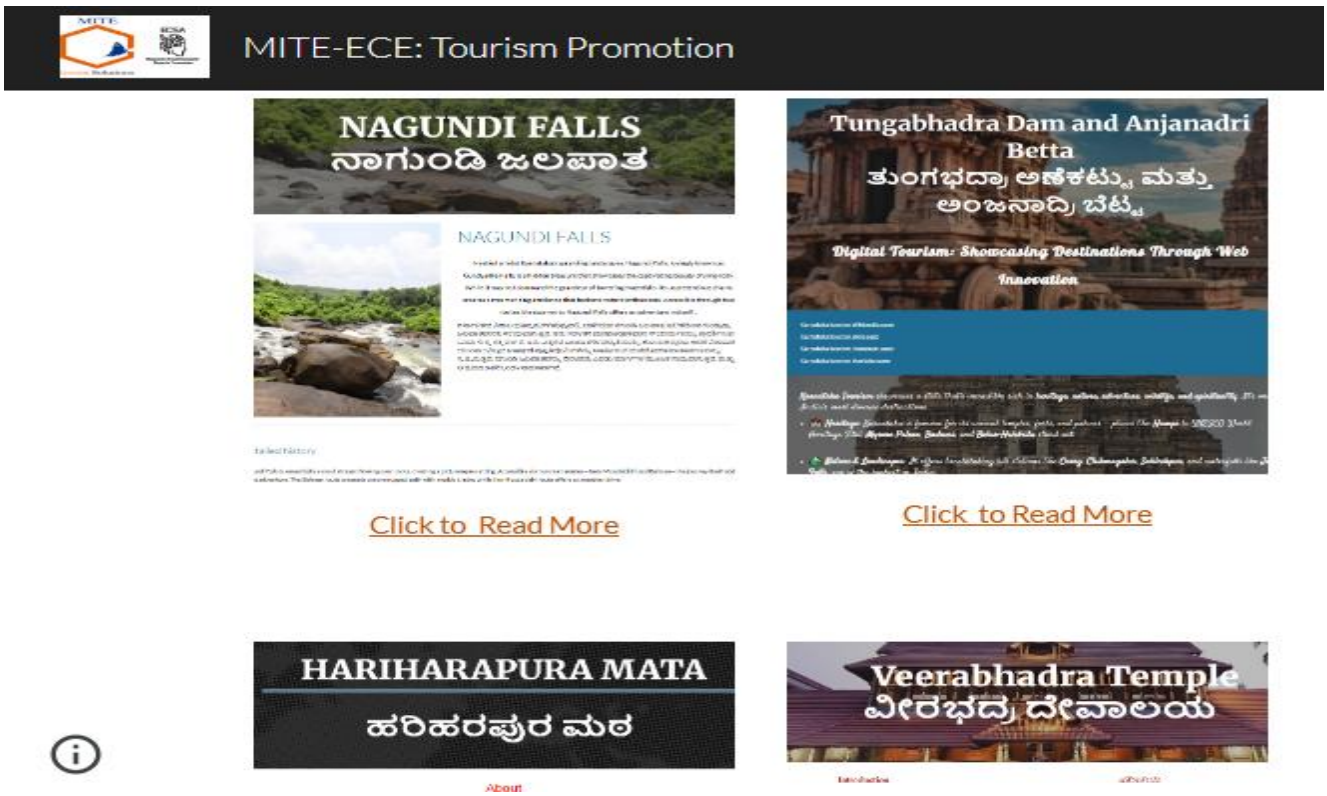
The program culminated on May 16, 2025, with students actively publicizing the websites they had created. This crucial awareness program was conducted in various local areas, including Mijar, Sampige village, Vidyagiri, and Moodabidri City, effectively engaging with the public to disseminate information about these lesser-known tourist destinations.

The Website link is as follows:

https://sites.google.com/mite.ac.in/ece-aicte-tourism?usp=sharing

Snapshot of Tourism Promotion website





Snapshot of Tourism Promotion website

Snapshot of Tourism Promotion Activity

Snapshot of Tourism Promotion Activity

Snapshot of Tourism Promotion Activity

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