

IEEE SATHYABAMA STUDENT BRANCH ACTIVITIES (2025-2026)

FDP on Analog and Digital Circuit Design using Cadence Tool

IEEE Sathyabama Student Branch in collaboration with the IEEE Circuits and Systems Society and the Department of Electronics and Communication Engineering, organised a Two-Day Faculty Development Programme on **“Analog and Digital Circuit Design using Cadence”** on 11th & 12th June 2025 at the NI LabVIEW Academy, Department of ECE from 9:30 AM to 3:15 PM.

The FDP, conducted by Mr. Rajendran, provided comprehensive training on Cadence design tools for both Analog and Digital circuits, bridging the gap between theoretical learning and practical implementation using industry-standard EDA platforms. On Day 1, participants were introduced to Cadence workflows, schematic entry, simulation techniques, and analysis of analog circuits, supported by hands-on demonstrations. Day 2 focused on digital circuit design, covering logic design, verification, and implementation strategies for high-performance and scalable systems. The programme enhanced faculty expertise in VLSI and circuit design while strengthening their capability to mentor students in advanced research and project development.



Guest Talk on Real - World Applications of Computer Vision

IEEE Sathyabama Student Branch in collaboration with the IEEE Signal Processing Society , and the Department of Electronics and Communication Engineering, organised a Guest Talk on “**Real-World Applications of Computer Vision**” on 11th June 2025. The session was conducted online from 10:30 AM to 12:15 PM.

The talk by Dr. Usman Ullah Sheikh offered deep insights into the expanding role of computer vision in areas such as autonomous vehicles, medical imaging, surveillance, agriculture, and industrial automation. He explained how advancements in deep learning and AI have transformed visual data processing and highlighted key algorithms, tools, and research trends driving modern computer vision systems. The session also showcased interdisciplinary opportunities, encouraging students to pursue innovation and research in this domain, and concluded with an interactive Q&A addressing the academic and industrial scope of computer vision.

The screenshot displays a Zoom meeting interface. The main content is a presentation slide titled "IEEE STUDENT BRANCH DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING ORGANIZES Guest Talk on REAL-WORLD APPLICATIONS OF COMPUTER VISION". The slide features a portrait of Dr. Usman Ullah Sheikh, Professor, Faculty of Electronics, Universiti Teknologi Malaysia, Malaysia. The event is scheduled for 11 June 2025, from 10:30am to 12:15pm. The slide lists several roles and names:

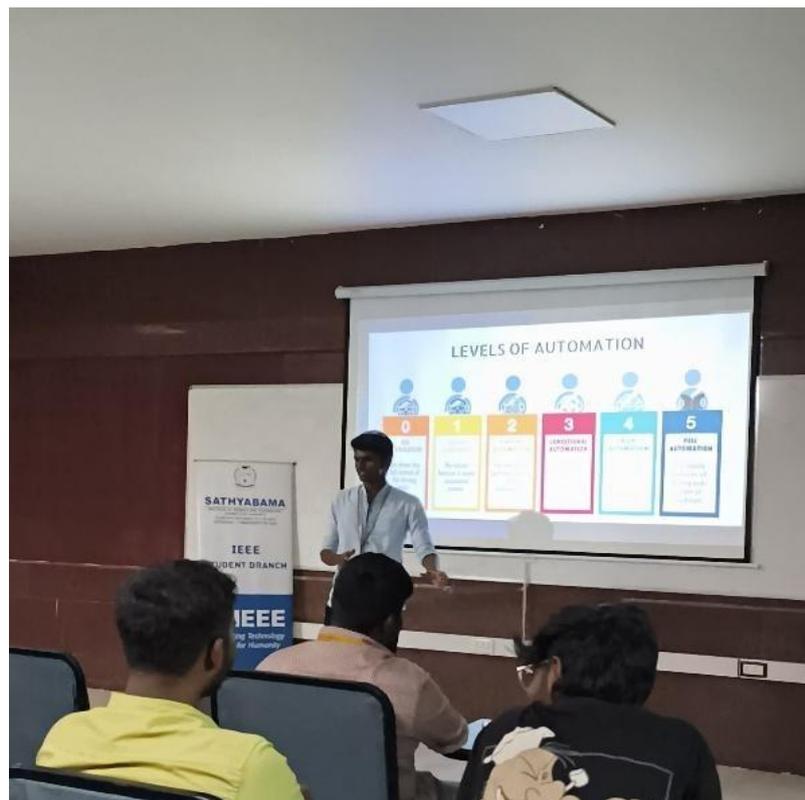
- Chief Patrons:** Dr. Marfazema Johnson (Chancellor), Dr. Marie Johnson (President), Mr. J Arul Selvan (Vice President), Ms. Maria Bernadette Tamilarasi (Vice President), Ms. Maria Catherine Johnson.
- Patrons:** Dr. T Sasipraba (Vice Chancellor), Dr. E Loganathanmugam (Pro Vice Chancellor), Dr. S S Rao (Registrar), Dr. G Sundaraj (Director-Admission), Dr. N M Mandhitha (Dean, School of EE), Dr. T Ravil.
- Student Organizers:** Mr. Dharmen M J (Vice Chair IEEE SBC - SPS), Mr. Chany Aniraha J (Secretary IEEE SBC - SPS).
- Faculty Coordinator:** Dr. C Shanaya (Asst. Prof. Dept. of ECE, Member IEEE), Dr. Mathan N (Convener, Asst. Prof. Dept. of ECE).

The Zoom interface includes a top bar with "Zoom Meeting" and "You are viewing DHAMINI M J's screen". Below the top bar are video thumbnails for participants: MATHAN N, IEEE SB..., DHAMINI M J, Usman Ullah Sheikh, Bhuvaneshwaran TS, and IEEE SATHYABAMA SPS. A "Participants (42)" list is visible on the right side of the screen, showing names like MATHAN N, IEEE SB..., DHAMINI M J, IEEE SATHYABAMA SPS, Usman Ullah Sheikh, and others. The bottom of the screen shows the Zoom control bar with icons for Audio, Start Video, Security, Participants, Share Screen, Reactions, App, Whiteboards, Notes, and an End button.

Seminar on AI - Enhanced Scheduling Algorithms for Distributed C - V2X Communications

IEEE Sathyabama Student Branch in collaboration with the IEEE Vehicular Technology Society and Department of Mechatronics organised a special lecture on “**AI-Enhanced Scheduling Algorithms for Distributed C-V2X Communications**” on June 23, 2025. The event featured two focused sessions delivered by Mr. E. Jeba Sudhan Mario and Mr. A. Duraivel from the Department of Mechatronics, Sathyabama Institute of Science and Technology.

The session on Autonomous Vehicles by Mr. Mario explored core technologies like sensor fusion, perception systems, and V2X communication essential for real-time autonomous navigation. Mr. Duraivel’s talk delved into AI-driven scheduling algorithms for distributed vehicular networks, highlighting heuristic approaches, edge intelligence, and federated learning techniques for efficient communication. The lecture concluded with an interactive Q&A session, encouraging students to explore research opportunities and industry applications in intelligent transportation systems.



Guest Talk on Cyber Security in Embedded System

IEEE Sathyabama Student Branch and IEEE WIE AG, in collaboration with IEEE Madras WIE AG and Department of Electronics and Communication Engineering organised an insightful Guest Talk on “**Cybersecurity in Embedded Systems**” on 24 June 2025 as part of IEEE awareness initiatives for budding engineers. The session, delivered by Mr. S. Vikram, Subject Matter Expert from KPIT Technologies, Bengaluru, provided valuable insights into the challenges and emerging trends in securing embedded systems across sectors such as automotive, healthcare, and IoT. Held in a blended mode with over 100 ECE students participating, the talk covered threat models, secure boot processes, hardware encryption, and secure communication protocols, along with current cybersecurity tools and practices. An interactive Q&A addressed career paths, certifications, and real-world applications, making the session a significant learning opportunity that strengthened participants’ understanding of practical cybersecurity and secure embedded system design.

The screenshot displays a Zoom meeting interface. The main content is a slide titled "Unique Security Challenges" with the following bullet points:

- Critical Functionality
- Ease of replication
- Lack of Security consideration during design
- Difficult to patch
- Long Life Cycle
- Proprietary / Industry Specific Protocols
- Deployed outside of Enterprise Security Perimeter

Below the slide, it says "Classified as Business". The Zoom interface shows 102 participants in the meeting. The participant list on the right includes:

- DC Dr. C.Sharanya (Co-host, me)
- DM Dr. Mathan N (Host)
- VS Vikram Sivaprakas... (Co-host)
- DB Dr. Bhuvana B P (Co-host)
- SC Sherin Christiane S (Co-host)
- 4S 414 SanthoshKumar D
- AA A.M. Amirthan
- AE Aashik Edwin
- AS Aishwarya SIST_28
- AN Amathun noor
- AM ASWIN MOHAN
- B B.Rajeshwari
- BS B.Sai swathi
- BP Bhanu prakash Reddy
- D Dhaya

The Zoom toolbar at the bottom shows options for Audio, Video, Participants (102), Chat, React, Share, Host tools, Meeting info, Apps, Pause/stop recording, More, and Leave. The system tray at the bottom shows the date and time as 24-06-2025, 18:40.

Tech Storm - Competition

IEEE Sathyabama Student Branch and IEEE WIE AG, in collaboration with IEEE Madras WIE AG, and Department of Electronics and Communication Engineering organised, "**Tech storm**" an open-source mini hackathon focused on AI-powered innovation. Held on June 26, 2025, at the Internet Security Lab, the event welcomed enthusiastic student teams from all the departments of Sathyabama Institute. Participants showcased their technical creativity by building futuristic solutions using AI tools. The hackathon aimed to promote problem-solving, rapid prototyping, and collaborative innovation. The event witnessed vibrant engagement under the guidance of faculty and IEEE coordinators. After evaluation by the jury panel, the top two teams were selected based on innovation, technical execution, and presentation. One team was declared the winner, and another was honored as the runner-up. The event concluded with appreciation to all contributors and encouragement to continue pursuing tech-driven excellence.



Cyber Avengers- Competition

IEEE Sathyabama Student Branch and IEEE WIE AG, in collaboration with IEEE Madras WIE AG, and Department of Computer Science and Engineering organised, "**CYBER AVENGERS**" which was held on July 2nd, 2025. Brought together 2nd and 3rd-year students for an engaging introduction to real-world cybersecurity challenges. Led by Harshitha Nukala, the session provided a hands-on experience with the basics of Capture The Flag (CTF) competitions, allowing participants to tackle practical cybersecurity tasks. To enhance the experience, the organizers introduced a custom HTML website where students could compete against each other in real time. Additionally, participants utilized the external website exify.com to decode questions, adding an extra layer of challenge and learning. The event fostered both teamwork and individual problem-solving skills, giving students valuable exposure to identifying and defending against cyber threats. Feedback was overwhelmingly positive, with attendees praising the interactive and competitive format. Overall, "CYBER AVENGERS" sparked a heightened interest in cybersecurity among participants and provided them with essential skills for the field.



Guest Talk on Mems Insight : Design, Fabrication and Integration

IEEE Sathyabama Student Branch and IEEE WIE AG, in collaboration with IEEE Madras WIE AG and Department of Electronics and Communication Engineering organised, a Guest Talk titled "**MEMS Insights: Design, Fabrication and Integration**" by Dr. Sripadaraja K, Manager of MEMS Applications at IntelliSense Software, Bengaluru, on the occasion of IEEE WIE Day 02-07-2025. The online session held on 2nd July 2025 saw active participation from students and faculty of the ECE Department at Sathyabama Institute of Science and Technology and aimed to bridge academic concepts with industry practices in MEMS technology. Dr. Sripadaraja delivered an in-depth lecture on MEMS fundamentals, advanced fabrication methods, integration challenges, and applications in automotive, biomedical, and consumer electronics. He also shared industry insights, emerging research trends, and practical case studies, enabling participants to understand how MEMS devices are designed, simulated, and applied in real-world systems while inspiring innovative thinking in micro-scale engineering solutions.



The screenshot displays a Zoom meeting interface. The main content area shows a presentation slide with the IntelliSense logo at the top left. The slide title is "MEMS Insights Design, Fabrication and Integration" and the presenter is identified as "Dr. Sripadaraja, IntelliSense Software". The Zoom toolbar at the bottom includes icons for Audio, Video, Participants, Chat, Boost, Share, Host tools, Apps, Record, Meeting info, and More. On the right side, the Participants list shows 71 participants, including MATHAN N (Host), Sripadaraja (Co-host), and several other attendees.

Mystic Code- Competition

IEEE Sathyabama Student Branch and IEEE WIE AG, in collaboration with IEEE Madras WIE AG and Department of Computer Science and Engineering organised, “**Mystic Code**” on July 3rd 2025. The competition featured exciting rounds that tested participants’ teamwork, problem-solving ability, and presence of mind. The first round, Gesture Genius (Act it Out), encouraged students to enact clues while their teammates decoded the concepts, blending fun with quick thinking. The second round, Clue Quest (Who am I?), challenged participants to identify technical personalities or concepts using limited hints, thereby sharpening their reasoning and domain knowledge. The competition featured three exciting rounds that tested participants’ teamwork, problem-solving ability, and presence of mind.



Seminar on Inter-Networking of Authentication Protocols

IEEE Sathyabama Student Branch and IEEE WIE AG, in collaboration with IEEE Madras WIE AG and Department of Mechatronics organised, a Tech Talk on “**Inter-Networking of Authentication Protocols**” on July 3rd 2025. The session was delivered by Dr.R.Narmadha , Professor and Head , Department of Mechatronics,Sathyabama Institute of Science and Technology.Dr. Narmadha provided deep insights into interoperability and integration of authentication protocols across diverse systems, explaining the significance of secure communication in networked environments. She highlighted real-world applications of secure authentication in domains like IoT, vehicular networks, and smart infrastructure, making it highly relevant for engineering students with multidisciplinary interests. The session was attended by enthusiastic students creating a platform for technical exchange and discussions in the field of cybersecurity and intelligent systems.



Tech Treasure - Competition

IEEE Sathyabama Student Branch and IEEE WIE AG, in collaboration with IEEE Madras WIE AG and Department of Electrical and Electronics organised, “**Tech Treasure**” on July 3rd 2025. The event was designed to enhance technical knowledge, encourage teamwork, and promote interactive learning. It began with a felicitation by Dr. M.L. Bharathi, IEEE Branch Counsellor, who highlighted the significance of such events in fostering student development. The welcome address was delivered by Ms. Faustina Anto Liberalis, IEEE Member, who emphasized the importance of interdisciplinary collaboration. The competition consisted of three rounds. Round 1 tested participants with technical and logical questions, Round 2 focused on circuit-based problem-solving, and Round 3 presented application-oriented challenges. To determine the winners in case of a tie, a tie-breaker round was also conducted, adding an extra layer of excitement to the event. The event saw active involvement from students, faculty, coordinators, and volunteers, making it a truly collaborative effort. Participants displayed creativity, critical thinking, and teamwork throughout the competition, reflecting the objectives of the IEEE Student Branch in promoting holistic learning.



Sketch The Tech - Competition

IEEE Sathyabama Student Branch and Department of Computer Science and Engineering organised, “**Sketch The Tech**” on July 15th 2025, attracting enthusiastic participation from students across various departments. The event aimed to merge technology with creativity, offering a platform where students could showcase their technical knowledge, artistic skills, and sense of humor in a collaborative environment.

The event featured two exciting rounds designed to challenge participants in different ways. Round 1 focused on drawing and guessing technology-related terms such as “Operating System,” “Electric Motor,” and “Artificial Intelligence.” This round tested participants’ technical understanding, imagination, and ability to communicate complex concepts visually. Teams actively engaged in interpreting and sketching ideas, making the round both challenging and fun. Round 2 was a non-technical Meme Fest, where participants created theme-based memes using pre-defined templates or live photos. This round encouraged participants to think creatively, incorporate humor, and work together effectively. Memes ranged from witty tech jokes to clever takes on everyday student life, fostering a lighthearted and entertaining atmosphere.



Seminar on Networking Mixer

IEEE Sathyabama Student Branch and IEEE WIE AG, in collaboration with IEEE Madras WIE AG, and Department of Computer Science and Engineering organised, “**Networking Mixer**” on July 15th 2025. The event featured team-building exercises designed to promote collaboration, trust, and effective communication. Members actively participated in activities that challenged them to work together, think creatively, and develop problem-solving skills while strengthening their interpersonal relationships. Discussions during the session emphasized the importance of mentorship, peer learning, and professional growth. Participants explored strategies for expanding their professional networks, leveraging connections for career opportunities, and supporting each other through knowledge sharing and guidance.



Seminar on React JS Application

IEEE Sathyabama Student Branch and IEEE WIE AG, in collaboration with IEEE Madras WIE AG, and Department of Computer Science and Engineering organised, “**React JS Application**” on July 16th 2025. Facilitated by Ms. Harshitha Nukala and Ms. Thejashri Narayanan, the session began with a foundational overview of HTML and React.js, guiding students in structuring web pages and creating interactive user interfaces. Leveraging platforms like StackBlitz for HTML & CSS, CodeSandbox for React.js, and GitHub for version control and source code access, the instructors provided a comprehensive learning environment. In the hands-on workshop that followed, students built and deployed their own websites, gaining practical experience. The event not only enhanced their technical proficiency and creativity but also boosted their confidence in developing real-world applications. Participants appreciated the interactive and resource-driven approach, making React Innovate a memorable and impactful learning experience in front-end development.



RoboQuest-II - Competition

IEEE Sathyabama Student Branch in collaboration with the IEEE Robotics and Automation Society, and Department of Computer Science and Engineering organised, “**RoboQuest-II**” July 17th 2025. The event featured three engaging rounds, beginning with Murder Mystery, where teams used logic and analytical skills to solve a robotics-themed case, promoting teamwork and strategic thinking. This was followed by Technical Connections, which required participants to creatively link technology concepts, enhancing adaptability and conceptual understanding. The final round, Technical Rapid Fire, tested speed, accuracy, and technical knowledge, creating a high-energy environment. Throughout the event, students demonstrated strong collaboration, focus, and competitive spirit.



Lecture on E-Vehicle

IEEE Sathyabama Student Branch in collaboration with the IEEE Power Electronics Society, and Department of Electrical and Electronics Communication Engineering organised, **“Lecture on E-Vehicle”** on July 22nd 2025. The lecture included two insightful student presentations: Sham Ganesh R (III-year EEE) discussed “Axial Flux Motors: The Future of Electric Propulsion,” highlighting their high efficiency, compact design, and applications in modern EVs, while Harikrishnan N (III-year EEE) presented “From Sparks to Superchargers,” offering an overview of the evolution, current trends, and future prospects of the electric vehicle industry. The session deepened students’ understanding of emerging EV technologies, encouraged active participation through questions and discussions, and inspired them to consider practical applications and future innovations in sustainable transportation.



Induction Programme on IEEE: Igniting Innovation and Excellence

IEEE Sathyabama Student Branch and IEEE WIE AG, in collaboration with IEEE Madras WIE AG, and Department of Computer Science and Engineering organised, “**IEEE: Igniting Innovation and Excellence**” on July 23rd 2025. The session was led by **Dr. M.S. Godwin Premi**, Professor in the Department of CSE and Execom Member of IEEE MAS WIE AG. Dr. Premi shared practical insights on how IEEE initiatives empower students, foster professional growth, and enhance engagement in technical communities. The session covered key IEEE programs, opportunities for skill development, and ways students can actively participate in both local and global IEEE activities.



Hack the Mind - Competition

IEEE Sathyabama Student Branch and Department of Computer Science and Engineering organised, “**Hack the Mind**” which held on July 30th 2025. The seminar was delivered by Ms. Saloni, a final-year Mechatronics student and active IEEE SBC–VTS member, who presented an in-depth overview of semantic data processing in autonomous vehicles and AI-driven decision-making for traffic optimization, route planning, and predictive safety systems. She highlighted the role of AI in vehicular communication networks, demonstrating how these technologies contribute to safer, smarter, and more efficient transportation infrastructure.



Seminar on IEEE Spectrum Series

IEEE Sathyabama Student Branch in collaboration with the IEEE Antennas and Propagation Society, and Department of Electrical and Electronics Communication Engineering organised, “**IEEE Spectrum Series**” on July 31st 2025. The session began with a talk by Mr. Bhuvaneshwaran T. S., Section Coordinator, IEEE SBC, on Nanosensors and Nanorobotics in Healthcare. He highlighted the role of nanotechnology in diagnostics, targeted drug delivery, and advanced medical robotics, emphasizing how these innovations are transforming modern healthcare and patient care. Following this, Ms. Chethana P., Member of IEEE SBC, presented on “More Autonomy for Surgical Robots”. Her presentation focused on the integration of AI and robotics in surgical procedures, demonstrating how enhanced autonomy can improve precision, minimize human error, and advance healthcare systems. Both talks provided participants with a clear understanding of cutting-edge research and its practical applications in the medical field.



Pitch Perfect- Competition

IEEE Sathyabama Student Branch and Department of Computer Science and Engineering organised, "Pitch Perfect" which held on July 31st 2025. The event commenced with a brief introduction about the objectives of "Pitch Perfect," emphasizing the importance of effective pitching in today's competitive and innovation-driven world. Participants were given a specific time frame to prepare and present their ideas, highlighting the relevance, feasibility, and uniqueness of their proposed solutions. Throughout the session, participants presented diverse ideas addressing contemporary challenges in technology, sustainability, and digital innovation. The interactive nature of the event created a healthy competitive environment, motivating students to think innovatively and refine their presentation and problem-solving skills.



Hands on Training on Sky Surfers

IEEE Sathyabama Student Branch in collaboration with the IEEE Aerospace and Electronic Systems Society, and Department of Aeronautical Engineering organised, “**Sky Surfers**” on July 31st 2025 a glider making event where participants craft gliders using balsa wood, embracing the thrill of flight. Entrants design and build lightweight gliders, focusing on aerodynamics and balance for optimal glide performance. Emphasizing on creativity and aerodynamic principles, teams shape wings, empennage, and nose for smooth soaring. Gliders are taken to the air in friendly competitions, judging distance, duration, aerodynamics and elegance of flight. Participants explore concepts, nurturing passion for aviation and aerospace.



Seminar on Semantic Flow 5.0 : Generative AI in Smart Mobility

IEEE Sathyabama Student Branch in collaboration with the IEEE Vehicular Technology Society , and Department of Mechatronics organized, “**Semantic Flow 5.0 : Generative AI in Smart Mobility**” on August 1st 2025. The seminar was delivered by Ms. Saloni, a final-year Mechatronics student and active IEEE SBC–VTS member, who presented an in-depth overview of semantic data processing in autonomous vehicles and AI-driven decision-making for traffic optimization, route planning, and predictive safety systems. She highlighted the role of AI in vehicular communication networks, demonstrating how these technologies contribute to safer, smarter, and more efficient transportation infrastructure.



Seminar on Technology for Youth Empowerment

IEEE Sathyabama Student Branch and IEEE WIE AG, in collaboration with IEEE Madras WIE AG, and Department of Computer Science and Engineering organised, “**Technology for Youth Empowerment**” on August 12th 2025. The panel featured six IEEE members who shared insights on the impact of emerging technologies, particularly Artificial Intelligence, on their personal and professional lives. The discussion highlighted society’s growing dependence on AI, its potential for innovation and skill development, and the associated data privacy and ethical challenges. The session also explored the evolving education landscape, comparing classroom-based and online learning, with panelists emphasizing the interactive advantages of traditional classrooms while the audience noted the flexibility and accessibility of online platforms, offering a balanced perspective on adapting to technological advancements.



Guest talk on AI Tool + Prompt Engineering

IEEE Sathyabama Student Branch and IEEE WIE AG, in collaboration with IEEE Madras WIE AG, and Department of Computer Science and Engineering organised, “**AI Tool + Prompt Engineering**” on August 14th 2025. The session was delivered by Mr. Joshua Israel, a Udeemy Instructor and former Cloud Infrastructure Engineer at Autodesk, who is currently pursuing PMP to transition into Technical Project Management. He provided participants with a comprehensive understanding of how AI can be applied in real-world scenarios. Through live demonstrations, Mr. Joshua showcased techniques for creating presentations, summarizing content, designing creative assets, and efficiently utilizing a variety of AI platforms to boost both academic and professional work.



Guest Talk on Modernizing IT with DevOps and Cloud

IEEE Sathyabama Student Branch in collaboration with the IEEE Signal Processing Society, and the Department of Electronics and Communication Engineering, organised, " **Modernizing IT with DevOps and Cloud**" on August 26th 2025. The session was conducted by Mr. Eswara Narayana M, who introduced participants to the fundamentals of cloud infrastructure, CI/CD pipelines, and containerization, emphasizing how DevOps practices enhance collaboration, automation, system reliability, and cost efficiency. Through live demonstrations, students gained hands-on experience in setting up pipelines, deploying applications, and managing cloud resources, while interactive discussions at the end helped them explore practical applications, industry best practices, and the relevance of DevOps and cloud technologies for academic projects and future professional roles.



Guest Talk on Exploring the World of IEEE & Vehicular Technology Society

IEEE Sathyabama Student Branch in collaboration with the IEEE Vehicular Technology Society, and Department of Mechatronics organised, “**Exploring the World of IEEE & Vehicular Technology Society**” on August 28th 2025. Dr. Brindha introduced the session by outlining the vision and mission of IEEE and its role in advancing technology for humanity, highlighting the opportunities it offers students in networking, research, innovation, and leadership. She further explained the objectives of the IEEE Vehicular Technology Society and its contributions to connected vehicles, intelligent transportation systems, autonomous mobility, and vehicular communications. The session was highly interactive, with students actively engaging in discussions on IEEE memberships, technical societies, and career prospects in vehicular technologies.



Guest Talk on Design and Debug of Embedded Systems

IEEE Sathyabama Student Branch in collaboration with the IEEE Antennas and Propagation Society, and Department of Electrical and Electronics Communication Engineering organised, “**Design and Debug of Embedded Systems**” on August 29th 2025. Mr. Hareesh delivered an insightful session on the principles, architecture, and methodologies of embedded systems, emphasizing the integration of hardware and software in applications such as consumer electronics, automotive systems, industrial automation, and IoT. Using real-world examples, he discussed common design challenges, effective debugging and optimization strategies, and the role of advanced testing and performance tools. The session concluded with an interactive discussion where students explored embedded design workflows, career opportunities, and the role of IEEE in fostering technical excellence.



Hands on Training on Water Rocketry

IEEE Sathyabama Student Branch in collaboration with the IEEE Aerospace and Electronic Systems Society , and Department of Aeronautical Engineering organised, " **Water Rocketry**" on September 4th 2025. Water Rocketry unleashes the thrill of propulsion as teams collaborate to design soaring rockets. Participants pressurize modified bottles with water and air, blending physics and creativity for explosive launches. Competing for height, distance, design and finesse, teams engineer optimal pressure, nozzle design, and aerodynamics. Learning merges with adrenaline-fueled competition in this wild challenge. Sky's the limit for these self-made liquid-fueled flyers.



Guest Talk on Grow with IEEE: Your Pathway to Tech Excellence

IEEE Sathyabama Student Branch in collaboration with the IEEE Circuits and Systems Society, and the Department of Electronics and Communication Engineering, organised, " **Grow with IEEE: Your Pathway to Tech Excellence**" on September 9th 2025. Ms. Harshitha highlighted the benefits of IEEE membership, emphasizing its role in connecting students with global research communities, enhancing technical and leadership skills, and keeping them informed about emerging technologies. She discussed the wide range of IEEE resources and opportunities, including conferences, workshops, and research publications, while stressing the importance of networking, interdisciplinary engagement, and continuous learning. The interactive session saw active student participation, with discussions on career development, project collaboration, and effective use of IEEE platforms to build a strong professional and global presence.



Motion Beats- Competition

IEEE Sathyabama Student Branch and Department of Computer Science and Engineering organised, " **Motion Beats**" on September 10th 2025. Participants enthusiastically engaged in a series of performances and creative activities that combined music and short-form video content, encouraging innovation, expression, and collaboration among peers. The event was well-coordinated by student leaders Mr. Sujeet Kumar, Mr. Madhan Raj, Mr. Shwet Dutta, and Mr. Vijay (III Year IT), whose efforts ensured smooth execution and enthusiastic participation. Overall, Motion Beats 2025 was a lively and memorable event that successfully blended entertainment with creativity, offering students a refreshing break from academics while strengthening the sense of community within the IEEE Student Branch.



Inspire and Achieve- Competition

IEEE Sathyabama Student Branch and IEEE WIE AG, in collaboration with IEEE Madras WIE AG, and Department of Computer Science and Engineering organised, "Inspire and Achieve" on September 19th 2025. The session shed light on the challenges and achievements of prominent women leaders across the world, highlighting their perseverance, resilience, and contributions to society. Through engaging discussions and activities, the event emphasized that success is attainable through hard work, courage, and self-belief, regardless of the obstacles one may face. Beyond its motivational core, "Inspire and Achieve" also featured fun and non-technical interactive segments, making it both enjoyable and thought-provoking. Participants were encouraged to share their views and draw inspiration from real-life achievers, fostering a sense of empowerment and unity among the attendees.



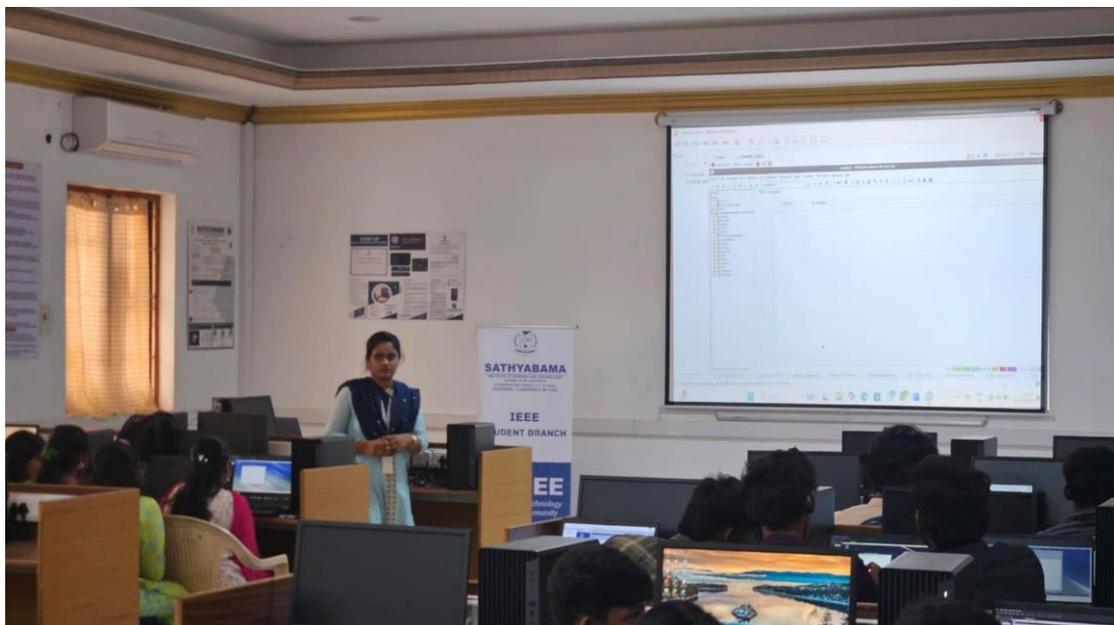
Guest Talk on AI for Corporates & Consumer Insights

IEEE Sathyabama Student Branch and IEEE WIE AG, in collaboration with IEEE Madras WIE AG, and Department of Computer Science and Engineering organised, “**AI for Corporates & Consumer Insights**” on September 17th 2025. The session was highly interactive, with students actively participating, asking insightful questions, and gaining valuable exposure to the real-world applications of AI in business and marketing. The lecture concluded with a note of inspiration, motivating participants to explore the interdisciplinary role of AI in shaping the future of corporate intelligence and consumer experience.



Workshop on Advanced Semiconductor Device Simulation with TCAD Sentaurus

IEEE Sathyabama Student Branch in collaboration with the IEEE Circuits and Systems Society, and the Department of Electronics and Communication Engineering, organised, " **Advanced Semiconductor Device Simulation with TCAD Sentaurus**" on September 17th 2025. Ms. Sherin conducted a hands-on session introducing the fundamentals of TCAD Sentaurus and its role in modeling and analyzing advanced semiconductor devices. Through real-time simulations, participants learned about MOSFET scaling, quantum confinement effects, doping engineering, and carrier transport, gaining practical experience with device structures and performance analysis. The session highlighted the importance of TCAD in reducing fabrication costs, improving design accuracy, and enabling next-generation semiconductor research, while also covering industry applications, current research trends, and career opportunities in device modeling and VLSI design.



Induction Programme on Kickstart with IEEE: Innovate, Collaborate, Lead

IEEE Sathyabama Student Branch and Department of Electronics and Communication Engineering organised, "**Kickstart with IEEE: Innovate, Collaborate, Lead**" on September 23rd 2025. Dr. Mathan outlined the objectives and global reach of IEEE, emphasizing its mission to advance technology for the benefit of humanity and to connect professionals, researchers, and students worldwide. He highlighted the advantages of IEEE membership, including access to technical publications, research resources, conferences, and networking opportunities, while also stressing the importance of leadership, collaboration, and innovation. The session encouraged students to actively engage in IEEE societies, student chapters, and initiatives to strengthen their technical expertise and professional skills.



Guest Talk on AI and Business: Building Skills for the Next Generation of Engineers & Entrepreneurs

IEEE Sathyabama Student Branch and IEEE WIE AG, in collaboration with IEEE Madras WIE AG, and Department of Computer Science and Engineering organised, **“AI and Business: Building Skills for the Next Generation of Engineers & Entrepreneurs”** on September 24th 2025. The session by Mr. Bharath Ramesh, Director – Business Development at CIKLUM, Chennai, highlighted how Artificial Intelligence is transforming business strategies, decision-making, and innovation across industries while redefining the role of engineers as future leaders and entrepreneurs. He emphasized the need to integrate technical expertise with business acumen and encouraged students to develop future-ready skills such as adaptability, creativity, and critical thinking. Through real-world examples and an interactive Q&A, the session provided practical insights into AI-driven innovation and inspired participants to view AI as a catalyst for entrepreneurship and global progress.



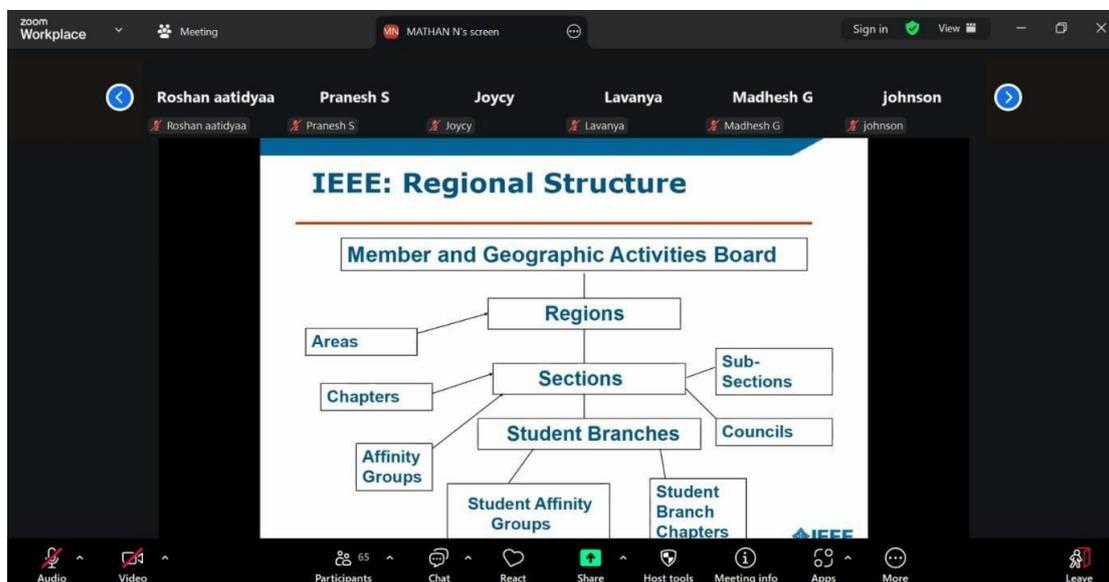
Cipher Clash - Competition

IEEE Sathyabama Student Branch in collaboration with the IEEE Antennas and Propagation Society, and Department of Electronics and Communication Engineering organised, "**Cipher Clash**" on September 24th 2025. The competition comprised four engaging rounds designed to test and enhance participants' technical knowledge and analytical skills. It began with a technical quiz on core ECE concepts, followed by a scrambled technical words round and a picture-connection challenge that assessed quick thinking and associative reasoning. The event concluded with an interactive crossword puzzle round combining logic and technical expertise. Overall, "CIPHER CLASH" was a highly engaging and educational competition that blended learning with creativity, providing students a dynamic platform to compete, collaborate, and showcase their skills.



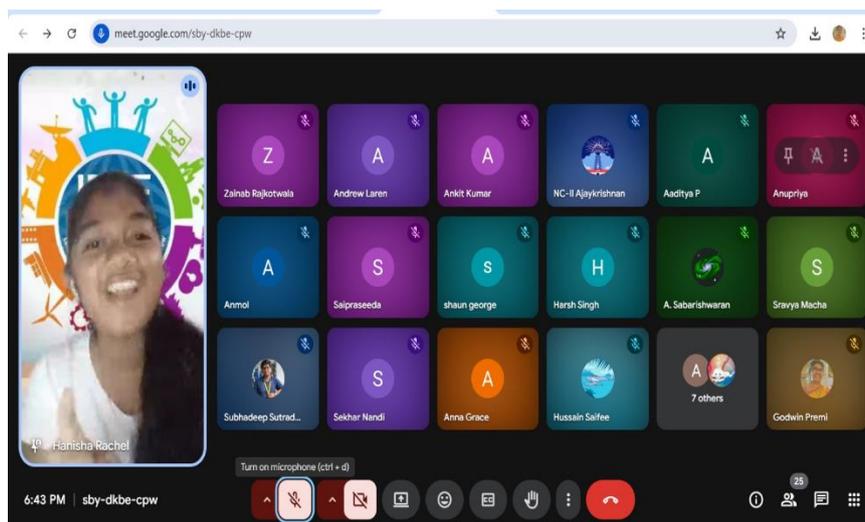
Induction Programme on Getting Started with IEEE: Pathways to Professional Growth

IEEE Sathyabama Student Branch and Department of Electronics and Communication Engineering organised, "Getting Started with IEEE: Pathways to Professional Growth" on September 25th 2025. The event introduced students to the vision, mission, and values of IEEE, highlighting its role in advancing technology for the benefit of humanity and empowering engineers worldwide. Dr. Mathan explained the learning, networking, and leadership opportunities offered through IEEE membership, including access to technical societies, research publications, conferences, and global collaborations. The session encouraged active participation in IEEE Student Branch activities and inspired students to leverage IEEE's ecosystem to enhance their technical skills, professional growth, and career development.



TECH TALK - Competition

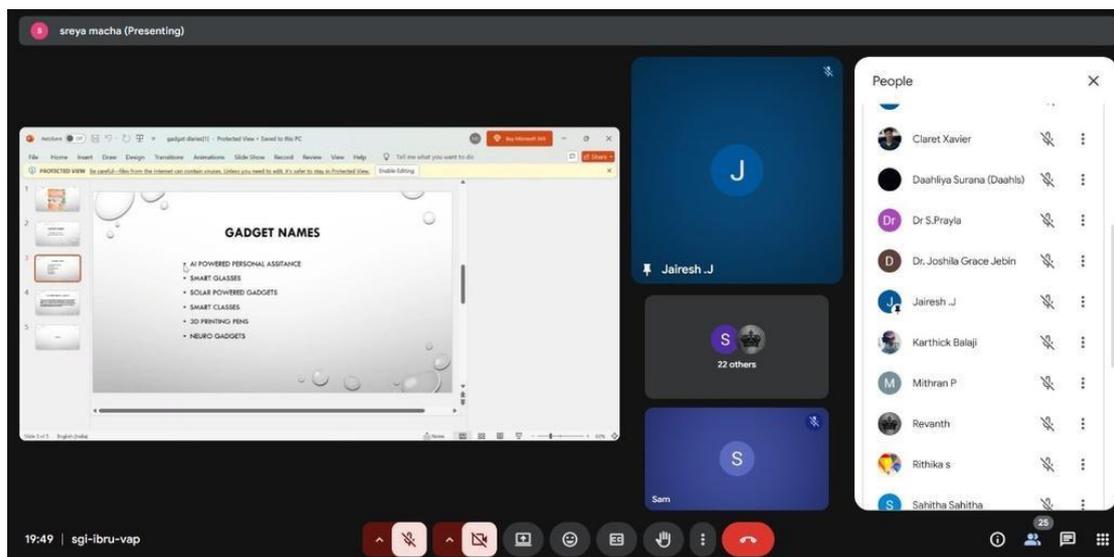
IEEE Sathyabama Student Branch and IEEE WIE AG, in collaboration with IEEE Madras WIE AG, and Department of Computer Science and Engineering organised, "Tech Talk" on October 10th 2025. The Tech Talk Competition was organized to provide students with a platform to showcase their technical knowledge, innovative thinking, and communication skills. Participants delivered confident presentations on emerging domains such as Artificial Intelligence, Internet of Things, Sustainable Development, Green Technologies, and Quantum Computing, highlighting their significance and real-world impact. Overall, the event encouraged critical thinking, creativity, and awareness of cutting-edge technologies, making it an enriching experience that inspired students to contribute meaningfully to future technological advancements.



GADGET DIARIES - Competition

IEEE Sathyabama Student Branch in collaboration with the IEEE Robotics and Automation Society and Department of Computer Science and Engineering organised, "**Gadget Diaries**" on October 15th 2025. During the session, students highlighted the key features, functions, and real-world applications of gadgets ranging from smartphones and smartwatches to drones and AI-powered devices. Many participants shared interesting facts, personal experiences, and insights into how these technologies influence daily life and contribute to a more advanced, convenient future.

The event aimed to enhance communication, confidence, and presentation skills while motivating students to stay updated with the latest technological trends. Gadget Diaries ultimately served as a dynamic platform for tech enthusiasts to express their ideas, exchange perspectives, and inspire others through their enthusiasm for innovative gadgets.



SIMSPRINT - Competition

IEEE Sathyabama Student Branch in collaboration with the IEEE Circuits and Systems Society, and the Department of Electronics and Communication Engineering, organised, "Simsprint" on October 15th 2025. The session commenced with an overview of SIMSPRINT's objectives, emphasizing the role of simulation in modern engineering, research, and real-time decision-making. Participants completed interactive circuit, design, and system-level simulation tasks that tested analytical thinking, creativity, and practical application, with mentors offering real-time guidance and feedback. The event concluded with a reflection session, reinforcing technical confidence, problem-solving skills, and interest in using advanced simulation tools for academic and project work.

S Harini (Presenting)

GIVEN TWO DAYS OF HOURLY CONSUMPTION DATA, WRITE A PROGRAM THAT COMPARES THEIR PATTERNS. Display both curves on the same plot and highlight the hours where one day's consumption exceeded the other by more than 20%.

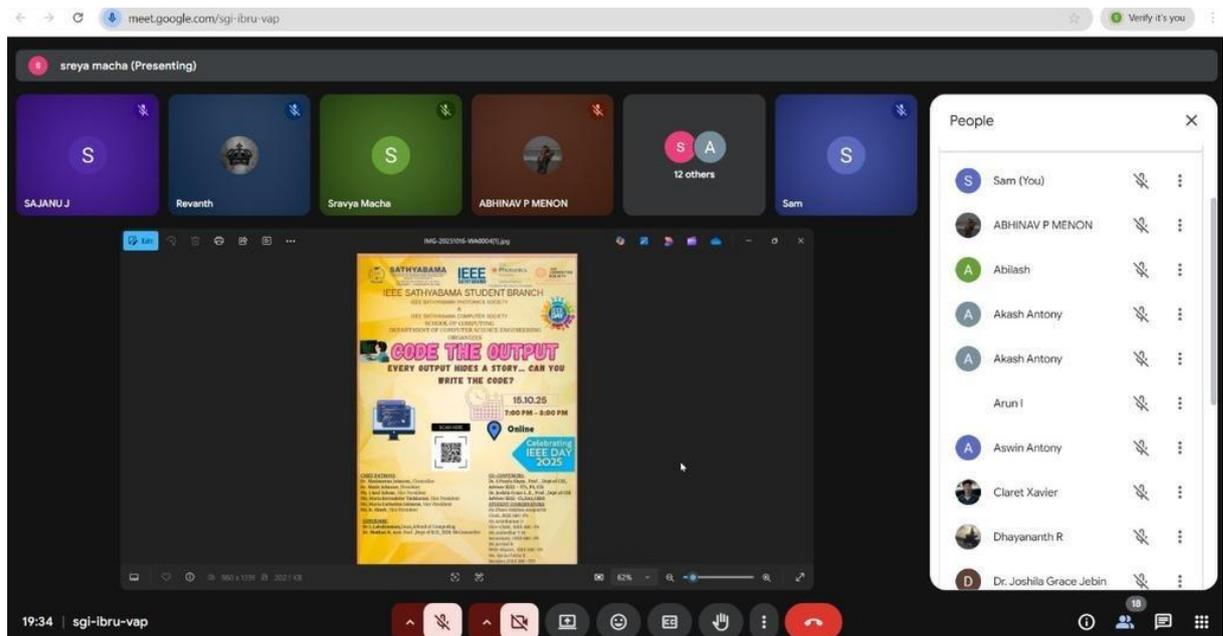
Participants visible in the grid:

- S Harini
- Abraame Kannan
- Isha Poopathy
- Shri Balu Advitha
- hemavathia
- Jessica
- Harish Hari
- 3 others
- BHUVANA BHANUMAL

6:51 PM | uvq-dabn-rgd

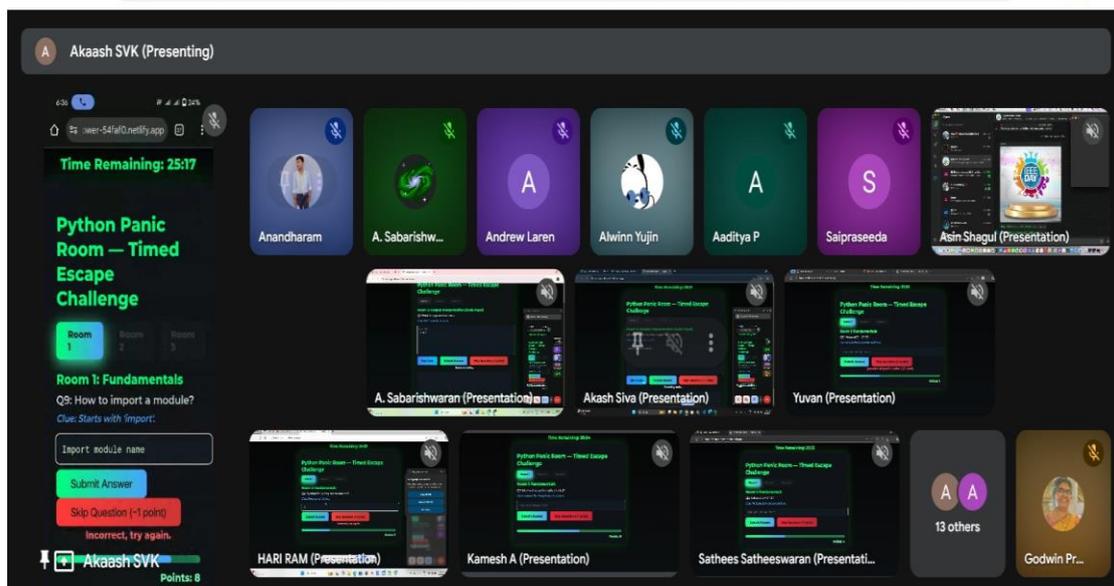
CODE THE OUTPUT - Competition

IEEE Sathyabama Student Branch in collaboration with the IEEE Photonics Society and IEEE Computer Society, and the Department of Computer Science and Engineering, organised, "**Code The Output**" on October 16th 2025. The UI/UX Design Event was organized to bring together creative designers and aspiring developers to collaborate on building user-friendly and visually engaging digital interfaces. Participants explored core UI/UX principles such as accessibility, visual hierarchy, navigation flow, prototyping, and user testing while designing websites, mobile applications, and dashboards. Through hands-on activities and feedback-driven refinement, the event promoted user-centered thinking, enhanced design skills, and encouraged innovative solutions for improved digital experiences.



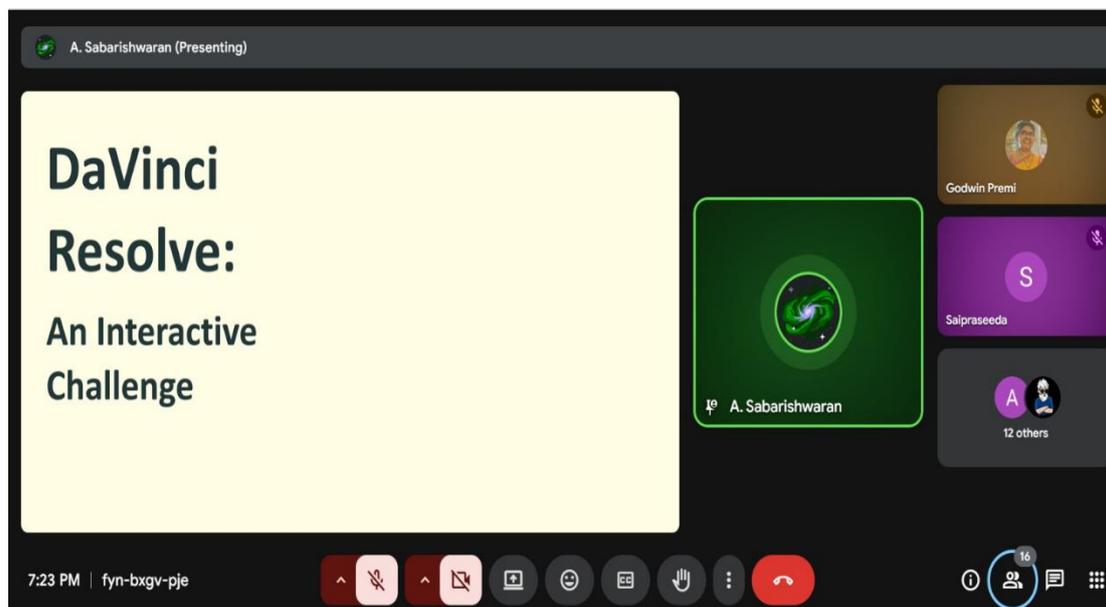
Python Panic Room - Competition

IEEE Sathyabama Student Branch and IEEE WIE AG, in collaboration with IEEE Madras WIE AG, and Department of Computer Science and Engineering organised, "Python Panic Room" on October 16th 2025. The event "Python Panic Room" was organized to enhance students' problem-solving and logical thinking through an interactive, competitive coding experience. Participants solved timed Python challenges based on core concepts such as loops, functions, data structures, and real-world problem solving, encouraging critical thinking under time constraints. The session concluded with a quiz to assess overall understanding, with top performers recognized for their skills and performance.



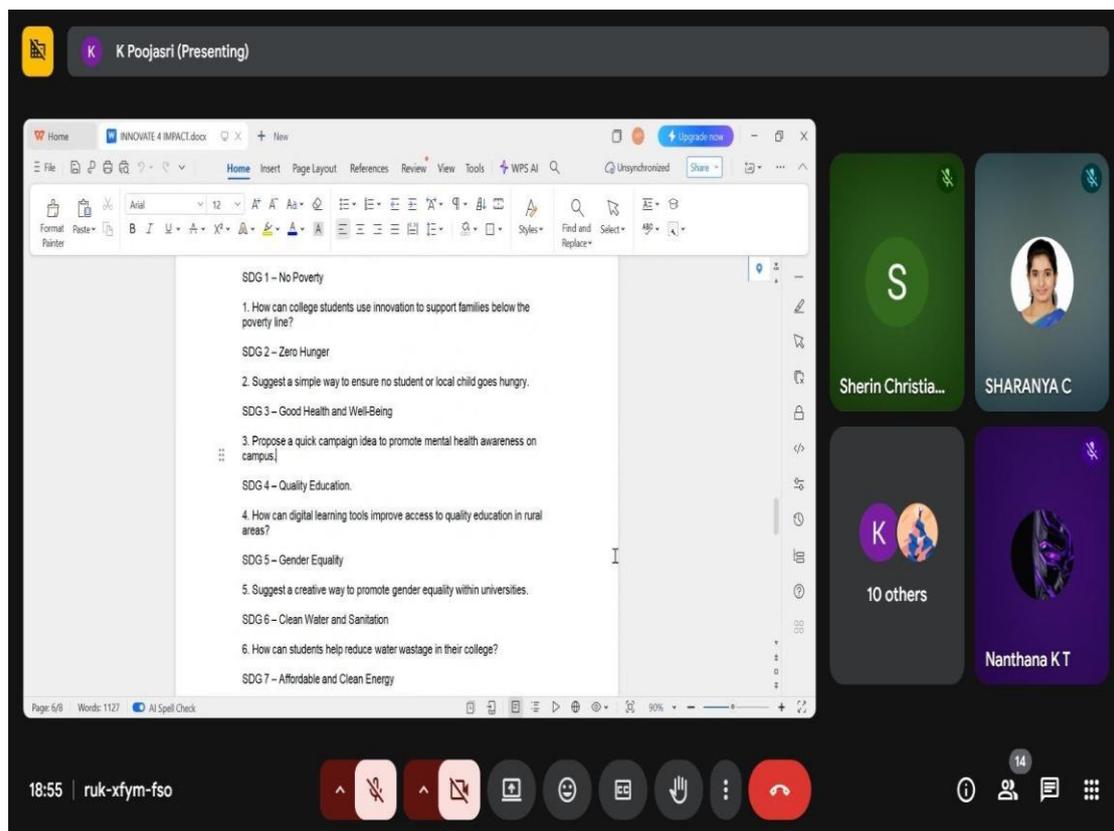
DaVinci Resolve- Competition

IEEE Sathyabama Student Branch and IEEE WIE AG, in collaboration with IEEE Madras WIE AG, and Department of Computer Science and Engineering organised, "DaVinci Resolve" on October 16th 2025. "DaVinci Resolve: An Interactive Challenge" was organized to introduce students to professional video post-production tools and industry-standard workflows. The hands-on session guided participants through key workspaces—Edit, Color, Fusion, and Fairlight—covering the complete production pipeline from media import and timeline management to color grading, visual effects, audio refinement, and final export. The event helped students develop practical editing and storytelling skills and concluded with an engaging quiz to reinforce learning in an interactive manner.



Innovate 4 Impact - Competition

IEEE Sathyabama Student Branch in collaboration with the IEEE Antennas and Propagation Society, and Department of Electronics and Communication Engineering organised, "Innovate 4 Impact" on October 16th 2025. The session introduced participants to impact-driven innovation, emphasizing how engineering creativity can address real societal challenges through effective problem identification and solution structuring. Students worked on challenge prompts related to sustainability, smart automation, community welfare, and digital innovation, brainstorming ideas and presenting concise pitches with mentor feedback. The interactive format highlighted the importance of feasibility, scalability, and user-centered thinking, concluding with reflections on how purpose-driven innovation can create meaningful societal impact.



The screenshot displays a Zoom meeting interface. At the top, the presenter is identified as 'K Poojasri (Presenting)'. The main window shows a presentation slide titled 'INNOVATE 4 IMPACT.docx' with the following content:

- SDG 1 – No Poverty
1. How can college students use innovation to support families below the poverty line?
- SDG 2 – Zero Hunger
2. Suggest a simple way to ensure no student or local child goes hungry.
- SDG 3 – Good Health and Well-Being
3. Propose a quick campaign idea to promote mental health awareness on campus.
- SDG 4 – Quality Education
4. How can digital learning tools improve access to quality education in rural areas?
- SDG 5 – Gender Equality
5. Suggest a creative way to promote gender equality within universities.
- SDG 6 – Clean Water and Sanitation
6. How can students help reduce water wastage in their college?
- SDG 7 – Affordable and Clean Energy

On the right side of the screen, a grid of participant avatars is visible, including Sherin Christia..., SHARANYA C, 10 others, and Nanthana K T. The bottom of the screen shows the Zoom control bar with a timestamp of 18:55 and the ID 'ruk-xfym-fso'.

Drive Conclave - Competition

IEEE Sathyabama Student Branch in collaboration with the IEEE Vehicular Technology Society, and Department of Mechatronics organised, "**Drive Conclave**" on October 17th 2025. Participants explored futuristic domains such as Smart Cities, Future Mobility, Space Transport, Connected Robotics, and Intelligent Vehicle Systems, integrating technologies including 5G/6G, IoT, autonomous systems, and advanced connectivity frameworks. The event featured three interactive rounds idea brainstorming, concept sketching with system workflows, and a concise 3-minute pitch where teams presented problem statements, solutions, and impact. Aligned with the IEEE Day theme "Advancing Technology for Humanity," the conclave fostered creativity, collaboration, and forward-thinking engineering perspectives among participants.



Hands on Workshop on AUTOMATION AND FEEDBACK CONTROL IN SMART ANTENNA PLATFORMS

IEEE Sathyabama Student Branch in collaboration with the IEEE Antennas and Propagation Society (Madras Section) and Department of Mechatronics organised Two-day hands on workshop 08.11.2025 and 10.11.2025 focused on automation and feedback control in smart antenna platforms. Day 1 featured expert lectures by Ms. B. Pavithra, Test Lead, Thinkpalm Technologies, Chennai on intelligent antenna control systems and Dr. S. Ramprabhu, Assistant Professor, Madras Institute of Technology, Chennai on measurement techniques for smart antenna design. Participants also engaged in a practical HFSS training session led by Dr. R. Narmadha, Head Department of Mechatronics. Day 2 included an insightful lecture by Dr. S. Sangeetha, Assistant Professor, College of Engineering, Chennai on radiation mechanisms and antenna design aspects. A second hands-on HFSS session was delivered by Dr. Sugadev, Associate Professor, Department of ECE on reinforcing design skills. Overall, the workshop enriched participants with both theoretical knowledge and practical expertise in smart antenna technologies.

