



Department of Electrical and Electronics Engineering

Organises

Smart Sensors and IoT for Electric Vehicles: A Hands-on Workshop Funded By IEEE Sensors Council WiSe Support



Dr. Sangeeta Singh

Sensors Council WiSe Committee Member
Introductory Talk



Mr. Jagadeswaran R

Technical Lead
Enthu Technology Solutions India Pvt Ltd
Coimbatore



Mr. Rohith G S

Technical Engineer
Enthu Technology Solutions India Pvt Ltd
Coimbatore

Industry Experts

30th October 2025

09:00 AM - 05:00 PM

AICTE - IDEA Lab

Faculty Coordinators

Ms. Anitha A
Senior Assistant Professor,EEE

Ms Kavitha Chenna Reddy
Senior Assistant Professor,EEE

Event Organiser

Dr. Karthika M
Associate Professor - EEE

Dr. Sujitha S
Professor & Head - EEE

Dr. Revathi V
Professor & Dean - R&D

Dr. Anandhi R J
Professor & Dean Academics

Dr. Manjunatha
Principal

Registration Link

<https://forms.gle/d2zBdZWdJWsRGesi7>



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Smart Sensors and IoT for Electric Vehicles: A Hands-on Workshop Funded By IEEE Sensors Council WiSe Support

📅 30th October 2025 ⌚ 09:00 AM - 05:00 PM 📍 AICTE - IDEA Lab

Programme Schedule

Inauguration

Introductory Talk - 9:00AM -9:15 AM

Session 1: Introduction to EV Sensors and IoT Frameworks

- Time: 09:15 AM – 10:00 AM
- Content:
 - Overview of Electric Vehicles and role of sensors.
 - Classification of sensors in EVs (position, temperature, current, vibration, speed, etc.).
 - IoT ecosystem for EVs: connectivity, protocols (MQTT, CAN bus, Wi-Fi, BLE).

Session 2: Demonstration of Sensor Integration in EV Applications

- Time: 10:00 AM – 12:30 PM
- Content:
 - Demonstration of battery monitoring sensors (voltage, current, temperature).
 - Thermal management sensors for motor & battery pack.
 - Vehicle dynamics sensors (accelerometer, gyroscope, torque sensors).

Lunch Break: 12:30 PM – 01:30 PM

Session 3: Hands-on Modules with Arduino/Raspberry Pi Sensor Kits

- Time: 01:30 PM – 03:00 PM
- Content:
 - Introduction to Arduino/Raspberry Pi platforms.
 - Connecting EV-related sensors (temperature, current, vibration).
 - Writing simple codes for data collection.
 - Real-time display of sensor data on laptops.

Session 4: Live Data Acquisition & Cloud-Based Monitoring

- Time: 03:00 PM – 04:30 PM
- Content:
 - Streaming sensor data to IoT cloud platforms (Thing Speak / Blynk / AWS IoT).
 - Dashboard creation for monitoring battery temperature, SOC, and motor data.
 - Introduction to predictive maintenance and analytics.

Session 5: Panel Discussion – Career Opportunities in EV Sensor Technologies

- Time: 04:30 PM – 05:00 PM
- Content:
 - Industry trends in EV sensors and IoT.
 - Career paths: R&D, testing, startups, entrepreneurship.
 - Opportunities for women engineers in EV sensor technology.
 - Q&A with experts and networking.

Vote of Thanks



Women in Sensors – Aim of the group

Women in Sensors (WiSe) is dedicated to empowering talents and encouraging equal participation and professional growth for individuals working in sensor-related fields. It welcomes professionals from both industry and academia who are shaping the future of sensing technologies. Through a variety of networking events and technical sessions held at the Sensors Council's conferences, WiSe offers opportunities for connection, collaboration, and career development. The initiative also supports programs and activities that strengthen the global sensors community and allow people from every part of the globe to apply for dedicated funding to reach the conference site.

In collaboration with IEEE Women in Engineering (WIE), WiSe proudly supports the WIE Mission, affirming a shared commitment to equal opportunities for all.

Pursuing the WiSe mission, the Sensors Council actively supports broadened collaboration and leadership opportunities across all areas of conference planning and participation, building a representative and dynamic community where everyone can contribute and thrive. This program is open to anyone that is interested in participating.

Women in Sensors – The committee



Paola Saccomandi
Chair



Sangeeta Singh
Member



Siziwe Cqoba
Member



Saakshi Dhaneekar
Member



Shawana Tabassum
Member



Daniela Diaz Alonso
Member



Zeynep Celik
Member



Silvia Diaz
Member



Kanika Singh
Member

APPOINTMENTS OF WISE MEMBERS IN SENSORS COUNCIL

- IEEE Sensors Journal – EIC, AE
- Members of Sensors Council committees, AdCom
- Officers in Sensors Council Chapters
- Distinguished Lecturer
- Steering committee and TPC of Sensors Council conferences

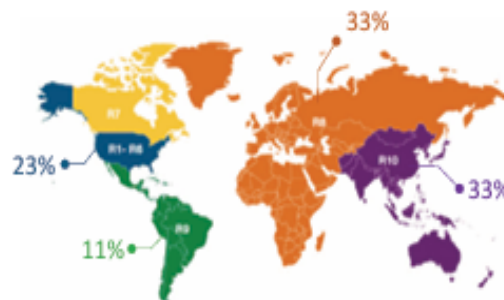
OTHER ROLES IN IEEE

- IEEE Directors
- Associate Editors of IEEE Journals
- IEEE Senior Members
- Chairs/officers of IEEE Societies

ACTIVITIES

- Family Care Grant
- Emerging Invited Speakers Support
- Seed Funding
- Childcare Program
- Panel Discussions

WISE IN IEEE REGIONS



FIND US AT THESE EVENTS

IEEE APSCON 2025
(Hyderabad, IN)

IEEE FLEPS 2025
(Singapore)

IEEE BIOSENSORS 2025
(San Diego, US)

IEEE SENSORS 2025
(Vancouver, CA)

WiSe members in IEEE Societies and Councils

- Circuits and Systems Society
- Electron Devices Society
- Engineering in Medicine and Biology Society
- Instrumentation and Measurements
- Nanotechnology Council
- Photonics Society
- Sensors Council
- Signal Processing Society
- System Council
- Women in Engineering

Main fields

- Biosensors & Medical Sensors
- Chemical & Electrochemical Sensors
- Nanotechnology & MEMS
- Flexible Electronics & Wearables



Come Join Us!



Department of Electrical and Electronics Engineering

IEEE Sensors Council (Supported by WiSe – Women in Sensors)

Event Report

Title	“SMART SENSORS AND IoT FOR ELECTRIC VEHICLES: A HANDS-ON WORKSHOP” IEEE Sensors Council (Supported by WiSe – Women in Sensors)	
Department	Electrical and Electronics Engineering	
Date	From: 30.10.2025	To: 30.10.2025
Time	From: 09:00 AM	To: 5:00 PM
Brief Description (4-5 Lines Max)	The workshop aimed to provide students with practical exposure to smart sensors, Internet of Things (IoT) applications, and their integration in Electric Vehicles (EVs). The focus was to bridge the gap between theoretical knowledge and real-world implementation, encouraging innovation among students in emerging EV technologies. The workshop was exclusively conducted for the students from II- and III-year EEE, with a total of 40 student participants and few faculty. The participants were given hands-on experience with sensors and IoT modules relevant to EV applications. The introductory talk was given by Dr Sangeeta Singh, IEEE Sensors Council Women Member. She shared valuable insights on the IEEE sensors council membership details, their funding scheme, benefits of students' schemes and shared the necessary links related to sensor council activities. Mr Jagedeswaran, Enthi Technology India PVT.Ltd., Coimbatore delivered expert talk and handled the hands-on session effectively. Key Takeaways: • Understanding of sensor types and their selection for EV subsystems. • Interfacing techniques of sensors with microcontrollers for IoT applications. • Real-time monitoring and control using IoT platforms. Outcome of the Workshop: The participants gained hands-on skills in configuring sensors and IoT devices for EV-related applications. The event encouraged experiential learning and female participation in technology-driven domains, aligning with the objectives of IEEE WiSe initiatives. The workshop successfully met its objectives by enhancing students' technical competence in sensor and IoT-based EV systems. The event provided a collaborative platform for young women engineers to explore, learn, and innovate in smart mobility technologies.	

Images



