



PSG Institute of Technology and Applied Research
Coimbatore - 641062, India



**Department of Electrical and Electronics Engineering
&
PSG Center for Academic Research and Excellence**

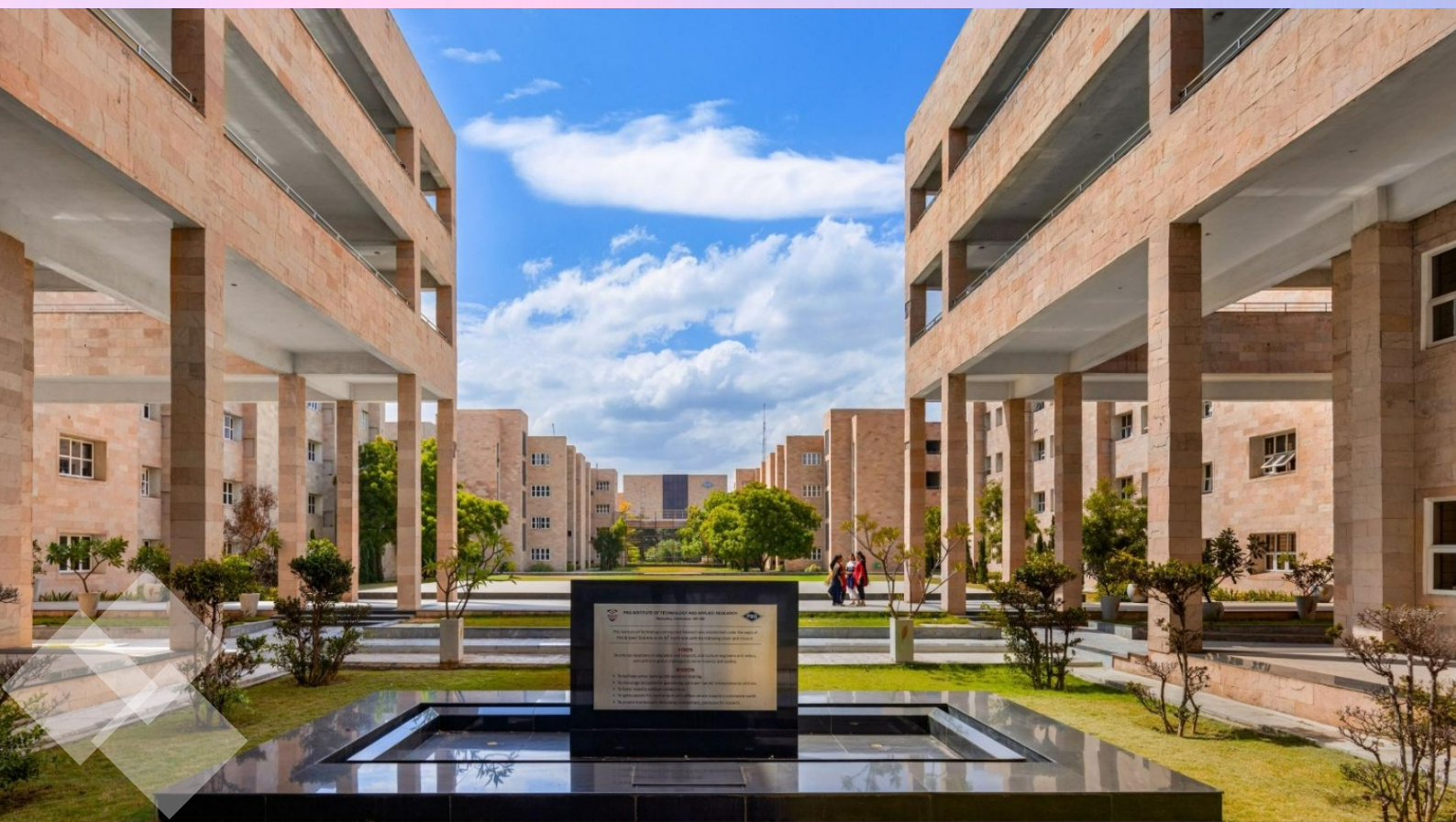


**IEEE Technically Sponsored
2025 Second International Conference
on
Intelligent Technologies for Sustainable
Electric and Communications Systems (iTech SECOM)
Conference Record Number: 64750**



Theme
**Innovations at the Intersection of AI, Energy and
Automation**

**Conference Dates
October 09 and 10, 2025**



About PSG iTech

PSG Institute of Technology and Applied Research (PSG iTech), established in the year 2014, is the 30th institute under the umbrella of PSG & Sons' Charities, is committed to empowering youth through quality technical education. An autonomous institution approved by AICTE and affiliated with Anna University, Chennai, PSG iTech strives for academic excellence by nurturing engineers with global competencies and strong ethical values. Within a short span of time, the institute has emerged as one of the most preferred destinations for engineering aspirants in India. It emphasizes innovative learning methodologies, active industry collaboration, and holistic student development. The institute has excellent infrastructure facilities, well-equipped laboratories and Centres of Excellence for training, research and consultancy. All the five undergraduate engineering programmes Civil, CSE, EEE, ECE and Mechanical established in the year 2014 are accredited by NBA. The institution is also accredited by NAAC, an autonomous body established by the University Grants Commission (UGC).

About EEE

The department is supported by a team of well-qualified and dedicated faculty members with specializations in Power Systems, Electrical Machines, Power Electronics, Control Engineering, and Embedded Systems. The department has set up Centres of Excellence and signed MoUs with industry leaders, thereby providing ample opportunities for faculty members and students, to interact with industry experts. Many students have won laurels in various competitions both in national and international level. Most of our graduates are placed in reputed companies, and a few of them are pursuing higher studies in India and abroad. In addition to the laboratories required for academic work, the department has established industry supported laboratories - Siemens Industrial Automation Laboratory, eYantra Robotics Laboratory, Texas Instruments Embedded Systems Laboratory and state of the art Electric Vehicle Laboratory.

About PSG CARE

The PSG Center for Academic Research and Excellence (CARE), established in October 2015 by the PSG & Sons Charities Trust promotes teaching excellence by encouraging learner-centric pedagogy, innovative course design, and effective assessments. Through workshops, seminars, mentoring, and technology integration, CARE fosters strong faculty student relationships and supports faculty in enhancing teaching effectiveness. It also encourages research on improving teaching quality and disseminating best practices.

About the Conference

The conference iTech SECOM 2025 aims at exploring and promoting the integration of intelligent systems into the domains of electrical engineering and communication technologies. The primary objective is to support sustainable development through the adoption of smart, efficient, and environmentally conscious technologies by integrating AI into energy and automation. The conference aims to foster interdisciplinary collaboration between academia, industry and researchers to share the latest findings, case studies, and best practices.

Paper Submission Guidelines

Authors are invited to submit the original manuscript in pdf and doc/docx format as per IEEE Manuscript Template in <https://cmt3.research.microsoft.com/iTechSECOM2025>. All submissions must be in English only and must be based on authors' original work.

All submissions will strictly go through a plagiarism check. Only those submissions which pass through plagiarism check will undergo a double-blind peer-review process, coordinated by the technical program committee. Therefore, the authors are required to preserve the anonymity of submission (Please do not include author's name and affiliation while submitting the paper). The research papers will be peer-reviewed and evaluated based on originality, technical content, and research depth. Based on the reviewers' recommendation and careful consideration by the program committee chair, the manuscripts will be shortlisted for the conference and the decision on acceptance of the paper will be communicated to the authors. The authors of shortlisted manuscripts will be required to submit the camera ready copy in the required format incorporating all the suggestions given by the reviewers. The internal committee will verify whether the authors have incorporated the comments/suggestions given by the reviewers.

The IEEE anti-plagiarism policy, as per the link given below is applicable:

https://www.ieee.org/publications_standards/publications/rights/plagiarism.html

Call for Papers - Tracks

ELECTRIC VEHICLES AND BATTERY TECHNOLOGY

Battery Management Systems | Battery Safety and Thermal Management | EV Powertrain and Control | Charging Infrastructure | Energy Efficiency and Range Optimization | AI & Embedded Systems in EVs | Testing, Standards & Lifecycle Analysis | Integration with Smart Grids & Renewables | Load forecasting with EV penetration | Renewable energy-based EV charging stations | AI for driver behavior prediction and route optimization | Environmental and economic lifecycle analysis

AI/ML IN POWER ELECTRONICS & SMART GRIDS

Predictive Maintenance | Renewable Energy Integration | Grid Stability and Control | Smart Metering and Demand Response | AI in Distributed Energy Resources & Microgrids | AI-based fault classification in converters and inverters | Intelligent Control of Power Converters | AI-driven modeling of complex power converter dynamics | Probabilistic and hybrid forecasting approaches | Real-time digital twin modeling of power systems using AI

BIOMEDICAL APPLICATIONS

Biomedical Imaging and Signal Processing | Wearable health monitoring systems | Smart prosthetics and orthotics | AI and Machine Learning in Biomedicine | Medical data classification and clustering | Biosensors and BioMEMS | Surgical robots | Electronic health records | Medical data analytics | Remote patient monitoring | Assistive devices and mobility aids

IOT AND EMBEDDED SYSTEMS

Smart homes and buildings | Smart agriculture and irrigation systems | Industrial IoT (IIoT) and predictive maintenance | Edge analytics and real-time data processing | Integration with AI/ML for smart decision making | IoT with Blockchain | Cyber-Physical Systems | PLC integration with IoT for distributed control | IoT and AI for energy management | Embedded SCADA systems

ROBOTICS AND AUTOMATION

Industrial robots | Underwater and aerial robots | Robot Kinematics and Dynamics | Sensors and Actuators | Model Predictive Control | Machine learning for robotic perception and decision-making | Computer vision and object detection | Natural language processing in human-robot interaction | SLAM (Simultaneous Localization and Mapping) | Navigation and Path Planning | Emotion and behavior recognition in social robots

GREEN ENERGY TECHNOLOGIES

Solar Energy Technologies | Building-integrated photovoltaics | Wind farm layout and optimization | Small and micro-hydropower systems | Tidal energy and wave energy conversion systems | Bioenergy and Biomass | Green Building and Energy Efficiency | Energy-efficient building materials and design | Hydrogen-powered vehicles | Renewable energy in process industries | Renewable energy forecasting

Registration Details

Category	Indian Delegates		Foreign Delegates	
	Non-IEEE Members	IEEE Members	Non-IEEE Members	IEEE Members
Industry Experts	11,000 INR + 18% GST	10,000 INR + 18% GST	130 USD + 18% GST	120 USD + 18% GST
Academicians	9,000 INR + 18% GST	8,000 INR + 18% GST	110 USD + 18% GST	95 USD + 18% GST
Research Scholars	8,000 INR + 18% GST	7,000 INR + 18% GST	95 USD + 18% GST	85 USD + 18% GST
Attendees	3,000 INR + 18% GST	3,000 INR + 18% GST	40 USD + 18% GST	40 USD + 18% GST

Important Dates

Last date for manuscript submission	- 26 th August 2025
Notification of acceptance	- 6 th September 2025
Last date for registration	- 15 th September 2025
Camera Ready Paper Submission	- 20 th September 2025
Date of Conference	- 09 th & 10 th October 2025

 : secoms2025@psgitech.ac.in

 : <http://www.psgitech.ac.in/secoms2025>

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