



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



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



**IEEE Technically Sponsored**  
**2023 International Conference on**  
**Intelligent Technologies for Sustainable**  
**Electric and Communications Systems (iTech SECOM)**  
**(Hybrid Mode)**



**Theme:**

**Cyber Physical Systems for Development of**  
**Futuristic Society**



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**Conference Dates**  
**December 18 and 19, 2023**

## 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. PSG iTech is approved by All India Council for Technical Education (AICTE) and is affiliated to Anna University, Chennai. The vision of the institute is to achieve excellence in education and research, and nurture engineers with ethics, who will face global challenges to serve industry and society. Within a short span of time, the institute has emerged as one of the most preferred destinations for engineering aspirants in India. The NIRF rank for the year 2022 is 124. All the five undergraduate engineering programmes established in 2014 - Civil, CSE, EEE, ECE and Mechanical - are NBA accredited till the academic year 2023 - 24. Two new UG engineering programmes - Artificial Intelligence and Data Science, and Computer Science and Data Systems - and two new PG engineering programmes - Structural Engineering and Engineering Design - were established in the year 2022 - 23. The institute has excellent infrastructure facilities, well-equipped laboratories and Centres of Excellence for training, research and consultancy. The institute collaborates with many research and industrial organisations.

### Department of Electrical and Electronics Engineering

The mission of the department is to enable students to become successful technocrats, and contribute to the progress of society. The department has faculty members with specializations in Power Systems, Electrical Machines, Power Electronics, Control Engineering, and Embedded Systems, and some of them have a rich industry experience also. 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 conducted nationwide. 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 and Texas Instruments Embedded Systems Laboratory.

### Department of Electronics and Communication Engineering

The Department of Electronics and Communication Engineering strives to produce top-notch engineers with global competence for industry, research and academia. The major objective of the department is to foster innovation, design, and creation of eco-sustainable products to meet the growing technological demands. The department serves over 250 undergraduate students with a team of dedicated faculty members who are committed towards teaching and research in the areas of Signal processing, Electronic Circuit design, Communication Systems, VLSI, Machine Learning, Internet of Things (IoT), and Embedded Systems. The collaboration with industries such as National Instruments, Keysight Technologies, Texas Instruments, and PASCO has aided the department in providing a good platform for the faculty members and students to learn the concepts experientially and to work on real-time industrial problems.

### About the Conference

Recent advances in computation, networking with focus on data driven approaches have revolutionized the way humans, and physical devices interact and exchange information. Cyber Physical Systems (CPS), a combination of physical, computational, and communication capabilities, enable the integration of elements in a seamless fashion. CPS are capable of controlling, monitoring, and managing physical systems. This is achieved by connecting physical components, such as sensors and actuators, to a cyber layer which can be used to process and analyze data. CPS are expected to play a major role in the development of a futuristic society by enabling the integration of physical and digital systems for various applications.

iTech SECOM aims to bring together people from different countries and backgrounds to discuss important topics, and share ideas. The keynote speeches, invited talks and tutorials by internationally leading academic and industrial researchers will focus on solutions, and feasible research roadmap, addressing the existing challenges in the CPS domain.

The organizing committee of the conference is pleased to invite prospective authors to submit their original manuscripts to iTech SECOM. The IEEE anti-plagiarism policy is applicable to all submissions. The presented papers in conference will be submitted for inclusion in IEEE Xplore, subject to meeting the requirements.

### Call for Papers:

Please submit your unpublished research paper (which is not under review in any other conference/ journal) in <https://cmt3.research.microsoft.com/iTechSECOMS2023>.

The research papers will be peer-reviewed and evaluated based on originality, technical content, and research depth.

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

[https://www.ieee.org/publications\\_standards/publications/rights/plagiarism.html](https://www.ieee.org/publications_standards/publications/rights/plagiarism.html)

### Track: RF Circuits & Wireless Systems

RF circuits at RF, mm-Wave and THz frequencies | ML/AI paradigm and methods to microwave design | Smart Materials and Structures | Energy Harvesting and Power Management | Wearable and bio-implantable wireless devices | Drone-based RFID technologies

### Track: Communication Systems & Networking

Beyond 5G | Intelligent Reflecting Surfaces | Physical layer security | ML for wireless communication | Optical Networks & Systems | Satellite & Space Communications | Wirelessly powered IoT | Cross-layer design/optimization

### Track: VLSI and Embedded Systems

Reconfigurable systems | Analog/Digital/ Mixed- signal circuits | VLSI for DSP, Biomedical Applications | Real-time Operating Systems | Embedded System Designs | ASIC & SOC | CAD for VLSI | MEMS/NEMS

### Track: Electric Systems

Smart Grids | Industrial Informatics | Intelligent Control Systems and Optimization | Computational Intelligence for Electric Machines and Drives | Robotics and Automation | Home Automation

### Track: Computing

Autonomic and Trusted Computing | Cyber Security | Soft Computing | Grid Computing | Quantum Computing | Internet of Things | Cryptography | Cluster Computing | Cloud Computing | Edge and Fog Computing

### Track: Autonomous Vehicles

Software Engineering | Sensors and Systems | Autonomous Vehicle Control Systems | Vehicle Networking and Communications | Navigation and Path Planning | Safety and Security | Regulations and Compliance

### Track: Smart Manufacturing

Automation Engineering | Industrial Robotics and Automation | Manufacturing Process Engineering | Industrial Data Science | Industrial Networking and Connectivity

### Track: Smart Health

mHealth | AI-driven Clinical Decision Support Systems | Wearable Health Technologies | Remote Patient Monitoring | Automated Diagnostic Systems

### Track: Smart Grid

Smart Grid Technologies | Demand Response and Energy Storage | Advanced Metering Infrastructure | Cybersecurity for Smart Grids | Distributed Generation and Renewable Integration | Grid Automation and Control | Data Analytics for Smart Grids | Smart Grid Communications | Smart Grid Regulation and Policy

### Track: Smart Cities

Smart mobility | Smart Waste Management | Smart Water Management | Smart Energy Management | Smart Buildings

## Paper Submission Guidelines

Authors are invited to submit the original manuscript in pdf or doc/docx format as per IEEE Manuscript Template in <https://cmt3.research.microsoft.com/iTechSECOMS2023>. 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 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). 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. Please note that no submissions will be entertained beyond the deadline.

## Registration Fee Details

### Important Dates

Last date for manuscript submission	-	October 31, 2023
Notification of acceptance	-	November 15, 2023
Commencement of registration	-	November 16, 2023
Last date for registration	-	December 10, 2023
Conference dates	-	December 18 and 19, 2023

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🌐 : <http://www.psgitech.ac.in/secoms2023>

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Particulars	Indian Delegates		Foreign Delegates	
	Non-IEEE Members	IEEE Members	Non-IEEE Members	IEEE Members
Academicians and Industry Experts	7500 INR + (18% GST)	5000 INR + (18% GST)	250 US\$ + (18% GST)	200 US\$ + (18% GST)
Research Scholars and UG/PG Students	5000 INR + (18% GST)	3000 INR + (18% GST)	150 US\$ + (18% GST)	100 US\$ + (18% GST)
Attendees	3000 INR + (18% GST)	3000 INR + (18% GST)	100 US\$ + (18% GST)	75 US\$ + (18% GST)

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**Keynote Speakers**

<p>Mr. Samuel Tensingh Associate Lecturer University of Sydney, Australia</p>	<p>Dr. Gunasekaran Thangavel Professor University of Technology and Applied Sciences, Muscat</p>
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