

Presidency School of Computer Science and Engineering &  
Presidency School of Information Science  
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Cardiff Metropolitan University  
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A SPECIAL SESSION ON

# **Responsible and Generative AI for Cybersecurity, Imaging Intelligence, IoT, and Digital Twin-Driven Industrial Transformation**

at International Conference on

## **Responsible Artificial Intelligence (ICRAI 2025)**

**December 16–17, 2025**

Hybrid Mode

<https://icrai2025.iaasse.org/index.html>

[www.presidencyuniversity.in](http://www.presidencyuniversity.in)

Presidency University, Bengaluru, a NAAC 'A' accredited and globally recognized institution, is a leader in academic excellence, research, and innovation. Established in 2013 by the Presidency Group of Institutions, the University has swiftly evolved into one of India's most respected higher education destinations.

Offering diverse programs in Engineering, Computer Science, Information Science, Management, Law, Design, Media Studies, Commerce, Sciences, Liberal Arts & Sciences, and Allied Health Sciences, Presidency University combines academic rigor with practical application. Its research-driven pedagogy, strong industry collaborations, and global exposure prepare students for leadership in an interconnected world.

A distinguished faculty of scholars and practitioners nurtures a culture of innovation, critical thinking, and integrity. Every student is encouraged to embrace values of discipline, professionalism, and global responsibility, ensuring they emerge as competent professionals and ethical leaders.

Global Recognitions

- QS I-GAUGE Gold rating for overall excellence
- 6th Rank in the Times Engineering Institute Survey
- Best University of the Year (South) by ASSOCHAM

With its strong foundation and international outlook, Presidency University continues to shape leaders of tomorrow, setting benchmarks in education that resonate beyond borders.

## PRESIDENCY SCHOOL OF COMPUTER SCIENCE AND ENGINEERING

PPSCS

Presidency School of Computer Science and Engineering offers cutting-edge B.Tech programmes in cybersecurity, big data, IoT, DevOps, data science, blockchain, and more. With practical learning, global exposure, and strong industry ties, the school prepares students for the ever-evolving tech world. The school also offers M.Tech programmes in Artificial Intelligence and Data Science.

The school has exceptionally good faculty who come with both industry and academic experience in their relevant disciplines. With a campus which has state-of-the-art technology, backed by labs and software tools as required for the programme, the school spares no effort to ensure the best is offered to students in these domains of studies.

PPSIS

## PRESIDENCY SCHOOL OF INFORMATION SCIENCE

Presidency School of Information Science, one of the key divisions of the university, is committed to excellence in computer science and its applications, offering both undergraduate and postgraduate programmes. Students can pursue BCA, BCA (Artificial Intelligence & Machine Learning), BCA (Data Science), and MCA, all designed to provide a strong foundation in computing, programming, and emerging technologies. The curriculum is structured to equip students with technical expertise, problem-solving abilities, and research skills, while also preparing a future-ready workforce to thrive in the rapidly evolving tech landscape.

With a strong emphasis on innovation, real-world applications, and project-based learning, the school integrates Artificial Intelligence & Machine Learning, Data Science, Full-Stack Development (MERN & Java), Mobile Application Development, Cloud Computing, Cybersecurity, and Generative AI into its programmes. Students engage in hands-on projects, industry collaborations, and practical problem-solving, ensuring they gain both theoretical knowledge and applied experience. With expert faculty, state-of-the-art infrastructure, and a commitment to bridging the gap between academia and industry, the School of Information Science fosters an environment of academic excellence, empowering students for successful careers in software development, AI, data analytics, and emerging technologies.



## Session Description

This special session aims to bring together researchers, industry practitioners, and policymakers to explore the convergence of Responsible and Generative AI with cybersecurity, imaging, IoT, and digital twin technologies. In the era of Industry 5.0, the rapid adoption of intelligent systems has raised both opportunities and challenges in securing digital infrastructures, ensuring trustworthy AI, enabling secure imaging, and fostering digital twin-driven transformation.

This session will provide a platform for presenting cutting-edge innovations, emerging methodologies, and interdisciplinary research that address real-world problems in smart industries, healthcare, manufacturing, and critical infrastructure. The goal is to advance responsible and ethical AI practices, while fostering solutions that ensure resilience, privacy, and sustainable development.

## Objectives

- To showcase the latest advancements in Responsible and Generative AI for secure and intelligent systems.
- To explore the role of AI in cybersecurity, imaging intelligence, IoT ecosystems, and digital twins.
- To provide a platform for academia, industry, and government to collaborate on Industry 5.0 innovations.
- To discuss challenges, risks, and ethical aspects of deploying AI-driven technologies.
- To strengthen global knowledge exchange for secure, resilient, and sustainable digital transformation.

## Recommended Topics

We invite original research and review papers in areas including, but not limited to:

- Generative AI for industrial, imaging, and cybersecurity applications
- Responsible, explainable, and trustworthy AI models
- Ethical and legal frameworks for responsible AI adoption
- Synthetic data generation for privacy-preserving applications
- AI-powered threat intelligence and anomaly detection
- Quantum-safe cryptography and post-quantum security
- Blockchain and AI for data integrity and secure transactions
- Federated learning and privacy-preserving AI
- Computer vision and deep learning for secure imaging
- Medical image security and intelligent diagnosis
- Multimodal data fusion for imaging and industrial systems
- Generative imaging for simulation and prediction
- IoT security, trust management, and resilience
- Digital twin-driven predictive maintenance and process optimization
- AI for smart cities, healthcare, and manufacturing IoT
- Integration of IoT, edge, and cloud computing with digital twins
- Human-AI collaboration in next-gen smart industries
- Robotics and autonomous systems enhanced by AI

## Submission Guidelines

- Authors are invited to submit original and unpublished research articles aligned with the session theme.
- Submissions must adhere to the conference paper format.
- Papers will be peer-reviewed (double-blind) based on originality, technical quality, clarity, and relevance.
- At least one author of each accepted paper must register and present at the conference.
- Papers with plagiarism above 25% will be rejected outright.

## Important Dates

Submission of Full Paper: October 31, 2025  
Notification of Acceptance: November 30, 2025  
Early Bird Registration: December 5, 2025  
Submission of Camera Ready Paper: December 10, 2025  
Conference Dates: December 16–17, 2025  
Post-Conference Camera Ready Submission: December 31, 2025

## Publication Details

All accepted and presented papers will be published in the Lecture Notes in Networks and Systems (LNNS) series by Springer, indexed in Scopus, DBLP, and other major databases.

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