2nd International Symposium on Artificial Intelligence and Internet of Things (AIIoT-25)

(https://aiiot2025.iiests.ac.in/)

December 22-24, 2025 • IIEST Shibpur, India

Indian Institute of Engineering Science and Technology, Shibpur, India
(An Event under the Scheme for Promotion of Academic and Research Collaboration (SPARC), MoE, GOI)

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Call for Papers

The 2nd IEEE International Symposium on Artificial Intelligence and Internet of Things (AIIoT-25) *(https://aiiot2025.iiests.ac.in/)* invites cutting-edge research contributions and offers a premier platform for discussing the transformative impact of AIIoT on society. Artificial intelligence (AI) and the Internet of Things (IoT) are two of the most quickly growing and interrelated areas of technology. The theme for the conference this year is ***AI and IoT in Cyber-Physical Systems***. The combination of these two sciences is resulting in the emergence of a new interdisciplinary field. By merging IoT and AI, data gathered by dispersed nodes may be used to apply AI techniques like machine learning and deep learning. As a result, machine learning capabilities are positioned closer to the data source. The goal of the IEEE AIIoT Conference is to investigate how artificial intelligence (AI) technology may be incorporated into Internet of Things (IoT) systems and devices to allow for more intelligent and complex interactions with their surroundings.

IEEE AIIoT 2025 seeks to unite global stakeholders, including universities, research institutions, industries, and other interested parties, engaged in the domains of artificial intelligence and the Internet of Things to share insights, explore novel concepts, develop innovative solutions, and forge new partnerships. Authors are cordially invited to submit original, unpublished papers describing research in the broad area of Artificial Intelligence of Things (AIIoT). Topics include, but are not limited to:

Topics	
• **Core AI and ML**	• **Communication & Connectivity**
• **Hardware Design for AI**	• **Cross-domain & Emerging Topics**
• **AI & ML for IoT**	• **Energy-Efficient AI Algorithms for IoT Devices**
• **Edge Computing & Architectures**	
• **LLMs & Advanced AI Models**	• **Blockchain Technology for Securing IoT Devices**
• **Security, Privacy & Ethics**	
• **ML for Biomedical and Bioinformatics Applications**	• **Emerging Trends**
	• **AI and IoT Applications**

Submission deadline	:	~~31st July 2025~~ **7th September**
Notification of acceptance	:	**31st August 2025**
Camera-ready manuscript	:	**30th September 2025**

For Enquiry: *https://aiiot2025.iiests.ac.in/*
Submission Link: **https://cmt3.research.microsoft.com/AIIoT2025/**

Paper Submission, Publication, and Presenter Registration: The AIIoT'25 Program Committee invites original, unpublished paper submissions on the above topics. It is planned to publish the peer-reviewed and selected papers of the conference as Springer proceeding series. Check Author Guidelines in Springer for formatting the camera-ready article. Selected papers from the conference will be published by Springer as a proceedings book volume. The submission will be considered evidence that, upon acceptance, the author(s) will submit a final camera-ready version of the paper for inclusion in the proceedings and will present the paper at the symposium. Each accepted contribution must have at least one full paid registration by the time the camera-ready paper is submitted for inclusion in the proceedings. AIIoT reserves the right to remove from the proceedings papers not presented at the symposium.

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Core AI and ML: AL-ML algorithms, Deep learning and neural network architectures, Transfer learning and meta-learning, Generative AI and foundation models, Explainable AI (XAI) and model interpretability, Online and incremental learning, Few-shot and zero-shot learning, AI security and Defense.

Hardware Design for AI: AI accelerators and specialized hardware, Efficient training and inference architectures, ML model compression and quantization, Hardware-aware neural architecture search (NAS), Area and power optimization for AI, Secure and VLSI-based AI implementations.

AI & ML for IoT: ML/DL algorithms tailored for IoT systems, TinyML and generative AI at the edge, NLP and conversational AI for edge devices, Predictive maintenance and anomaly detection, AI-powered analytics for Industrial IoT, Novel AI architectures for resource-constrained IoT.

Edge Computing & Architectures: Edge intelligence and distributed AI systems, Challenges in deploying AI at the edge, Edge computing technologies and architectures, Intelligent power and battery management, Performance, scalability, and energy optimization.

LLMs & Advanced AI Models: Deployment of large language models (LLMs) on mobile and edge, LLM applications in AIoT and embedded systems.

AIoT Applications: Smart cities, smart homes, and connected environments, AIoT in healthcare, wearables, and personalized medicine, Industrial automation and manufacturing, Precision agriculture using AI and IoT, AIoT in transportation, logistics, and supply chains, Robotics and robotic process automation (RPA), Environmental monitoring and sustainability.

Security, Privacy & Ethics: AI security and privacy in connected systems, Federated learning and privacy-preserving AI, Blockchain for securing IoT/edge devices, Cybersecurity frameworks for AIoT, Ethics, policy, and governance in AIoT, Standards and interoperability in intelligent systems.

Communication & Connectivity: Role of 5G/6G in enabling AIoT, Wireless sensor networks and data acquisition, Secure, low-power communication protocols for AIoT.

Cross-domain & Emerging Topics: Cross-domain integration of AI and IoT technologies, Innovations in sensors and actuators for intelligent systems, Human-machine interaction in AI-driven environments, Emerging sensing technologies for the edge.

Energy-Efficient AI Algorithms for IoT Devices: TinyML & Model Compression for IoT Devices, Efficient Neural Architecture Search (NAS) for Edge AI, Sparse & Event-Based AI for Sensor Networks, Energy-Aware AI, Edge-Cloud Collaborative AI, Adaptive Inference Strategies, AI Acceleration on Low-Power Processors.

Blockchain Technology for Securing IoT Devices: Decentralized Identity Management for IoT Devices, Tamper-Proof IoT Data Logging with Blockchain, Anti-Counterfeiting Solutions, Zero-Trust Architectures for IoT with Blockchain, Scalable & Energy-Efficient Blockchain Solutions for IoT

ML for Biomedical and Bioinformatics Applications: ML for Genomics & Precision Medicine, AI in Medical Imaging & Diagnostics, Biomedical NLP & Clinical Decision Support, AI in Biomedicine.

Emerging Trends: AI Hallucinations: Detection & Mitigation, Small Language Models (SLM), Agentic AI, Prompt Optimization & Engineering etc.