

Call for Papers

Pattern Recognition and Computer Vision with Internet of Things and AI (PRCV-IoTAI) Workshop

The 20th International Conference on Wireless Communications and Mobile Computing

Website: <http://iwcmc.org/2025/>

Submission Link: <https://edas.info/newPaper.php?c=32919>

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May 12-16, 2025, Abu Dhabi, UAE

Chairs:

Huimin Lu, Southeast University, China

Yin Zhang, UESTC, China

Jinjia Zhou, Hosei University, Japan

Scope

The fusion of the Internet of Things (IoT) and Artificial Intelligence (AI) has sparked a profound revolution across industries, establishing interconnected ecosystems and imparting machines with human-like cognitive capabilities. IoT seamlessly links diverse physical devices, spanning from smart home appliances and wearable health trackers to industrial sensors and autonomous vehicles. Simultaneously, AI empowers machines to process and interpret extensive datasets. Within this dynamic technological realm, the collaboration between Pattern Recognition (PR) and Computer Vision (CV) assumes paramount significance. PR techniques unravel intricate patterns inherent in data from IoT sources, enabling predictive analytics and anomaly detection. Likewise, CV empowers IoT devices to comprehend visual information, facilitating multifaceted applications such as surveillance systems, object detection, and immersive augmented reality experiences. The integration of PR and CV with AI enriches intelligence within IoT environments, enhancing context-driven decision-making and fostering tailored user experiences. This amalgamation facilitates real-time data processing, refining pattern recognition, analysis, and automation across pivotal sectors like healthcare, manufacturing, smart cities, and transportation. Grasping and leveraging this symbiotic relationship is pivotal in shaping sophisticated, intelligent systems that redefine industries and elevate user experiences within the ever-evolving technological landscape.

Topics

Accepted papers will be published in the IEEE IWCMC 2024 proceedings and will be submitted to the IEEE digital library (IEEE Xplore). Authors are welcome to submit original papers (not published before and/or simultaneously to another venue) with topics that include but are not limited to:

- Advanced Pattern Recognition for Intricate IoT Data
- Optimizing Smart Manufacturing: Collaborative Impact of IoT and AI
- Enhancing IoT Devices with Advanced Semantic Segmentation Techniques
- AI-Enhanced Predictive Analytics in IoT: Models and Challenges
- Ethical Frameworks for Privacy in Vision-based IoT
- Real-time Automation through IoT-AI Integration
- Advancements in Context-aware Decision-making with PR-CV Fusion in IoT
- Emerging AI-driven Trends for Future-proofing IoT
- Crafting Immersive Experiences with CV-Enabled IoT in Augmented Reality
- Strategies for Data Integrity in Vision-centric IoT Security

Submitted papers are encouraged to address novel technical challenges or industrial and standard aspects of the key technologies for sustainable and secure cognitive buildings/cities.

Important Dates

Deadlines will follow the main conference announced dates.