

The 23rd IEEE International Conference on Pervasive Intelligence and Computing (PICom 2025)

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2025 IEEE CyberSciTech / PICom / DASC / CBDCom Co-located Conferences (In-Presence/Virtual) Premier Hotel, Hakodate City, Hokkaido, Japan - October 21-24, 2025

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Over the last fifty years, computational intelligence has evolved from artificial intelligence, nature-inspired computing, and social-oriented technology to cyber-physical integrated ubiquitous intelligence towards Pervasive Intelligence (PI). The IEEE International Conference on Pervasive Intelligence and Computing is intended to cover all kinds of these intelligent paradigms as well as their applications in various pervasive computing domains. PICom 2025 is the conference on Pervasive Intelligence and Computing, previously held as PCC (Las Vegas, USA, 2003 and 2004), PSC (Las Vegas, USA, 2005), PCAC (Vienna, Austria, 2006, and Niagara Falls, Canada, 2007), IPC-2007 (Jeju, Korea, December 2007), IPC-2008 (Sydney, Australia, December 2008), and since 2009 as the name PICom. It aims to bring together computer scientists and engineers, providing a platform for vibrant discussions and exchanges on experimental and theoretical results, ongoing work, cutting-edge designs, and innovative test-environments or testbeds, while also delving into the latest advancements and novel trends in Intelligence and Machine Learning within the realms of Pervasive Intelligence and Computing.

Tracks and Topics

Track 1: Next Gen Pervasive Al

- GenAl for wireless sensing
- Machine-to-machine GenAl
- Generative IoT
- GenAl for semantic communications
- Multi-agent network powered by
- Big Data and Smart Data
- **Brain-inspired Computing**
- Mobile Data Mining
- **Ubiquitous Data Mining**

Track 2: Intelligent Networks, Middleware and Applications

- Pervasive Networks/Communications
- 5G networks and Technologies
- AI/ML for smart wireless networks
- Al and machine learning-based applications for ad hoc networks
- Cooperative and cognitive communication
- Middleware for the IoT
- Adaptive Middleware for Pervasive Systems
- Context-aware applications
- Intelligent/Smart IoT
- Programming Abstractions for IoT

Track 3: Pervasive Computing and Activity/Affect Recognition

- Crowdsourcing and Social Computing
- Collective Intelligence
- Agent-based Computing
- Pervasive Devices and RFIDs
- Wearable Devices and Applications
- Activity Recognition
- Intelligent Social Networking
- Pervasive Technologies for ITS
- **HCI for Pervasive Computing**

Integration of Edge Computing and Blockchain Edge-Cloud Continuum

Edge-assisted IoT

Track 5: Edge Intelligence

ML for resource allocation

applications

at the Edge

NFV-Edge

5G-Edge

Track 4: Next Gen Smart Environments Track 6: Work-in-Progress

- Smart grid, healthcare, transportation (WiP) and Late Breaking applications
- Wearable and human-centric devices and networks
- **Device Virtualization**
- Intelligent Cloud Computing
- Services for Pervasive Computing
- **Smart Cities and Smart Homes**
- Privacy, Security and Trust in Smart Environments
- Autonomous Pervasive Systems
- Autonomous IoT
- **Digital Twins**

Edge Al

Innovation (LBI) The track covers all the topics but it is aimed at either papers that have an original but not fully validated proposal (WiP) or present a breakthrough, a new vision or an out of the box idea on the field to be discussed at the conference (LBI)

Submission Instructions

Authors are invited to submit their original research work that has not previously been submitted or published in any other venue. Regular, work-in-progress (WiP), and workshop/special session papers need to be submitted via EDAS (link available soon) in IEEE CS Proceedings format. IEEE formatting info:

http://www.ieee.org/conferences_events/conferences/publishing/templates.html All the accepted papers will be published by IEEE in the Conference Proceedings (IEEE-DL and EI indexed). Best Paper Awards will be presented to high-quality papers. Some papers, originally submitted as full papers and based on review results, can be accepted as short papers or poster papers. In such cases, the authors will need to reduce the number of pages of the paper accordingly when preparing the camera-ready version. Authors of accepted poster papers will be required (i) to prepare and submit the camera-ready version of the paper for inclusion in the conference proceedings and (ii)

to realize the poster (format will be announced later) for its presentation at the conference. At least one of the authors of any accepted paper is requested to register and present the paper at the conference. Full Papers: 6-8 pages - WiP/WS/SS/Short Papers: 4-6 pages - Poster Papers: 2-4 pages - Late Breaking Innovation (LBI) Papers: 4-8 pages

Important Dates

Workshop/Special Session Proposal Due: 20 May 2025 Regular Paper Due: 10 Jun 2025 WiP/Poster/WS/SS Paper Due: 20 Jun 2025 LBI Paper Due: 30 Jun 2025 Authors Notification: 30 Jul 2025 Paper Registration Due: 05 Sep 2025 Camera-ready Submission: 12 Sep 2025

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