

The 22nd IEEE International Conference on Pervasive Intelligence and Computing (PICom 2024)

<http://cyber-science.org/2024/picom/>

joint conference IEEE DASC/PICom/CBDCoM/CyberSciTech 2024
5-8 November 2024 - Boracay, Philippines

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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 2024 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 AI

- GenAI for wireless sensing
- Machine-to-machine GenAI
- Generative IoT
- GenAI for semantic communications
- Multi-agent network powered by GenAI
- 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
- AI 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

Track 4: Next Gen Smart Environments

- Smart grid, healthcare, transportation 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

Track 5: Edge Intelligence Applications

- ML for resource allocation at the Edge
- NFV-Edge
- 5G-Edge
- Edge-assisted IoT
- Integration of Edge Computing and Blockchain
- Edge-Cloud Continuum
- Edge AI

Track 6: Work-in-Progress (WiP) and Late Breaking 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), workshop/special session, poster, and Late Breaking Innovation (LBI) papers need to be submitted in IEEE CS Proceedings format. IEEE formatting information:

http://www.ieee.org/conferences_events/conferences/publishing/templates.html

All accepted conference, workshop (WS), special session (SS), and poster 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.

Selected papers will be recommended to prestigious journal Special Issues.

Some papers originally submitted as full papers can be accepted as short papers or posters during the review process.

In such cases, the authors will need to reduce the paper accordingly when preparing the camera-ready version. 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/LBI/WS/SS/Short Papers: 4-6 pages - Poster Papers: 2-4 pages

Important Dates

Workshop/SS Proposal Due	15 Apr 2024
Paper Submission:	15 Jun 2024
WS/SS/Poster Paper Subm.	15 Jul 2024
Acceptance Notification:	15 Aug 2024
Camera-ready Submission:	15 Sep 2024

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