



2025 IEEE ICCP 2025 IEEE 21st International Conference on Intelligent Computer Communication and Processing

October 16-18, 2025, Cluj-Napoca, Romania <u>http://www.iccp.ro</u>



Aims and Scope

The goal of the 2025 IEEE 21st International Conference on Intelligent Computer Communication and Processing is to bring together researchers, engineers and practitioners working towards improving the power of both communication and processing software using the most advanced intelligent methods available today.

The growing toolkit of AI - computer vision, natural conversation, and machines that learn over time—has the potential to enhance almost the entire economic and social life. The driving forces of this development are the increased volumes of data, the continuously growing of communication, processing, storage capabilities and the new machine learning techniques especially deep learning and reinforcement learning algorithms.

The fast development of artificial intelligence and its applications implies more advanced but also more secure artifacts, which require the intelligent computer communication and processing technologies to improve at a high pace.

Topics

Technical tracks include, but are not limited to:

Intelligent Systems: Agent and Multi-agent based Systems; Knowledge Representation; Reasoning and Engineering; Ontology Modeling and Mediation; Natural Language Processing and Understanding; Web and Knowledge-based Information Systems; Multidisciplinary Topics and Applications.

Deep Learning: CNN; GNN, Transformers; Theoretical contributions to Supervised Learning, Semisupervised Learning, Self-supervised Learning, Unsupervised Learning, Reinforcement Learning; Neurosymbolic Processing; Continual Learning; Synthetic Data based Learning; Domain Adaptation; Explainable AI.

Deep Learning Based Computer Vision: Image Processing; Image Enhancement; Feature extraction; Semantic, Instance and Panoptic Segmentation; Optical Flow; Stereovision and 3D Reconstruction; Monocular Depth Estimation; Motion; 2D and 3D Object Detection, 3D Point Cloud Processing, Tracking and Recognition; Multi-sensor and temporal fusion; Environment Representation; Risk Assessment.

Perception Applications: Video-based Question Answering, Driving Assistance Applications; Autonomous Vehicles; Autonomous Drones; Robotic Applications; Biomedical Image Analysis.

Intelligent Distributed Computing and Networking: Cloud Computing, Context Aware; Autonomic Computing; Resource Coordination and Management; Quality of Service; Queuing Network Models; Pervasive Computing; Grid Computing; Fault Tolerance; Cooperative Applications.

Keynote Speakers: will be announced





Special Sessions

Automated Driving: organized by Technical University Cluj-Napoca, RO Natural Language Understanding: organized by Technical University Cluj-Napoca in cooperation with National University of Science and Technology "Politennica" Bucharest, RO

Workshops

Semantic and Geometric Perception and Understanding: organized by Technical University Cluj-Napoca in colaboration with Robert Bosch Engineering Center.

Industrial Track

The industrial track is an excellent modality for companies working in the conference domains to advertise and promote their innovative products and services, connect with other companies and engage in discussions about research and development initiatives.

Important Dates

Submission of papers: July 1, 2025 Industrial track proposals: July 1, 2025 Notification of acceptance: September 5, 2025 Accepted Camera-ready papers due: September 14, 2025 Author registration due: September 14, 2025

Publication

Papers should not exceed 8 pages and should comply with IEEE formatting (8.5"x11", two-column). Accepted papers will be included in the 2023 IEEE ICCP Proceedings and will be submited for inclusion in IEEE Xplore digital library and other indexing organizations such as Scopus and Web of Science.

Steering Committee

Vladimir-Ioan Cretu, Politehnica University of Timisoara, RO Adina Magda Florea, National University of Science and Technology "Politehnica" Bucharest, RO Dariu Gavrila, University of Amsterdam, NL Marie-Pierre Gleizes, Universite Paul Sabatier, FR Claudia-Lavinia Ignat, LORIA- INRIA (Nancy-Grand Est), FR Ioan Alfred Letia, Technical University of Cluj-Napoca, RO Traian Muntean, Aix-Marseille University, FR Fawzi Nashashibi, RITS – INRIA (Paris-Rocquencourt), FR Sergiu Nedevschi, Technical University of Cluj-Napoca, RO David Robertson, Edinburgh University, UK Nicolae Ţăpuş, National University of Science and Technology "Politehnica" Bucharest, RO **Conference Chair** Sergiu Nedevschi, Technical University of Cluj-Napoca, RO

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Automated Driving Session Chairs

Radu Dănescu, Technical University of Cluj-Napoca, RO Tiberiu Marița, Technical University of Cluj-Napoca, RO

HiPerGrid Workshop Chairs:

Nicolae Tapus, Politehnica University, Bucharest, RO Valentin Cristea, Politehnica University, Bucharest, RO Florin Pop, Politehnica University, Bucharest, RO

Semantic and Geometric Perception and Understanding Workshop Chairs:

Sergiu Nedevschi, Technical University of Cluj-Napoca, RO Florin Oniga, Technical University of Cluj-Napoca, RO