2023 IEEE ICCP
2023 IEEE 19th International Conference on Intelligent Computer Communication and Processing

October 26-28, 2023, Cluj-Napoca, Romania
http://www.iccp.ro

Aims and Scope

The goal of the 2023 IEEE 19th International Conference on Intelligent Computer Communication and Processing Software 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-based and Multi-agent 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; RNN; GNN; Transformers; Theoretical contributions to Supervised Learning, Semi-supervised Learning, Self-supervised Learning, Unsupervised Learning, Reinforcement Learning; Neuro-symbolic Processing; Continual Learning; Synthetic Data based Learning; Explainable AI.

Deep Learning Based Computer Vision (supervised, self-supervised and unsupervised solutions): 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

Smaranda Mureşan research Scientist at the Data Science Institute (DSI) and Associate Professor at the Department of Computer Science at Columbia University.

Special Sessions

Natural Language Understanding: organized by Technical University Cluj-Napoca, RO.
Deep Learning Based Perception for Autonomous Systems: organized by Technical University Cluj-Napoca, RO
HiPerGrid: organized in cooperation with Politehnica University, Bucharest, RO

Workshops

Semantic and Geometric Visual Perception: organized by Technical University Cluj-Napoca in the framework of "DeepPerception - Deep Learning Based 3D Perception for Autonomous Driving" grant funded by Romanian Ministry of Education and Research, code PN-III-P4-PCE-2021-1134.
Brainstorming On The Future Trends In Automated Driving Technology Development: organized by Robert Bosch Romania, Porsche Engineering, Technical University of Cluj-Napoca, "Self Driving Automobiles" technical committee of IEEE Intelligent Transportation Society, Intelligent Vehicles Commission of the Romanian Academy.

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: June 15, 2023
Industrial track proposals: June 15, 2023
Notification of acceptance: September 1, 2023
Accepted Camera-ready papers due: September 15, 2023
Author registration due: September 15, 2023

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.

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Adrian Groza, Technical University of Cluj-Napoca

Deep Learning Based Perception for Autonomous Systems Session Chairs
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Florin Oniga, Technical University of Cluj-Napoca, RO

HiPerGrid Session Chairs
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