

The 7th IEEE International Conference on
Industrial Cyber-Physical Systems



ICPS 2024

May 12-15, 2024, St. Louis, USA

Website: icps2024.ieee-ies.org



CALL FOR PAPERS

The 7th IEEE International Conference on Industrial Cyber-Physical Systems (ICPS) will be held from Sunday to Wednesday, **May 12-15, 2024**, St. Louis, MO, USA.

ICPS 2024 aims to provide an international platform for cutting edge research and professional interactions for the development of Industrial Cyber-Physical Systems. Industry experts, researchers and academics will share ideas and experiences surrounding frontier technologies, breakthroughs, innovative solutions, research results, as well as initiatives related to Industrial Cyber-Physical Systems and their applications. The conference will feature a rich program including industry talks, research papers, as well as workshops and special sessions.

A number of Special Sections in leading IEEE Journals such as TII, TICPS, OJIES and JESTIE, elaborating conference topics will be generated after the event. Authors of accepted papers, with excellent reviews, will be invited to submit an improved version of their papers for further consideration.

Topics within the scope of the conference (but not limited to):

- **ICPS Architectures & Engineering:** Industry Architectures, Industry Standards, RAMI 4.0, Industrial IoT, Engineering Methods and Tools, Lifecycle Management, Integration, HMI, Safety, Engineering Systems of ICPS, Standards, Development/Engineering Best Practices
- **ICPS Theory and Technologies:** Core Technologies, Security & Trust, Interoperability, Communication Networks, Connectivity OT/IT, Semantics, Control, Information Processing, Security, IoT/IIoT, Cloud-Fog Computing, Big/Smart Data, Simulations
- **ICPS Automation and Autonomy:** Automation within ICPS Context for Industries (Agriculture, Healthcare, Factory, Maintenance, Manufacturing, Retail, Service, Supply chains), ICPS-Based Autonomous Systems, Robotics in Industries
- **ICPS Energy:** Cyber-Physical Energy System Design and Operation, Renewable Energy, Energy Storage, Power Trains, Electric Vehicles, Microgrid, Smart Grid
- **ICPS Advanced Modeling, Control, and Optimization:** ICPS System Modeling, Control Theory and Applications, System Optimization and Control
- **ICPS Emerging Applications:** Smart Manufacturing, Smart Cities, Smart Home and Living, Smart Framing, Mobility, Water Management, Mining, Oil & Gas, Intelligent Enterprise, Smart Transportation, Internet of Underwater Things, Smart Medical Systems
- **ICPS Education, Management, and Society:** Digital Skills, Education Curricula, Lifelong Learning & Training, Digital Society, Future of Work, Innovation Management, Visions/Roadmaps, Industry Digitalization, Strategies & Markets, Entrepreneurship, Strategic Impact, Societal Implications, Sustainability, Innovation Management, Innovation Ecosystems, Visions/Roadmaps
- **Artificial Intelligence in ICPS:** Machine Learning, Generative AI, Metaverse, LLMs, NLP, AI Explainability, Edge AI, Neuromorphic Computing, Foundation Models, Synthetic Data, Industrial Experiences

Special Sessions: Prospective participants of ICPS 2024 are encouraged to propose (and upon approval organize) special sessions in the focus areas under the symposium topics.

Tutorials: Several tutorials are planned on the latest trends in ICPS. Prospective speakers should apply asap.

Paper Submission:

Prospective paper authors are requested to electronically submit full papers in English following the instructions available on the conference website. Accepted and presented papers will be copyrighted by IEEE and published in conference proceedings, which will be eligible for inclusion in the IEEE Xplore online Digital Library and EI Compendex database.

St. Louis is the second-largest city in Missouri, United States. It is located near the confluence of the Mississippi and the Missouri Rivers. Travelers looking for cosmopolitan fun, excitement and adventure will discover a great fit in St. Louis. Located in the midwestern USA, St. Louis is sophisticated yet affordable with a variety of attractions, exhibits and cuisine, all wrapped in a friendly, diverse atmosphere.

Important Dates	
Special Session Proposal:	Dec. 1, 2023
Full Paper Submission:	Dec. 15, 2023
Tutorial Proposal:	Dec. 15, 2023
Decision Notification:	Jan. 19, 2024
Early Registration:	Mar. 1, 2024

Honorary Chairs:

Okyay Kaynak (TR/CN)
Armando W. Colombo (DE)
Xinghuo Yu (AU)
Ren C. Luo (TW)
Yang Shi (CA)
Robert Harrison (UK)

Conference General Chairs:

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Stamatis Karnouskos (DE)

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Claudia-Melania Chituc (DE)
Hui Zhang (CN)

Special Sessions Chairs:

Mingxi Liu (US)
Taesic Kim (US)
Luis Ribeiro (SE)

Workshop & Tutorial Chairs:

Shiyun Hu (UK)
Shaoshuai Mou (US)
Shen Yin (NO)

Industry Forum Chairs:

Yebin Wang (US)
Regina Roos (CH)
Michael Condry (US)
Yuxing Dai (CN)

Financial Chairs:

Kunwu Zhang (CA)
Chao Shen (CA)

Local Arrangement Chair:

Shen Zeng (US)

Award Chairs:

Huiping Li (CN)
Milos Manic (US)

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