

Call for Papers

Track 10 – Artificial Intelligence for Cyber Physical Systems in Automation

Track co-chairs

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FOCUS. The track is focused on theoretical formulations, technical developments, practical applications, methods and case studies that leverage Artificial Intelligence, Data Analytics and Emerging Technologies for the automation and optimization of Cyber-Physical Systems in smart factory settings.

❖ TOPICS

- ❖ Distributed Architectures for Adaptive Systems
- ❖ Autonomous Cyber-Physical Systems
- ❖ Deep Learning and Self-Optimizing Cyber-Physical Systems
- ❖ Real-time Implementation of AI in Automation
- ❖ Knowledge Representation and Ontologies
- ❖ Machine Learning for Production
- ❖ Natural Language Processing Applications in Automation
- ❖ Unsupervised Learning and Latent Representations
- ❖ Grey-box Machine Learning
- ❖ Networked Adaptive Systems
- ❖ Algorithms for Diagnosis and Repair
- ❖ Self-Configuration and Self-Optimization
- ❖ Self-Adaption and Self-Organization for Smart Factories
- ❖ Automatic System Configuration
- ❖ Dependability of Cyber-Physical Systems
- ❖ Intelligent Interfaces to Smart Distributed Systems
- ❖ AI Powered Smart Interfaces
- ❖ Industrial Conversational Agents
- ❖ Smart Cities, Smart Buildings and Smart Energy Systems

❖ **AIM.** The aim of the conference is to bring together researchers and practitioners from the industry and academia and provide them with a platform to report on recent advances and developments in the newly emerging areas of technology, as well as actual and potential applications to industrial and factory automation.

❖ **CONFERENCE FORMAT.** The conference will comprise multitrack sessions for regular papers, to present significant and novel research results with a prospect for a tangible impact on the research area and potential implementations; work-in-progress (WIP) sessions; panel discussions on the state-of-the-art and emerging trends, involving leading experts from industry and academia; and public discussion sessions moderated by leading experts in the field of industrial automation systems.

Track Programme Committee

- ❖ Paulo Bartolomeu, University of Aveiro, Portugal
- ❖ August Betzler, i2CAT Foundation in Barcelona, Spain
- ❖ Andrea Bonci, Università Politecnica delle Marche, Italy
- ❖ Peter Danielis, University of Rostock, Germany
- ❖ Daniele De Martini, University of Oxford, United Kingdom
- ❖ Sarder Fakhru Abedin, Mid Sweden University, Sweden
- ❖ Maxim Friesen, Institut für industrielle Informationstechnik, Germany
- ❖ Mikael Gidlund, Mid Sweden University, Sweden
- ❖ Antoni Grau, Technical Univ of Catalonia, Spain
- ❖ Maki Habib, The American University in Cairo
- ❖ Ran Jin, Virginia Tech, USA
- ❖ Seiichiro Katsura, Keio University, Japan
- ❖ Woojin Kim, Electronics and Telecommunications Research Institute, Korea
- ❖ Denis Kleyko, Research Institutes of Sweden (RISE)
- ❖ Markus Lange-Hegermann, Institut für industrielle Informationstechnik, Germany
- ❖ Paulo Leitão, Instituto Politecnico de Bragança, Portugal
- ❖ Oliver Niggemann, Helmut-Schmidt-Universität, Germany
- ❖ Antonino Nocera, University of Pavia, Italy
- ❖ Joanna Isabelle Olszewska, University of the West of Scotland, United Kingdom
- ❖ Luis Ribeiro, Linköping University, Sweden
- ❖ Javier Silvestre-Blanes, Universitat Politècnica de València, Spain
- ❖ Roopak Sinha, Auckland University of Technology, New Zealand
- ❖ Abhilash Thekkilakkattil, Scania CV AB, Sweden
- ❖ Chen-Wei Yang, Lulea University of Technology, Sweden
- ❖ Tao Zheng, Beijing Jiaotong University, China

AUTHOR'S SCHEDULE (2023)

Regular and special sessions papers

Submission deadline March 31
Acceptance notification May 5
Deadline for final manuscripts June 16

Work-in-progress/ Industry practice papers

Submission deadline May 12
Acceptance notification June 9
Deadline for final manuscripts June 16