ETFA 2026 Västerås Sweden 8-11 September

31st IEEE International Conference on Emerging Technologies and Factory Automation

Call for Papers – Track 10
Artificial Intelligence for Cyber Physical Systems in Automation

Track 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 (AI), Machine Learning (ML), Data Analytics, AI/ML-based Technologies, and Emerging Technologies for the automation and optimization of Cyber-Physical Systems in smart factory settings.

TOPICS

- Self-Configuration, Self-Adaption and other Self-X for Smart Factories
- Smart Cities, Smart Buildings and Smart Energy enhanced by AI
- Grey-box Machine Learning
- Real-time Implementation of AI in Automation
- Knowledge Representation and Ontologies
- AI-based Approaches for Security in Cyber Physical Systems
- Unsupervised Learning and Latent Representations
- Networked Adaptive Systems and AI-based Network Digital Twins
- AI Powered Intelligent Interfaces to Smart Distributed Systems
- Machine Learning and Deep Learning for Production
- Algorithms for Predictive Maintenance, Diagnosis, and Repair
- Explainable and Trustworthy AI in Industrial Cyber-Physical Systems
- Industrial Conversational Agents and LLM Applications in Automation
- Dependability of Cyber-Physical Systems
- Data quality, Augmented and Transfer learning, Scarce data in ML
- Time Series Prediction for Industrial Applications

AIM. The aim of the conference is to bring together the international community to present the latest research results, share new ideas and engineering breakthroughs, and discuss state-of-the-art challenges and future directions in technology and innovation in the broad domain of Automation with a focus on Industrial and Factory Automation.

Track Program Committee

- Abhilash Thekkilakattil, Traton SE, Sweden
- Alexander Diedrich, Helmut-Schmidt-University, Germany
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- Ulrich Büker, inIT – Institute Industrial IT / TH-OWL, Germany
- Valeriy Vyatkin, Aalto University, Finland / Luleå University of Technology, Sweden
- Volker Lohweg, inIT – Institute Industrial IT / TH-OWL, Germany
- William Wenbin Dai, Shanghai Jiao Tong University, China

CONFERENCE FORMAT. The conference will comprise multi-track 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, as well as work-in-progress (WiP) and industry practice sessions.

AUTHOR'S SCHEDULE (2026)

Regular and special sessions papers
- Submission deadline ..... April 19
- Acceptance notification ..... May 25
- Deadline for final manuscripts ..... July 4

Work-in-progress/Industry practice papers
- Submission deadline ..... May 31
- Acceptance notification ..... June 19
- Deadline for final manuscripts ..... July 4