

Call for Papers

Track 4 - System and Software Engineering, Runtime Intelligence

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❖ **FOCUS.** Large and complex Industrial Automation systems have become increasingly dominated by software. We invite novel research in all phases of the system/software development lifecycle with an additional focus on runtime intelligence.

❖ TOPICS

- ❖ Requirements engineering-elicitation, specification, analysis, management
- ❖ System architectures for industrial automation systems
- ❖ Software architectures for industrial automation systems
- ❖ Application-level or reference architectures for sub-domains like factory, building, packaging and production systems
- ❖ Design-level concerns and strategies for industrial automation systems
- ❖ Development of industrial software including tools, patterns and processes
- ❖ Co-design and development of hardware/software aspects of industrial automation systems
- ❖ Context-aware industrial automation systems-design and development
- ❖ All paradigms for developing intelligent industrial automation systems, including machine learning/artificial intelligence, and model-based approaches
- ❖ Testing of industrial automation systems-test-driven development, testing strategies, integration and system-level testing, early testing methods
- ❖ Model-checking and verification techniques for industrial automation systems
- ❖ Deployment of industrial automation systems - DevOps, configuration management, dynamic reconfiguration, fault management, diagnostics
- ❖ Hybrid clouds and cloud-edge flexibility in industrial automation systems
- ❖ Fog technologies in intelligent automation systems
- ❖ Runtime monitoring and verification of industrial automation systems
- ❖ Model-driven engineering in intelligent automation systems
- ❖ Product lines and feature-oriented development of industrial automation systems

❖ **AIM.** IEEE INDIN is a flagship conference of IEEE Industrial Electronics Society providing a forum for presentation and discussion of the state-of-art and future perspectives of industrial information technologies, where industry experts, researchers, and academics share ideas and report on recent developments, deployments, technology trends and research results, as well as initiatives related to industrial informatics and their application.

❖ **CONFERENCE FORMAT.** The conference will include multitrack sessions, for both Regular and Special Session papers, to present significant and novel research results with a prospect for a tangible impact on the research area and potential implementations; Industry Forum sessions, in which invited speakers will present use cases, changes, and challenges faced by industry associated with the technical areas of IES; and Tutorials sessions, in which selected speakers will explain state-of-the-art and ongoing hot research techniques and tools, together with hands-on experiments, aimed at solving problems faced by industrial informatics engineers and researchers.

❖ AUTHOR'S SCHEDULE (2020)

❖ Regular and Special Session (SS) papers

SS proposals deadline January 24

Papers submission deadline March 31

Acceptance notification June 11

Deadline for final manuscripts June 30

❖ Tutorials

Tutorial proposals deadline April 23

Track Programme Committee

- ❖ Luca Berardinelli, Johannes Kepler University Linz, Austria
- ❖ Xiuju Fu, Institute of High Performance Computing, Singapore
- ❖ Thomas Greiner, Pforzheim University, Germany
- ❖ David Hästbacka, Tampere University, Finland
- ❖ Matthew Kuo, Auckland University of Technology, New Zealand
- ❖ Paulo Leitao, Instituto Politécnico de Bragança, Portugal
- ❖ Herbert Prähofer, Johannes Kepler University Linz, Austria
- ❖ Filipe Moutinho, Nova University of Lisbon, Portugal
- ❖ Rick Rabiser, Johannes Kepler University Linz, Austria
- ❖ Jin Woo Ro, University of Bamberg, Germany
- ❖ Roopak Sinha, Auckland University of Technology, New Zealand
- ❖ Benjamin Tan, New York University, USA
- ❖ Juri Vain, Tallinn University of Technology, Finland