

ETFA 2026 Västerås

Sweden
8-11 September

31st IEEE International Conference on Emerging Technologies and Factory Automation

Call for Papers - Track 3 Real-Time Systems and Applications

Track chairs

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❖ **FOCUS.** Industry is increasingly depended on real-time behavior, e.g., by embedded systems that support complex functionality, distributed intelligence, and adaptive behavior. Some of these features are deployed locally, leveraging increasingly powerful computing architectures, while others are offloaded to edge or remote computing infrastructures through ubiquitous connectivity and global networks. This track focuses on the challenges arising from the design of real-time systems, under power, reliability, resource, and other system constraints.

❖ TOPICS

- ❖ *Real-time and worst-case analysis and performance modeling*
- ❖ *Analytical and empirical evaluation methods for real-time systems*
- ❖ *Formal modeling, verification, and validation techniques for real-time guarantees*
- ❖ *Timing predictability, composability, and isolation in real-time systems*
- ❖ *Multi-/many-core, and SoC-based embedded systems for real-time applications*
- ❖ *Hardware–software integration and co-design for real-time systems*
- ❖ *Energy-aware design and performance optimization under real-time constraints*
- ❖ *Adaptive and (self-)reconfigurable real-time systems*
- ❖ *Mixed-criticality real-time systems*
- ❖ *Reliable, fault-tolerant, and dependable real-time systems*
- ❖ *Safety- and mission-critical real-time systems*
- ❖ *Wired industrial real-time communication systems (e.g., PROFINET, TSN)*
- ❖ *Wireless industrial real-time communication (e.g., sensor and actuator networks, Industrial Internet of Things (IIoT))*
- ❖ *Software-defined networks for real-time applications*
- ❖ *Edge and cloud architectures for real-time applications*
- ❖ *Security aspects of real-time communication and embedded systems*
- ❖ *Privacy-enhancing technologies for real-time systems*
- ❖ *Software development for embedded and real-time systems*
- ❖ *Design tools and methodologies for real-time embedded systems*
- ❖ *Industrial case studies, system integration, and deployment experience of real-time systems*
- ❖ *AI- and data-driven techniques in real-time and embedded systems*

❖ **AIM.** The aim of this track is to bring together the international research community to present recent advances, share new ideas and practical insights, and discuss state-of-the-art and future directions in the design, analysis, and deployment of real-time embedded and distributed systems in industrial and cyber-physical applications.

❖ **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

Track Program Committee

- ❖ Anja Hamscher, RPTU University Kaiserslautern-Landau, Germany
- ❖ Emmanuel Grolleau, LIAS, ISAE-ENSMA, Univ. Poitiers, France
- ❖ Hans Doran, UAS Winterthur, Switzerland
- ❖ Javier Gutierrez, Universidad de Cantabria, Spain
- ❖ Jean Luc Scharbarg, Université de Toulouse, France
- ❖ Jong-Chan Kim, Kookmin University, South Korea
- ❖ Julien Forget, University of Lille, France
- ❖ Konstantinos Bletsas, Affiliation confirmed soon
- ❖ Luca Leonardi, University of Catania, Italy
- ❖ Martin Horauer, UAS Technikum Wien, Austria
- ❖ Nicolas Navet, University of Luxembourg, Luxembourg
- ❖ Paulo Portugal, Universidade do Porto, Portugal
- ❖ Ramon Sema Oliver, TTTech Auto, Austria
- ❖ Tomasz Kłoda, LAAS-CNRS, France

❖ more to be confirmed...