

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

## Track Chairs Mohammad Ashjaei\*, Mitra Nasri<sup>†</sup>

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**FOCUS**. Industry is increasingly permeated with embedded systems that often require to act within a bounded time. Moreover, complex functionality and adaptivity is becoming more essential in designing such embedded systems. Embedded systems can also connect via heterogeneous communication systems to create complex distributed embedded systems that require careful design to fulfill their requirements, such as time, safety, resource efficiency, and security requirements. This track focuses on challenges that arise during designing such systems with the emphasis on meeting their timing requirements along with other requirements such as reliability, safety, etc.

#### TOPICS

- Real-time analysis and performance modelling
- Analysis and empirical evaluations
- WCET analysis
- Worst-case performance analysis
- Multi/many-core/SoC embedded systems
- Adaptive real-time systems
- Edge and cloud architectures and applications
- Dependable systems including safety and criticality
- Security issues in embedded systems design
- Privacy-enhanced systems
- QoS for embedded systems
- Wireless sensor (and actuator) networks
- Industrial IoT systems
- Wired industrial communication systems (PROFINET, TSN, EtherCAT)
- Software defined networks and systems
- Software development for embedded systems
- Design tools and methodologies for embedded systems
- Verification and validation techniques
- Formal modelling and methods
- ♦ (Self)-reconfigurable real-time systems
- Mixed-criticality real-time systems
- Reliable and fault tolerant real-time systems
- Energy and performance optimization
- Hardware-software integration and co-design
- Industrial case studies of real-time systems
- System and deployment experiences

#### AIM

The ETFA 2024 conference brings together professionals from industry and academia to share cutting-edge concepts, recent developments, research results, and practical achievements in industrial and factory automation. The key goal is to foster the enhancement and application of scientific techniques, models, and tools that support the efficient design and operation of industrial and factory automation systems.

#### **SOLICITED PAPERS**

- Original Research (Regular)
  Surveys
  Industry practice
  Work-in-progress
- The working language of the conference is English, For submission rules, please refer to the Author's Instruction on the conference website.

#### PAPER ACCEPTANCE

Accepted, registered, and presented papers will be copyrighted by IEEE and published in the conference proceedings. The proceedings will be available in the IEEE Xplore® Digital Library. The final manuscript must be accompanied by a registration form and a registration fee payment proof and it is mandatory that at least one author attends and presents the paper at the conference. Failure to adhere to these guidelines may result in paper exclusion from post-conference distribution via IEEEXplore by the ETFA 2024 Organizing Committee. All conference attendees must pay the conference registration fee and cover their own personal expenses for travel and accommodations.

#### **AUTHOR'S SCHEDULE 2024**

#### Regular and special sessions papers

| Submission deadline            | April 28th           |
|--------------------------------|----------------------|
| Acceptance notification        | May 31st             |
| Deadline for final manuscripts | July 1 <sup>st</sup> |

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### **TRACK PROGRAM COMMITTEE**

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- Kuan-Hsun Chen, University of Twente, The Netherlands

#### Work-in-progress/ Industry practice papers

UNIVERSITÀ

degli Stud di Padova

| Submission deadline            | May 26th              |
|--------------------------------|-----------------------|
| Acceptance notification        | June 17 <sup>th</sup> |
| Deadline for final manuscripts | July 1 <sup>st</sup>  |

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