27th INTERNATIONAL CONFERENCE
ON EMERGING TECHNOLOGIES
AND FACTORY AUTOMATION

ETFA 2022

STUTTGART, GERMANY
SEPTEMBER 6th-9th 2022

Call for Papers
SS10 - Advanced Methods for the Management of Factory Networks

Organized and Co-Chaired by (sorted by last name)

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❖ **FOCUS**. Customization, resilience, and efficiency are some of the major challenges that production plants are faced with today and in the future. Comprehensive acquisition, processing, and utilization of process information can help to tackle these issues. They are themselves in turn based on comprehensive interconnection by data networks. Here, a variety of demanding requirements including reliability, determinism, update frequencies, data throughput, power consumption, safety, security, and mobility, as well as interoperability with legacy systems, lead to the deployment of a plurality of wired and wireless communication technologies. To overcome the resulting complexity of planning, configuring, operating, and maintaining such heterogeneous factory network infrastructures, advanced methods and tools are needed.

❖ **TOPICS**

- ❖ Case studies on integrated wired and wireless communication technologies
- ❖ Control and management architectures for heterogeneous and dependable factory networks, considering reactive and proactive (re-)configuration of network parameters
- ❖ Information modelling for improving the interoperability and convergence of industrial network systems and use of digital twin technology for life-cycle management
- ❖ Provisioning of end-to-end QoS and intelligent resource allocation in heterogeneous factory networks, including edge computing and storage
- ❖ AI and ML based methods for the management of factory networks
- ❖ Advanced measures for the management of safety and security in factory networks
- ❖ Management of Low-power and Lossy Networks (LLNs)
- ❖ Management of the perception and network layers in the Industrial IoT (IIoT)
- ❖ Analogies in network management for verticals (vehicular, building automation, disaster recovery, etc.)

❖ **AIM.** The aim of the Special Session is to bring together researchers and practitioners from the industry and academia from different domains like ICT, automation and data science to report, to discuss and to elaborate on recent advances and developments in the area of the management of factory networks. Thereby this Special Session provides a platform to exchange new ideas from different perspectives and to figure out future research topics and co-operations.

❖ **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 (2022)**

❖Regular and special sessions papers

Submission deadline	April 1
Acceptance notification	May 6
Deadline for final manuscripts	June 17

❖Work-in-progress/Industry practice papers

Submission deadline	May 13
Acceptance notification	June 10
Deadline for final manuscripts	June 17