21th IEEE International Conference on

Emerging Technologies and Factory Automation





September 6-9, 2016, Berlin

Track Program Committee

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Call for Papers

Track 1. Information Technology in Automation

Track Co-Chairs

Valeriy Vyatkin, Luleå University of Technology, Sweden & Aalto University, Finland, vyatkin@ieee.org

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Focus of the Track: Track 1 is focused on the development, adoption and application of information technology for automation systems.

Topics within the scope of the track

- IT Modelling Techniques (e.g., Object-Orientation, Components, Agents, Services) for Automation Systems
- Model Driven Development and Model Based Engineering in Automation and Mechatronic Systems (e.g., UML, SysML)
- Data Modelling (e.g. CAEX, AutomationML, OPC UA, ISO 15926) along the Plant Life Cycle
- Domain Specific Modelling and Programming Languages (e.g. IEC 61131, IEC 61499)
- Knowledge-Based Systems, Ontologies and Semantic Web in Automation Systems
- IT Architecture techniques (e.g. Virtualization, Cloud computing, Big Data) in Automation Systems
- Vertical Integration, Integration with MES and ERP Systems (Databases, Semantic Web Services)
- Device and system integration technologies
- Energy Management in and by Automated Systems
- Engineering Methods for Distributed Automation Systems and Cyber-Physical Systems
- Software Reuse, Software Product Lines, and other Software Engineering Methods in Automation
- Agile Software Development in Automation
- Dynamically Reconfigurable, Adaptive, and Emergent Automation Software/Systems
- Security and Safety in Factory, Energy, Home and Building Automation
- Case Studies and Application Reports especially from: (1) Digital Factory, Smart Manufacturing, Web-of-Things in the Factory Line, (2) Home and Building Automation, (3) Renewable Energy Systems and Smart Grids (Production and Integration)

Aim: The aim of the conference is to bring together researchers and practitioners from the industry and academia and provide them with a platform to report on recent advances and developments in the newly emerging areas of technology, as well as actual and potential applications to industrial and factory automation.

Solicited Papers: Research papers reporting on new developments in technological sciences. Industry and development papers reporting on actual developments of technology, products, systems and solutions. Tutorial and survey papers. Work-inprogress papers. In addition, ETFA 2016 solicits special session proposals to stimulate in-depth discussions in special areas relevant to the conference theme. Please consult the conference web page for more details.

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; work-in-progress (WIP) sessions; panel discussions on the state-of-the-art and emerging trends, involving leading experts from industry and academia; and public discussion sessions moderated by leading experts in the field of industrial automation systems.

Submission of Papers: The working language of the conference is English. Two types of submissions are solicited. Long Papers ${\sf -}$ limited to ${\sf 8}$ double column pages in a font no smaller than ${\sf 10} ext{-}$ points. Work-in-Progress and Industry practice papers ${\sf -}$ limited to 4 double column pages in a font no smaller than 10-points. Manuscripts must be submitted electronically in PDF format, according to the instructions contained in the Conference web site.

Best Paper Award: Best paper awards in Factory Automation and Emerging Technologies will be presented at the conference banquet dinner.

Further Information: ETFA2016 Conference Secretariat: Tel.: +49 / 5261 94290-35; Fax.: +49 / 5261 94290-35; Email: etfa2016@iosb.fraunhofer.de

Paper Acceptance: Each accepted paper must be presented at the conference by one of the authors. The final manuscript must be accompanied by a registration form and a registration fee payment proof. All conference attendees, including authors and session chairpersons, must pay the conference registration fee, and their travel expenses.

No-show Policy: The ETFA2016 Organizing Committee reserves the right to exclude a paper from distribution after the conference at IEEE Xplore if the paper is not presented at the conference.

Author's Schedule:

Deadline for submission of regular and special sessions papers: Notification of acceptance of regular and special sessions papers: Deadline for submission of work-in-progress papers and Industry practice: Notification of acceptance of work-in-progress papers and Industry practice: Deadline for submission of final manuscripts – regular and special sessions: Deadline for submission of final manuscripts – work-in-progress papers and Industry practice:

http://www.etfa2016.org

March 15, 2016

May 15, 2016

May 20, 2016 June 20, 2016

July 1, 2016

July 1, 2016