

# CALL FOR PAPERS

## Special Session on Engineering Tool Integration for Industrial Automation System Development (ETAS)

to be held in the frame of  
IECON 2013 - The 39<sup>th</sup> Annual Conference of the IEEE Industrial Electronics Society  
10<sup>th</sup> - 13<sup>th</sup> of November 2013, Austria Center, Vienna, Austria



### TOPIC OF THE SPECIAL SESSION

Automation systems development project typically include a wide range of different disciplines, i.e., mechanical, electrical, and software engineers, who have to collaborate and exchange data within a heterogeneous engineering environment. Current engineering projects suffer from weak technical integration of applied tools, e.g., for electrical and process planning, and limitations of integrating heterogeneous data models on semantic level. These limitations hinder efficient and effective data exchange between disciplines, do not consider project context and project-specific workflow definitions, and make project and quality management more complex, error-prone, and effort consuming. Common solutions focus on all-in-one solutions, which aim at integrating functionalities within one comprehensive solution (and limited data exchange to alternative solution outside the all-in-one approach); individual solutions often apply point-to-point connections between defined software tools with strong limitations in flexibility and maintainability. Nevertheless, flexible and light-weight approaches are necessary to benefit from exchanging data effectively and efficient and can improve project- and quality management requirements.

### SPECIAL SESSION ORGANISATION

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The organizers look forward to welcoming you to Vienna, Austria from 10<sup>th</sup> to 13<sup>th</sup> November 2013.

### Important Dates

Regular Paper submission:	April 01, 2013
Notification of acceptance:	June 15, 2013
Final submission:	August 01, 2013



We welcome research papers as well as industry papers focusing on aspects on tool and data integration, project-aware processes, and their applications in automation systems development projects.

Topics of interest include, but are not restricted to:

Engineering Tool Integration

- Architectural Design
- Tool Data Integration
- Process Orchestration
- Model-Driven Integration
- Automated and Integrated Data Exchange Mechanism

Engineering Processes and Data Exchange

- Information Exchange between Different Activities of the Engineering Chain
- Interaction of Different Stakeholders within the Engineering Chain
- Consistency within the Engineering Chain
- Model-Based Data Transformation/Exchange
- Solution approaches based on current and upcoming standards, e.g., AutomationML and ontologies.

Quality Assurance

- Product and Process Metrics
- Defect Detection in Automation Systems Development projects
- Engineering Process Monitoring and Tracing
- Simulation and Virtual Startup (Digital Factory)
- Verification and Validation

Use Cases and Industrial-related Topics

- Empirical Evaluations
- Experience Reports and Lessons Learned
- Tool Demonstrations

## **SUBMISSION OF PAPERS**

The working language of the conference is English. Submit the full paper as PDF following the IEEE layout requirements by using the templates given at the conference web page. Accepted and presented papers will be published in an IEEE Proceedings volume and will be sent to IEEE Xplore. In addition, selected authors are encouraged to submit their papers for publication in the IEEE Transactions on Industrial Electronics or in the IEEE Transactions on Industrial Informatics.

## **THE CONFERENCE**

IECON 2013 is the 39th Annual Conference of the IEEE Industrial Electronics Society, focusing on industrial and manufacturing theory and applications of electronics, controls, communications, instrumentation and computational intelligence. The objectives of the conference are to provide high quality research and professional interactions for the advancement of science, technology, and fellowship.

Papers with new research results are encouraged for submission. IECON 2013

will be held concurrently with the 7th IEEE International Conference on E-Learning in Industrial Electronics (ICE-LIE 2013). Participation in any of these events just requires a single conference registration fee. The world's industry, research, and academia are cordially invited to participate in the wealth of presentations, tutorials, special sessions and social activities, and furthermore, enjoy beautiful Vienna.