Call for Papers / Invitation to Special Session

SS05. Machine Learning for Cyber-Physical Systems

Special Session Organizers

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Aim:

This special session is dedicated to the applications of machine learning methods in Cyber-Physical Systems. Analysis of real-time process data helps to increase the efficiency, safety and reliability of production, as well as to reduce the costs and downtime. For that reason, data-driven, intelligent solutions came into the spotlight of the manufacturing world in the recent years, and the Industry 4.0 and Internet of Things initiatives are becoming a major trend worldwide.

Thus, the focal points of this session are the novel developments and challenges in bringing the concepts of Industry 4.0 and smart factories to reality. We invite engineers and researchers to share their work in the fields of self-diagnosis, self-configuration, optimisation, data safety and all the other aspects of intelligent manufacturing.

This special session will be focusing on (but not limited to) the following topics:

- Machine learning, artificial intelligence and data mining,
- Data-driven and model-based approaches,
- Unsupervised and supervised learning from process data,
- Anomaly detection, predictive maintenance, condition monitoring, optimisation,
- Intelligent control, simulation, virtual twins, virtual commissioning,
- Decision and operator support, visual analytics, diagnosis,
- Pre-processing and analysis of data from heterogeneous distributed systems, data quality,
- Complex industrial and manufacturing systems, Factory of the future, Cyber-Physical Systems

Submission of Papers: The working language of the conference is English. Papers are limited to 8 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.

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 ETFA2017 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 special sessions papers:	April 9, 2017
Notification of acceptance of special sessions papers:	May 15, 2017
Deadline for submission of final manuscripts – special sessions:	July 2, 2017

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