29TH INTERNATIONAL CONFERENCE ON EMERGING TECHNOLOGIES AND FACTORY AUTOMATION

ETFA 2024 PADOVA, ITALY SEPTEMBER 10TH-13TH 2024

Call for Papers
Third Workshop on Implementing Asset Administration Shells (ImplAAS)

Organizers and Chairs

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FOCUS. The Asset Administration Shell (AAS) is a harmonized, digital representation of industrial assets being developed by the German Platform Industrie 4.0 and by the Industrial Digital Twin Association (IDTA). With this workshop, we want to complement the ongoing industry-driven discussions and standardization activities with a research-oriented format that focuses on the ongoing development of the AAS, the application of AAS especially in cross-enterprise scenarios, the virtualization of (production) processes, and its integration with other key technologies, such as OPC UA. We also want to explore additional application areas for AAS.

WORKSHOP PROGRAM COMMITTEE

- Prof. Dr. Greiner, Thomas, HS Pforzheim
- Dr. Miny, Torben, RWTH Aachen University
- Klausmann, Tobias, Lenze SE
- Prof. Dr. Schäfer, Stephan, HTW Berlin
- Dr. Weber Martins, Thiago, SAP AG
- Ziesche, Constantin, Bosch Rexroth AG
- Terzimehić, Tarik, fortiss GmbH
- Schmitt, Siwara, Fraunhofer IESE
- Dr. Hoffmann, Alwin, Xitaso GmbH
- Dr. Barth, Christian, Festo SE & Co. KG
- Dr. Kuhn, Thomas, Fraunhofer IESE
- Dr. Oliveira Antonino, Pablo, Fraunhofer IESE
- Dr. Porta, Daniel, DFKI
- Schnicke, Frank, Fraunhofer IESE
- Dr. Grüner, Sten, ABB AG

TOPICS

- Experiences with Asset Administration Shells (for all kinds of assets) in practice
- Languages for inter-AAS communication and negotiation
- Machine learning supported by AAS
- Integration of AAS with streaming data and scalability of AAS solutions
- AAS for virtual commissioning and Continuous Engineering of production processes
- Hierarchical AAS registry concepts
- AAS-based plant architectures
- Virtualization of plants and manufacturing processes with AAS
- Maintenance and updating of AAS and AAS meta-models over longer time periods
- Data protection and data sovereignty with Asset Administration Shells

AIM

ImplAAS is a workshop to discuss research challenges and experiences related to the digital transformation of manufacturing environments with Digital Twins that were created based on Asset Administration Shells and AAS submodels, and related to the virtualization of (production) systems. All system domains are welcome. We welcome papers on the use, practical implementations, and experiences with AAS and Digital Twins that cover a wide range of research topics with a focus on the digital transformation of manufacturing, process industry, and the digitization of value chains.

WORKSHOP FORMAT

Full day Workshop, based on solicited research papers.

These papers must report significant and innovative research and development results that will have a long-term impact on the field of research, with the potential for implementation. The final manuscripts must comply with the formatting requirements for ETFA 2024, with a page limit of 8 pages, and a presentation slot of 30 minutes maximum. The working language of the conference is English. For submission rules, please refer to the Author's Instruction on the conference website.

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 Workshop registration fee payment proof and it is mandatory that at least one author attends and presents the paper at the Workshop. Failure to adhere to these guidelines may result in paper exclusion from post-conference distribution via IEEEXplore by the ETFA 2024 Organizing Committee.

For any detail regarding registration to the Workshop, please refer to the Call for Workshops as well as the ETFA 2024 website.

AUTHOR'S SCHEDULE 2024

❖Solicited Workshop papers

Submission deadline ..... **May 26th**
Acceptance notification ..... June 17th
Deadline for final manuscripts ..... July 1st