



28th INTERNATIONAL CONFERENCE
ON EMERGING TECHNOLOGIES
AND FACTORY AUTOMATION

2023

SINAIA, ROMANIA
SEPTEMBER, 12th-15th, 2023

Call for Papers

Second Workshop on Implementing Asset Administration Shells (ImplAAS)

Organized and Co-Chaired by

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❖ **FOCUS.** The Asset Administration Shell (AAS) is a harmonized, digital representation of industrial assets that is 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 puts focus on the ongoing development of the AAS, the application of AAS especially in cross-company scenarios, the virtualization of (production) processes, and its integration with other highly important technologies, such as OPC UA. We also want to explore additional application areas for AAS.

❖ 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
- ❖ Concepts for hierarchical AAS registries
- ❖ 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 privacy 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 solicit papers regarding 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.** ImplAAS will be a full day workshop. Prospective authors are invited to electronically submit full regular papers (limited to 8 pages) of their work. English is the working language of the conference. Accepted papers must be presented at the workshop in order to be included in the ETFA conference proceedings available at IEEE Xplore.

❖ AUTHOR'S SCHEDULE (2023)

❖ Regular and special sessions papers

Submission deadline June 16
Acceptance notification July 7
Deadline for final manuscripts July 21

Workshop: September 12, 2023

Workshop Program Committee

- ❖ Dr. Birgit Boss (Robert Bosch GmbH)
- ❖ Dr. Markus Damm (Fraunhofer IESE)
- ❖ Prof. Dr. Thomas Greiner (Pforzheim University)
- ❖ Dr. Sten Grüner (ABB AG)
- ❖ Tobias Klausmann (Lenze SE)
- ❖ Dr. Thomas Kuhn (Fraunhofer IESE)
- ❖ Dr. Torben Miny (RWTH Aachen University)
- ❖ Dr. Pablo Oliveira Antonino (Fraunhofer IESE)
- ❖ Dr. Daniel Porta (DFKI)
- ❖ Frank Schnicke (Fraunhofer IESE)
- ❖ Tarik Terzimehic (fortiss GmbH)
- ❖ Dr. Thiago Weber Martins (SAP SE)
- ❖ Constantin Ziesche (Bosch Rexroth AG)