Call for Papers

First 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 has been developed by the German Platform Industrie 4.0. With this workshop, we want to complement the ongoing industry driven discussions and standardization activities in the Platform Industrie 4.0 and in the Industrial Digital Twin Association (IDTA) 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 is to discuss research challenges and experiences regarding the digital transformation of manufacturing environments with Asset Administration Shells and digital twins. Further relevant topics cover the use of AAS for the creation of digital twins, and to virtualize (production) systems. All system domains are welcome. We solicit papers around the use, practical implementations, and experiences with Asset Administration Shells and digital twins that cover a wide range of research topics with a focus on the digital transformation of manufacturing 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 (2022)**

❖Regular and special sessions papers

Submission deadline	June 13
Acceptance notification	July 1
Deadline for final manuscripts	July 18

Workshop: September 6, 2022

Workshop Program Committee

- ❖ **Dr. Birgit Boss (Robert Bosch GmbH)**
- ❖ **Dr. Markus Damm (Fraunhofer IESE)**
- ❖ **Kai Garrels (ABB AG)**
- ❖ **Prof. Dr. Thomas Greiner (HS Pforzheim)**
- ❖ **Dr. Sten Grüner (ABB AG)**
- ❖ **Tobias Klausmann (Lenze SE)**
- ❖ **Dr. Thomas Kuhn (Fraunhofer IESE)**
- ❖ **Torben Miny (RWTH Aachen University)**
- ❖ **Dr. Pablo Oliveira Antonino (Fraunhofer IESE)**
- ❖ **Dr. Daniel Porta (DFKI)**
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