



AvioSE'27



Workshop on Avionics Systems and Software Engineering

February 23, 2027, Dortmund, Germany

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Software development in the aerospace is increasingly shaped by software-defined avionics, extensively connected aircraft, growing certification demands, and the need for resilient, cyber-secure architectures. Emerging applications such as autonomous and highly assisted flight operations, unmanned systems, and next-generation air traffic integration require new development and verification methodologies. At the same time, industry is facing major technological challenges in areas such as multicore and heterogeneous computing platforms, artificial intelligence and machine learning in safety-critical environments, as well as the integration of open and modular avionics architectures. Model-based engineering, digital twins, and virtualization, are becoming key enablers for managing increasing system complexity while maintaining compliance with evolving certification standards and safety requirements.

Topics (but not limited to):

- Avionics Platforms and Technologies
- Development Technologies (e.g. Model-based Systems and /or Software Engineering)
- Quality Assurance, Safety, Security, Mission Criticality, Formal Methods
- Cross-domain with Avionics (e.g. Automotive, AutoSAR)
- Software Technologies (e.g. Emerging Languages, Compilers, Interpreters, Frameworks, Tools, Virtualization)
- Artificial Intelligence (Applications, Challenges, Certification)

Modalities:

- One day interactive conference (Keynotes, Panel Session, Presentations)
- Workshop Language: English
- Short paper or full paper
- Multi-peer-review by international experts
- Open access publication (one author must be registered for the workshop before the final manuscript deadline!)

Important Dates:

- Oct 21, 2026 → Paper submission
- Nov 25, 2026 → Paper acceptance
- Dec 09, 2027 → Final manuscript

Stay informed:

<https://aviose-workshop.github.io/>

SE|27 SOFTWARE ENGINEERING

Software Engineering Conference
22th Feb – 26th Feb 2027

<https://se2027.tu-dortmund.de/>

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