

21st International Workshop on “Dependable Smart Embedded Cyber-Physical Systems and Systems- of-Systems” at SAFECOMP 2026 (DECSoS '26)

at Universitat Politècnica de València (UPV), Valencia, Spain, Sept. 22, 2026

Co-hosted by EWICS TC7, ERCIM and the ECSEL/Chips-JU projects AIMS5.0, A-IQ Ready, PowerizedD, ShapeFuture, the Horizon Europe Projects INSTAR and RobustifAI

Erwin Schoitsch, AIT Austrian Institute of Technology
Amund Skavhaug, NTNU, Trondheim, Norway

Final Programme

09:30 Welcome and Introduction to the DECSoS Workshop:

European Research and Innovation Projects in the Field of Cyber-Physical Systems and Systems-of-Systems (Selective Overview), *by Erwin Schoitsch and Amund Skavhaug.*

10:00 – 10:30 Session 1: Critical Software Assurance

Session Chair: Abdelkader Shaaban (AIT Austrian Institute of Technology)

- Efficient Sound Analysis of Recursive Programs, *by Laurent Mauborgne, Marco Milanese, Daniel Kästner, Stephan Wilhelm, and Christian Ferdinand*

10:30 – 11:00 Coffee Break

11:00 – 13:00 Session 2: Reliability and Safety of Complex, Autonomous Systems

Session Chair: Amund Skavhaug (NTNU, Trondheim)

- Coloured Reliability Block Diagrams: solving the composition problem, *by Edoardo Putti*
- Context-Centric Safety Argumentation, Analysis, and Implementation Methods, *by Satoshi Otsuka, Seiya Katou, Nishanth Laxman, Daniel Hillen and Jan Reich*
- Explainable Statistical Evaluation for Residual Risk Reasoning under Evolving ODDs, *by Robert Maier and Frauke Blossey*
- Towards Statistical Performance Assessment for ML-based Person Detection as Safety Function, *by Jeanne Pulvermüller, Tobias Polly, and Patrik Feth*

13:00 – 13:30 Plenary Discussion: Functional Safety and AI

13:30 – 14:30 Lunch Break

14:30 – 16:00 Session 3: Cybersecurity of Embedded, Autonomous Systems (of Systems)

Session Chair: Felix Möhrle (FhG IESE, Kaiserslautern)

- Hardware Trojan Detection Framework, *by Uwe Becker*
- Bridging the 6P Security Gap in 6TiSCH-based IIoT: An Experimental Study, *by Abdeldjalil Tabouche and Mohammed Lamine Beggar*
- From AI ACT Article 15(5) to Executable Threat Rules: Automated AI Cybersecurity Threat Detection with ThreatGet and MITRE ATLAS, *by Abdelkader Magdy Shaaban, Sebastian Chlup and Christoph Schmittner*

16:00 – 16:30 Coffee Break

16:30 – 17:30 Session 4: Safety of Offshore and Maritime Applications

Session Chair: Erwin Schoitsch (AIT Austrian Institute of Technology)

- Energy Characterization and Battery Lifetime Feasibility of LoRaWAN Vibration Sensors for Offshore Condition-Based Maintenance, *by August Haarr, Hakon Skibeli, Simon Haukanes and Amund Skavhaug*
- Future directions of Assuring AI Technologies in the Maritime Domain, *by Calum Corrie Imrie, Philippa Ryan, John Molloy, Tian Gan, Kristian Karolius, Colin Paterson, Odd Ivar Haugen, and Ibrahim Habli*