19th International Workshop on "Dependable Smart Embedded and Cyber-Physical Systems and Systems-of-Systems" at SAFECOMP 2024 (DECSoS '24)

Florence, Italy, Sept. 17, 2024

Co-hosted by EWICS TC7, ERCIM and the ECSEL/Chips-JU projects AI4CSM, AIMS5.0, A-IQ Ready, PowerizeD, ShapeFuture, the Horizon Europe Support Action INSTAR and the Austrian national (FFG) project ADEX

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Final Programme

Welcome and Introduction

09:00 – 09:30 DECSoS Workshop: European Research and Innovation Projects in the Field of Cyber-Physical Systems and Systems (Selective Overview on some EC Research projects); by Erwin Schoitsch and Amund Skavhaug.

Session 1: System-of-Systems Engineering

09:30 – 10:00 **Detecting and Mitigating Errors in Neural Networks,** by Uwe Becker.

10:00 – 10:30 Coffee Break

Session 2: Autonomous Vehicles and Services

- 10:30 11:00 Intelligent Decision-Making in Lane Detection Systems Featuring Dynamic Framework for Autonomous Vehicles, by Romana Blazevic, Fynn Luca Maass, Omar Veledar, and Georg Macher.
- 11:00 11:30 Security and Safety in Urban Environments: Evaluating Threats and Risks of Autonomous Last-Mile Delivery Robots, by Christina Kolb and Lin Xie.
- 11:30 12:00 **Safe Road-Crossing by Autonomous Wheelchairs: A Novel Dataset and its Evaluation,** by Carlo Grigioni, Franca Corradini, Alessandro Antonucci, Jérôme Guzzi, and Francesco Flammini. (REXASI-PRO Project)

12:00 – 13:30 Lunch Break

Session 3: Cybersecurity and Safety of complex Systems (of Systems)

- 13:30 14:00 Automating an Integrated Model-Driven Approach to Analysing the Impact of Cyber-attacks on Safety, by Ehsan Poorhadi and Elena Troubitsyna.
- 14:00 14:30 **Securing Web Access: PUF-driven Two-Factor Authentication for Enhanced Protection,** by Chandranshu Gupta and Gaurav Varshney.
- 14:30 15:00 Enhancing Tunnel Safety with Artery V2X Simulation for Real-Time Risk Assessment, by Abdelkader Magdy Shaaban, Bernhard Klampfer, Martin Latzenhofer, Arndt Bonitz, Christoph Schmittner, and Harald Kammerer. (KITT Project)
- 15:00 15:30 **A Systems Viewpoint on the Integration of Subsystems Developed with Heterogeneous Safety Standards** (IEC 63187), by James Inge and Katia Potiron.

15:30 – 16:00 Closure and Coffee Break