17th International Workshop on "Dependable Smart Embedded and Cyber-Physical Systems and Systems-of-Systems" at SAFECOMP 2022 (DECSoS '22)

Munich, Germany, Sept. 6, 2022

Co-hosted by the ECSEL projects AI4CSM, iDev40, AFarCloud, SECREDAS, ARROWHEAD-Tools, VALUE3S, FRACTAL, iRel4.0, and Comp4Drones, EWICS TC7 and ERCIM

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Draft Programme

Welcome and Introduction

09:00 – 09:30   **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.*

Session 1: Safety of ADAS and Automated Driving Systems

09:30 – 10:00   **Triggering Conditions Analysis and Use Case for Validation of ADAS/ADS Functions,** *by Víctor J. Expósito Jiménez, Helmut Martin, Christian Schwarzl, Georg Macher, and Eugen Brenner.*

10:00 – 10:30   **A Statistical View on Automated Driving System Safety Architectures,** *by Rainer Faller and Krystian Radlak.*

10:30 – 11:00 Coffee Break

Session 2: Tools and Methods – DepDevOps Session (Session chair: Miren Illarramendi)

11:00 – 11:30   **Watch: A Validation Framework and Language for Tool Qualification**, *by Luiz Cordeiro, Christian Becker, Markus Pielmeier and Julian Amann.*

11:30 – 12:00   **Criteria for the Analysis of Gaps and Limitations of V&V Methods for Safety- and Security-Critical Systems,** *by Enrico Ferrari, Rupert Schlick, Jose Luis de la Vara, Peter Folkesson and Behrooz Sangchoolie.*

12:00 – 12:30   **A Guided Search for Races Based on Data Flow Patterns,** *by Andreas Neubaum, Loui Al Sardy, Marc Spisländer, Francesca Saglietti and Sara Kretschmer.*

12:30 – 13:30 Lunch Break

Session 3: Dependable Sensors and Platforms for Highly Automated/Autonomous Systems

13:30 – 14:00   **Building a Test Bed for the Periodical Technical Inspection of Sensors Perceiving the Environment in Autonomous Vehicles,** *by Felix Müller, Philipp Nenninger and Eric Sax.*

14:00 – 14:30   **Testing and verification of the deep neural networks against sparse pixel defects,** *by Michal Szczepankiewicz, Krystian Radlak, Karolina Szczepankiewicz, Adam Popowicz, and Pawel Zawistowski.*

14:30 – 15:00   **Observing the impact of multicore execution platform for TSP systems under schedulability, security and safety constraints,** *by Ill-ham Atchadam, Laurent Lemarchand, Frank Singhoff, and Hai Nam Tran.*

15:00 – 15:30 Coffee Break

Session 4: Automotive Security and Regulations

15:30 – 16:00   **Security Assessment Prospects as part of Vehicle Regulations,** *by Mona Gierl, Reiner Kriesten, and Eric Sax.*

16:00 – 16:30   **UNECE Threat List Case Study: Prediction of Cyber Risks in the Automotive Domain Using Regression Analysis,** *by Abdelkader Magdy Shaaban, Sebastian Chlup, and Christoph Schmittner.*

16:30 – 17:00 Round-Up and Closure