

11th International ERCIM/EWICS/ARTEMIS Workshop on “Dependable Embedded and Cyber-physical Systems and Systems-of-Systems” at SAFECOMP 2016 (DECSoS '16)

Trondheim, Sept. 20, 2016

Co-hosted by the H2020 Innovation Action CP-SETIS and the ARTEMIS/ECSEL projects EMC²,
ARROWHEAD, CRYSTAL, AMASS, ENABLE-S3, IoSENSE and Semi40

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

Programme

8:00 - 09:00 Registration

Welcome and Introduction

09:00 – 09:20 ERCIM/EWICS/ARTEMIS DECSoS Workshop: European Research and Innovation Initiatives in the Area of Cyber-Physical Systems and Systems-of-Systems (Selective Overview); *Erwin Schoitsch and Amund Skavhaug*

Session 1: Analysis, Test and Simulation

09:20 – 09:45 Testing Safety Properties of Cyber-Physical Systems with Non-Intrusive Fault Injection - An Industrial Case Study; *Joachim Fröhlich, Jelena Frtunikj, Stefan Rothbauer and Christoph Stückjürgen*

09:45 – 10:10 Quantitative Reliability Assessment for Mobile Cooperative Systems; *Francesca Saglietti, Ralf Spengler and Matthias Meitner*

10:10 – 10:35 An Approach for Systematic In-the-loop Simulations for Development and Test of a Complex Mechatronic Embedded System; *Amir Soltani Nezhad, Johan J. Lukkien, Rudolf H. Mak, Richard Verhoeven and Martijn van den Heuvel*

10:35 – 11:00 Gate-Level-Accurate Fault-Effect Analysis at Virtual-Prototype Speed; *Bogdan-Andrei Tabacaru, Moomen Chaari, Wolfgang Ecker, Thomas Kruse and Cristiano Novello*

11:00 – 11:30 Coffee Break

Session 2: Automotive

11:30 – 12:00 Using SAE J3061 for Automotive Security Requirement Engineering; *Christoph Schmittner, Zhendong Ma, Carolina Reyes and Oliver Dillinger*

12:00 – 12:30 Dynamic Safety Contracts for Functional Cooperation of Automotive Systems; *Sebastian Müller and Peter Liggesmeyer*

12:30 – 13:00 Time-of-Flight based Optical Communication for Safety-Critical Applications in Autonomous Driving; *Hannes Plank, Gerald Holweg, Christian Steger and Norbert Druml*

13:00 – 14:00 Lunch Break

Session 3: Safety & Cybersecurity Analysis and Co-Engineering

14:00 – 14:30 Limitation and improvement of STPA-Sec for safety and security co-analysis; *Christoph Schmittner and Zhendong Ma*

14:30 – 15:00 Security Services for Mixed-Criticality Systems based on Networked Multi-Core Chips; *Thomas Koller and Donatus Weber*

15:00 – 15:30 Analysis of Informed Attacks and Appropriate Countermeasures for Cyber-Physical Systems; *Francesca Saglietti, Lars V. Wardenburg, Matthias Meitner and Valentina Richthammer*

15:30 – 16:00 Coffee Break

Session 4: Embedded Systems' (CPS) Industrial Applications

16:00 – 16:30 Advanced Security Considerations in the Arrowhead Framework; *Sándor Plósz, Csaba Hegedűs and Pál Varga*

16:30 – 17:00 The Role of the Supply Chain in Cybersecurity Incidents at Drilling Rigs; *Aitor Couce-Vieira and Siv Hilde Houmb*

17:00 – 17:30 Control of Cyber-Physical Systems using Bluetooth Low Energy and Distributed Slave Microcontrollers; *Øyvind Netland and Amund Skavhaug*