12th International ERCIM/EWICS/ARTEMIS Workshop on "Dependable Smart Embedded and Cyber-physical Systems and Systems-of-Systems" at SAFECOMP 2017 (DECSoS '17)

Trento, Italy, Sept. 12, 2017

Co-hosted by the H2020 Innovation Action CP-SETIS and the ARTEMIS/ECSEL projects EMC², Arrowhead, AMASS, ENABLE-S3, IoSENSE, SemI40, AutoDrive, Productive4.0 and AQUAS

Erwin Schoitsch, AIT Austrian Institute of Technology
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Programme

8:00 - 09:00 Registration

Welcome and Introduction

09:00 – 09:30 ERCIM/EWICS/ARTEMIS DECSoS Workshop: European Research and Innovation Initiatives in the Area of Cyber-Physical Systems and Systems-of-Systems (Selective Overview);
by Erwin Schoitsch and Amund Skavhaug

Session 1: Critical Software Analysis and Development

09:30 – 10:00 Analysis of Potential Code Vulnerabilities involving Overlapping Instructions;
by Loui Al Sardy, Tong Tang, Marc Spisländer and Francesca Saglietti

10:00 – 10:30 Increasing dependability in Safety Critical CPSs using Reflective Statecharts;
by Miren Illarramendi, Leire Etxeberria, Xabier Elkorobarrutia and Goiuria Sagardui

10:30 – 11:00 Coffee Break

Session 2: Mixed Criticality and Multi-Core Systems

11:00 – 11:30 A Survey of Hardware Technologies for Mixed-critical Integration Explored in the Project EMC2;
by Haris Isakovic, Radu Grosu, Denise Ratasich, Jiri Kadlec, Zdenek Pohl, Steve Kerrison, Kyriakos Georgiou, Kerstin Eder, Norbert Druml, Lillian Tadros, Flemming Christensen, Emilie Wheatley, Bastian Farkas, Rolf Meyer and Mladen Berekovic (invited)

11:30 – 12:00 Safe Implementation of Mixed-Criticality Applications in Multicore Platforms: A Model-Based Design Approach; *by Pasquale Antonante, Juan Valverde-Alcala, Stylianos Basagiannis and Marco Di Natale*

12:00 – 12:30 GSN Support of Mixed-Criticality Systems Certification; *by Carlos-F. Nicolas, Fernando Eizaguirre, Asier Larrucea, Simon Barner, Franck Chauvel, Goiuria Sagardui and Jon Perez*

12:30 – 13:30 Lunch Break

Session 3: Reliability, Safety & Cybersecurity Engineering

13:30 – 14;00 Concepts for Reliable Communication in a Software-defined Network Architecture;
by Ferdinand von Tüllenburg and Thomas Pfeiffenberger

14:00 – 14:30 Combining Safety & Security Analysis for Industrial Collaborative Automation Systems;
by Sandor Plosz, Christoph Schmittner and Pal Varga

14:30 – 15:00 Software Updates in Safety and Security Co-engineering;
by Imanol Mugarza, Jorge Parra and Eduardo Jacob

15:00 – 15:30 Detailed analysis of security evaluation of automotive systems based on JASO TP15002;
by Yasuyuki Kawanishi, Hideaki Nishihara, Daisuke Souma and Hirotaka Yoshida

15:30 – 16:00 Coffee Break

Session 4: Collaborative and Autonomous Systems

16:00 – 16:30 Systematic Composition of Services from Distributed Systems for Highly Dynamic Collaboration Processes; *by Sebastian Müller and Peter Liggesmeyer*

16:30 – 17:00 Safety Assurance for Autonomous and Collaborative Medical Cyber-Physical Systems;
by Fabio L. Leite Jr., Rasmus Adler and Patrik Feth

17:00 – 17:30 Safety-Aware Control of Swarms of Drones;
by Amin Majd, Elena Troubitsyna and Masoud Daneshtalab