

CPS&IoT'2019

Summer School on

Cyber-Physical Systems and Internet-of-Things

collocated with

ECYPS 2019 – 7th EUROMICRO/IEEE Workshop on Embedded and Cyber-Physical Systems

and

MECO 2019 – 8th Mediterranean Conference on Embedded Computing

Budva, Montenegro, June 10-14, 2019

(in collaboration with Euromicro, IEEE and MANT)

Preliminary Tutorial Schedule

Day 1:

Lech Jóźwiak – TU/e, NL

Title: Introduction to Modern Cyber-Physical Systems and their Quality-Driven Design

Tutorial Duration: 1.5. hour

Tutorial Coordinator: Lech Jóźwiak

Henk Corporaal – TU/e, NL

Title: Embedded Processors for Advanced Cyber-Physical Systems

Tutorial Duration: 1.5 hour

Tutorial Coordinator: Henk Corporaal

Lunch

Jiri Kadlec – UTIA Prague, CZ

Title: Implementation of HW accelerated video processing on industrial Zynq modules

Tutorial Duration: 2 hours

Tutorial Coordinator: Jiri Kadlec

Francesca Palumbo (Università degli Studi di Sassari), Carlo Sau (Università degli Studi di Cagliari), Tiziana Fanni

(Università degli Studi di Cagliari) and Claudio Rubattu (Università degli Studi di Sassari), IT

Title: Dataflow-Based Toolchain for Adaptive Hardware Accelerators

Tutorial Duration: 2 hours

Tutorial Coordinator: Francesca Palumbo

Day 2:

Lara López – ATOS, ES/FR

Title: Megamodeling of complex, distributed, heterogeneous CPS systems

Tutorial Duration: 1.5 hour

Tutorial Coordinator: Lara López

Marc Geilen – TU/e, NL

Title: Max-plus-linear models for cyber-physical and embedded systems

Addressed Topic: Specification and Modelling of Cyber-Physical and Embedded Systems

Tutorial Duration: 1.5 hour

Tutorial Coordinator: Marc Geilen

Lunch

Andrea Leitner - AVL List GmbH, AT

Title: Comprehensive Modular Verification and Validation Framework for automated cyber-physical systems

Tutorial Duration: 1.5 hour

Tutorial Coordinator: Andrea Leitner

Kim Gruettner and Maher Fakh - OFFIS, DE

Title: Virtual Platforms for Low-power Mixed-criticality Embedded Systems Development and Validation

Tutorial Duration: 1.5 hour

Tutorial Coordinator: Kim Gruettner

Luigi Pomante – UNIVAQ, IT

Title: Design space exploration for hypervisor-based mixed-criticality systems

Tutorial Duration: 1.5 hour

Tutorial Coordinator: Luigi Pomante

Day 3:

Axel Jantsch – TU Wien, AT

Title: Self-Aware Cyber-physical Systems

Tutorial Duration: 2 hours

Tutorial Coordinator: Axel Jantsch

Dip Goswami, Sajid Mohamed and Sayandip De – TU/e, NL

Title: Tradeoff analysis between Quality-of-Control and degree of approximate computing for image based control systems

Tutorial Duration: 1.5 hour

Tutorial Coordinator: Dip Goswami

Lunch

Radek Fujdiak - Trustport, CZ

Title: Security of Embedded and Cyber-Physical Systems

Tutorial Duration: 1.5 hour

Tutorial Coordinator: Radek Fujdiak (TBC)

Nicolas Sklavos – Univ. Patras, GR

Title: Privacy and Security Environments in IoT

Tutorial Duration: 1.5 hours

Tutorial Coordinator: Nicolas Sklavos

Dino Mustefa – ALTEN, SE and Thomas Nolte – MDH, SE

Title: SafeCOP - safe wireless cooperative CPS

Tutorial Duration: 1.5 hours

Tutorial Coordinator: Dino Mustefa and Thomas Nolte

Day 4:

Christoph Schmittner and Thomas Gruber - AIT, AT

Title: Safety & Security Engineering of Automotive CPS

Tutorial Duration: 3 hours

Tutorial Coordinator: Christoph Schmittner and Thomas Gruber

Lunch

Lorenzo Strigini and Peter Popov - City University, UK

Title: Probabilistic modelling integrating concerns of safety, security etc

Tutorial Duration: 1.5 hour

Tutorial Coordinator: Lorenzo Strigini/ Peter Popov

Ludovic Apvrille and Maysam Zoor - Paris Telecom, FR

Title: Practical embedded systems modeling and SSP verification with TTool

Tutorial Duration: 3 hours

Tutorial Coordinator: Ludovic Apvrille

Participants are expected to come with their own laptop, and to have preinstalled tools (Ludovic Apvrille will send them an email before). Having an internet access is obligatory since (a small) part of the tutorial relies on short videos to watch.

Day 5:

Participation in ECYPS 2019