CPS&IoT'2024 Summer School on Cyber-Physical Systems and Internet-of-Things

Budva, Montenegro, June 11-14, 2024

Schedule

Day 1, Tuesday 11June:

09:00-09:15 Event Chairs and Special Guests

Title: Opening Ceremony of the CPS&IoT'2024 Summer School, and MECO'2024 and CPS&IoT'2024 Conferences

09:15-10:15 Tarek El-Ghazawi, George Washington University, US

Keynote: The Future of Computing: From ExaFLOPS to Exotic Processor Technologies

10.15-10.30 Break

10.30-11.00 Lech Jóźwiak, TU/e, NL

Title: Introduction to the CPS&IoT'2024 Summer School

11.00-13.00 Lech Jóźwiak, TU/e, NL

Title: Green CPS and IoT for Green World

13.00-14.00 Lunch Break

14.00-15.00 Lech Jóźwiak, TU/e, NL

Title: Quality-driven Design of Cyber-Physical Systems

15.00-16.30 Nikhil Gaikwad and Sokol Kosta, Aalborg University, DK and Ralf Lübben, Flensburg Univ. of Appl. Sciences, DE

Title: GPU virtualization service for AI at the Edge

16.30-17.00 Break

17.00-18.30 J Francesco Ratto, UNICA, and Claudio Rubattu, UNISS, IT

Title: Al Accelerators at the Edge

21.00 Gala Dinner

Day 2, Wednesday 12 June:

09.00-10.00 Nabil Abdennadher, Univ. of Applied Sciences, West. Switzerland, CH

Title: Keynote: Towards a Distributed Continuum Computing Platform for Federated Learning Based Self-Adaptive

IoT Applications

10.00-10.30 Break

10.30-12.00 Alberto Marchisio and Muhammad Shafique, New York University Abu Dhabi, UAE

Title: Energy-Efficient and Robust Deep Learning for Autonomous Systems

12.00-13.00 Lunch Break 13.00-16.00 Nabil Abdennadher

Title: Distributed Cloud Continuum Platform for Federated Learning Based Self-Adaptive IoT Applications

(hands-on and demo tutorial)

16.00-16.30 Break

16.30-18.00 Alberto Marchisio and Muhammad Shafique, New York University Abu Dhabi, UAE

Title: Design Space Exploration of Efficient Quantum Machine Learning Systems

Day 3, Thursday 13 June:

09.00-10.00 Rainer Leupers, RWTH Aachen, DE

Title: Keynote: Multicore Design Technologies and HW Security – From Academia to Industry

10.00-10.15 Break

10.15-13.00 Rakshit Mittal and Hans Vangheluwe, University of Antwerp, BE and Rizwan Parveen, Telecom Paris, FR

Title: Modeling a Cruise-Control System Using Open Modelica and Verifying Safety Requirements using UPPAAL

(hands-on tutorial)

13.00-14.00 Lunch Break

14.00-17.00 Dominique Blouin, Telecom Paris, and Anish Bhobe, Institut Polytechnique de Paris, FR

Title: Modeling and Synthesizing a Cruise-Control System with AADL using RAMSES (hands-on tutorial)

17.00-17.30 Break

17.30-19.00 Samir Ouchani, CESI, FR

Title: Smart CPS: Ensuring Trustworthiness in Autonomous Decisions through Formal Methods

Day 4, Friday 14 June:

09.00-10.30 Christoph Schmittner, AIT, AT

Title: Cyber-Physical System Security: Automated Risk Management with ThreatGet

10.30-12.00 Morayo Adedjouma and Luis Palacios, CEA, FR

Title: Trustworthy Design and V&V of Al-based systems: Case of a Drone Application (includes demo and hands-on)

12.00-13.30 Lunch Break

13.30-15.00 Zakaria Chihani, CEA, FR

Title: Trustworthy AI: methods and tools

15.00-16.30 Radovan Stojanovic, University of Montenegro and MECOnet, **ME Title:** Design of performance and energy efficient nodes for smart systems

16.30-17.00 Break

17.00-18.30 Andrej Škraba, University of Maribor, SI

Title: Overview of Several CPS&IoT Prototypes

18.30-19.00 Closing of the CPS&IoT'2024 Summer School

+ Free participation in sessions of the CPS&IoT'2024 Conference and MECO'2024 Conference

Summer School participants are expected to come with their own laptops. Internet access will be guaranteed.

Day 5, Saturday 15 June: Excursion possible (excursion fee is not included in the summer school fee)