

CPS&IoT'2022 Summer School on Cyber-Physical Systems and Internet-of-Things

Budva, Montenegro, June 7-11, 2022

Schedule

Day 1, Tuesday 7 June:

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

Title: [Opening Ceremony of the CPS&IoT'2022 Summer School, and MECO'2022 and CPS&IoT'2022 Conferences](#)

09:15-10:15 Luca Benini, Integrated Systems Lab, ETH Zürich, CH

[Keynote: PULP: Extreme Energy Efficiency for Extreme Edge AI Acceleration](#)

10:15-10:30 Break

10:30-11:00 Lech Józwiak, TU/e, NL

Title: [Introduction to the CPS&IoT'2021 Summer School](#)

11:00-12:30 Lech Józwiak, TU/e, NL

Title: [Green CPS and IoT for Green World](#)

12:30-14:00 *Lunch Break*

14:00-15:30 Mario Kovač, FER, HR Josip Knezovic HR

Title: [European Processor Initiative Technology for Exascale Era](#)

15:30-17:00 Gianluca Bellocchi, Alessandro Capotondi, Andrea Marongiu - UNIMORE and Francesca Palumbo, Daniel Madroñal Quintin UNISS, IT

Title: [Accelerator-Rich FPGA Architecture Exploration via a Programmable and Reconfigurable Overlay](#) 17:00-17:30

Break

17:30-19:00 Reda Nouacer and Morayo Adedjouma, CEA, LIST, FR

Title: [From Embedded-Systems towards swarms: opportunities and challenges](#)

Day 2, Wednesday 8 June:

09:00-10:00 Letizia Jaccheri, Fac. Information Techn. and Electrical Eng., NTNU, NO

Title: [Keynote: Software for a Better Society](#)

10:00-11:00 Roberto Giorgi, Dept. of Information Engineering, University of Siena, IT

Title: [Keynote: Extending Performance and Reliability via Modular FPGA Clusters](#) 11:00-11:20

Break

11:20-12:50 Filippo Cugini, CNIT, IT, Pavel Burget, CVUT, CZ, and Martin Ron, Factorio, CZ

Title: [Edge computing: the BRAINE solution](#)

12:50-14:10 *Lunch Break*

14:10-15:40 Axel Jantsch, TU-WIEN, AT and Zhonghai Lu, KTH, SE

Title: [Embedded Machine Learning](#)

15:40-17:10 Muhammad Shafique and Muhammad Abdullah Hanif, NYU-AD, UAE

Title: [Embedded Machine Learning for the Edge: From Algorithms to Architectures](#) 17:10-17:30

Break

17:30-19:00 Eugenio Villar, Hector Posadas, Raul Gomez, Jose María Gandara, TEISA/UNICAN, ES

Title: [Modeling, design and Implementation of drone-based services \(Hands-on Tutorial\)](#) Day 3,

[21:00 Gala cocktail](#)

Thursday 9 June:

09:00-10:00 Dimitrios Serphanos, U. Patras and CTI, Stavros Koubias, U. Patras and ISI, Christos Koulamas, ISI, GR

Title: [Keynote: Synthesis of Runtime Monitors for Safe and Secure Industrial Systems](#) 10:00-10:30 Break

10:30-13:00 Dominique Blouin, Telecom Paris, and Anish Bhoje, Institut Polytechnique de Paris, FR

Title: [Embedded systems modeling, analysis and automatic code generation with AADL and RAMSES \(Hand-on Tutorial\)](#)

13:00-14:30 *Lunch Break*

14:30-16:00 Rupert Schlick, AIT, AT, and Thomas Bauer, Fraunhofer IESE, DE

Title: [How to design and tailor a perfect fitting verification and validation process for your CPS&IoT project?](#)

16:00-17:00 Peter Mörtl, Virtual Vehicle, AT

Title: [Framework to facilitate Trustworthiness of Smart Systems for End Users](#) 17:00-17:30

Break

17:30-19:00 Ramiro Samano Robles, ISEP, PT

Title: [Reference architecture for trusted AIoT systems: certification, standardization and regulation](#) Day 4,

Friday 10 June:

09:00-10:30 Christoph Schmittner, AIT, AT

Title: [Cybersecurity Engineering and Management](#)

10:30-12:00 Samir Ouchani, Lineact CESI, FR

Title: [Secure and Reliable Smart Cyber Physical Systems](#) 12:00-13:30

Lunch Break

13:30-15:00 Abdelhakim Baouya, University Grenoble-Alpes, FR

Title: [Artificial Intelligence meets Formal Methods: Generation and verification of learned stochastic automata](#)

15:00-15:45 Radovan Stojanovic, University of Montenegro and MECOnet, ME

Title: [Principles of performance effective nodes design for smart systems](#)

15:45-16:30 Milica Orlandić, NTNU - Norwegian University of Science and Technology

Title: [Data Processing Pipelines on small satellites and drones: challenges and solutions](#)

16:30-17:00 Break

17:00-18:30 Nikolaos Voros et al, University of Peloponnese, GR

Title: The achievements of SMART4ALL project in Customized Low-Energy Computing for CPS

18.30-19.00 Closing of the CPS&IoT'2022 Summer School

+ Free participation in sessions of the CPS&IoT'2022 Conference and MECO'2022 Conference

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

Day 5, Saturday 11 June: Excursion possible (excursion fee is not included in the summer school fee)