CPS&IoT'2023 Summer School

4th Summer School on Cyber-Physical Systems and Internet-of-Things

Budva, Montenegro, June 6-10, 2023

in Venue: **Hotel Budva** and online

Call for Participation

You are encouraged to participate in this very special event that gives a unique opportunity to interact with outstanding specialists in the area of Cyber-Physical Systems (CPS), Internet-of-Things (IoT) and Artificial Intelligence (AI), and to get acquainted with huge opportunities and impact of CPS, IoT and AI, serious issues and challenges of their development, as well as, newest concepts, advanced knowledge and modern design tools created in numerous ongoing and recently finished European R&D projects in CPS, IoT and AI. The Summer School is possible thanks to involvement of many outstanding researchers and developers from several European projects and countries.

Special Focus: **Green CPS&IoT for Green World**

Special Theme of CPS&IoT'2023: **Artificial Intelligence, Edge Computing, Architectures, Methods and Tools for Autonomous Robots, Vehicles, Assistive, Environmental and other advanced CPS&IoT**

Contemporary cyber-physical systems (CPS) are smart compound systems, engineered through seamless integration of embedded information processing sub-systems and physical sub-systems, that extensively exploit Artificial Intelligence (AI). The modern smart collaborating CPS, that started to form the Cyber-Physical Systems of Systems (CPSoS) and Internet of Things (IoT), have important applications in virtually all economic and social segments, and their huge economic and societal impact rapidly increases. The CPS, IoT and AI areas undergo a revolutionary development. There is however a common opinion that many more well-trained researchers and developers are needed in this rapidly developing area, as well as, more information exchange and collaboration among different projects and teams in the area. The Summer School aims to fill this gap.

CPS&IoT'2023 Summer School is the fourth of the series of schools started with a very successful CPS&IoT'2019 Summer School. The idea of the Summer School is to be a lively discussion and collaboration forum for researchers, developers and decision-makers working in the field of cyber-physical and embedded systems through serving the following **main purposes**:

- **advanced training** of industrial and academic researchers, developers, engineers and decision-makers; academic teachers, Ph.D. and M.Sc. students; entrepreneurs, investors, research funding agents, and policy makers; and other participants who want to learn about CPS and IoT engineering;
- **dissemination, exchange and discussion of advanced knowledge and project results** from numerous R&D projects in CPS and IoT;
- **promotion and facilitation of international contacts and collaboration** among people working or interested in the CPS and IoT area.

The school is open to everybody, but previous knowledge or equivalent practical experience at least at the Bachelor level in engineering (e.g. system, computer, electronic, electrical, automotive, aviation, mechanical, or industrial engineering), computer science, informatics, applied physics or similar is recommended.

Distinguishing features of this advanced Summer School are that its ***lectures, demonstrations, and practical hands-on sessions*** will be given by ***top European specialists*** in particular CPS and IoT fields ***form industry and academia***, and will deliver ***very fresh advanced knowledge***. They are based on ***results from numerous currently running or recently finished European R&D projects in CPS and IoT***, what gives an excellent opportunity to get acquainted with issues and challenges of CPS and IoT development; actual industrial problems, designs and case studies; and new concepts, advanced knowledge and modern design tools created in the European R&D projects.

Industry Participation is encouraged. The Summer School is not only to disseminate R&D results or follow courses and learn new knowledge on CPS and IoT from top professionals, but to meet people, interact and discuss with outstanding researchers, developers, academic lecturers, advanced students, and other participants, collaborate or start collaborations, and meet many talented people who may become employees of your companies as well.

CPS&IoT'2023 Summer School is collocated with:

- **CPS&IoT'2023 Conference** - the 9th International Conference on Cyber-Physical Systems and Internet-of-Things, and
- **MECO'2023 Conference** – the 10th Mediterranean Conference on Embedded Computing.

The registration to CPS&IoT'2023 Summer School entitles to free participation in CPS&IoT'2023 Conference and MECO'2023 Conference sessions. **The Summer School participants are encouraged to submit their papers to the CPS&IoT'2023 Conference and MECO'2023 Conference**.

CPS&IoT'2023 Summer School Program will be composed of four days of lectures, demonstrations, practical hands-on sessions, and discussions, as well as, free participation in CPS&IoT'2023 Conference and MECO'2023 Conference sessions. The **topics** of the lectures, demonstrations, and practical hands-on sessions cover several major CPS applications (focusing on modern mobile applications that require high-performance or low energy consumption, as well as, high reliability, security and safety), computing technology for modern CPS, CPS architectures, development problems and solutions, as well as, design methodologies and design tools for CPS. Detailed list of the CPS&IoT'2023 Presentations including the names of their authors and presenters will be provided in the Schedule of the CPS&IoT'2023 Summer School.

Previous Programs:

- CPS&IoT'2019 Summer School Program
- CPS&IoT'2021 Summer School Program
- CPS&IoT'2022 Summer School Program

Previous Proceedings:

- **Proceedings of CPS&IoT'2019 Summer School (Cyber Physical Systems and Internet of Things), Editors: Lech Jozwiak and Radovan Stojanovic**, Vol I, MECOnet Institute, June 2019.
- **Proceedings of the 2nd Summer School on Cyber-Physical Systems and Internet-of-Things, SS-CPSIoT'2021, Editors: Lech Jozwiak and Radovan Stojanović, Vol. II**, MECOnet Institute, June 2021.
- **Proceedings of the 3rd Summer School on Cyber-Physical Systems and Internet-of-Things, SS-CPSIoT'2022, Editors: Lech Jozwiak and Radovan Stojanović, Vol. III**, MECOnet Institute, June 2022.

To stimulate interaction between lecturers and participants, **only a limited number of participants will be admitted**.

Registration:
Follow the instructions at the CPS&IoT'2023 Summer School web-page:
https://mecoconference.me/ss-cpsiot2023/#registration

First submit your application to the CPS&IoT'2023 Summer School.
After submitting your application you will receive a report informing you on acceptance/rejection of your application. **Please make the fee payment after receiving the acceptance report**.

CPS&IoT'2023 will be held in Venue and online. Venue of CPS&IoT'2023 is Hotel Budva***, Budva, Montenegro. **Budva** is a 3500 years old town located at the Adriatic Sea coast of Montenegro. It is a popular touristic destination, with its charming Old Town, beautiful natural environment, 35 clean sandy beaches, and proximity to many famous touristic attractions as Kotor, Boka Kotorska, Sveti Stefan, Dubrovnik, and several national parks. It is an excellent place to have the summer school and conference in a relaxed and friendly atmospheer.

For accomodation Hotel Budva***** and Hotel Slovenska Plaza**** are advised, but there are many other accommodation possibilities in Budva. Budva is very well accessible by plane. Podgorica Airport is about 65 km from Budva and it receives regular flights from Vienna, Paris, Rome, Zürich, Frankfurt, Warsaw, Ljubljana, Belgrade, and Instanbul, while Tivat Airport (about 20km from Budva) and Dubrovnik Airport (65km from Budva) are very frequent vacation and charter flight destinations during the spring and summer time.

More information:
CPS&IoT'2023 Summer School**,** *collocated with* ***CPS&IoT'2023 Conference*** *and* ***MECO'2023 Conference***
Hotel Budva *****: http://www.hotelbudva.me/
City of Budva: https://www.visit-montenegro.com/main-cities/budva/
Montenegro: https://en.wikipedia.org/wiki/Montenegro