

# Workshop

## Title:

Software Engineering for Cyber-Physical Systems

## Abstract:

Cyber Physical Systems (CPS) affect us in our everyday life even though we seldom notice it. If we notice them usually the main reason is that they don't work as they should. Their failure can cause irreparable harm to the physical system under control, and to the people who depend, use or operate it.

Most of these environments are quite new and use latest technology. Topics that you might hear when discussing these and related CPS technologies include (https://www.nist.gov/el/cyber-physical-systems):

- Internet of Things (IoT)
- Industrial Internet
- Smart Cities
- Smart Grid
- "Smart" Anything (e.g., Cars, Buildings, Homes, Manufacturing, Hospitals, Appliances)

Because of the novelty of these application areas they set new demands for planning and especially for Software Engineering.

Software Engineering best practices for Cyber Physical Systems are still emerging and this workshop offers the opportunity to present Software Engineering for Cyber-Physical Systems research and interesting cases.



#### **Scope and Topics:**

The proposed special session on Software Engineering for Cyber-Physical Systems aims to bring academia researchers as well as industry partners to meet together and exchange ideas on recent research and future directions for Software Engineering in the fields of Cyber-Physical Systems. This workshop solicits original research papers that address the following non-exhaustive list of CPS domains:

- Internet of Things (IoT)
- Health care and medical devices
- Manufacturing
- Industrial Internet
- Smart Grid
- Industrial control systems
- Robotics
- Smart Cities
- Smart building environments
- Unmanned aerial vehicles (UAVs)
- Autonomous vehicles
- Transportation systems and networks
- "Smart" Anything

Also of interest will be papers that can point the research community to new research directions, and those that can set research agendas and priorities in Software Engineering for CPS

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