



CALL FOR PAPERS

The 7th ACM/IEEE International Conference on Cyber-Physical Systems (ICCPS 2016)

April 11-14, 2016 in Vienna, Austria as part of CPSWeek 2016

<http://iccps.acm.org/2016/>

As digital computing and communication becomes faster, cheaper and available in packages which are smaller and use less power, these capabilities are becoming embedded in many objects and structures in the physical environment. Cyber-physical systems (CPS) are physical and engineered systems whose operations are monitored, coordinated, controlled and integrated by such computing and communication. Broad deployment of cyber-physical systems is transforming how we interact with the physical world as profoundly as the world wide web transformed how we interact with one another, and harnessing their capabilities holds the possibility of enormous societal and economic impact.

ICCPS is the premier single-track conference for reporting advances in all aspects of cyber-physical systems, including theory, tools, applications, systems, testbeds and field deployments. This year, the conference features two focus areas for submissions: one on CPS foundations (the traditional focus of ICCPS), and one on secure and resilient infrastructure CPS (the focus of the former HiCoNS conference). The entire program committee is eligible to review in both areas, but authors will be asked to specify one of the two areas during submission in order to aid with reviewer selection

The CPS foundations (CPSF) area focuses on core science and technology for developing fundamental principles that underpin the integration of cyber and physical elements. Application domains include transportation, energy, water, agriculture, ecology, supply-chains, medical and assistive technology, sensor and social networks, and robotics. Among the relevant research areas are security, control, optimization, machine learning, game theory, mechanism design, mobile and cloud computing, model-based design, verification, data mining / analytics, signal processing, and human-in-the-loop shared or supervisory control.

The secure and resilient infrastructure CPS (HiCoNS) area focuses on the confluence of cyber-security, privacy, and CPS that impacts the operation of critical infrastructures such as the smart grid, water distribution, transportation, healthcare, building automation, and process control. Of particular interest is foundational work that cuts across multiple application areas or advances the scientific understanding of underlying principles for the development of high confidence (secure, reliable, robust, and trustworthy) networked CPS.

Submissions and Key Dates:

In concert with the other CPSWeek conferences, ICCPS will require that authors register paper titles and abstracts by October 8 (one week before the full paper submission deadline).

Abstract Registration: October 8, 2015

Full Paper Submission: October 15, 2015

Manuscripts should be no more than 10 pages in two-column ACM conference style. Formatting and submission instructions can be found at the website

Organizers:

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Xenofon Koutsoukos, Vanderbilt University, USA;
Ian M. Mitchell, University of British Columbia, Canada

Program Co-Chairs:

Sonia Martinez, UC at San Diego, USA;
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