

2<sup>nd</sup> ACM Workshop on Cyber-Physical Systems Security & Privacy (CPS-SPC)  
In Conjunction with the 23<sup>rd</sup> ACM Conference on Computer and Communications Security (CCS)

Location: Hofburg Palace, Vienna, Austria

Date: Friday, October 28, 2016

Workshop website: <http://eecs.oregonstate.edu/cps-spc/index.html>

Cyber-Physical Systems (CPS) integrate computing and communication capabilities with monitoring and control of entities in the physical world. These systems are usually composed of a set of networked agents, including sensors, actuators, control processing units, and communication devices. While some forms of CPS are already in use, the widespread growth of wireless embedded sensors and actuators is creating several new applications in areas such as medical devices, autonomous vehicles, and smart infrastructure, and is increasing the role that the information infrastructure plays in existing control systems such as in the process control industry or the power grid.

Many CPS applications are safety-critical: their failure can cause irreparable harm to the physical system under control, and to the people who depend, use or operate it. In particular, critical cyber-physical infrastructures such as the electric power generation, transmission and distribution grids, oil and natural gas systems, water and waste-water treatment plants, and transportation networks play a fundamental and large-scale role in our society and their disruption can have a significant impact to individuals, and nations at large. Securing these CPS infrastructures is therefore vitally important.

Similarly because many CPS systems collect sensor data non-intrusively, users of these systems are often unaware of their exposure. Therefore in addition to security, CPS systems must be designed with privacy considerations.

To address some of these issues, we invite original research papers on the security and/or privacy of Cyber-Physical Systems. We seek submissions from multiple interdisciplinary backgrounds tackling security and privacy issues in CPS, including but not limited to:

- mathematical foundations for secure CPS
- control theoretic approaches to secure CPS
- security architectures for CPS
- security and resilience metrics for CPS
- metrics and risk assessment approaches for CPS
- privacy in CPS
- network security for CPS
- game theory applied to CPS security
- security of embedded systems, IoT and real-time systems in the context of CPS
- human factors and humans in the loop
- CPS reliability and safety
- economics of security and privacy in CPS
- intrusion detection in CPS

CPS domains of interest include but are not limited to:

- health care and medical devices
- manufacturing
- industrial control systems
- SCADA systems
- robotics
- unmanned aerial vehicles (UAVs)

- autonomous vehicles
- transportation systems and networks
- abstract theoretical CPS domains that involve sensing and actuation

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 CPS security and privacy.

### **Submissions**

Submitted papers can be up to 12 pages including appendices and references. Submissions must use the ACM SIG Proceedings Templates (available at the ACM website) in double-column format with a font no smaller than 9 point. Only PDF files will be accepted. Submissions not meeting these guidelines risk rejection without consideration of their merits. Accepted papers will be published by the ACM Press and/or the ACM Digital Library.

Please submit your papers using our [EasyChair](#) site.

Submissions must not substantially overlap with papers that have been published or that are simultaneously submitted to a journal or a conference with proceedings. Each accepted paper must be presented by one registered author. Submissions not meeting these guidelines risk immediate rejection. For questions about these policies, please contact the chairs.

### **Publication of Papers**

Papers will be digitally published as part of the CCS workshop proceedings, and will be part of the ACM digital library.

### **Important Dates**

<b>July 27th, 2016</b>	Paper Submission Deadline (UTC-11)
August 31st, 2016	Notification of Acceptance
September 15th, 2016	Camera Ready Submission (Hard Deadline)
October 28th 2016	Workshop

Kind regards,

CPS-SPC 2016 Organizers:

Rakesh Bobba (Program Chair), Oregon State University, USA  
Alvaro Cardenas (Program Chair), University of Texas at Dallas, USA  
Quanyan Zhu (Publicity Chair), New York University