



# ACM CPSS'17 Program

## 3rd ACM Cyber-Physical System Security Workshop

Abu Dhabi, UAE, April 2, 2017

(in conjunction with ACM AsiaCCS'17)

<http://jianying.space/cpss/CPSS2017/>



**09:00 – 09:10 Workshop Opening**

**09:10 – 10:10 Keynote 1      Session Chair: Ernesto Damiani**

**Prof. Bashar Nuseibeh (The Open University, UK & Lero, Ireland)**

On the Disappearing Boundary between Digital, Physical, and Social Spaces – Who, what, where and when?

**10:10 – 10:50 Session 1: Threat Modeling for CPS**

**Session Chair: Konstantinos Markantonakis**

- Alexander Winnicki, Marina Krotofil and Dieter Gollmann. **Cyber-Physical System Discovery – Reverse Engineering Physical Processes**
- Nektarios Georgios Tsoutsos, Homer Gamil and Michail Maniatakos. **Secure 3D Printing: Reconstructing and Validating Solid Geometries using Toolpath Reverse Engineering**

**10:50 – 11:20 Break**

**11:20 – 12:20 Session 2: Data Security and Privacy for CPS**

**Session Chair: Sokratis K. Katsikas**

- Gareth Haken, Konstantinos Markantonakis, Iakovos Gurulian, Raja Naeem Akram and Carlton Shepherd. **Evaluation of Apple iDevice Sensors as a Potential Relay Attack Countermeasure for Apple Pay**
- Srinivasa Rao Routhu and Alwyn Pais. **Detecting Phishing Websites using Automation of Human Behavior**
- Yuexin Zhang, Yang Xiang and Xinyi Huang. **A Cross-Layer Key Establishment Model for Wireless Devices in Cyber-Physical Systems**

**12:20 – 14:00 Lunch**

**14:00 – 15:00 Keynote 2      Session Chair: Dieter Gollmann**

**Prof. Sokratis Katsikas (NTNU, Norway)**

Cyber Security of the Autonomous Ship

**15:00 – 15:40 Session 3: IoT Security**

**Session Chair: Michail Maniatakos**

- Juan Guarnizo, Amit Tambe, Suman Sankar Bhunia, Martín Ochoa, Nils Tippenhauer, Asaf Shabtai and Yuval Elovici. **SIPHON: Towards Scalable High-Interaction Physical Honeypots**
- Hajoon Ko, Jiong Jin and Syeloong Keoh. **ViotSOC: Controlling Access to Dynamically Virtualized IoT Services using Service Object Capability**

**15:40 – 16:40 Break / Walkthrough of NYUAD Center of Cyber Security Smart-City Testbed**

**16:40 – 17:40 Session 4: Attack Defense for CPS**

**Session Chair: Nils Ole Tippenhauer**

- Jiafa Liu, Di Ma, Haojin Zhu and Andre Weimerskirch. **A Functional Co-Design towards Safe and Secure Vehicle Platooning**
- Zhiyuan Zheng and Narasimha Reddy. **Towards Improving Data Validity of Cyber-Physical Systems through Path Redundancy**
- Biplab Sikdar. **Spatio-Temporal Correlations in Cyber-Physical Systems: A Defense Against Data Availability Attacks**

**17:40 -17:50 Closing and Best Paper Award**