

<i>TIME</i>	<i>TOPIC</i>
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Wednesday, January 25, 2017

0730 – 0800 BREAKFAST

0800 – 0815 Welcome and Opening Remarks
David Corman (NSF); Shankar Sastry (Berkeley)

0815 – 0830 FORCES Updates and Highlights
Larry Rohrbough (Berkeley)

0830 – 0930 Keynote Presentations

Game Theoretic Issues in Security of CPS
Demos Teneketzis (Michigan)

Learning Human Intent in CPS
Shankar Sastry (Berkeley); Dorsa Sadigh (Berkeley)

Session I – Security and Resilience

0930 – 0950 Network Interdiction and Inspection Models for Cyber-physical Security
Saurabh Amin (MIT)

0950 – 1010 Experimental Analysis of Resilience in Power Systems
Gabor Karsai (Vanderbilt)

1010 – 1030 Game-Theoretic Foundations for Cyber-(Physical) Insurance Contracts
Galina Schwartz (Berkeley)

1030 – 1045 Security and Resilience Q&A

1045 – 1100 BREAK

Session II – Energy and Power

1100 – 1120 Modeling and Control of Load Ensembles
Ian Hiskens (Michigan)

1120 – 1140 Resilience in Networked Dynamic Systems Using Trusted Nodes
Xenofon Koutsoukos (Vanderbilt)

1140 – 1155 Energy and Power Q&A

1155 - 1315 LUNCH and Keynote Presentation

New Vistas for Urban Infrastructure
Lillian Ratliff (University of Washington)

1315 - 1400 Young Researchers Talks I (4 talks)

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January 25, 2017 (CONTINUED FROM PREVIOUS PAGE)

Session III - Transportation

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| 1400 - 1420 | Resilience of Networks with Switching Topologies
<i>Hamsa Balakrishnan (MIT)</i> |
| 1420 - 1440 | Repeated Games Framework for Routing Problems
<i>Alex Bayen (Berkeley)</i> |
| 1440 - 1500 | Provably Safe Learning
<i>Kene Akametalu (Berkeley)</i> |
| 1500 - 1515 | Transportation Q&A |
| 1515 - 1530 | BREAK |
| 1530 - 1615 | Young Researchers Talks II (4 talks) |
| 1615 - 1700 | Education and Outreach
Engaging Undergraduates in CPS Research: from Freshman Explorations to Senior Design Projects
<i>Saurabh Amin (MIT)</i>

Making CPS Accessible for High School Learners
<i>Kena Hazelwood-Carter (Berkeley)</i> |
| 1800 | NETWORKING DINNER
Kapnos Taverna, 4000 Wilson Blvd., Arlington, VA |

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Thursday, January 26, 2017

0800 – 0830 BREAKFAST

Session IV – Industry and International Collaborations

- 0830 – 0850 Resilient Cyber Physical Systems Research in the Philippines
Susan Festin (University of the Philippines)
- 0850 – 0910 Machine Learning and Diagnostics for Electricity Theft Detection and Industrial IoT
Roel Dobbe (Berkeley); Henrik Ohlsson (C3 IoT)
- 0910 – 0930 Randomized Algorithms for Scalable Inference
Shaunak Bopardikar (UTRC)
Gaussian Process Regression for Modeling Aircraft Fuel Flow
Hamsa Balakrishnan (MIT)
- 0930 – 0950 Towards a Framework for Privacy: Design Principles and an Industrial Perspective
Roy Dong (Berkeley); Shaunak Bopardikar (UTRC)

0950 – 1005 BREAK

Session V – FORCES Alumni

- 1005 – 1025 Urban Mobility: Learning and Incentives
Lillian Ratliff (University of Washington); Eric Mazumdar (Berkeley)
- 1025 – 1045 Learning Dynamics, Estimation and Control In Congestion Games
Walid Krichene (Google); Jérôme Thai (Berkeley)
- 1045 – 1105 Data-driven Incentive Design for Residential Demand Response
Max Balandat (Facebook); Datong Zhou (Berkeley)
- 1105 – 1135 The Fourth Component of Societal-Scale CPS: Components That Can Learn
Janos Sztipanovits (Vanderbilt)

1135 – 1230 LUNCH and NSF Caucus

1230 – 1315 NSF Outbrief

1315 Meeting End

**Young
Researcher
Talks**

Resilience Sensor Placement for Faults and Attacks in Water Distribution Networks
Waseem Abbas (Vanderbilt)

A Gaussian Process Regression Approach to Model Aircraft Fuel Burn
Yashovardhan Chati (MIT)

Strategic Network Inspection using Resource-Constrained sUAS
Mathieu Dahan (MIT)

A Game-Theoretic Approach for Alert Prioritization in Cyber-Physical Systems
Aron Laszka (Vanderbilt)

Exploring New Attack Space on Adversarial Deep Learning
Chang Liu (Berkeley)

An AC-QP Optimal Power Flow Algorithm Considering Wind Forecast Uncertainty
Jennifer Marley (Michigan)

A Dynamic Control Scheme for the Secure Operation of Cyber-physical Systems
Erik Miehling (Michigan)

Designing Data Markets for Competitive Industries: Structure, Stability and Fairness
Tyler Westenbroek (Berkeley)