

TIME	TOPIC
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Monday, June 16, 2014

0800 – 0900 BREAKFAST

0900 – 0930 Welcome / FORCES Overview and Update
Larry Rohrbough (Berkeley); Saurabh Amin (MIT)

Research Results I

0930 – 0955 Resilience and Robustness of Networks: From Games to Security
Alex Bayen (Berkeley)

0955 – 1020 Data-driven Modeling and Optimization Algorithms for h-CPS
Hamsa Balakrishan (MIT)

1020 – 1045 Risk-Limiting Dynamic Contracts for Direct Load Control
Claire Tomlin (Berkeley)

1045 – 1100 BREAK

Knowledge Transfer

1100 – 1120 UTRC Perspective on Resilient Systems
Alberto Speranzon (Staff Research Scientist, United Technologies Research Center)

1120 – 1200 Energy Analytics
Henrik Ohlsson (Berkeley); Lillian Ratliff (Berkeley)

1200 – 1230 LUNCH

1230 – 1315 Keynote Speaker

A Multi-Industry Perspective on Control Engineering for Resilient Infrastructures
Tariq Samad (Corporate Fellow, Automation and Control Solutions, Honeywell)

Young Researcher Highlights

1315 – 1425 FORCES Young Researchers Part I

1425 – 1435 BREAK

1435 – 1545 FORCES Young Researchers Part 2

Research Results II

1545 – 1610 Auction-based Coordination of Electric Vehicle Charging
Ian Hiskens (Michigan)

1610 – 1635 System-Security Co-design
Janos Sztipanovits (Vanderbilt)

1635 – 1700 Resilience Modeling and Model-based Design for CPS
Gabor Karsai (Vanderbilt)

1700 – 1730 FORCES Scientific Vision: Resilient Control and Economic Incentives
Saurabh Amin (MIT); Demos Teneketzis (Michigan), Galina Schwartz (Berkeley)

1730 NETWORKING RECEPTION

<i>TIME</i>	<i>TOPIC</i>
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Tuesday, June 17, 2014

0800 - 0830 BREAKFAST

Research Results III

0830 – 0855 Resilient Monitoring and Control of Distributed Cyber-Physical Systems
Xenofon Koutsoukos (Vanderbilt)

0855 – 0920 Competition in Electricity Markets with Renewable Energy Sources
Asu Ozdaglar (MIT)

0920 – 0950 FORCES and the SmartAmerica Challenge
*Alex Bayen (Berkeley); Joe Butler (Berkeley); Brian Peterson (Berkeley);
Gabor Karsai (Vanderbilt)*

0950 - 1000 BREAK

1000 – 1045 **Keynote Speaker**
Ed Abbo (President and Chief Technical Officer, C3 Energy)

1045 – 1115 CPS Meets Big Data
Shankar Sastry (Berkeley)

1115 – 1130 Wrap-Up / End of Meeting

1130 – 1230 **Advisory Board Caucus** (Buffet lunch; to-go containers provided)

1230 – 1300 **Advisory Board Outbrief** (By invitation only)



FORCES All Hands Meeting

June 16-17, 2014 | Claremont Hotel and Resort | Berkeley, CA

Young Researchers Presentations

Waseem Abbas (Vanderbilt University)

- Resilient Consensus Through Trusted Nodes

Maximilian Balandat (University of California, Berkeley)

- Aggregating Buildings to Provide Ancillary Services

Yashovardhan Chati (MIT)

- Aircraft Engine Performance Modeling Using FDR Archives

Roy Dong (University of California, Berkeley)

- Quantifying the Utility-Privacy Tradeoff in the Smart Grid

Li Jin (MIT)

- Stochastic Hybrid Modeling of Flow Network Incidents

Walid Krichene (University of California, Berkeley)

- Convergence of Online Learning Dynamics in Routing Games

Aron Laszka (Vanderbilt University)

- Stochastic Message Authentication

David Lindecker (Vanderbilt University)

- Encoding Secure Information Flow Labels in FORMULA

Jeff Liu (MIT)

- Joining Analytics Units for Network Trustworthiness (JAUNT): An Analytics Framework for h-CPS

Sébastien Martin and Jack Reilly (University of California, Berkeley)

- Traffic Jams on Demand: Precision Attacks on Freeways using Optimal Control Techniques

Erik Miehling (University of Michigan)

- Multilateral Trades in Interconnected Power Systems: Localized Externalities

Mohammed Rasouli (University of Michigan)

- Electricity Pooling Markets with Strategic Producers Possessing Asymmetric Information: Inelastic Demand

Lillian Ratliff (University of California, Berkeley)

- Incentive Design for S-CPS: A Social Game for Energy Efficiency

Devendra Shelar (MIT)

- Vulnerability Analysis of Distribution Networks Under Renewable Disruptions

Hamidreza Tavafoghi (University of Michigan)

- Multidimensional Contracts in Electricity Markets

Insoon Yang (University of California, Berkeley)

- Risk-Limiting Dynamic Contracts for Direct Load Control