



PennState



Initiative for Sustainable Electric Power Systems

Workshop on Power Systems and Markets Co-chairs: Uday V. Shanbhag (IME) and Mort Webster (EME) The Pennsylvania State University

Sponsored by: EMS Energy Institute, Institute of CyberScience, Department of Industrial and Manufacturing Engineering, & Penn State Institutes of Energy and the Environment, Penn State University

Nittany Lion Inn, 200 West Park Avenue, State College, PA 16803
Thursday, 19th November, 2015

Session I: Electric Power Markets and Regulation (*Boardroom 1*)

11:00am – 12:00pm	Registration (<i>Outside Boardroom 1</i>)
12:00 – 1:00pm	Lunch (<i>Boardroom 2</i>)
1:00 – 1:15pm	Welcome - Amr S. Elnashai , FREng, The Harold and Inge Marcus Dean of Engineering, College of Engineering, <i>Penn State University</i>
1:15 – 1:30pm	Welcome - John R. Hellmann , Associate Dean, College of Earth and Mineral Sciences, <i>Penn State University</i>
1:30 – 2:30pm	Plenary Speaker: Paul Sotkiewicz , Senior Economic Policy Advisor, <i>PJM Interconnection</i> Technology and Policy Impacts on Electricity Markets
2:30 – 3:00pm	Bo Zeng , Assistant Professor of Industrial Engineering, <i>University of Pittsburgh</i> Study of Advanced Computational Tools for Transmission Topology Control and Robust Unit Commitment Problems
3:00 – 3:15pm	Break
3:15 – 3:45pm	Frank A. Felder , Associate Research Professor and Director, Center for Energy, Economic & Environmental Policy, <i>Rutgers University</i> Proposed Research Priorities for Sustainable Power Systems and Markets
3:45 – 4:15pm	Joel R. Landry , Assistant Professor of Energy Economics, <i>Penn State University</i> The New Cooperative Federalism of the Clean Power Plan: How Greater Flexibility in State Policy Choices Affects Efficiency Costs and Wholesale Electricity Markets
4:15 – 5:00pm	Discussion
5:00 – 6:00pm	Poster Session (<i>Alumni Lounge lobby</i>)
6:00 – 8:00pm	Dinner (<i>Alumni Lounge</i>)

Friday, 20th November, 2015

Session II: Electric Power Systems Design and Control (*Faculty Staff Club*)

8:00am – 2:00pm	Poster Session (<i>Boardroom 2</i>)
8:00 – 9:15am	Continental Breakfast & Registration (<i>Outside Boardroom 1</i>)
9:15 – 10:15am	Plenary Speaker: Mohammad Shahidehpour , Bodine Chair Professor of Electrical and Computer Engineering, <i>Illinois Institute of Technology</i> Interdependency of Constrained Natural Gas and Electricity Infrastructures for Variable Energy Scheduling
10:15 – 10:45am	Minghui Zhu , Dorothy Quiggle Assistant Professor of Electrical Engineering, <i>Penn State University</i> Demand Response Enabled Distributed Control of Power Grid: From Renewable Integration to Secure Computing
10:45 – 11:00am	Break
11:00 – 11:30am	Na Li , Assistant Professor of Electrical Engineering and Applied Mathematics, <i>Harvard University</i> Distributed Energy Management with Limited Communication
11:30am – 12:00 pm	Discussion



Friday, 20th November, 2015

Session III: Electric Power Market Design and Operation (*Faculty Staff Club*)

12:00 – 1:15pm	Lunch & Plenary Speaker: Benjamin Hobbs , Theodore M. & Kay W. Schad Professor of Environmental Management, Department of Geography Environmental Engineering, <i>Johns Hopkins University</i> (<i>Boardroom 2</i>) Designing Power Markets to Support Optimal Decisions
1:15 – 1:45pm	Alberto J. Lamadrid , Assistant Professor, Department of Economics, <i>Lehigh University</i> Recourse Decisions in a Stochastic-Robust Program for Electricity Markets with High Penetration of Renewables
1:45 – 2:15pm	Andrew L. Liu , Assistant Professor, School of Industrial Engineering, <i>Purdue University</i> Implementing Real-Time Pricing in Smart-Grid with High Penetration of Renewable Resources and Plug-in Vehicles
2:15 – 2:30pm	Break
2:30 – 3:00pm	Chiara Lo Prete , Assistant Professor of Energy Economics, <i>Penn State University</i> Value Added or Value Removed? Virtual Bidding and Price Manipulation in Wholesale Electricity Markets
3:00 – 3:30pm	Discussion
3:30 – 4:30pm	Panel: Grand Challenges for the Next Generation Power Systems
4:30pm	Workshop Concludes