Workshop on Architecture and Economics of the Future Grid

MSC 2406B, Texas A&M University
November 3, 9 AM - 7PM
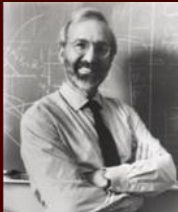November 4, 9 AM - 6PM

Ross Baldick, The University of Texas at Austin

Talk 1: Ancillary services in the context of the full cost of electricity project
Talk 2: Wind variability and impact on markets

Michael Caramanis, Boston University

Talk 1: Dynamic locational marginal cost of power services on distribution networks with price adaptive distributed energy resources.
Talk 2: Strategic behavior in energy and reserve co-optimizing markets with distributed energy resource (DER) participation

David Sun, The Glarus Group

Talk 1: The art and science of power system optimization applications
Talk 2: Grid 3.0: DER-enabled industry transformation

Pravin Varaiya, University of California, Berkeley

Talk 1: Virtual bidding
Talk 2: Achieving optimal stochastic dispatch through direct multilateral trades

Including presentations by graduate students and postdocs on the

Texas A&M Grid-X research program

www.grid-x.tamu.edu

Contact person: Hung-Ming Chou (hmchou@tamu.edu)

Organizers: Hung-Ming Chou, P. R. Kumar, Le Xie

Speakers

Pravin Varaiya (University of California, Berkeley)

David Sun (The Glarus Group Inc.)

Michael Caramanis (Boston University)

Ross Baldick (The University of Texas at Austin)

Texas A&M graduate students and post-docs (past and present):

Rahul Singh	Anupam Thatte	Abhishek Halder
Hung-Ming Chou	Hao Ming	Jaeyong An
Ke Ma	Meng Wu	Xinbo Geng

Venue

Room 2406B, Memorial Student Center, Texas A&M University (Map)

Parking

Guest parking is available nearby. Map and Rate

Agenda

Thursday, November 3

9:00 am – 9:45 am 9:45 am – 10:00 am	Breakfast & Coffee Opening remarks (We will check if Dean Banks can inaugurate)
10:00 am - 11:00 am	Virtual bidding Pravin Varaiya
11:00 am - 11:15 am	Ramp Product Grix-X Program Presentation
11:15 am – 11:30 am	Coffee Break and Discussions
11:30 am - 12:30 pm	The Art and Science of Power System Optimization Applications David Sun
12:30 pm - 2:30 pm	Lunch (On your own, food court downstairs)
2:30 pm - 3:30 pm	Dynamic Locational Marginal Cost of Power Services on Distribution Networks with Price Adaptive Distributed Energy Resources. Michael Caramanis
3:30 pm - 4: 00 pm	Title: Decentralized Control via Dynamic Stochastic Prices: The Independent System Operator (ISO) Problem Rahul Singh (30 Min)
4:00 pm - 4:15 pm	Coffee Breaks
4:15 pm – 5:15 pm	Grid 3.0: DER-enabled Industry Transformation David Sun,
5:15 pm - 6:30 pm	Demand Response, and Pricing Grix-X Program Presentation
6:30 pm – 7pm	Pizza Reception (Mostly for hungry students)

Friday, November 4

9:00 am – 9:30 am	Breakfast & Coffee
9:30 am - 10:30 am	Ancillary services in the context of the full cost of electricity project Ross Baldick
10:30 am - 11:00 am	PINE and Dimensionality Reduction Grix-X Program Presentation
11:00 am - 11:15 am	Coffee Break and Discussions
11:15 am – 12:15 am	Achieving optimal stochastic dispatch through direct multilateral trades Pravin Varaiya
12:15 pm - 1:45 pm	Lunch (on your own, food court downstairs)
1:45 pm - 2:45 pm	Strategic Behavior in Energy and Reserve Co-optimizing Markets with Distributed Energy Resource (DER) Participation Michael Caramanis
2:45 pm – 3:45 pm	Wind variability and impact on markets Ross Baldick
3:45pm	Concluding Remarks Workshop Adjourn
4:10 pm - 5:00 pm	Talk by Suresh P. Sethi (ENPH 202)
5:00 pm – 6:00 pm	Reception