



# Power Systems Engineering Research Center

## Industry Advisory Board Meeting

**December 2-4, 2009  
Georgia Institute of Technology  
Atlanta, Georgia**

The Power Systems Engineering Research Center (PSERC) is a university-industry collaboration focusing on research and education needs in the electric power industry. Its Industry Advisory Board (IAB), composed of PSERC's industry members, meets twice per year with PSERC researchers and students to conduct Center business, and to engage in discussions about the Center's research and education activities. At the upcoming meeting, there will also be special presentations on PSERC's involvement in recent stimulus funding in electric power system research. As with other PSERC meetings, this will be an opportunity for stimulating discussions on research and education ideas, for getting caught up on PSERC activities, and for conversations on current issues facing the electric power industry.

### Objectives

The objectives of this IAB meeting are:

- Hear presentations on proposed and completed research
- Recommend new research projects beginning in 2010
- Learn about the status of current PSERC research projects and education activities
- Facilitate interaction among researchers, industry members, and students.

### Attendees

The IAB meeting is attended by university researchers (including Center management from each university and project leaders), industry members of PSERC, students, and invited guests.

### Orientation Session

Everyone is invited to attend the PSERC orientation session on Wednesday afternoon, December 2 at 3:00 pm. Non-members will have the opportunity to learn more about PSERC in a one-on-one meeting with a university researchers after the poster session on Thursday afternoon.

### Host

Our local host for the IAB meeting is the Georgia Institute of Technology's Global Learning Center



# Agenda

## Wednesday, Dec. 2 (Centergy Building – Hodges Connections Room)

- 2:30            **Registration Opens**
- 3:00 – 3:30    **PSERC Orientation**
- 3:30 – 4:45    **Systems Stem Committee Meeting**
- 4:45 – 6:00    **T&D Technologies Stem Committee Meeting**
- 6:00 – 7:15    **Reception**
- 7:15 – 8:30    **Markets Stem Committee Meeting**

## Thursday, Dec. 3 (Global Learning Center)

- 7:00 – 8:00    **Registration and Continental Breakfast**
- 8:00 – 8:15    **Welcome** – Dr. Gary May, Electric and Computer Engineering Chair, Georgia Institute of Technology
- 8:15 – 8:45    **PSERC Update** – Vijay Vittal, Director
- 8:45 – 9:15    **Keynote** – [Alan Martin](#), President and CEO, Southern Company Services
- 9:15 – 10:15    **Proposal Presentations**
- Integration of Storage Devices into Power Systems with Renewable Energy Sources*  
George Gross (Project Leader), University of Illinois at Urbana-Champaign  
Chanan Singh and Alex Sprintson, Texas A&M University  
Alejandro Dominguez-Garcia, University of Illinois at Urbana-Champaign
- Micro and Nano Dielectrics for Utility Applications*  
Ravi Gorur (Project Leader), Arizona State University  
Robert Olsen, Washington State University
- 10:15 – 10:30    **Break**
- 10:30 – 12:00    **Proposal Presentations**
- Smart Grid Needs: Model and Data Interoperability, and an Unified State Estimator*  
Santiago Grijalva, Georgia Tech, and Mladen Kezunovic, Texas A&M University
- Interactions of Market-Based Energy and Environmental Policies in a Transmission-Constrained Competitive National Electricity Market*  
William Schulze (Project Leader), Cornell University  
James Bushnell, Iowa State University  
Yihsu Chen, University of California at Merced  
Ward Jewell, Wichita State University  
Siny Joseph, Wichita State University  
Daniel Tylavsky, Arizona State University
- Tools and Techniques for Considering Transmission Corridor Options to Accommodate Large Scale Renewable Energy Resources*  
Vijay Vittal (Project Leader), Arizona State University  
Gabriela Hug, Carnegie Mellon University  
G. T. Heydt, Arizona State University
- 12:00 – 1:00    **Lunch**

- 1:00 – 2:30     *Verifying Interoperability and Application Performance of PMUs and PMU-Enabled IEDs at the Device and System Level*  
Mladen Kezunovic (Project Leader), Texas A&M University  
Ali Abur, Northeastern University  
Alex Sprintson, Texas A&M University
- Design and Valuation of Demand Response Mechanisms and Instruments for Integrating Renewable Generation Resources in a Smart Grid Environment*  
Shi-Jie Deng (Project Leader), Georgia Institute of Technology  
Shmuel Oren, University of California at Berkeley  
George Gross, University of Illinois at Urbana/Champaign
- Low Frequency Transmission for Wind Farm Power*  
Sakis Meliopoulos, Georgia Institute of Technology  
Dionysios Aliprantis, Iowa State University

2:30 – 3:30     **Poster Session for On-going PSERC Projects**

3:30 – 5:30     **Closed IAB Meeting (for IAB members)**

6:30 – 8:30     **Reception and Dinner** (Georgia Tech Hotel)

**Friday, Dec. 4** (Centergy Building – Hodges Connections Room)

7:00 – 8:00     **Continental Breakfast**

8:00 – 8:30     **Feedback from the IAB Business Meeting**

8:30 – 10:45   **CERTS and PSERC Project Presentations**

*Integrated Financial and Operational Risk Management in Restructured Electricity Markets*

Shi-Jie Deng (Project Leader), Georgia Institute of Technology  
Shmuel Oren, University of California at Berkeley  
Sakis Meliopoulos, Georgia Institute of Technology

*Optimizing Distribution System Restoration Strategies from a Blackout*  
Jerry Heydt, Arizona State University

*Evaluating the System and Financial Adequacy of Portfolios of Renewables, Storage and Controllable Loads*  
Tim Mount, Cornell University

*Adaptive Islanding Demonstration in the Western Electricity Coordinating Council*  
Vijay Vittal, Arizona State University

10:45            **IAB Meeting Adjourns**

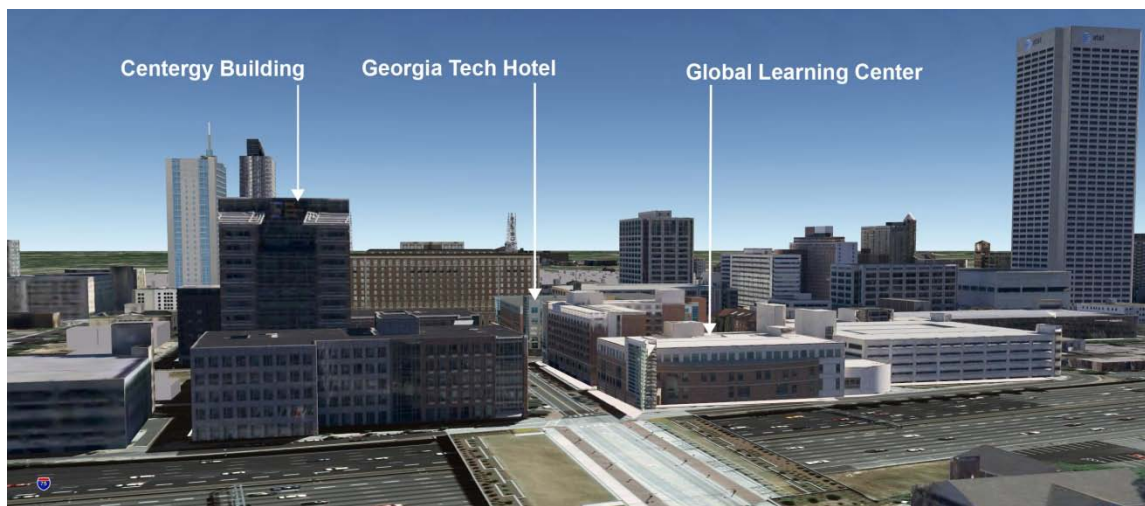
11:00 – 12:30   **Executive Committee Meeting** (for PSERC university site directors)

## Information for Planning Your Attendance at the IAB Meeting

### Venue

The IAB meeting will be held at the [Georgia Tech Global Learning Center](#) and Centergy Building. Both are located in Midtown Atlanta at the intersection of Fifth and Spring streets in Technology Square, right off Interstate 85/75. [Directions to the Global Learning Center](#) are available on its website. A parking deck is available next to the Global Learning Center or the adjacent Georgia Tech Hotel.

Global Learning Center  
84 Fifth St. N.W.  
Atlanta, GA 30308-1031  
404-385-6203; Fax 404-385-1408



**Hotels** (Make your reservation at the [Regency Suites Hotel](#) as soon as possible. Availability is not guaranteed.)

Rooms are no longer available at the Georgia Tech Hotel so rooms have now been booked at the [Regency Suites Hotel](#), 975 West Peachtree Street, Atlanta, GA. It is located about one-half mile from the Global Learning Center. The [Tech Trolley](#) or a shuttle will be available should you not want to walk. The room rate is \$109 for Dec. 2 and 3. [Click here to make your room reservation](#). There will also be reservation information available by going to the [on-line registration site](#) for the PSERC meeting. The hotel has complimentary internet service along with a complimentary breakfast and a complimentary dinner (Monday-Thursday when booked direct). A list of [amenities](#) is available.

[Maps and directions](#) are available on the hotel's website. Underground parking is available at the hotel for an additional charge.

[Click here for a list of other nearby hotels.](#)

**Registration** (Register by Nov. 13.)

The registration fee is \$200 for all IAB members, faculty, staff, and invited attendees. The registration fee is waived for students. The fee covers the continental breakfasts, breaks, reception, lunches, dinner, and materials. There is a \$55 charge for your companion at Thursday night's reception and dinner. Faculty and students at Georgia Tech must register, but should contact Sakis Meliopoulos regarding the registration fee. [Click here to register.](#)

### **Transportation in Atlanta**

The Atlanta airport is located about 11 miles south of the Georgia Tech campus. It is served by all major airlines. The Global Learning Center is located in the heart of Midtown Atlanta on the east side of Interstates 85 and 75, which is easily accessible by driving, or by taking the MARTA train from the airport to the Midtown Station. If you are staying at the Regency Suites Hotel, then you do not have far to walk because the hotel is next to the Station. Exit the station on the 10th street side and the Regency is immediately on your left on the corner of 10th Street and West Peachtree. Cost is \$1.75 per person. Ride time: approximately 30 minutes.

If you are staying at the Georgia Tech Hotel, then after arrival at the Midtown Station, take the [Tech Trolley](#) to the Global Learning Center which is adjacent to the Georgia Tech Hotel. The [Tech Trolley](#) is a free shuttle service that will conveniently bring attendees from the Midtown MARTA Station to the Global Learning Center and back again.

[Click here for directions to the Global Learning Center.](#)

### **Campus Transportation and Parking**

Since the Global Learning Center, the Centergy Building and the Georgia Tech Hotel are adjacent, attendees staying at the Georgia Tech Hotel will not need additional transportation. Parking is available in the Technology Square parking deck for \$10 per day which you can pay on-site. The parking deck is attached to both the Georgia Tech Hotel and the Global Learning Center.

For those who would like to explore the Georgia Tech campus, links to the [online campus map](#) and additional information about the [Tech Trolley](#) are provided here.

### **Additional Information**

Attire for meeting is business casual. For logistical questions and requests, contact Sakis Meliopoulos at [sakis.meliopoulos@ece.gatech.edu](mailto:sakis.meliopoulos@ece.gatech.edu). For information about the meeting agenda or PSERC, contact Dennis Ray, PSERC Executive Director, at 608-265-3808 or [djray@engr.wisc.edu](mailto:djray@engr.wisc.edu).