



# Power Systems Engineering Research Center

## Industrial Advisory Board Meeting

May 16 – 18, 2007

Campus of University of Illinois at Urbana-Champaign

The [Power Systems Engineering Research Center \(PSERC\)](#) is a university-industry collaboration focusing on research and education needs in the electric power industry. Its Industrial 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. This is a stimulating meeting with presentations on research projects, discussions of research ideas, and conversations on current issues facing the electric power industry.

### Objectives

The objectives of this IAB meeting are to:

- Promote interaction among researchers, industry members, and students
- Communicate the status of current PSERC research projects and education activities
- Present research results and discuss ideas for new research projects.

### Attendees

The IAB meeting is attended by university researchers, industrial members, students, and invited guests.

### Meeting Highlights

Highlights of this meeting include:

- Presentations and posters on PSERC research projects, on “leveraged” research projects with CTC and CERTS, and on cyber-security research in the National Science Foundation Cyber Trust Center
- Panels on wind power, electric power industry and climate change, and economic justification of transmission investment
- Student presentations
- IAB closed business meeting, and Stem Committee and project meetings

Our speakers from industry and academia bring a wealth of experience in the electric power industry. With times for formal and informal discussions, this meeting provides an excellent opportunity for networking as well as for information gathering and dissemination.

### Orientation Session

Everyone is invited to attend the PSERC orientation session on Wednesday afternoon, May 16. Our invited guests will also have the opportunity to meet one-on-one with a university researcher after the poster session on Thursday afternoon to learn more about PSERC.

# IAB Meeting Agenda

**Wednesday, May 16, Siebel Center, Room 2405 (unless noted otherwise)**

## **Project Team Meetings**

- *Room 3405: Massively Deployed Sensors (T-31)*. Jerry Heydt, Project Leader (2:00-3:00 p.m.)
- *Room 2407: Effective Power System Control Center Visualization (S-25)*. Tom Overbye, Project Leader (2:30-3:00 p.m.)
- *Room 2124: Integrating Electric System Planning with Efficient Markets (M-16)* meets with *Improved Investment and Market Performance Resulting from Proper Integrated System Planning (M-18)*. Richard Schuler, Project Leader (2:00-3:00 p.m.)
- *Room 4403: Detection, Prevention and Mitigation of Cascading Events – Prototype Implementations*, Mani Venkatasubramanian, Project Leader (2:00-3:00 p.m.)

3:00 - 3:30

**PSERC Orientation**

3:30 - 4:45

**T&D Technologies Stem Committee Meeting**

4:45 - 6:00

**Systems Stem Committee Meeting**

6:00 - 7:15

**Reception**

7:15 - 8:30

**Markets Stem Committee Meeting**

**Thursday, May 17, Siebel Center, Room 2405**

7:30 - 8:00 a.m.

**Registration and Continental Breakfast**

8:00 - 8:15

**Welcome**

8:15 - 8:45

**Director's Comments**

Vijay Vittal, PSERC Director, Arizona State University

8:45 - 10:00

**Leveraged Research Project Presentations (CTC and CERTS Work):**

**Visualization Advances for Control Centers** – Tom Overbye, University of Illinois at Urbana-Champaign

**Distributed State Estimation with Application to Alarm Processing** – Sakis Meliopoulos, George Tech

**Is Wide-Area Control Feasible?** – Anjan Bose, Washington State University

10:00 – 10:20

**Break**

10:20 – 11:00

**Graduate Student Presentations:**

**A Service-Oriented Architecture for Electric Power System Operation, Maintenance and Planning** – Jyotish Pathak, Computer Science, Iowa State University

**The Attested Meter: A Security Architecture for Advanced Meters and Related Applications** – Michael LeMay, Computer Science, University of Illinois at Urbana-Champaign

**Thursday, May 17 (continued)**

- 11:00 - 12:15      **Integrating a High Penetration of Wind Generation into the Power System**
- **Wind Impacts on Reserve Requirements in MISO** – Dale Osborn, Transmission Technical Director, MISO
  - **Wind Turbines: Frequency/Voltage Control and Protection** – Devin Van Zandt, DSTAR Program Manager, GE Energy
  - **Wind Growth in Iowa and Impacts** – Jim McCalley, Iowa State Univ.
- 12:15 - 1:15      **Lunch**
- 1:15 - 2:30      **The Electric Power Industry and Climate Change** – Tom Overbye (Univ. of Illinois at Urbana-Champaign), Moderator and Project Leader. Panelists and project team members: Ian Dobson (Univ. of Wisc.), Judy Cardell (Smith College), Ward Jewell (Wichita State Univ.), and Dan Tylavsky (Ariz. State Univ.)
- 2:30 - 3:45      **Poster Session** with Discussions on On-Going Projects
- 3:45 - 5:30      **Closed IAB Meeting (Room 2405)**  
**Executive Committee Meeting (1)**
- 6:30 - 8:30      **Reception/Dinner – Grainger Library**

**Friday, May 18, Siebel Center, Room 2405**

- 7:30 - 8:00 a.m.      **Continental Breakfast**
- 8:00 - 8:20      **Feedback from IAB Business Meeting**
- 8:20 - 8:45      **Valuation of Transmission Facilities: Final Report** – Shijie Deng, Georgia Tech. University, Project Leader
- 8:45 - 10:15      **Economic Justification of New Transmission Investment**  
Panel Moderator: Richard Schuler, Cornell University
- Dale Landgren, VP, Planning, American Transmission Co.
  - Marc Montalvo, Mgr., Wholesale Market Development, ISO New England
  - Harry Stoller, Director, Energy Division, Illinois Commerce Commission
  - Robert J. Thomas, Cornell University
  - David Whiteley, Executive VP, North American Electric Reliability Corp.
- 10:15 – 11:00      **Presentations on Cyber-Security Research:**  
**Trustworthy Cyber Infrastructure for Power (TCIP)** – Bill Sanders, University of Illinois at Urbana-Champaign  
**Secure Intelligent Electronic Devices** – Carl Gunter, University of Illinois at Urbana-Champaign
- 11:00      **IAB Meeting Adjourns**
- 11:15 - 12:15      **Executive Committee Meeting (2)**

## Information for Planning Your Attendance at the IAB Meeting



**General Meeting and Registration Location:** Campus of the University of Illinois at Urbana-Champaign. To get oriented to the University of Illinois at Urbana-Champaign, you can follow these links:

Directions to campus: <http://www.uiuc.edu/overview/visitors/directions.html>

Campus map: <http://webtools.uiuc.edu/ricker/CampusMap>

Meeting location: Siebel Center, 201 N Goodwin Ave., Urbana, IL 61801

**Hotel** (Make your room reservation no later than April 20.)

Hotel lodging is a very short walking distance of the campus. Lodging will be at:

Hampton Inn

1200 W. University Ave., Urbana, IL 61801

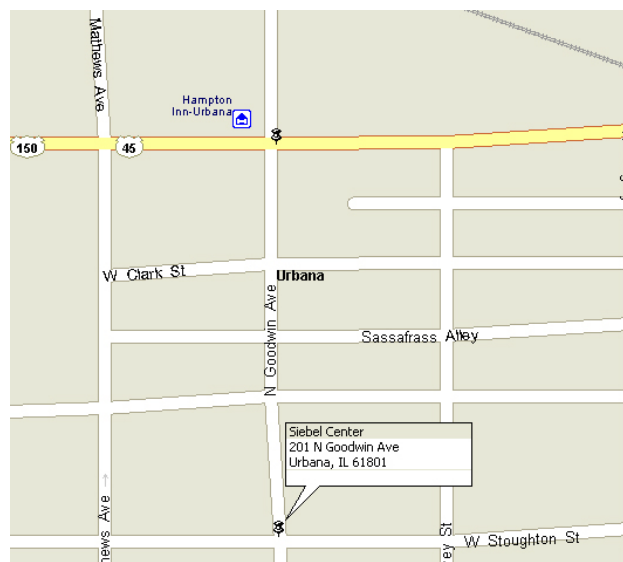
Phone: 217-337-1100. FAX: 217-337-1143

The room rate is \$89 for singles and doubles.

Make your reservations via phone:

- call 217-337-1100
- use the Group Name "PSC".

To insure that you get the right information, we recommend that you call the hotel directly to make your reservation. [Hotel information, maps, and transportation information are available at the hotel website.](#)



The hotel is located directly across University Avenue from the North Campus Parking Deck shown on the [campus map](#) when you search for the Siebel Center. The Siebel Center is two buildings south of the North Campus Parking Deck.

### Transportation

You can fly into the Urbana-Champaign airport. A taxi from the airport will only cost \$15. If it is available, you can also get a free shuttle from the Hampton Inn by calling 217-337-1100.

To get to Urbana-Champaign you can also fly into O'Hare or Midway and drive. However, it is about a two and one-half hour drive.

### Registration

The registration fee is \$175 for all IAB members, faculty, staff and invited attendees. The fee is waived for students. The fee covers the continental breakfasts, breaks, receptions, dinner and materials. There is a \$40 charge for your dinner guest on Thursday night. You can pay by check or by credit card. A receipt will be available at the IAB meeting. All attendees are asked to register by submitting the meeting's [registration form](#) by mail, FAX or email. (Note: Download the registration form. There is no on-line registration.)

### Additional Information

Attire for meeting is business casual. Wireless internet service will be available for everyone. For logistical questions and requests, contact Karen Driscoll at 217-333-6592 or [kdriscol@uiuc.edu](mailto:kdriscol@uiuc.edu). If you have general questions about registration, the meeting agenda or PSERC, please contact Dennis Ray, PSERC Executive Director, at 608-265-3808 or [djay@engr.wisc.edu](mailto:djay@engr.wisc.edu).