Industry Advisory Board Meeting

May 18 - 20, 2015
Iowa State University, Ames, IA

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. 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.

Meeting Highlights

Highlights of this meeting include:
- Presentations on research results for projects that are ending this year
- Posters on continuing PSERC projects
- Discussions on current and future research and education activities
- Mini-job fair for members and students
- Tutorial on wind energy
- Stem committee 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.

Intended Audience

The meeting is for PSERC's industry and university members, and students at PSERC universities. We invite individuals from organizations that would like to consider PSERC membership to join us. Before registering, such individuals are asked contact Dennis Ray, PSERC Deputy Director, at 608-265-3808 or djray@engr.wisc.edu.

Host

Our local host for the IAB meeting is Iowa State University.
Meeting Agenda

Monday, May 18 (Scheman Building)

1:30 – 2:00  Registration

2:00 – 3:00  PSERC Orientation Presentation for All Participants

3:00 – 4:00  Markets Stem Committee Meeting
Shmuel Oren, Chair; UC Berkeley; Jim Price, CAISO, Vice-Chair

4:00 – 5:00  Systems Stem Committee Meeting
Peter Sauer, Chair; Jim Gronquist, Vice-Chair, BPA

5:00 – 6:00  T&D Technologies Stem Committee Meeting
Ward Jewell, Chair, Wichita State Univ.; Jeff Fleeman, Vice-Chair, AEP

6:00 – 7:30  Reception

6:45 – 7:30  Career Conversations: A Mini-Job Fair

7:30 – 9:00  Executive Committee Meeting

Tuesday, May 19 (Scheman Building)

7:15 – 8:00  Registration and Breakfast

8:00 – 8:15  Welcome to Iowa State University
Speaker TBD

8:15 – 8:45  Director’s Comments and PSERC Update
Vijay Vittal, PSERC Director, Arizona State Univ.

8:45 – 10:00  Project Presentations

Constraint Relaxations: Analyzing the Impacts on System Reliability, Dynamics, and Markets (M-29)
Kory Hedman (Arizona State Univ.) - Lead
Jim McCalley (Iowa State), Vijay Vittal (Arizona State Univ.)

A Framework for Transmission Planning Under Uncertainty (M-30)
Lizhi Wang (Iowa State Univ.) - Lead
George Gross (Univ. of Illinois at Urbana-Champaign)
Sakis Meliopoulos (Georgia Institute of Technology)

10:00 – 10:15  Break

10:15 – 12:00  Project Presentations

Toward Standards for Dynamics in Electric Energy Systems (S-55)
Marija Ilic (Carnegie Mellon) - Lead
Vijay Vittal (Arizona State), Le Xie (Texas A&M Univ.)

Stability, Protection and Control of Systems with High Penetration of Converter-Interfaced Generation (S-56)
Sakis Meliopoulos (Georgia Tech) - Lead
Raja Ayyanar (Arizona State Univ.), Vijay Vittal (Arizona State Univ.)
Maryam Saeedifard (Georgia Tech)

Adaptive and Intelligent PMUs for Smarter Applications (S-57)
Anurag Srivastava (Washington State) - Lead
Sakis Meliopoulos (Georgia Tech)
Pete Sauer (Univ. of Illinois at Urbana-Champaign)

12:00 – 1:00  Lunch
1:00 – 2:30  Project Presentations

**Seamless Grid Management (S-62G)**
Anjan Bose (Washington State Univ.) - Lead
Santiago Grijalva (Georgia Tech)
Tom Overbye (Univ. of Illinois at Urbana-Champaign)

**Systematic Integration of Large Data Sets for Improved Decision-Making (T-51)**
Mladen Kezunovic (Texas A&M) - Lead
Polo Chau (Georgia Tech)
Santiago Grijalva (Georgia Tech)
Le Xie (Texas A&M)

**Establishing a Controls Laboratory for Training, Research and Development, and Experimentation (T-54G)**
Ali Mehrizi-Sani (Washington State Univ.) - Lead

2:30 – 3:45  Poster Session with Discussions on On-Going PSERC Projects

3:45 – 5:00  Closed Industry Meeting (IAB members only)

5:00 – 6:00  Reception

6:00 – 8:00  Dinner

**Wednesday, May 20 (Scheman Building)**

7:15 – 8:00  Breakfast

8:00 – 8:15  Feedback from the IAB Business Meeting

8:15 – 9:30  Project Presentations

**Day-ahead and Real-Time Models for Large-Scale Energy Storage (S-61G)**
Kory Hedman (Arizona State Univ.) - Lead
Ward Jewell (Wichita State Univ.)

**Towards a Privacy-Aware Information-Sharing Framework for Advanced Metering Infrastructures (S-54)**
Vinod Namboodiri (Wichita State Univ.) - Lead
Lalitha Sankar (Arizona State Univ.)
Visvakumar Aravindhan (Wichita State Univ.), Murtuza Jadliwala (Wichita State Univ.)

Iowa State University Faculty

10:30  Adjourn
Monday Evening: Career Conversations between Students and IAB Members

From 6:45-7:30 pm on Wednesday evening, in conjunction with the reception, interested IAB members are invited to engage in conversations with students pursuing potential internships or career opportunities. This mini-job fair typically involves up to about 40 students from PSERC universities, most of who are graduate students.

Poster Session, Tuesday afternoon, May 19

Posters will include PSERC project status reports, student research projects, and CERTS project posters. The on-going PSERC projects that will have posters are those ending in 2016. The projects ending in 2017 have not yet begun. Projects ending in 2015 will have presentations in this meeting.

Posters to be Provided for Projects ending in 2016

- Hybrid Time Domain Simulation: Application to Fault Induced Delayed Voltage Recovery (S-58)
- Sparse Sensing Methods for Model-Free Sensitivity Estimation and Topology Change Detection using Synchro-Phasor Measurements (S-59)
- Load Model Complexity Analysis and Real-Time Load Tracking (S-60)
- Reliability Assessment and Modeling of Cyber Enabled Power Systems with Renewable Sources and Energy Storage (T-53)
- Setting-less Protection (2014 Plan Part II): Field Demonstrations (T-56G)
- Markets for Ancillary Services in the Presence of Stochastic Resources (M-31)
- New Operation Tools for Improving Flexibility and Reliability of Systems with Variable Resources and Storage Devices (M-32)

Information for Planning Your Attendance

Registration (Click here to register. Early bird rate ends April 27.)

Before April 27, the early bird registration fee is:

- $200 for all attendees
- No charge for students (eligible students - only from PSERC universities).

After April 27, the registration fees are:

- $275 for all attendees
- $50 for students.

Additional charges:

- $20 charge for students to attend the Thursday night dinner
- $40 charge for dinner companions of all attendees including students.

The fee covers your meals, breaks, receptions, and materials.
Meeting Location: Scheman Building, Iowa State University

All sessions will be held on the campus of Iowa State University in Ames, Iowa, in the Scheman Building, near the intersection of University Blvd and Lincoln Way (click here to see the campus map). The Scheman Building is part of the Iowa State Center. Directions to the Scheman Building can be found by clicking here. {Note: For your GPS, use 1810 Lincoln Way to find the intersection of University Blvd. and Lincoln Way}. You can park on the north side of the building. Parking is free.

Hotel Reservations

There are two options for hotels.

1. **Cut-off date: April 27.** Accommodations are available at the Gateway Hotel and Conference Center, 2100 Green Hills Dr., Ames, IA 50014. The room rate is $102 per night for a standard room. To register, call 515-292-8600 and use the group name “PSERC”. This hotel about two miles from the Scheman Building.

2. **Cut-off date: May 1.** Rooms are also available at the Best Western Plus University Park Inn & Suites, 2500 Universality Blvd, Ames, IA 50010. The room rates are $88 per night for a king bed and $96 for double queen beds or king suites. To register, call 515-296-2500 and use the group name “PSERC.” This hotel is about one mile from the Scheman Building.

Airports and Transportation

The nearest airport is the Des Moines International Airport (DMS). Iowa State University is about a one hour drive from Des Moines. Other airport options are Cedar Rapids (two hour drive), and Omaha (three hour drive). Your most convenient option for travel from the airport to Ames is with a rental car. Executive Express offers a shuttle service to Iowa State University from the Des Moines airport. A taxi would be needed to get from the drop-off location to your hotel or the Scheman Building.

Meeting Attire and Wi-Fi

Meeting attire is business casual. Wireless internet service will be available.

Information

If you have questions about logistics, contact Barbara Brown at barbarab@iastate.edu or 515-294-8057. For questions about registration and payment, contact Theresa Herr at Theresa.Herr@asu.edu or 480-965-1643. For information about the meeting agenda or PSERC, please contact Dennis Ray, PSERC Deputy Director at djray@engr.wisc.edu or 608-265-3808.