



Power Systems Engineering Research Center

Industry Advisory Board Meeting Highlights

December 6-8, 2017

The Industry Advisory Board (IAB) is composed of PSERC's industry members and meets twice per year with PSERC researchers and students to conduct business, and to engage in discussions about research and educational activities.

The host site rotates among the 12 PSERC member universities and this December the meeting was held at Old Main, an historic landmark building on the campus of Arizona State University.

We wish to thank Prof. Gerald (Jerry) Heydt, PSERC site director at ASU, for hosting the 3-day long meeting. Special thanks go to the ASU staff members who worked tirelessly for months through the many arrangements needed for such a complex meeting. In particular, we would like to acknowledge the work of Paula Baker and Laura DiPaolo: their work, attention to detail, and creativity during the planning stages and their help during the meeting ensured its success.

Many thanks to all the ASU graduate students that, in their bright yellow shirts, helped at registration and throughout the meeting with the presenter time clock, the career fair, and the posters set up.

Our recognition also goes to Arizona Public Service Company, Salt River Project, and First Solar for their generous financial support.



*Left: Old Main pre-dates Arizona statehood attained on February 14, 1914. Right Top: Gammage Auditorium
Right Bottom: Hayden Library*

Attendees

The meeting was attended by 126 people:

- 28 industry and government (20 of the 32 current PSERC member companies were represented at the meeting)
- 37 university faculty and staff
- 61 students



Engineering College



Tooker House: Residential Community for Engineering students

Wednesday, December 6

The meeting started in the early afternoon with the three stem group sessions and included presentations from Ward Jewell, Wichita State, Patrick Panciatici, RTE, and Venkataramana Ajjarapu, ISU.

A mini-job fair was held in parallel to a welcoming reception. At the fair, the PSERC powers systems graduate students had the opportunity to meet with many of the industry representatives to learn about current and future job openings. Fourteen industry members participated in the fair and we appreciate their time and willingness to meet and interact with the students.



Job Fair



Job Fair

Thursday, December 7

The day began with a welcome from Dr. Kyle Squires, Dean of Engineering at Arizona State University. His remarks were followed by an invited speaker, Daniel Haughton, PSERC alumnus and industry representative with Arizona Public Service Company. Dr. Haughton presented on the topic of “Challenges of the Future Electric Utility.”

Dr. Heydt, site director for ASU also welcomed the participants and presented an organizational update prepared by PSERC’s director Dr. Vijay Vittal.

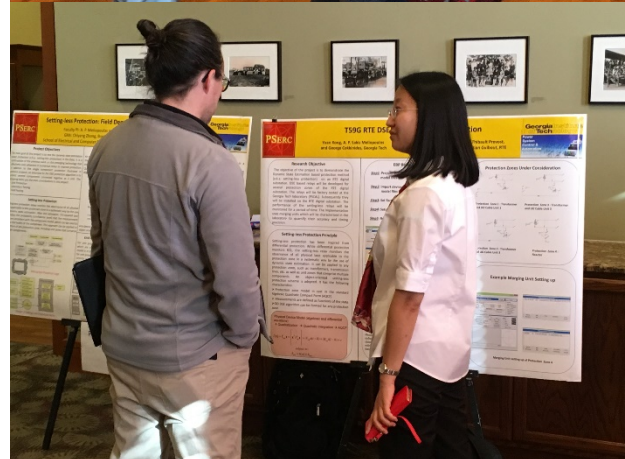
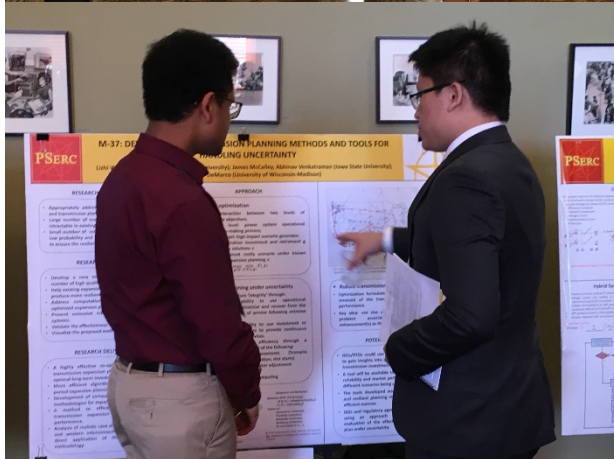
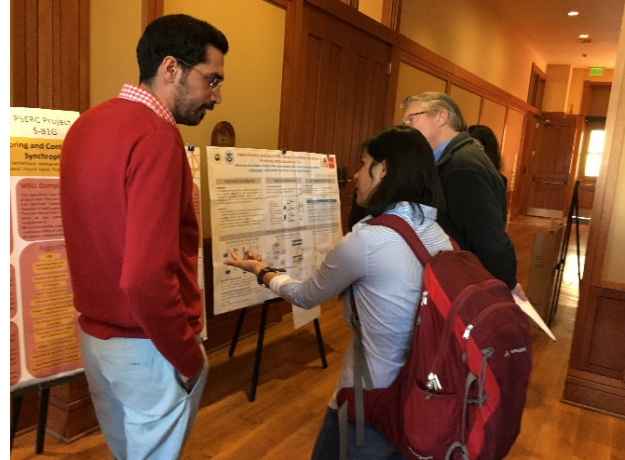
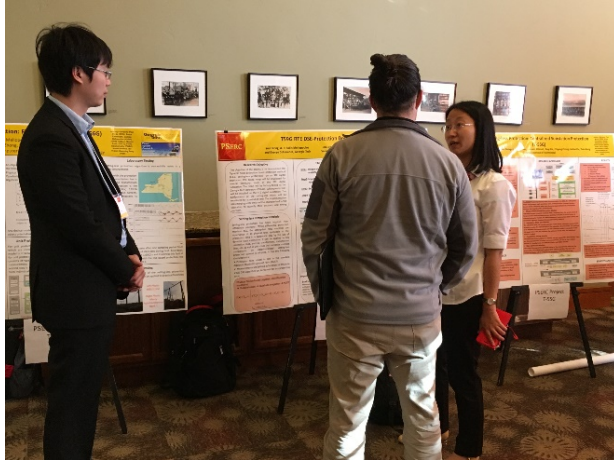
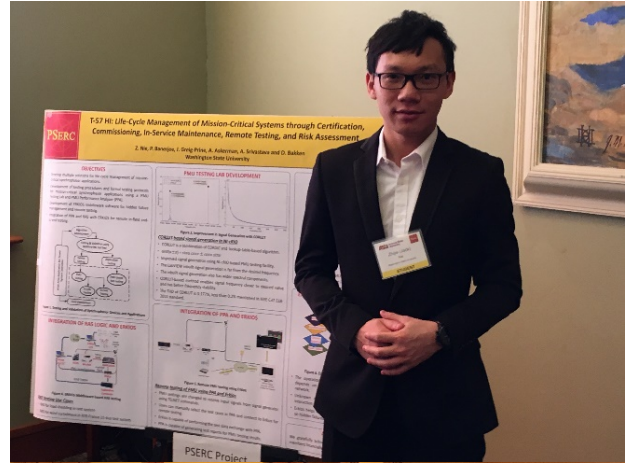
Throughout the morning and the early afternoon, attendees had the opportunity to listen to presentations regarding the three project proposals that emerged from the annual solicitation process held during the fall. The three proposals were:

- **Improved Dynamic Load Modeling Using Power System Measurements for Enhanced Transmission and Distribution System Operation and Planning (Systems)**
Project Leader: Vijay Vittal (Arizona State University)
Team members: Le Xie (Texas A&M University) - presenter
- **Newly Implemented and Proposed Market Products and Reformulations: Pricing Implications, Analysis, and Enhancements (Markets)**
Project Leader: Mojdeh Khorsand (Arizona State University) – co-presenter
Team Members: Kory Hedman (Arizona State University) – co-presenter, Lang Tong (Cornell), Anthony Papavasiliou (Adjunct Researcher, Université Catholique de Louvain)
- **Optimal Model Coordination for Integrated Transmission and Distribution Systems (T&D)**
Project Leader: Visvakumar Aravinthan (Wichita State University) - presenter
Team members: Lindsay Anderson (Cornell), Judith Cardell (Smith College), Ward Jewell (Wichita State University)



126 people attended the December 2017 IAB meeting

Following the proposal presentations, students, faculty members, and industry members participated in a poster session that featured 28 posters of ongoing PSERC research projects. Of the 28 posters, 19 were prepared by students that competed for the annual *Best Poster* award based on the evaluation of PSERC industry members.



Poster Session

The day ended with a special dinner celebration commemorating Dr. Heydt's contributions to PSERC and his upcoming retirement. Dr. Kory Hedman gave an overview of Dr. Heydt's many accomplishments. A large cake with a congratulatory message was enjoyed by all the attendees.



Thursday's dinner celebration

An all-women Mariachi group delighted the listeners with many familiar tunes of traditional music. Many of the group members are current or past ASU students and one of them is an engineer!



Mariachi performance

Friday, December 8

At the beginning of the session, the IAB chair, Jeff Fleeman presented a summary of the main outcomes of the closed IAB meeting.

- New officers for 2018:
 - o Patrick Panciatici, RTE—France will be the new IAB chair
 - o Mark Westendorf, MISO will be the new IAB vice-chair
- The Industry members discussed and unanimously approved the 3 proposals presented. The new projects will begin in July 2018.
- The PSERC budget was presented by Dr. Anna Rosa Lampis, PSERC's Deputy Director, and she answered questions from the industry partners.

The Friday morning session continued with a presentation by Dr. George Karady of Arizona State University on the new automated power laboratory created for online students.

After the presentation, Dr. Lampis announced the winner of the best student poster competition. The winning student was Mohammadreza Maddipour Farrokhifard from Washington State University with the poster “Oscillation Monitoring and Control of the RTE Power System Using Synchrophasors.” The industry reviews of his poster were outstanding.



Dr. Heydt presents the Best Poster award to Mohammadreza Maddipour Farrokhifard, WSU

The meeting tutorials were presented by Sobia Naqvi, Arizona Public Service Company and Dr. Mahesh Morjaria, First Solar. The first was on the topic of “Concentrating Solar Power” and the second focused on “Utility-Scale PV plants.” Both presentations were appreciated by the attendees and provided for many interesting questions and idea exchanges.

The meeting was adjourned at 11:00 am.