



PSM SEEC Update

Summer 2015

PSM SEEC STUDENTS VISIT THE PENTAGON

Washington DC: Science Outside the Lab

From May 17-23, our students traveled to Washington DC for the Professional Science Master's in Solar Energy Engineering & Commercialization's (PSM SEEC) required solar and energy policy seminar. This unique course, led by Dr. Ira Bennett and Dr. Jennifer Richter of ASU's Consortium for Science and Policy Outcomes, is a hallmark of the PSM SEEC program. During their week-long session, students meet with national and international solar and energy policy leaders, gaining a unique and valuable perspective on national policy development and implementation.

Students stay in the dormitories at American University, and travel to ASU's Washington DC facility or to various offices across Washington DC. Many students are able to parlay this trip into an opportunity to see the sites of our capital city and other spots along the east coast. The PSM SEEC program fee facilitates all expenses related to this trip, including airfare, lodging, meals and ground transportation. If you are interested in sponsoring a portion of a student's Washington DC trip, please contact Karen Dada at kdada@asu.edu.

The Washington DC agenda changes from year to year. This year, our students had the tremendous opportunity to meet with the Assistant Secretary of the Army, Installations, Energy and the Environment, the Honorable Katherine Hammack. The meeting was held at the Pentagon, a memorable experience for all. Also included on the agenda were meetings with:

- National Manager of ENERGY STAR Small Business & Congregations Network, US Environmental Protection Agency
- Program Director of Environment and Global Dialogue, Heinrich Boll Stiftung North America
- Director of Technical Policy, US Green Building Council
- Director of Natural Resources and the Environment, US Government Accounting Office
- Director of Energy and Green Building, National Association of Home Builders
- Director of Generation, Fuels and Market Analysis, Edison Electric Institute
- Managers and Directors from the Solar Energy Power Association
- Program Manager for Emerging Technologies, US Department of Energy Building Technology Office (our very own Pat Phelan)
- Mobilization Director, Climate Action Campaign

Applied Project Presentations

Starting in late July through early August, most of the 2014/15 PSM SEEC cohort will complete their degree program. The culminating experience involves presenting their applied projects. The applied projects may be either technical or non-technical in nature and students must involve both a faculty and industry advisor to help guide their projects. This involvement helps ensure the students' projects are of interest and relevance to the solar industry. We invite you to attend any or all of the presentations.

If you plan to attend any presentations, please RSVP with Karen Dada by July 10 at kdada@asu.edu. All presentations will be held on the second floor of the ASU Memorial Union, and parking will be available in the nearby Apache Garage. Please visit <http://www.asu.edu/map/interactive/> for maps to these facilities.

July 24 11:00-12:00, Room 210

Abhishek Rao

Evolution of the Grid Edge: The Economics of Energy Storage for Stand-Alone Systems

Advisors: Will Herndon / Harvey Bryan

July 31 11:00-2:00 (lunch provided), Room 223

Maitreyee Doshi (11:00)

Financing Solar for Rural Areas

Advisors: Lee Feliciano / Harvey Bryan

William Hammack (1:00)

The PIP Box: Enhancing String Inverter Performance

Advisors: John Mitman / Steve Trimble

August 4 8:30-3:00 (lunch provided), Room 248

Renan Pimentel (8:30)

PV Module Reliability Through Image Processing

Advisors: G. (Mani) Tamizhmani / Harvey Bryan

Mudit Bareja (9:30)

Influence of Soiling, Performance Ratio & Performance Index on Solar PV's Energy Production

Advisors: G. (Mani) Tamizhmani / Harvey Bryan

Andrey Bednarzhevskiy, Liyuan Liu & Ankil Sanghavi (11:00)

Performance Evaluation of CIGS Modules at Different Field Operating Conditions

Advisors: G. (Mani) Tamizhmani / Harvey Bryan

Christopher Henderson (1:00)

Pay-for-Performance: A Transitional Model

Advisors: John Balfour / Harvey Bryan

Nick Esch (2:00)

Community Solar Program Design

(John Sterling / Harvey Bryan)

August 7 10:00-11:00, Room 206

Matthew Bodington

Solar Powered Automated Irrigation System to Maximize Efficiency of Water Use in Urban Community Gardens

Advisors: Jose Cano / Bradley Rogers

Alumni Updates

We recently heard from a few of our alumni and wanted to let you know what they've been up to.

MOAYYAD HAMAD, graduated 12/2014

As the Executive Manager of AYAVA Solar, Moayyad recently completed a 75kWp PV project in Palestine. The project will provide a factory with 80% of their annual energy. The system will be connected based on NET Metering terms negotiated between the utility company and AYAVA Solar and the customer. This is the first ever factory in Palestine to install a NET Metering system that is self-financed by the owner. The payback period is expected to be less than two years between value-added tax returns, depreciation and energy savings.

In addition to his PSM SEEC, Moayyad earned his MBA from Birzeit University (Palestine), and his Bachelor of Science in Engineering from ASU.



Moayyad's son sporting his ASU Sun Devils shirt.



Moayyad (right) discusses the project.

JEFFREY LEE, graduated 12/2011

Jeff was one of the PSM SEEC program's very first cohort. He is currently the Chief Technology Officer for his own company, Solar Stream Solutions. Immediately after graduating from the PSM SEEC program, Jeff received a competitive grant award from the State of California through their Energy Innovations Small Grant Program. This grant enabled Jeff to fund prototype development of his rooftop high temperature solar thermal concept. Jeff later received a second grant award from the State of California, for a total of \$245,000 in grant funding,

In 2012, Jeff represented Solar Stream Solutions at an international competition in Stockholm Sweden. The I2P: Idea to Product Global Competition aims to bridge the gap between university research and commercialization. Jeff did extremely well at the competition, taking Second Place.

Even with all of these professional successes, Jeff may argue that his biggest accomplishment since graduating from the program is his recent marriage.

Jeff earned Bachelor of Science degrees in Management Science and Bioengineering from the University of California, San Diego; a Master of Engineering Management from Duke University; and his PSM SEEC from ASU.

Important Upcoming Dates:

- August 18: New Student Orientation 8:30-1:00, ASU Memorial Union, Mohave Room
 - Board members, faculty and alumni are invited and encouraged to attend the luncheon, from 12:00-1:00, to welcome the new students.
 - Please RSVP to kdada@asu.edu.
- September 23: PSM SEEC Industry, Faculty and Alumni Mixer, 5:30-7:00, TBD