To: Members of Center for Power Systems Studies
    Associate Members of Power Systems Studies
    Guests in attendance

The Center for Power Systems Studies is entering its 44th year of operation. Below is a summary of some of the past years’ power-related activities and events, since the spring meeting.

I. Summer 2011: Faculty and Student Summer Projects/Research Update
Hietpas
a. Supervised three MSEE graduate students
b. Served on the IEEE PES Scholarship Plus Initiative Committee
c. Attended ASEE National Convention in Vancouver, BC, Canada (June)
d. Met with conference committee planning for 2012 CPSS South Dakota Regional Power Conference (July)
e. Power Technology Tour (August)
f. Attended DOE University Consortium Workshop (August)

II. Power-Faculty Course Update
Hietpas
Summer 2011:
- EE221 (1 cr) Circuits II – Remediation, 3 students
- EE438 (1 cr) Power Technology Tour, 11 students
Fall 2011:
- EE430/430L (3+1 cr) Electromechanical Systems and Lab, 30 students

Spring 2012 - Tentative:
- EE221/L (3+1 cr) Circuits II
- EE315 (3 cr) Linear Systems

III. Power Faculty Search Update
30 Plus Applicants
Narrow to two invitations for on-campus interviews
Interview Dates: October 13th and 20th

IV. Scholarship Activity – Power Company Sponsored Scholarships
The department awarded $35,150 in scholarships. Approximately 57% of these funds are a direct result of the power community.
Recipients for 2011-2012 Academic Year

The Center for Power Systems Studies Scholarship
Davis, Wesley

CPSS General Scholarships*
VanDyke, Turner Senior
Fitzpatrick, Richard Junior
Kleinjan, Ryan Junior
Bradley D. Schultz Power Engineering Scholarship
Sanderson, Zachary  Senior
Wermers, William  Senior
Albertson, Chad  Junior
Nelson, Jeremy  Junior

DeWild Grant Reckert & Associates Scholarship
Willett, Michael  Sophomore

East River Electric Power Coop Scholarship in Honor of Virgil Hanlon
Fitzpatrick, Richard  Junior
Kleinjan, Ryan  Junior

Heartland Consumers Power District Scholarship
Fitzpatrick, Richard  Junior

Interstates Electric & Engineering Scholarship
Sorenson, William  Senior
Waltner, Drew  Senior

Jeffrey L. & Trudiann Nelson Scholarship
Erickson, Matt  Sophomore

John G. Kappenman Scholarship
Albing, Andrew  Junior

Otter Tail Power Company Scholarship
Brinkmann, Jacob  Senior
Sanderson, Zachary  Senior
Swensen, Jake  Junior

Jim and Doniese Wilcox Scholarship
Vickberg, Jenelle  Junior

Xcel Energy Services Scholarship
Mathews, Mark  Senior

IEEE PES Scholarships
Fitzpatrick, Richard  Junior
Kleinjan, Ryan  Junior
Nelson, Jeremy  Junior
Sandness, Cole  Sophomore
VI. Status of Power Students

I. Power Graduates Update

<table>
<thead>
<tr>
<th>Student</th>
<th>Graduated</th>
<th>Place of Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neil Albares</td>
<td>Spring 2011</td>
<td>Xcel Energy, MN</td>
</tr>
<tr>
<td>Alexander Richter</td>
<td>Spring 2011</td>
<td>NIPCO, IA</td>
</tr>
<tr>
<td>Kevin Bullis</td>
<td>Spring 2011</td>
<td>ECI, MN</td>
</tr>
<tr>
<td>Joseph Dold</td>
<td>Spring 2011</td>
<td>Has had several interviews recently – getting close</td>
</tr>
<tr>
<td>Wesley Pfaff</td>
<td>Fall 2010</td>
<td>Morehead Public Service, MN</td>
</tr>
<tr>
<td>Benjamin Pierson</td>
<td>Fall 2010</td>
<td>Sioux Valley Energy, SD</td>
</tr>
</tbody>
</table>

Of the 18 students that graduated in 2010-2011, 5 obtained employment in the power sector, which is 26% of this graduating class. Since the spring of 2000 to present, 69 of 287 (approximately 24%) of SDSU EE graduates either obtained or have pursued a career in the power industry.

II. Power Engineering Student Internships, Expected Graduation, and Recent Internships

<table>
<thead>
<tr>
<th>Student</th>
<th>Expected Graduation</th>
<th>Declared Power</th>
<th>Past Summer Internship/Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matt Bult</td>
<td>Fall 2011</td>
<td>Yes</td>
<td>Actively applying and interviewing</td>
</tr>
<tr>
<td>Casey Larson</td>
<td>Spring 2012</td>
<td>Yes</td>
<td>Daktronics</td>
</tr>
<tr>
<td>Emily Miller</td>
<td>Spring 2012</td>
<td>Yes</td>
<td>Family Owned Business – Dakota Kitchen and Bath, SF</td>
</tr>
<tr>
<td>Eric Krage (Phys)</td>
<td>Spring 2012</td>
<td>Yes</td>
<td>Nebraska Center for Materials and Nanoscience, Lincoln, NE</td>
</tr>
<tr>
<td>Dusty Botz</td>
<td>Spring 2013</td>
<td>Yes</td>
<td>WAPA, Watertown, Lineman</td>
</tr>
<tr>
<td>Jeremy Nelson</td>
<td>Spring 2013</td>
<td>Yes</td>
<td>Family Farm</td>
</tr>
<tr>
<td>Reece Chambers</td>
<td>Spring 2013</td>
<td>Yes</td>
<td>MRES, Sioux Falls</td>
</tr>
<tr>
<td>Ryan Kleinjan</td>
<td>Spring 2013</td>
<td>Yes</td>
<td>DGR</td>
</tr>
<tr>
<td>Cory Kostboth</td>
<td>Spring 2013</td>
<td>Yes</td>
<td>Interstates Control Systems, Sioux Falls, SD</td>
</tr>
<tr>
<td>Jared Quenzer</td>
<td>Spring 2013</td>
<td>Leaning</td>
<td>Daktronics</td>
</tr>
<tr>
<td>Richard Fitzpatrick</td>
<td>Spring 2013</td>
<td>Yes</td>
<td>Coteau Tiling, Revillo, SD</td>
</tr>
<tr>
<td>Zachary McBrayer</td>
<td>Spring 2013</td>
<td>Leaning</td>
<td>Daktronics</td>
</tr>
<tr>
<td>Cole Sandness</td>
<td>Spring 2014</td>
<td>Yes</td>
<td>Nuclear Engineering Institute - University of Texas, Austin</td>
</tr>
<tr>
<td>Kelly Nelson</td>
<td>Spring 2014</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Bridget Coughlin</td>
<td>Spring 2014</td>
<td>Possibly</td>
<td></td>
</tr>
<tr>
<td>Evan Leebens</td>
<td>Spring 2014</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>James Turner</td>
<td>Spring 2014</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Laura Froehlich</td>
<td>Spring 2015</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Jake Buckmiller</td>
<td>Spring 2015</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Justin Warnke</td>
<td>Spring 2015</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Brandon Metzger</td>
<td>Spring 2015</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>
VII. Review of CPSS Impact

1. CPSS scholarships – immediate attraction and attention getter
2. Internship and/or Cooperative opportunities -- have a positive impact – absolutely important to the sustainability of the SDSU Power Program
3. Power Technology Tour – great exposure to a variety of power-related industries
   Please see the addendum to this report highlighting student responses.
4. CPSS-Sponsored Design Projects – hands on challenging designs
5. Power Systems Analysis and Lab (EE434/434L) -- First course dedicated just to power
6. Photovoltaics Applications (EE436) and Power Electronics (EE 492)
7. Fall Awards Banquet – A glimpse into the future for our students and shows importance of remaining connected to academia
8. Biannual Regional South Dakota Power Conference – An excellent professional setting the introduces power students to the big picture

Respectfully submitted,

Steven M. Hietpas, Ph.D., P.E.
Coordinator, Center for Power Systems Studies
EE 438 Power Technology Tour Student Feedback

11 students went on tour. Numbers in (#) indicates number of students that selected the rank.

1. If you were not already decided on pursing a career in power prior to the tour – did this tour help you in making a decision (5 significantly, 1 not much)?

1(0) 2(0) 3(1) 4(1) 5(3)

2. If you answered the question above, are you now considering pursuing a career in power (5 definitely yes, 1 definitely not)?

1(0) 2(0) 3(1) 4(3) 5(1)

3. If you were already decided on pursing a career in power prior to the tour – did this tour confirm your decision (5 significantly, 1 not much)?

1(1) 2(0) 3(0) 4(3) 5(3)

4. Perhaps you answered 1 above – then are you now considering not pursuing a career in power (5 definitely still pursuing, 1 definitely not pursuing)?

1(0) 2(0) 3(0) 4(0) 5(1)

5. On a scale of 1 to 10 (10 being the best rating possible), are you glad you came on this tour?

_____ 9 (3) 10(8) ________

Explain why?

- The tour helped me to expand my knowledge of the breadth of what power engineers do in addition to getting me more excited about getting into the work place.
- I found all of the sites to be very interesting. Some of them were better than others, but all in all it was a great experience that opened my eyes to all that is involved with a career in power.
- I was hesitant to come on this tour at first mainly because I didn’t know what to expect. This tour was an eye opening experience into the real world and all of the opportunities for an Electrical Engineer. It showcased the highs of being a Power Engineer. The sites that we were taken to each showed a different area where a power engineer could be utilized. It also showed students that not all engineering jobs are desk jobs, which was really nice to see.
- I loved the broad spectrum of careers it covered along with people that were passionate in our field of study
- This tour showed me that there are many different aspects to just power in the electrical engineering field. I did not realize that EEs work with so many different workers.
- This tour was a great way to open my eyes to the opportunities available in the power industry and to allow me to see what manufacturing jobs my engineering education may help me avoid laboring. I’m still not sure if I will work in the power industry but now I have a better idea of where my education can take me if I so choose.
Center for Power Systems Studies – Fall Meeting

COORDINATOR’S REPORT

October 17, 2011

- It was really awesome to see how the power industry works. This class made me excited to learn more about electrical Engineering.
- I haven’t had much experience outside the classroom, so seeing what is available after graduation was nice.
- It really showed me the opportunities in the power field.
- Great group to travel with, very interesting cites. It was bittersweet when it ended. I was very satisfied with everything.
- I felt like not only was this tour a great learning opportunity to learn about more aspects of this field, but it gave everyone a chance to see things that many people have not.

6. On a scale of 1 to 10 would you recommend this course to a friend?

9 (3) 10(8)

Explain why?

- If the friend had any interest in power, I would definitely recommend it. The tours were very informational and were mostly presented at the level I could understand.
- If they are even slightly considering a career in power, I think that this would be an experience that would likely persuade them even more to pursue a career in power.
- I would recommend this course to a friend because as stated above, this tour does a great job at showing students real life applications. If a friend of mine was struggling about what are of EE they would want to go into, I would recommend them to go on this tour because it showcases many different fields that need a power engineer. This tour showed everything from desk job to a field job.
- Yes, I already have. For above reasons and it also puts MANY practical applications to material being studied.
- This course is very informative, giving students the opportunity to see what engineers do in the real world. Some of it is great and other parts not so great.
- It was a great opportunity to see the jobs available in the industry and to make a few new friends.
- This tour was a great learning experience for me and helped spark my interest in the power industry.
- The tour was a great experience. I had a lot of fun and got to know several students better. It also improved my knowledge of how electrical engineering is used in the field.
- It’s a fun trip where you can still learn new things, but a lot of traveling.
- Great experience. It seems like it opens students up to new things.
- I would recommend the tour to anyone who had any interest at all in the field because I feel that it would give them a chance to see different things and give them options.