

To: Members of Center for Power Systems Studies
Associate Members of Power Systems Studies
All those in attendance at meeting

The Center for Power Systems Studies is entering its 40th year of operation. Below is a summary of some of the past years' power-related activities and events, since the spring meeting.

I. Summer 2007: Faculty and Student Summer Projects/Research Update

Hietpas

- a. As Electrical Engineering Coordinator worked on orientation with students during June and part of July.
- b. Held planning meeting with conference committee in preparation for 2008 CPSS Regional Power Conference.
- c. Presented paper at 2007 Annual ASEE Conference in Hawaii.
- d. Supervising two graduate students on motor drive projects.
- e. Attended the IDEAL Institute in Baltimore, MD for ABET Assessment.
- f. Took 8 students on the Power Technology Tour in August.
- g. Continuing to serve on the board for the SDEC.
- h. Review papers for IEEE Transaction on Education, IEEEE REPC, IEE, and ASEE.

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- a. Wind Resource Assessment Network, 11 operational sites, two more in the next six months.
- b. Working toward the establishment of a Wind Applications Center (WAC) at SDSU.
- c. Supervised power-related 4 MSE graduate students, and the first Ph.D. graduate power student.
- d. Advised one power-related Senior Design project on distributed control of distributed energy resources in a microgrid. Currently advising another power-related Senior Design project: "Backcountry PV Battery Charger."
- e. Working on the next PV in the Parks Project. We intend to offer the course in Spring 2008 and an installation trip in Summer 2008.
- f. Participating in the Department of Energy Renewable Systems Integration (RSI) Project.
- g. Wrote one chapter, "Photovoltaic Power Systems", for the Encyclopedia of Energy Engineering, published in June 2007.
- h. Will present at the Minnesota Power Systems Conference in November 2007.
- i. Continuing to serve on the board of the South Dakota Energy Infrastructure Authority.

II. Power-Faculty Course Update

Hietpas

Fall 2007:

- EE420/520 (3 cr) *Electronics III*, 14 students
- EE430 (3 cr) *Electromechanical Systems*, 24 students

Spring 2008:

- EE221 (3 cr) *Circuits II*
- EE315 (3 cr) *Linear Systems*

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Fall 2007:

- EE492/592 (3 cr) *Power Electronics*, 14 students

Spring 2008:

COORDINATOR'S REPORT

October 16, 2007

- EE436/EE536 (3 cr) *Hybrid PV Systems*

III. Scholarship Activity

Recipients for Fall 07

Seniors	Juniors	Sophomore	Freshmen
Lowell Dolney*	Corey Kramer		
Trevor Howard	Todd Bockorny		
Molly Houck	Tyler Wulf		
Derek Bryant	Aric Lowe		
Matthew Tesch	Seth McGill		
Chris Mouw			

* Indicates recipient of the \$3000 Center for Power Systems Studies Award

Spring 08 applications are being submitted within the next six weeks.

IV. Status of Power Students

I. Power Graduates Update

Student	Graduated	Place of Employment
Tanner Knecht	Fall 2007	ABB
Jack Winter	Fall 2007	WAPA
Austin Hoekman	Spring 2007	MRES
Curtis Greenfield	Spring 2007	Interstates Eng.
Keith Haggerty	Spring 2007	NPPD
Daniel Lewis-Coomes	Spring 2007	Interstates Eng.
Travis Haselhorst	Spring 2007	Interstates Eng.

Of 14 students that graduated in the spring, 5 declared power as their career path, which is 36% of the graduating seniors. Since the spring of 2000 to present, 40 of 203 (approximately 24%) of SDSU EE graduates either obtained or have pursued a career in power. There is an upward trend of power graduates for the last several years.

II. Summer Positions, Engineering Internships, or Cooperatives

Student	Place of Employment
Lowell Dolney	Otter Tail Power
Pat Cisar	Black and Veatch
Molly Houck	WAPA
Trevor Howard	WAPA
Derek Bryant	BMU and WAPA
Russell Halgerson	Brookings Municipal Utility

Center for Power Systems Studies – Fall Meeting
COORDINATOR'S REPORT
 October 16, 2007

Chris Graff	Cannon Technologies
Matthew Tesch	Xcel Energy
Steve Grantz	Xcel Energy
Kirby Wicks	Malloy Electric
Derrick Galinat	Daktronics
Seth McGill	Daktronics (past experiences with Tendair Industries)
Tyler Wulf	Raven Industries (Sioux Falls)
Todd Bockorny	City of Huron, Engineering

III. Status for Current Power Students

Student	Expected Graduation	Place of Employment
Lowell Dolney	F07	Interviewed Brookings Municipal Utilities Otter Tail Power Company, Nebraska Public Power District, and Northwestern Energy
Pat Cisar	F07	Larson Binkley (KS)
Molly Houck	F07	WAPA – Huron
Trevor Howard	F07	WAPA – Huron
Russell Halgerson	F07	Interviewed with BMU, will have interview with ECI
Ryan Jensen	F07	Interviewed with NPPD
Derek Bryant	S08	Currently – part time with NPPD
Matthew Tesch	S08	
Steve Grantz	F09	Completing Co-op with Xcel
Chris Graff	S10	
Corey Kramer	S10	
Joseph Dold	S10	
Todd Bockorny	S10	
Tyler Wulf	S10	
Aric Lowe	S10	
Seth McGill	S10	
Steven Cozine	S10	
Eric Boese	S10	
Joshua Cahill	S10	

V. Review of CPSS Impact

The student interest in the power area remains at a healthy level, but the overall number of students in Electrical Engineering is not strong – holding at about 25 graduating students a year. The primary activities which seem to have the greatest impact on attracting students to the power area are **CPSS scholarships** and **Internship and/or Cooperative opportunities**. Students further into program become more interested when they either attend the **Annual Banquet**, the **Biannual Regional Power Conference**, or the **Power Technology Tour**. Lastly, once a student is fairly certain they have made a choice towards a career in power, they are further attracted through a **CPSS-Sponsored Design Project** and **Power Systems Analysis (EE 434)**.

VI. Membership Activities

- In discussion with Frank Kornbaum of Minnesota Power
- In discussion with Mike Fisher of Ulteig
- Starting discussion with Pete Famighetti of ABB

Respectfully submitted,

Steven M. Hietpas, Ph.D., P.E.

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