

Center for Power Systems Studies  
Semiannual Meeting – Sioux Falls, SD  
COORDINATOR'S REPORT  
April 21, 2005

---

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

We are now at the close the Center for Power Systems Studies' 37<sup>th</sup> year of operation. The following is a summary of the last several months of activity within the department of Electrical Engineering and Computer Science that is related to the CPSS.

- I. Conference – October 19, 2004 Summary
  - a. There were 43 attendees
  - b. Good mix of subjects, all seemed to be well received
  - c. Student submitted reports on one of the presentations, which were graded by conference committee members!
- II. Teaching activities during spring 2005 term
  - a. Courses taught spring semester

Steve Hietpas

- 1. EE221 (3 cr) *Circuits II*, 28 students, ~ 6/28 students look interested in power systems.
- 2. EE292 (1 cr) *EE Tools*, 11 Students.
- 3. EE434 (3 cr) *Power Systems I*, 11 students, ~ 2/11 are seniors, 9/11 are juniors.

Power Students Taking Power Systems Analysis I, Spring 2005.

<b>Seniors</b>
McMahon, Daniel L
Rennich, Terry A.
Munsch, Jay D.
Johansen, Jerad L.
Winter, Jack W.
Wingen, Wesley R.
Uecker, Jeremy D.
Walter, Jesse J.
Greenfield, Curtis M
Grabow, Joshua D.
Larson, Douglas P.

Mike Ropp

- 1. EE321 (3 cr) – *Electronics II*, 14 undergraduate students
- 2. EE415 (3 cr) – *Linear Control Systems*, 24 undergraduate students

III. Other scholarly/research activities

Both Mike and Steve attended an NSF workshop on teaching Power Systems Analysis (UofM, Ned Mohan) – February of 2005.

Center for Power Systems Studies  
Semiannual Meeting – Sioux Falls, SD  
COORDINATOR'S REPORT  
April 21, 2005

---

Steve Hietpas

1. Serve on the paper review committee for IEEE Rural Electric Power Conference. Reviewed papers for the upcoming 2005 conference.
2. Serve on the review committee of IEEE Transactions on Industrial Applications associated with the Rural Electric Power Conference.
3. Advised two graduate students on design and thesis papers and research/scholarly related activity involving: DC 4-quadrant motor drive, AC-AC Converter, design of a 3-hp V/Hz 3-phase Induction Motor Drive using a dSPACE rapid-prototype system.

Mike Ropp

1. NSF-CAREER projects over the next four years.
2. Initiated a new photovoltaics project in Alaska
3. Continuing four power-related graduate student projects (renewable energy topics).
4. Continued to operate the Wind Resource Assessment Network.

IV. Scholarship Activity

Freshmen level (less than approximately 50 credits completed)  
Sophomore level (less than approximately 80 credits completed)  
Junior level (less than approximately 110 credits completed)

Recipients for spring 05

Seniors	Juniors	Sophomore	Freshmen
Daniel McMahon	Wes Wingen	Corey Kramer	Michael Winne
Jesse Walter	Cody Anderson	Trevor Howard	
	Chris Iversen	Molly Houck	
	Jack Winter	Patrick Cisar	
	Austin Hoekman*	Lowell Dolney	

\* Indicates recipient of the \$3000 Center for Power Systems Studies Award for 2005-2006 year

Recipients for fall 04

Seniors	Juniors	Sophomore	Freshmen
Daniel McMahon	Wes Wingen	James Galipeau	Corey Kramer
Jesse Walter*	Jack Winter	Austin Hoekman	
Justin Dewald	Chris Iverson	Cody Anderson	
	Cody Anderson		

\* Indicates recipient of the \$3000 Center for Power System Studies Award for 2004-2005 year

V. Graduating Power Students (Fall and Spring) and Summer 2005 Intern Positions

Nate Jones, (graduated Spring of 2004) Southern Minnesota Municipal Power Agency (SMMPA)

a. Fall 2004 Power Graduates (11 total graduates):

Student	Place of Employment
Mike R. McBride	Western Area Power Administration
Robert Soper	Western Area Power Administration??

Center for Power Systems Studies  
Semiannual Meeting – Sioux Falls, SD  
COORDINATOR'S REPORT  
April 21, 2005

---

b. Spring 2005 Power Graduates (15 total graduates):

Student	Place of Employment
Terry A. Rennich	T & R Electric, Coleman, SD
Jesse J. Walter	Interviewing mode – Possibly Cannon Technologies

Of 26 students graduating in the fall of 2004 and the spring of 2005, 4 had declared power as their career path, which is 15% of the graduating seniors (down from 28% in the prior year). From spring 2000 to present, approximately 29 of 139, or 21% of SDSU EE graduates have either obtained or are pursuing a career in power.

c. Summer 2005 Power Student Interns.

Student	Place of Employment
Dan McMahon	Sioux Valley Energy?
Wes Wingen	Energy Maintenance Service, Gary, SD
Jack Winter	WAPA, Huron
Douglas Larson	SDSU/Mike Ropp
Cody Anderson	Brookings Municipal Utilities
Chris Iversen	Daktronics
Corey Kramer	Electrician, Sioux Falls
Austin Hoekman	Daktronics or Sioux Valley Energy?
Trevor Howard	Central Power, Minot, ND
Molly Houck	WAPA, Watertown

VI. Summer Activity

Steve Hietpas

1. Supervise Santosh Bhattarai on the design of a 4-quadrant motor drive, with closed-loop control using dSPACE and with Shivaram Poigai on the design of a closed-loop control of a 3-hp Volts/Hz AC Induction Motor Drive
2. Work in capacity of Program Coordinator for EE program in June and July
3. Power technology tour in August

Michael Ropp

1. Wind Resource Assessment Network
2. Supervising eight graduate students on various projects
3. NSF-CAREER award

Respectfully submitted,

Steven M. Hietpas, Ph.D.  
Coordinator, Center for Power Systems Studies  
Professor of Electrical Engineering