

Monthly CREW Update: November 2010

Here is an update on recent, current, and upcoming activities and opportunities:

1. Please join me in welcoming Sid Suryanarayanan who became the new CREW CSU Site Director last month. Thanks to both Peter Young and Wade Troxell for their service in this role in the past. Professor Suryanarayanan's research interests lie broadly in the area of modern electric power systems, with specific focus on design, operation, and economics of finite-inertia systems and integration of renewable energy systems to electric grids.

2. The 2nd annual CREW RFP for shared research was released last month and can be found at:

http://ecee.colorado.edu/crew/RequestForProposals/RFP_Announcement_2010.doc

CREW is soliciting proposals for highly innovative Seed Grant research projects covering all aspects of wind power generation. Seed Grant research proposals will be funded at up to \$50,000 modified direct costs for one-year. Subject to the availability of non-state CREW funds, projects led by NREL will be funded at up to \$75,000 (including overhead) to account for NREL's increased overhead rate. Proposals are due by 5pm MST on November 30, 2010. Proposals consist of a proposal cover sheet, a 2-page project description, a one-page biosketch for each PI/Co-PI, and a 1-page budget summary. The CREW Center Advisory Board (CAB) will score and rank proposals. Each member company in CREW has a representative on the CAB, and they will handle the reviews of the proposals. Funding decisions on the proposals are expected to be made by the end of March 2011. Please download the CREW RFP from the above link for more information.

3. David Corbus of NREL gave our last CREW seminar on "Grid Integration of Wind Energy - The Eastern Wind Integration and Transmission Study" on November 5, where he talked about evaluating wind energy's interaction with the utility grid and how to manage the wind resource during planning and actual day to day operations. The Eastern Wind Integration and transmission Study (EWITS) was the largest wind integration study to date.

4. Please come to our next CREW seminar on December 3 at 1pm in ECCS 1B12. Dr. Peter Lilienthal will talk on "Modeling High Penetrations of Wind Power with HOMER". HOMER is a Hybrid Optimization Model software tool for analyzing the economics of different types and levels of renewable penetration and storage on small grids. More information about the seminar can be found at:

http://crew.colorado.edu/Newsroom/Events/2010Fall_Seminar4_PeterLilienthal_HOME_R_Dec3.pdf

5. NOAA's next Sustainable Energy and Atmospheric Sciences seminar will be held at 3pm on December 2 in Room GC402 of NOAA's David Skaggs Research Center. Professor Steffen Rebennack of the Colorado School of Mines will talk on "Calculation of Marginal CO2 Allowances Emissions Operational Cost for Hydro-Dominated Power systems" and Anneliese Alexander of NOAA will discuss "Optimization of a Weather-Driven National Renewable Energy System". If you plan to attend and do not work at NOAA, please contact Holly Palm (Holly.Palm@noaa.gov) at least one day in advance, so that she can give your name to the security office to facilitate your entrance to the NOAA campus. Visitors must have photo identification, and international attendees are required to present a passport.

6. ARPA-E is pleased to announce a workshop on Green Electricity Network Integration to take place on December 13, 2010, in Arlington, Va. This workshop will address the challenges and opportunities associated with incorporating alternative energy sources into the nation's power grid. More information about the workshop, and how to apply to attend, can be found at:

<http://departmentofenergyarpa-e.createandsend5.com/t/r/1/viikr1/dhkyditij/b>

7. The IEEE Transactions on Sustainable Energy has a Call for Papers for a Special Issue on Applications of Wind Energy to Power Systems. The articles in this special issue will emphasize the broad array of considerations associated with the incorporation of large shares of variable generation into power system planning, design, and operation. Two-page extended abstracts, due by February 20, 2011, are being solicited for the first round of reviews. Authors of selected abstracts will be invited to submit the full papers in the second round. More information on this Special Issue and on how to submit an extended abstract can be found at:

<http://www.ieee-pes.org/images/pdf/applications-of-wind-energy-to-power-systems-cfp.pdf>

8. Please alert students, recent graduates, and colleagues to the following opportunities:

a. The Mechanical and Aerospace Engineering (MAE) Department at the University of California at San Diego (UCSD) has a faculty position opening in the area of Environmental Engineering and Environmental Fluid Mechanics. The appointment level is open, but MAE prefers a mid career scientist who could be appointed as an Associate Professor or early-stage full Professor. The appointment level depends on qualifications. MAE is primarily interested in a candidate with a focus on experimental work or a combination of experimental work with theory and modeling, but all applications will be considered. Applicants are encouraged to apply by November 30 for full consideration; applications will be accepted until the position is filled. More information about the position opening, and how to apply, can be found at:

http://www-mae.ucsd.edu/sites/oec-vmwebdev01.ucsd.edu.mae/files/mae/pdf/MAE_Environ_jobposting_amended-2010.pdf

b. The Department of Energy Computational Science Graduate Fellowship Program offers an exciting opportunity for doctoral students to earn up to four years of financial support along with outstanding benefits and opportunities while pursuing degrees in fields of study that utilize high performance computing technology to solve complex problems in science and engineering. Each Fellowship includes a \$36,000 yearly stipend, payment of all tuition and fees, a \$5,000 academic allowance in the first year, a \$1,000 academic allowance in each renewed year, a 12-week research practicum at a DOE Laboratory, and is renewable up to four years. For more information regarding the fellowship and to access the online application, visit <http://www.krellinst.org/csgf> . Applications for the next class of fellows are due on January 11th, 2011.

c. The Hydro Research Foundation is pleased to announce the availability of up to 17 new graduate level fellowships for students conducting research relevant to conventional and pumped storage hydropower. Fellowships include a living stipend of up to \$26,000 annually, an annual tuition allowance of up to \$16,000, an annual allowance of up to \$900 to be used toward university-provided health insurance, and travel costs to attend the annual Hydro Fellows Roundtable. Topics of interest are quite broad and can be found at: <http://www.hydrofoundation.org/pdf/TopicsAreasInterest.pdf> . Information on how to apply can be found at <http://www.hydrofoundation.org/fellowshipAppInfo.html> . All application materials must be received by March 1, 2011.

d. The Department of Mechanical and Aerospace Engineering at Ohio State University has initiated a search for a new tenure-track faculty member. The search is oriented toward candidates whose broad research expertise is in dynamic systems, control, or mechanical design. Possible specializations include (but are not limited to) design for energy efficiency, multi-scale design, design issues in power transmission/gearing, design of biomedical devices and instruments, smart materials and structures, mechanical vibrations, structural dynamics, and structural health monitoring and diagnostics. More information can be found at: http://mae.osu.edu/sites/default/files/uploads/DeptJobOpenings/osu_faculty_ad_me_10_2010.pdf

Hope everyone has a Happy Thanksgiving!