

## **Monthly CREW Update: March 2010**

Here is a brief update on our recent and upcoming activities:

**1.** Sandy Butterfield, CEO of Boulder Wind Power, gave an excellent CREW seminar on February 22, providing an overview of the evolution of wind technology over the last several decades and outlining continuing and new technical challenges for the industry, including a highlight on direct drive generators.

**2.** Mike Robinson, deputy director of NREL's National Wind Technology Center, gave a great CREW seminar on March 29, where he talked about past, present, and future research and development activities at the National Wind Technology Center. He also discussed some of the requirements and challenges in order to reach the goal of generating 20% of the nation's electricity from wind energy by 2030.

**3.** Julie Lundquist, who is an Assistant Professor in CU's Atmospheric and Oceanic Sciences Department and also has a joint appointment with NREL, will be giving our next CREW seminar at 2pm on Monday, April 26. When we have the information, further details on her seminar will be distributed and posted on our CREW website at <http://crew.colorado.edu>.

**4.** Florence Bocquet, CREW Managing Director, has coordinated the reviews for the first round of shared research proposals received in November 2009. Proposals were forwarded to the CREW Center Advisory Board (CAB). Each member company in CREW has a representative on the CAB, and these member companies reviewed the 14 proposals received. Based on their reviews and recommendations, the following 3 proposals have been selected for funding:

- Coupled structural dynamic-aerodynamic behavior of multiple turbines: influences within large wind farms, P. Heyliger and S. Karan Venayagamoorthy, Colorado State University
- Feasibility study of control of novel active coating materials for preventing icing on wind turbine blades, L. Pao and R. McLeod, University of Colorado at Boulder
- Measurement of aeroacoustic noise generated on a wind turbine blade and potential mitigation devices, P. Papas, Colorado School of Mines; P. Moriarty, National Renewable Energy Laboratory; and S. Palo, University of Colorado at Boulder

These seed projects are expected to officially launch on June 1, 2010.

5. Please alert interested students and others to the following opportunities:

a. The Hydro Research Foundation offers fellowships, funded by a grant from DOE, designed to allow outstanding early-career researchers to facilitate research related to hydropower. Fellowship applicants must have completed a bachelors degree by the date of the Fellowship award and be a full time Masters or Doctoral Student. All application materials must be received by April 9, 2010. Applicants will be notified of application status by May 15, 2010.

Awards consist of

- 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.
- A \$2000 per year honorarium for their main academic advisor
- Travel costs to attend the annual Hydro Fellows Roundtable

For more information and an application form, visit <http://www.hydrofoundation.org/fellowshipInfo.html>

b. Nordic Windpower in Berkeley, California wants to hire a Chief or Principal Scientist at the MA, MS, or PhD level. Requirements include 5+ years of experience with practical design and optimization in carbon, glass fiber reinforced polymer (GFRP), prepreg composite fibers, and epoxy based materials. For more information, please contact Daniel J. McGrath ([danielm@conceptc.com](mailto:danielm@conceptc.com)), Senior Search Consultant, Concept Corporation, [www.conceptc.com](http://www.conceptc.com), 415-781-2626/800-382-2733.

c. Vestas has a number of positions open in the Denver area:

Design Engineer, Mechanical, Denver, CO

[http://jobview.monster.com/GetJob.aspx?JobID=86420493&aid=84418592&WT.mc\\_n=JSAHG10](http://jobview.monster.com/GetJob.aspx?JobID=86420493&aid=84418592&WT.mc_n=JSAHG10)

Power Plant Control Engineer, Denver, CO

[http://jobview.monster.com/GetJob.aspx?JobID=86403925&aid=84418592&WT.mc\\_n=JSAHG10](http://jobview.monster.com/GetJob.aspx?JobID=86403925&aid=84418592&WT.mc_n=JSAHG10)

Power System Software Engineer, Denver, CO

[http://jobview.monster.com/GetJob.aspx?JobID=86402531&aid=84418592&WT.mc\\_n=JSAHG10](http://jobview.monster.com/GetJob.aspx?JobID=86402531&aid=84418592&WT.mc_n=JSAHG10)

Composite Development Engineer, Denver, CO

[http://jobview.monster.com/GetJob.aspx?JobID=86402720&aid=84418592&WT.mc\\_n=JSAHG10](http://jobview.monster.com/GetJob.aspx?JobID=86402720&aid=84418592&WT.mc_n=JSAHG10)

Design Engineer- Tooling, Denver, CO

[http://jobview.monster.com/GetJob.aspx?JobID=86403130&aid=84418592&WT.mc\\_n=JSAHG10](http://jobview.monster.com/GetJob.aspx?JobID=86403130&aid=84418592&WT.mc_n=JSAHG10)

Composite Tooling, Denver, CO

[http://jobview.monster.com/GetJob.aspx?JobID=86403051&aid=84418592&WT.mc\\_n=JSAHG10](http://jobview.monster.com/GetJob.aspx?JobID=86403051&aid=84418592&WT.mc_n=JSAHG10)

Senior Composite Development Engineer, Denver, CO

[http://jobview.monster.com/GetJob.aspx?JobID=86402989&aid=84418592&WT.mc\\_n=JSAHG10](http://jobview.monster.com/GetJob.aspx?JobID=86402989&aid=84418592&WT.mc_n=JSAHG10)

d. In FY 2010, NSF is expanding its support for climate research by issuing five new cross-directorate solicitations:

- \* Water Sustainability and Climate (WSC) (NSF 10-524)
- \* Ocean Acidification (OA) (NSF 10-530)
- \* Climate Change Education Partnership (CCEP) (NSF 10-542)
- \* Decadal and Regional Climate Prediction Using Earth System Models (EaSM) (NSF 10-554)
- \* Dimensions of Biodiversity (NSF 10-548)

NSF has also requested funds in FY 2011 to further expand research support through new and existing programs focused on Science, Engineering and Education for Sustainability (SEES).

Information on NSF's climate research activities as well as plans for SEES is available at <http://www.nsf.gov/sees> .