

Monthly CREW Update: January 2012

Here is an update on past and upcoming activities as well as opportunities:

1. Seminar series: The first talk of the Spring semester was given by Dr. Anand Radhakrishnan of MassTech Inc., who talked about “Lidar Remote Sensing of Atmospheric Winds using Aerosol Backscatter Correlation”. Dr. Radhakrishnan is the principal investigator of the wind energy division at MassTech Inc. a growing company having expertise in mass spectrometry but also Lidar technology. Starting with some background about wind measurements, Dr. Radhakrishnan then introduced their Lidar instrument, which is a 3-beam Lidar system based on aerosol-backscatter correlation measurements. The numerous design considerations in building this prototype were presented. The compact wind Lidar instrument was said to have great promises for various fields of operation including wind energy. Dr. Radhakrishnan concluded with a selected set of wind Lidar measurements as validation campaigns were still in progress.

2. Seminar series: Please join us for the next monthly seminars, which will take place at Colorado State University (room Routt Hall) at 10:00am-11:00am. On the following dates, here will be our speakers:

- **Feb. 10, 2012** - Prof. **Mark Balas**, University of Wyoming, who will talk about “Adaptive Control of Utility-Sized Wind Turbines in Operating Regions 2 & 3.” For more information, please visit: <http://crew.colorado.edu/SeminarSeries2012>

- Mar. 9, 2012 - Prof. Wei Qiao, University of Nebraska-Lincoln:

<http://engineering.unl.edu/academicunits/electricalengineering/faculty-staff/weiqiao.shtml>

- Apr. 13, 2012 - Prof. Dionysios Aliprantis, Iowa State University:

<http://home.eng.iastate.edu/~dali/research.html>

As in the past, our seminars will be broadcast live!

3. The National Renewable Energy Laboratory (NREL) will be holding a workshop on March 2, 2012, 9:00-17:00, on the NREL-developed wind turbine computer-aided engineering (CAE) software tools. This one-day workshop is free, but attendance is limited to the first 50 registrants. For more information and registration, please visit:

<http://crew.colorado.edu/Workshops-Courses>

Deadline to register: February 24, 2012.

4. The World Renewable Energy Forum (WREF 2012), the premier international renewable energy conference, will be held in Denver, CO on May 13-17, 2012. Organizers are proud to share that renewable energy researchers from around the world have submitted more than 800 abstracts and proposals for an additional 158 panels, forums and workshops. This

is spectacular response, more than doubles the number of papers submitted for the 2011 conference held last May in Raleigh, N.C. “We’re delighted to see that the level of



participation reflects the vigorous progress in deployment of renewable energy technologies around the world,” noted Susan Greene, president of the American Solar Energy Society. “The conference is going to be a goldmine of information and networking contacts for renewable energy professionals, clean energy advocates and students.” Scientists, engineers, architects and economists from 66 nations and 37 states sent in proposals for presentations. The United States leads the count with 400 submissions, including 144 from national laboratories operated by the U.S. Department of Energy, and 191 from university faculty and students. For the first time, the American Solar Energy Society’s National Solar Conference will be held under the same roof with the biennial World Renewable Energy Congress. More than 2000 attendees are expected. For more information about WREF 2012, and to register for the conference, please visit: www.wref2012.org

5. Call for Paper: the ‘Power Electronics and Machines in Wind Application’ (PEMWA 2012) symposium will take place at the University of Denver, Denver, CO on July 16-18, 2012. For more information on the symposium and paper submission guidelines, please go to: http://crew.colorado.edu/Newsroom/Events/PEMWA2012_Flier.pdf
Deadline for paper submission: February 15, 2012.

6. Spreading the word about a film screening at the 16th Denver Jewish Film Festival about two communities, Israelis and Palestinians, finding common interest in harvesting wind energy.

Film title: The Human Turbine

Director: Danny Verete

When: Wednesday, Feb. 29, 5:30 pm (length: 54 min)

2010/Israel/Hebrew and Arabic with English Subtitles. Tickets are on sale. For more information, please visit: http://www.maccjcc.org/djff_films/human-turbine/

7. Please alert students, recent graduates, and colleagues to the following opportunity:

- a. Earth-related job search engine: EarthWorks is an extensive listing of physical science jobs. Numerous categories of interest: Renewable Energy, Electrical Engineering, Environmental Engineering, Climate/Atmospheric Science, etc. Please visit: <http://www.earthworks-jobs.com/>
- b. UMass Amherst’s new interdisciplinary graduate program in Offshore Wind Energy Engineering, Environmental Science, and Policy is looking for students and funding them with \$30,000 fellowships. Exceptional students in Industrial, Mechanical, Civil, and Electrical engineering, Environmental science, Biology, Economics, and Planning are urged to apply. Due to NSF requirements, only US citizens and green-card holders are eligible for the fellowships. For more information, please visit <https://windenergyigert.umass.edu/>
- c. GE’s Global Research Center, Advanced Controls, has an opening for an internship position. The team of Roger Fittro, Lab Manager, works on control applications for all of GE’s businesses. And one of our biggest contributions in recent years has been in the development of Advanced Controls for the GE Wind

Business. GE's latest product offering (1.6MW/100m Wind Turbine) has set a new standard in energy capture and power to capital cost ratio, which were made possible by the technologies developed by our Wind Control team.

Always on the lookout for new talent to add to the team, there is a current opening for an internship position. PhD students nearing graduation who are looking for a full-time position in Wind Controls are of interest. See flyer for more info: http://crew.colorado.edu/JobOpportunities/Job_GE_Internship2012.pdf

Please send your resume to:

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- d. NASA offers paid graduate-level internships in a wide variety of disciplines. Over 200 internships are available. The deadline is March 1, but offers may begin going out as early as Feb. 2. Visit <http://intern.nasa.gov> to apply for up to 15 opportunities with a single application.

NSF offers a wide variety of paid summer research experiences for graduates and higher. For summer research specifically in engineering, please visit: <http://www.pathwaystoscience.org/engineering.asp>

Happy Winter!