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BIG energy seminar series

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Past, present and future of multi-lidar instrument long-range WindScanner system

Dr. Nikola Vasiljević

DTU Wind Energy

Date: January 21, 2016 at 2:00pm
Location: SEEC 1st Floor Conference Room (Old MacAlister Building, 4001 Discovery Drive, Boulder CO, 80309, see campus map link below, free parking is currently available in the NE parking lot.)

Abstract:

In this lecture a recently developed long-range WindScanner system, an opto-mechatronic facility for the wind energy and atmospheric research, will be presented. The long-range WindScanner system consists of three spatially separated pulsed coherent Doppler scanning lidars, which are coordinated by a remote master computer. This system has a unique capability to acquire observations of the wind field within a large volume of the atmosphere. Focus of the lecture will be on the motivations for the development, challenges during the development process, and applications of the long-range WindScanner system. Furthermore, the highlights of Perdigão 2015, a pilot New European Wind Atlas experiment, will be presented. For the end future developments of the long-range WindScanner system will be outlined.

Bio:

Nikola Vasiljević is a postdoctoral research at Technical University of Denmark, DTU Wind Energy. He has been working in wind energy sector over the past 8 years, of which the last 6 years at DTU Wind Energy. Nikola developed the long-range WindScanner system as part of his Ph.D. project. The thesis, which summarizes the project, has received DNV GL PhD award for the best Ph.D. thesis in renewable energy for 2015. Nikola's scope of work covers the management and execution of entire lifecycle of atmospheric experiments, development of multi-lidar instruments, and assessment and improvement of laser beam pointing accuracy. Currently, Nikola pursues Certified Precision Engineer (CPE) degree in opto-mechatronics precision engineering post-academic studies by Dutch Society for Precision Engineering and European Society for Precision Engineering and Nanotechnology.

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