



CREW Seminar Series: Spring 2012
Co-sponsored by the School of Global Environmental Sustainability (SoGES)
Colorado State University

The Vienna Rectifier in Wind Energy Conversion Systems

Abstract

In this seminar, we discuss the use of a relatively novel power electronics topology called the "Vienna rectifier" in wind energy conversion systems. In particular, we analyze two topologies using squirrel-cage induction and permanent-magnet synchronous generators. The Vienna rectifier is a three-switch/three-level PWM rectifier, and offers higher efficiency and reliability compared to a more traditional six-switch/two-level converter. Also, we discuss a newly started NSF IGERT project titled: "A New PhD Program in Wind Energy Science, Engineering and Policy."

By Dr. Dionysios Aliprantis, Iowa State University

On Friday, April 13, 2012, at 9:00am
Rouff Hall, Colorado State University

Link for simulcast on web: <http://tinyurl.com/CREWSp12Apr>



Dr. Dionysios C. Aliprantis received the Diploma in electrical and computer engineering from the National Technical University of Athens, Greece, in 1999, and the Ph.D. from Purdue University in 2003. He is currently an Assistant Professor of Electrical and Computer Engineering at Iowa State University, Ames, IA. He was a recipient of the NSF CAREER award in 2009. He serves as an Associate Editor for the IEEE Power Engineering Letters, and the IEEE Transactions on Energy Conversion. His research interests are related to electromechanical energy conversion and the analysis of power systems. More recently his work has focused on technologies that enable the integration of renewable energy sources in the electric power system, and the electrification of transportation.



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Colorado State University Campus Fort Collins, CO

Building 1 is Routt Hall.



Directions to **Routt Hall (building 1)**

From Interstate 25, exit at Prospect Road (#268). Travel west on Prospect approximately 4 miles to College Avenue (passing major intersections at Timberline Road and Lemay Avenue). At College Avenue, turn right (north). Continue north approximately three-quarters of a mile to Laurel Street, turn left (west). Routt Hall is at the corner of Laurel and College.

- o Information on parking services and/or purchasing a visitor permit is available at: <http://parking.colostate.edu/>

Looking forward to your attendance!



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