Title: **Large-Scale Wind Integration in China**

Speaker:
Professor Yuan
Huazhong University of Science and Technology
Wuhan, China

Date: 30 September 2011
Time: 11:00 am
Venue: Room 603, Chow Yei Ching Building

Abstract:
Wind turbine has been emerging as a dominant workhorse in the electric grid in recent years. It fundamentally changes the physics of electrical power systems in all time frames. Wind generation in China in particular, focusing on highly concentrated development of remote wind resources, reached 42GW by the end of last year, surpassing the US ranking No.1 around the world. The presentation introduces general problems in adequacy and stability associated with integrating wind into the electric grid, and in particular unique technological challenges behind different modes of wind resource development. The presentation will also discuss thoughts in resolving the challenges by optimizing wind turbines and electric grids from different aspects in planning, operation and controlling of the electric power system as a whole.

Biography of the speaker:
Prof. Yuan joined Huazhong University of Science and Technology in 2010 as a professor for electrical engineering, through the "Thousand-Talent" overseas recruiting program of the Chinese government. He is the chief scientist of Chinese National Key Basic Research Program (973 Program) entitled "Fundamental Research on Large-Scale Wind Power Integration"

Prof. Yuan served the General Electric Company over the last ten years. He was manager for the power electronics team at GE Global Research in China during 2002-2008, conducting advanced research in renewable energies, large electrical

drives, as well as medical image etc. He became Chief Engineer at GE Global Research in US in 2009, overseeing developments of technological strategies and executions of major programs in the electrical engineering areas for broad GE interests.

Dr Yuan obtained his Bachelor degree from Shandong University, Master degree from Zhejiang Universiy, and Doctorate degree from Federal University of Santa Catarina in Brazil, all in electrical engineering.

Organizer: Dr. Y. Hou