

Presentation by Dr. Prabha S. Kundur

IMPORTANT ANNOUNCEMENT! The date and location for this presentation has had to be changed. Please note this **NEW INFORMATION** for your diaries, as the event has to be rescheduled due to circumstances beyond the IEEE Central Section's control.



Title: “Sustainable Electric Power Systems in the 21st Century: Requirements, Challenges and the Role of Smart Grid Technologies”

Date: Friday February 12th 2016

Time: 12:00pm (Light refreshments)

Seminar: 12:15pm – 1:30pm

Venue: Te Aro 4 room at the Terrace Conference Centre located at 114 The Terrace, Wellington

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Abstract: Sustainability of electric power systems requires balancing the business across three areas: economic, social and environmental. This will have a profound impact on how power systems will be planned, built and operated in the future. In the evolving electricity supply industry environment, the challenges are to produce, transmit, and use energy in an environmentally friendly manner, to reduce costs by improving equipment performance, operating efficiency and business practices, and enhance the reliability and quality of power supply. In particular, there will be increased focus on improving the security and reliability of power systems while addressing environmental concerns, such as greenhouse gas emissions and global warming issues. There will also be greater emphasis on “smart” management and use of energy. Research, development and application of intelligent systems technologies will play a major role in shaping the future directions of power systems in this regard.

This presentation will describe these changes affecting the electric power industry and will highlight the role of “Smart Grid” technologies in influencing the changes.



Dr. Prabha S. Kundur

President, Kundur Power Systems Solutions Inc., Toronto, Ontario, Canada

Prabha Kundur holds a Ph.D. in Electrical Engineering from the University of Toronto and has over 35 years of experience in the electric power industry. He is currently the President of Kundur Power system Solutions Inc., Toronto, Ontario. He served as the President and CEO of Powertech Labs Inc., the research and technology subsidiary of BC Hydro, from 1994 to 2006. Prior to joining Powertech, he worked at Ontario Hydro for nearly 25 years and held senior positions involving power system planning and design.

He has also served as Adjunct Professor at the University of Toronto since 1979, at the University of British Columbia since 1994, and at the University of Manitoba since 2006. He is the author of the book *Power System Stability and Control* (McGraw-Hill, 1994), which is a standard modern reference for the subject. He has performed extensive international consulting related to power system planning and design, and has delivered technical courses for utilities, manufacturers and universities around the world.

Dr. Kundur has a long record of service and leadership in the IEEE. He has chaired numerous committees and working groups of the IEEE Power & Energy Society, and was elected a Fellow of the IEEE in 1985. He is the past-chairman of the IEEE Power System Dynamic Performance Committee, and is currently the PES Vice-President for Education. He has been selected as an IEEE Distinguished Lecturer, and has delivered lectures on “Sustainable Electric Power Systems in the 21st Century” in several countries: UK, Ireland, Romania, India, Nepal, Thailand, Singapore, Australia, Mexico, Chile, USA, Spain, Italy and Switzerland. He is the recipient of several IEEE awards, including the Nikola Tesla Award in 1997, the Charles Concordia Power System Engineering Award in 2005 and the 2010 IEEE Medal in Power Engineering.

He has also been active in CIGRE for many years. He served as the Chairman of the CIGRE Study Committee C4 on “System Technical Performance” from 2002 to 2006, and is currently Chairman of the Canadian National Committee of CIGRE. He is the recipient of the CIGRE Technical Committee Award in 1999. He was bestowed by CIGRE title of *Honorary Member* in 2006.

In 2003, he was inducted as a Fellow of the Canadian Academy of Engineering. He has been awarded two honorary degrees: *Doctor Honoris Causa* by the University Politehnica of Bucharest, Romania in 2003, and *Doctor of Engineering, Honoris Causa* by the University of Waterloo, Canada in 2004.