IEEE London Section

The London Section of the Institute of Electrical and Electronics Engineers

In partnership with the UWO IEEE Student Branch present:

Dr Kalyan K. Sen, IEEE Distinguished Lecturer

Recent Developments In FACTS Technologies

(Flexible Alternating Current Transmission Systems)

Friday November 23rd , 2007
12:00 pm. - Room SEB 1056
Cost: FREE (Open to Everyone)

Abstract:

The power industry's quest for the most economic way to transfer bulk power along a desired path can only be achieved through the independent control of active and reactive power flow in a transmission line. Traditional solutions, such as shunt inductor/capacitor, phase-shifting transformer, and series inductor/capacitor affect both the active and the reactive power flow in the transmission line simultaneously. The objectives are to give a background on traditional power transmission technology and discuss new techniques that utilize the transmission lines most effectively. The workshop covers various types of Flexible Alternating Current Transmission Systems (FACTS) controllers and their usefulness in power system applications. Various modeling techniques of FACTS controllers are briefly discussed. The results from the simulation are compared with those from the field measurements.

Speaker:

Kalyan K. Sen received B.E.E, M.S.E.E, and Ph.D degrees, all in Electrical Engineering, from Jadavpur University, India, Tuskegee University, USA, and Worcester Polytechnic Institute, USA, respectively. He has spent 20 years in academia and industry. He was a member of the FACTS development team at Westinghouse Science & Technology Center in Pittsburgh, USA. He contributed in all aspects (conception, simulation, design, and commissioning) of FACTS projects at Westinghouse. Dr. Sen conceived some of the basic concepts in FACTS technology. He has many publications in the areas of FACTS and power electronics. Currently, he is a Fellow Engineer at the Curtiss-Wright Electro-Mechanical Corporation (formerly Westinghouse) in USA where he is engaged in power electronics applications research. His interests are in Power Converters, Control, Electrical Machines, and Power System Simulations and Studies. He is a licensed Professional Engineer

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