

## **A Report on 2006 IEEE Power India Conference**

2006 IEEE Power India Conference was held in Hotel InterContinental The Grand, New Delhi, India from April 10 to 12, 2006 following the PES Executive Committee Meeting on April 9. In fact the Conference with PES as Technical Sponsor was planned so after PES Governing Body in its Meeting of June 2005 in San Francisco, CA, USA decided to have its April 2006 Exec Com Meeting in New Delhi. All the top brass of the Society were here sans the Past-President and President-Elect. Of course as an observer (and host) PES Region Representative, Asia and Pacific Rim too attended the Meeting, where besides reporting by officers, issues on Meetings Activities, Membership / Chapters Activities, Education / Industry Relations, Technical Information Services, Technical Activities were discussed. Goals for 2006 and Budget for 2007 too were presented.

First day of the Conference had two Tutorials in parallel, one on "Electricity Restructuring and the Role of Security in Power Systems Operation and Planning" by the PES Distinguished Lecturer Dr. Mohammad Shahidehpour (Fellow IEEE) of Illinois Institute of Technology, Chicago, Illinois, USA and the other on "Grid Disturbances, Remedial Measures (& Restoration)" by the PES Distinguished Lecturer Dr. Prabha S. Kundur (Fellow IEEE) of Powertech Labs, Vancouver, BC, Canada. Against 126 registered, attendance was 96 (including 18 IEEE / PES Members).

First presentation pointed out that restructuring of electricity and the creation of self-interested entities such as generating and transmission companies lead to surfacing of many shortcomings of the existing electricity systems in an interconnected network. Recent blackouts throughout the world provided a growing evidence that certain actions are urgently needed to ensure that the electricity sector continues to provide secure and affordable energy to its customers. In this background critical review was made based on some of the existing methodologies for enhancing the power systems security in vertically integrated utilities and proposed alternatives in various time scales for improving the security of restructured power systems.

The second one talked about the new electricity supply industry presenting increasing challenges for stable and secure operation of power systems. State-of-the-art methods have advanced capabilities significantly through comprehensive stability analysis tools, automated tools for system planning / design, online Dynamic Security Assessment (DSA) and coordinated design of robust stability controls. However, industry is yet to take full advantage of these developments. Future directions will be to explore new techniques which can better deal with growing uncertainties and increasing complexities of the problem, like, risk-based security assessment, intelligent systems for DSA, "self-healing" power systems, real-time monitoring and control. It was opined that wide-spread use of

distributed generation could be a cost effective means of minimizing the impact of power grid failures.



Conference being inaugurated by PES President John D McDonald in presence of General & Tech Program Chairs



A general view of the part of the audience including PES Exec Com in the first row during Conference inauguration

For the main Conference, as organized by the IEEE Delhi Section and IEEE PES- IAS Delhi Chapter, with 215 registered, 193 (including 46 IEEE / PES Members) turned up. It was inaugurated by the PES President John D McDonald in the presence of PES Exec Com Members on April 11, 2006. In his address he highlighted what PES would be doing for the community world-wide through its technical activities. Inaugural session followed twenty-four paper sessions in two days with three running in parallel at any point of time. Effectively there were 154 papers (*accepted for IEEE Xplore too*) in seven areas. These are Power System Analysis, Computing and Economics, Power System Models and Dynamic Performance, Power System Control and Operation, Power System Relaying and Protection, Challenges in Restructured Energy Systems, Applications of Power Electronics and Power, Energy Management System and Distribution Automation. Roughly seventy-five per cent papers were presented orally in the absence of any poster session. Out of these about a third were from abroad with the participation of delegates from China, Taiwan, Hong Kong, Malaysia, Vietnam, Japan, Iran, New Zealand, South Africa, Canada, Poland, Czech and United Kingdom, thus giving a true international color. Though mostly participation was from academic institutions, representation was also from power utilities as well as manufacturers in the country (like, POWER GRID, NTPC, CEA, Railways, BHEL, ABB, GE, Alstom, Siemens) and abroad (Toshiba). Topics of papers ranged from in-depth analysis of complex power system, means of stability enhancement, application of control techniques, advances in protection systems along with restructuring of power system on the transmission side to application of Supervisory Control And Data Acquisition System and Control of Electrical Machines and Drives through the application of power electronics.

At the end of second day panel discussion had Subrata Mukhopadhyay, Prakash V Ekande, R Balasubramanian, Bhim Singh, Vijay K Sood and Mini S Thomas as the speakers, who highlighted about the deliberations in the various technical sessions, good attendance with practically nine-month lead time, opportunity

made available to share experience in research, possibility of holding similar Conference in future, declaration of holding PEDES-2006 Conference in December 2006 in New Delhi and attempt to have POWERCON2008 too for which China had already discussed. From the side of participants, Conference was compared with the ones of international level in North America, suggestions to woo power industry for more participation, encouraging presentation of application-oriented papers with field results, periodical holding of such Conference of international level, etc. were stressed. While thanking cooperation of participants, session Co-Chairs, gratefully acknowledged were the patronage of Power Grid Corporation of India Ltd., Toshiba (Japan) and I C Power (New Delhi) respectively for Gold, Silver and Bronze sponsorship.



Who's who of PES just after inauguration of 2006 IEEE Power India Conference, from L to R, IEEE Division VII Director W.O. (Bill) Kennedy, PES VP Education/Industry Relations Activities Prabha S Kundur, VP Technical Activities Keith I Gray, VP Technical Information Services Activities S.S. (Mani) Venkata, President John D McDonald, Secretary Noel N Schulz, VP Membership/Chapters Activities Enrique Tejera, Treasurer Alan C Rotz, Executive Director Robert A Dent, and PES Region Representative, Asia and Pacific Rim Subrata Mukhopadhyay

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