## Report on 19<sup>th</sup> Thomas Alva Edison Memorial Lecture of IEEE PES-IAS Delhi Chapter

19<sup>th</sup> Thomas Alva Edison Memorial Lecture of IEEE PES-IAS Delhi Chapter was held in the Committee Room of EE Department, Indian Institute of Technology Delhi on September 28, 2015. IEEE PES Distinguished Lecturer Dr. Tapan K. Manna of Burns McDonnell, USA delivered the lecture on 'HVDC Growth in US and India'. The event was attended by 22 IEEE Members and 16 Guests, thus totaling 38 with representation from both academia and industry.

Starting with the need of HVDC, Dr. Manna dealt with the types of HVDC, like, Line-Commutated Converter (LCC) based HVDC System and Voltage-Sourced Converter (VSC) based HVDC System. Then he gave detailed account of HVDC Projects in service and the ones to come up in near future in USA. On the other hand in the background of Power Map in India with 5 distinct Regions, but totally operating together in synchronous mode, he gave an account of HVDC Projects in service. These included both, for bulk power transfer as well as back-to-back ones with latter constructed as asynchronous links between the Power Regions. While speaking for those HVDC Projects under construction and to come up in future, he talked about its usage for interconnection with the neighboring countries as well, specifically with Sri Lanka through HVDC Marine Cable. Basic design considerations for HVDC as an alternate to EHV AC as mode of power transmission was highlighted.

Lecture of Dr. Manna ended with the narration of experience of his recent visits to HVDC Project-sites in different parts of the world and estimation of present day costs of HVDC Terminals.