SEMINAR ANNOUNCEMENT

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING
Faculty of Engineering
Website: https://www.eng.nus.edu.sg/ece/

Area: Power and Energy Systems

Host: Assoc Prof Sanjib Kumar Panda

Jointly Organized by:
IEEE PES Singapore Chapter,
IEEE Joint IAS/PELS Student Branch Chapter NUS, and
NUS ECE Department

Deadline: Registration is free by 28 Sep 2020.
Please Register Here your attendance for logistics purposes. Registration is mandatory!

IEEE Regional Distinguished Lecture (RDL) Program

TOPIC	:	**Electric Vehicles-At A Glance**
SPEAKER	:	**Prof Bhim Singh** **Indian Institute of Technology, Delhi** **Fellow IEEE, Fellow IET, Fellow IE(India), Fellow IETE**
DATE	:	**Tuesday, 29 September 2020**
TIME	:	**4.00PM to 5:30PM**
WEBINAR	:	**Join Zoom Meeting** **https://nus-sg.zoom.us/j/96033456344?pwd=L0pHem1IaExQeFZnVElVOWtNT3dwQT09** **Meeting ID: 960 3345 6344** **Password: 100035**

ABSTRACT

The growing interest in electrification, has led to a growing interest in hybrid/electric vehicles (EVs) applications. Therefore, this talk on “Electric Vehicles-At a Glance” introduces the EV technology. Starting with a comprehensive review of the electric vehicles deployed commercially, it covers the need of electric vehicles, benefits of electric vehicles over the conventional internal combustion-based vehicles, classification of the electric vehicles viz. hybrid vehicle, fully electric vehicle, series or parallel etc. Further, it introduces the various technologies for the electric motors and the requirements of motors for HEVS and EVs in terms of power density, efficiency, and cost. Considering, the charging infrastructure equally important as an electric vehicle, it also throws light on the different charging levels, charging standards and the charging connectors. The brief details of the few charging stations are also covered. Later, the impact of electric vehicle on the grid, its remedies and the role of electric vehicle in smart grid, are discussed in brief. Different battery technologies commonly used in EVs applications, are also introduced. At the end, it covers the status of charging infrastructure and brief about some installed charging station in India.

BIOGRAPHY

Bhim Singh (SM'99, F'10) was born in Rahamapur, Bijnor (UP), India, 1956. He received his B.E. (Electrical) from University of Roorkee, India, in 1977 and his M.Tech. (Power Apparatus & Systems) and Ph.D. from Indian Institute of Technology Delhi, India, in 1979 and 1983, respectively. In 1983, he joined Department of Electrical Engineering, University of Roorkee (Now IIT Roorkee), as a Lecturer. In December 1990, he joined Department of Electrical Engineering, IIT Delhi, as an Assistant Professor, where he has become an Associate Professor in 1994 and a Professor in 1997. He has been ABB Chair Professor from September 2007 to September 2012. He has also been CEA Chair Professor from October 2012 to September 2017. He has been Head of the Department of Electrical Engineering at IIT Delhi from July 2014 to August 2016. He has been the Dean, Academics at IIT Delhi from August 2016 to August 2019. He is JC Bose Fellow of DST, Government of India since December 2015. He is the Chairman of BOG of Maulana Azad National Institute of Technology, Bhopal, from 3rd July 2018. He is Non-Official Independent Director, NTPC Limited, from 17th July 2018. He is also Governing Council Member of Central Power Research Institute, Bangalore. He has guided 85 Ph.D. Dissertations and 168 M.E./M.Tech. /M.S.(R) thesis. He has filed 59 patents. He has executed more than eighty sponsored and consultancy projects. He has co-authored a textbook on power quality: Power Quality Problems and Mitigation Techniques published by John Wiley & Sons Ltd. 2015. His areas of interest include solar PV grid systems, microgrids, power quality mitigation, PV water pumping systems, improved power quality AC-DC converters. He is a Fellow of Institute of Engineering and Technology (FIET), Institution of Engineers (India) (FIE), and Institution of Electronics and Telecommunication Engineers (FIETE). He is recipient of JC Bose and Bimal K Bose awards of The Institution of Electronics and Telecommunication Engineers (IETE) for his contribution in the field of Power Electronics. He has received 2017 IEEE PES Nari Hingorani Custom Power Award. He is also a recipient of "Faculty Research Award as a Most Outstanding Researcher" in the field of Engineering-2018 of Careers-360, India. He has received Academic Excellence Award-NPSC-2018. He has also received a Faculty Lifetime Research Award 2018 for overall research contribution at IIT Delhi.