

Department of
Electrical and Electronics Engineering
Presents

AN EXPERT LECTURE ON
Renewables Integrated Smart Electric Grid:
Few Technical Challenges and Field Deployment in India



Dr. Suresh Chandra Srivastava Fellow, IEEE

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25th April 2023 [Tue]
9.30 to 11.00 am



SMSR Seminar Hall
KLETECH | BVBCET Campus | Hubballi

*All are cordially
Invited*

Abstract: The emerging smart electric grids will have an increased share of renewables, storage, EV charging stations, microgrids at different levels in the network. The large penetration of renewables, being intermittent in nature, will pose system stability, and power quality concerns. The operation, control and protection philosophy of emerging smart grid will pose several technical challenges. Renewable Energy Management Systems and Advance Distribution Systems (ADMS) are being deployed to ensure optimal power sharing, storage management, maintaining required power quality and stability of supply.

This talk will discuss about various smart grid components, associated technical challenges and smart grid initiatives and collaborative projects in India. It will also briefly present Few field demonstration pilots developed under an Indo-US joint project 'UI-ASSIST' on Renewables & Storage integrated Smart Distribution Systems.

About Speaker: Prof. Srivastava, Ph.D. from IIT Delhi India, worked at Engineers India Limited New Delhi, a consultancy organization, for 12 years before joining Department of Electrical Engineering at IIT Kanpur in November 1988, where he became 'Professor' in December 1995. He also served as Head of Electrical Engineering Department, Dean R&D, and Deputy Director at IIT Kanpur. During 2008-2009, he was a 'Visiting Research Professor' at Mississippi State University, USA, and Visiting Faculty at AIT Bangkok during 1996-97. He held 'P.K. Kelkar' and 'Ministry of Labor and Employment' Chair Professor positions at IIT Kanpur. After superannuation, he is serving as Director, IIT Kanpur-La Trobe University Research Academy and Distinguished Visiting Professor at IIT Kanpur since January 2021.

His research interests include Power System Security, Synchrophasor Applications, Market, Microgrids and Smart Grid. He has supervised theses of 31 Ph D and 65 Master's students and published more than 300 research papers. He has been PI/co-PI to about 24 sponsored research and consultancy projects including India lead to an Indo US project 'UI- ASSIST' on Smart Grid and Storage. He has served in the governing council and expert committee of several government organizations and utilities in India. He is Fellow of the Institute of Electrical and Electronics Engineers (IEEE), Indian National Academy of Engineering, Institution of Engineers (India), Institution of Electronics and Telecommunication Engineers, and Indian Academy of Mathematical Modelling and Simulation (IAMMS).