

NIT Silchar

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Presenter: Dr. Saikat Chakrabarti, Professor, Indian Institute of Technology Kanpur, India

Title: Monitoring of smart transmission and distribution systems

Abstract:

Modern transmission and distribution system equipment are being operated closer to their designed limits. For ensuing stable and secure operation of the power systems, monitoring, therefore, must be done in near-real time. This talk will highlight some of the key measurement technologies used for monitoring of modern power systems. A range of analytics that are needed for exploiting these measurements will also be discussed. Corresponding challenges and solutions to the implementation of state estimators for energy management systems for transmission and distribution-level control centres will be briefly mentioned.

About the author



Dr. S. Chakrabarti completed his PhD in Electrical Engineering from Memorial University of Newfoundland, Canada in 2006. Before completing PhD, he worked in Asea Brown Boveri (ABB) Limited, India, and Bhabha Atomic Research Centre, India. After completing PhD, he worked as a Special Scientist in University of Cyprus, Cyprus, and first as a Research Associate and then as a Lecturer in Queensland University of Technology, Brisbane, Australia. Since 2009, he has been working in the Department of Electrical Engineering, Indian Institute of Technology, Kanpur, India, where he is currently a Chair Professor. His research interests are in the areas of power system state estimation, power system dynamics and stability, modelling of power system loads, smart grid, and microgrid. He is a Fellow of the Indian National Academy of Engineering and a Fellow of the Institution of Engineers (India). He is an Editor of IEEE Transactions on Power Systems, Editor of IEEE Power Engineering Letters, Associate Editor of International Journal of Electrical Power & Energy Systems, and Associate Editor of IET Generation, Transmission & Distribution.