Visualization of Time-Varying Power System Information

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PSERC Public Webinar
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2:00-3:00 p.m. Eastern Time (11:00-12:00 p.m. Pacific)

Description: An ongoing power system challenge is how best to utilize and ultimately present information to a human user derived from time-varying power system data. In operations this data might come from measurement systems such as SCADA or PMUs, while in a study context it might be generated by a time-domain simulation such as transient stability. Much of the previous visualization research has focused the display of information from a single snapshot in time. Traditionally, the time-variation in system information has been shown using eithers trip-chart recorders or 2D graphs. While certainly useful, these techniques have some significant disadvantages. This presentation will show some newer techniques, including leveraging machine learning, to help effectively extract the information contained in power system time-varying data. The application of these techniques to intelligent alarm processing will also be covered.

Biography: Tom Overbye is the Fox Family Professor of Electrical and Computer Engineering at the University of Illinois at Urbana-Champaign (UIUC). Overbye received his BS, MS, and Ph.D. degrees in Electrical Engineering from the University of Wisconsin-Madison. Prior to joining UIUC he worked as a power system operations engineer for Madison Gas and Electric. He is also the original developer of PowerWorld Simulator for power system analysis and visualization, and a cofounder of PowerWorld Corporation. His current research interests include visualization of power system information, power system dynamics, power grid big data applications, cyber security, and modeling of the power system impacts of geomagnetic disturbances.

Registration for Webinar Participation: None required. There is no charge for participating!

Participation by Webinar: There are several options for participating.

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Assistance: If you have any questions, please call 480-965-1643 or email pserc@asu.edu.

PSERC's Webinar Coordinator: Venkataramana Ajjarapu, Iowa State University, vajjarap@iastate.edu.

Professor Ajjarapu welcomes your feedback on PSERC webinars and suggestions for future ones.