



# PSERC WEBINAR

## Real Time Voltage Stability Assessment, Monitoring and Control in the New Environment

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This talk first provides a brief overview of power system voltage stability that includes both short term and long-term aspects. Short term voltage stability is a growing concern in the industry due to the increasing penetration of induction motors and power electronic loads. Fault Induced Delayed Voltage Recovery (FIDVR) is a part of short term voltage stability phenomena. Long-term voltage stability involves slower acting equipment and the time scale of the phenomena may extend to several minutes.

This talk then presents ways to quantify short-term as well long-term voltage stability in real time. For short-term, PMU based model free approach is presented. For long-term, reactive power reserves in the system are related to voltage stability via local linear regression. Also the talk will address the recent changes taking place in the distribution system (distributed energy resources) that will impact the overall power grid voltage stability.

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**MARCH 6, 2018**

[CONNECT.ASU.EDU/PSERC](http://CONNECT.ASU.EDU/PSERC)

**2:00-3:00 P.M. EST**

(11:00-12:00 P.M. PST)

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Dr. Venkataramana Ajarapu received his MS from IIT Kanpur India in 1982 and PhD from University of Waterloo, Canada in 1986. After completing his PhD, he joined Iowa State University. Currently he is David C. Nicholas endowed professor in the department of Electrical and Computer Engineering at Iowa State University. His areas of research include power system voltage stability and security, distributed resources impact on the grid, computational techniques for power system dynamics and control. He is IEEE Voltage Stability Working Group chair. He is Fellow of IEEE.