

	IEEE PES WEBINAR SERIES October 11, 2012 2:00-3:00 pm Eastern	
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Enhanced Power Grid Operations with Synchrophasors

Presented by Jay Giri, Alstom Grid

Abstract

This webinar describes how synchrophasor measurements from phasor measurement units (PMUs) can dramatically improve our ability to monitor and control the power grid.

PMUs are being increasingly deployed across power grids worldwide. PMUs produce sub-second high resolution time-tagged synchrophasor measurements which augment the traditional 2-4 seconds SCADA measurements, and will flood the control center with valuable new data. For the first time in history, grid operators will be provided with a time-synchronized view of grid conditions.

A revolutionary new paradigm is introduced where high-resolution (up to 60 samples a second) synchrophasor “measurement-based” analytics are used to complement and augment traditional “model-based” analytics at the control center EMS.

An advanced visualization framework synthesizes information from the various analytics to provide operators with not just improved ‘situational awareness’ but more importantly ‘actionable information.’

Benefits of adding synchrophasor applications at the control center EMS include:

- Maximizing utilization of existing transmission capacity by confidently operating the grid closer to its actual, ‘true’ operating limit
- Providing an early warning system to quickly identify grid disturbances and to guard against blackouts
- Monitoring for undesirable grid oscillations
- Identifying islanding conditions
- Prompt efficient forensic post-disturbance analysis to find out what just happened, where and why

These new capabilities will significantly enhance the control center operator’s ability to guard against blackouts to ‘keep the lights on.’

Who Should Attend

Power company practicing engineers and executives, government regulators, academia, researchers, students

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Bio – Jay Giri



Jay Giri is Director of Power Systems Technology and Strategic Initiatives at ALSTOM Grid in Redmond, Washington. He leads a team of engineers who deliver market system and synchrophasor phasor applications to control centers. He is also a liaison for university research activities. In 1978 he and 11 other engineers co-founded Energy System Computer Applications (ESCA) which after numerous mergers and acquisitions is now ALSTOM Grid. Giri has a PhD from Clarkson University in New York and a B.Tech from the Indian Institute of Technology (IIT), Madras. In 2002 he was elected an IEEE Fellow “For contributions to the design and implementation of power system control centers” and is a member of the IEEE Power & Energy Society (PES) Governing Board.