

*The Electrical and Computer Engineering Program presents  
ECEN Seminar Series*

# SYNCHROPHASOR TECHNOLOGY: BENEFITS AND PITFALLS

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**Monday, 16<sup>th</sup> November, 2015**

**12 – 1 PM**

**Lecture Hall 143**

***Light lunch will be served***

Synchrophasor technology was introduced over 30 years ago and only recently resulted in large scale deployments in the USA made possible largely through the American Recovery and Reinvestment Act of 2009. This technology offers unique measurement capabilities and several monitoring, control and protection applications were introduced to take advantage of this technology. The benefits are foreseen in many areas ranging from situational awareness and stability control to system integrity protection (SIPS) schemes. This talk discusses how this technology works, when it may be advantageous to use it, what are perceived benefits, why it still needs further development and where the pitfalls are. With over 1000 phasor measurement units installed in the US grid, and with close to \$4 billion in investments already made, the projection what the next steps are is made. The trend of this technology being widely used not only in the transmission grid but also in distribution systems and customer applications is explored. The talk ends with discussion of the testing and certification process that needs to be established for this technology to be a viable solution going forward.



Dr. Mladen Kezunovic is a Eugene E. Webb endowed Professor at Texas A&M University where he was employed since 1986. Dr. Kezunovic serves several leading roles at the university: Director, Smart Grid Center; Site Director, NSF Power Systems Engineering Research Center (PSERC), and Director, Power Systems Control and Protection Lab. He also acts as the Principal Consultant, as well as President and CEO of XpertPower™ Associates, which has been providing consulting services for utility industry for over 20 years. He worked for Westinghouse Electric in the U.S.A. as a Systems Engineer on developing the first all-digital substation design during 1979-1980 and for Energoinvest Company in Europe as the Technical Lead for substation automation development during 1980-86. He was a consultant for EDF's Research Centre in Clamart, France in 1999-2000 and was a Visiting Professor at the University of Hong Kong in fall of 2009. He also acted as a consultant to over 50 utilities and vendors worldwide, and served three terms (2009-2013) as a Director on the Board of Directors of the Smart Grid Interoperability Panel (SGIP) representing research organizations and universities.

Dr. Kezunovic was a Principal Investigator on over 100 R&D projects, published more than 450 papers and gave over 100 invited lectures, short courses and seminars around the world. He is an IEEE Fellow and Distinguished Speaker, CIGRE Fellow, and registered Professional Engineer in Texas. He is the recipient of the Inaugural 2011 IEEE Educational Activities Board Standards Education Award "for educating students and engineers about the importance and benefits of interoperability standards" and CIGRE Technical Committee Award for "remarkable technical contribution to the study committee B5, protection and automation" in 2013.

## FOR MORE INFORMATION:

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