



Power Systems Engineering Research Center

PSERC High Impact (HI) Project: Life-cycle management of mission-critical systems through certification, commissioning, in-service maintenance, remote testing, and risk assessment

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Description: The life-cycle management of mission critical systems requires the testing and evaluation tools for acceptance, commissioning, periodic maintenance and troubleshooting. In many instances, because such tools and methodologies are not readily available, the industry practice is to use custom approaches, which may be costly. Typical examples are the synchrophasor based Wide Area Protection, Monitoring and Control (WAMPAC) System and Special Protection System (SPS) where no standard tools for certification, commissioning, in-service maintenance and risk assessment are available. This PSERC HI project effort will deliver such tools and make some of them readily available for the industry to use at the host universities. The project team consisting of researchers from Texas A&M University, Georgia Institute of Technology and Washington State University was involved in several related PSERC projects leading to the HI project as the next step. The presentation will address the problem background, goals and objectives of the project, as well as the results obtained so far. There will also be a discussion of the future implementation and testing plans for the developed tools.

Biography: Dr. Mladen Kezunovic is Regents Professor and Eugene E. Webb endowed Professor at Texas A&M University. He worked at the university since 1986 and currently serves several leading roles: 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 the utility industry for over 25 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, a Visiting Professor at the University of Hong Kong in fall of 2009, and an Eminent Scholar at the Texas A&M University in Qatar in spring 2016. 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. He was a Principal Investigator on over 100 R&D projects, published more than 500 papers and gave over 100 invited lectures, short courses and seminars around the world. He is an IEEE Life Fellow and Distinguished Speaker, CIGRE Fellow and Honorary Member, 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.