COLLEGE OF ENGINEERING AND COMPUTER SCIENCE

Fall 2017 Seminar Series

Resilient Distribution Systems: State-of-the-Art and the Future

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Recent development of the smart grid significantly enhanced the level of automation in the distribution grids. With high level deployment of remote-controlled switches, distribution feeders can be restored efficiently after power outages. In this presentation, computational algorithms for utilization of smart meters, remote control capabilities, and feeder restoration will be discussed together with their practical implementations. The role of microgrids in distribution system restoration will be evaluated. Traditional techniques, however, are not designed for extreme events in the distribution systems. The same is true for widely adopted reliability indices. New thinking of system design and operation will be important for resiliency of future distribution grids.

Chen-Ching Liu

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Chen-Ching Liu is Boeing Distinguished Professor at Washington State University (WSU), Pullman, WA. At WSU, Professor Liu serves as Director of the Energy Systems Innovation (ESI) Center. During 1983-2005, he was a Professor of Electrical Engineering at University of Washington, Seattle. Dr. Liu was Palmer Chair Professor at Iowa State University from 2006 to 2008. From 2008-2011, he served as Deputy/Acting Principal of the College of Engineering, Mathematical and Physical Sciences at University College Dublin, Ireland. Professor Liu received an IEEE Third Millennium Medal in 2000 and the Power and Energy Society Outstanding Power Engineering Educator Award in 2004. In 2013, Dr. Liu received a *Doctor Honoris Causa* from Polytechnic University of Bucharest, Romania. Chen-Ching chaired the IEEE Power and Energy Society Fellow Committee, Technical Committee on Power System Analysis, Computing and Economics, and Outstanding Power Engineering Educator Award Committee. He served on the U.S. National Academies Board on Global Science and Technology. Professor Liu is a Fellow of the IEEE and Member of the Washington State Academy of Sciences.

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