UCF DEPARTMENT OF ELECTRICAL ENGINEERING AND COMPUTER SCEINCE

Spring 2015 Seminar Series

Presented by the ECE Division

Integrating Spatially Distributed yet Correlated Wind Power

Friday, February 13th, 2015

2:00 PM - HEC 356

Integrating a significant amount of wind power generation into bulk power grid is a primary task for building a cost-effective renewable portfolio and a sustainable energy infrastructure. The uncertainty and spatial correlation of wind farm power generation have posed new challenges to power system operations. This talk will be focused on modeling the spatial correlation of wind power from farm level to grid level, and incorporating spatially correlated wind power into unit commitment and economic dispatch for the efficient management of wind power curtailment and possible congestions.

Dr. Miao He

Texas Tech University

Dr. Miao He received his B.E. degree from Nanjing University of Posts and Telecom., China, in 2005, and his M.E. degree from Tsinghua University, China, in 2008, and his Ph.D. degree from Arizona State University in 2013. He is currently an Assistant Professor at the Department of Electrical and Computer Engineering of Texas Tech University. His research is focused on modeling, optimization and data analytics for smart grid applications. He is a member of IEEE, IEEE Power and Energy Society and IEEE Communications Society. He is a TPC member for IEEE SmartGridComm'14 and VTC'14, and a co-chair of WiOpt'15 GREEN workshop.