CCC2016 Workshop 2: Power system analysis and control

Part Ⅰ: The operation and control of an isolated industrial power system with high wind power penetration.

Speaker: Yuanzhang Sun (Wuhan University, China)

Yuanzhang Sun is a Professor with the School of Electrical Engineering, Wuhan University, China. He got his Ph.D. degree from Tsinghua University in June, 1988. He is a Specially Appointed Professor of "Chang Jiang Scholars Program" organized by Chinese Ministry of Education. Currently he is the senior member of IEEE and CSEE, Editor-in-chief of the international journals named "Smart Grid and Renewable Energy", Assistant Editor-in-chief of the international journal "Control Engineering Practice", and Editor of "Chinese Science Bulletin". In 2000, he was Expert Member and Project Assistant Chief of Major State Basic Research Development Program (973) "Sudden Change Prevention and Cure and Economic Operation of Large Power System". He was supported by NSFC for Distinguished Young Scholar in 1999 and Oversea Cooperation Funds for Young Scholar in 2000. He was Expert Member and Assistant Chief Scientist of Major State Basic Research Development Program (973) "Basic Research on Improving Reliability of Large Interconnected Power System" in 2004. He was also the principal investigators of Major Program of NSFC "Research on Basic Theory and Key Technology of Power System Wide-area Security Defense System" and "Research on Basic Theory for Operation and Control of Power Systems Coupled Randomness and Certainty by Large Scale Wind Power Integration" in 2004 and 2012 respectively. He has published over 100 papers and 9 monographs in Chinese or English. He won the First prize of National Prizes in Teaching Achievement and Second prize of National Natural Science Awards in 2005 and 2008 respectively.

Part Ⅱ: Electromechanical Disturbance Propagation and Control in Power Systems

Speaker: Xiaoru Wang (Southwest Jiaotong University, China)

Dr. Xiaoru Wang is a professor with the School of Electrical Engineering,

Southwest Jiaotong University, China and an IEEE Senior Member. She received the B.Eng. and M.Sc. degree from Chongqing University, China, in 1983 and in 1988 respectively, and the Ph.D. degree from Southwest Jiaotong University, China, in 1998. She was a visiting scholar in Cornell University, Virginia Polytechnic Institute and StateUniversity, University of WesternOntario, Aalborg University and University of Tennessee. She has more than 170 papers published and a chapter of a book. She is the primary investigatory or coordinator of four NSFC (National Natural Science Foundation of China) programs, involved ten Ph.D. students. And she is also the primary investigatory of 17 projects of State Power Grid and China Southern Grid, Her areas of interests are: electric power systems protection and stability control, integrated renewable energy and smart grid.

In 2001, she started the research on wide-area power system protection and control when she was a visiting associate professor at Cornell University. She, together with her collaborators and students, have developed novel WAMS-based methods for power system backup protection, frequency stability control and voltage stability assessment; have investigated the power systems dynamics including in electromechanical disturbance propagation in power systems. She took part in developing a new platform EPOCHS: the Electric Power and Communication Synchronizing Simulator. Since 2009, she has extended her research to modern power system with a large scale renewable energy penetration. She conducted the Sina-Danish bilateral cooperation project supported by Danida Fellowship in Aalborg University during Nov. 2010 and Aug. 2011.