

**Title: Wide Area Measurement and Control of Large-scale Interconnected Power System**

**Speaker:**

Professor Qi Huang

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**Date:** Wednesday, 17 August 2011

**Time:** 3:00 pm

**Venue:** Room 603, Chow Yei Ching Building

**Abstract:**

Since the beginning of the 1990's, power systems are undergoing most profound change all over the world. Large-scale power networks are interconnected to form a nation-wide or even international power grid. Recent blackouts showed clearly that operation of interconnected power systems with high level security and stability is not achievable with limited system knowledge. The operation and control of modern power system is highly dependent on reliable continuous wide-area information. And global control based on wide-area information is the key to assure secure operation of large interconnected power system. Wide-Area Measurement Systems (WAMS) and Wide-Area Control Systems (WACS) based on the time synchronized phasor measurements as a new technology can be one potential solution to the above requirements. In this talk, the development of WAMS and WACS for large interconnected power system will be reviewed, and some new technological tendencies will be discussed.

**Biography of the speaker:**

Qi Huang was born in 1976 in Guizhou Province, P.R. China. He is currently a professor, the Associate Dean, and the Secretary of the Party Committee of the School of Energy Science and Engineering, University of Electronic Science and Technology of China (UESTC). He received his Ph.D degree from Arizona State University in 2003. Before that, He received his MS degree from Tsinghua University (in High Voltage Engineering) in 1999 and BS degree from Fuzhou University (in

Power System Automation) in 1996.

He is a senior member of IEEE, and the founding director of the Key Lab of Power System Wide Area Measurement and Control, Sichuan Province. He is the committee member of Energy (Power Grid session) Strategic Development Research Group of “Twelfth Five-Year Plan” organized by Ministry of Science and Technology of China. And he is consultant & evaluation expert of key project of the department of international cooperation, the Ministry of Science and Technology of China.

He is the author or co-author of more than 70 technical papers. Dr. Qi Huang’s current research interests include power system high performance computing, power system instrumentation, power system monitoring and control, sensor network for electric power system security infrastructure, and integration of distributed generation into the existing power system infrastructure.

**Organizer:** Dr. P.W.T. Pong