



Ongoing US-China research collaborations

Tianshu Bi

**State Key Lab for Alternate Electrical Power
Systems with Renewable Energy Sources**

North China Electric Power University



Tianshu Bi

Professor, North China Electric Power University
Executive Director of the State Key Lab



Main area of expertise is **power system protection and control, synchronized phasor measurement technology and its applications.**

She is principal investigator of NSFC Major International Joint Research Project, “973” subproject and “863” subproject.

She was honored as “Excellent Talents in the University for the New Century” in 2005 and “Excellent Young Scientist” by NSFC in 2012.



Introduction of NCEPU



- **Founded in 1958, Supervised by the ministry of electrical power. To provide engineers to operate electrical power systems.**
- **Reborn in 2003, the HQ moved to Beijing. Supervised by the ministry of education. To provide engineers to develop electrical power systems.**



State Key Lab for Alternate Electrical Power Systems with Renewable Energy Sources

The SKL aims at the strategic needs of development of large-scale renewable energy sources and alternate electrical power system in China.

The main research directions include the dynamics of the alternate electrical power system and its modeling in multiple scales, the power conversion technologies of large scale renewable power and large-capacity transmission technologies, and the control and optimization of the alternate electrical power system.

The State Key Lab has 69 academics and over 200 PhD students. The research funding is over 100 M RMB per year.



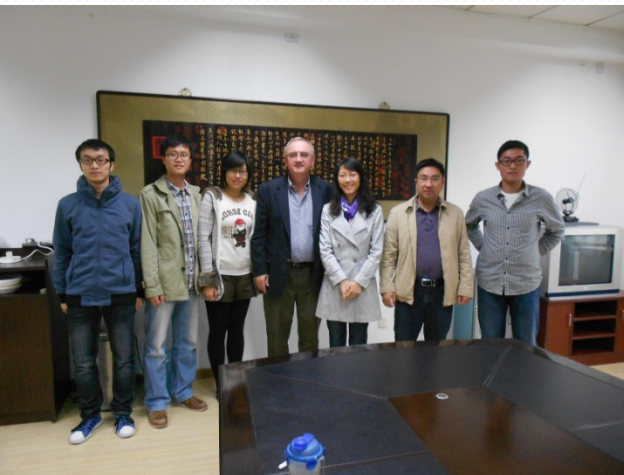
The collaborative Projects

Project: Phasor Assessment and Corresponding Trajectory Estimator of Wide Area Measurement Systems.

Collaborator: Mladen Kezunovic, Texas A&M

Sponsor: NSFC

Duration: Jan.2009-Dec. 2012





The collaborative Projects

Project: Power System Protection and Control based on Synchrophasor Measurements

Collaborator: A.Phadke, J. Thorp, Virginia Tech; F.F.Wu, HKU & Berkeley, Kenneth Martin, BPA; Yilu Liu, UTK; Zhenyu Huang, PNNL

Sponsor: “111”project, MOE and State Administration of Foreign Experts Affairs

Duration: Jan.2008-Dec. 2018





The collaborative Projects

Project: Fundamental Research on the Integration of Large-Scale Renewable Power Energy

Collaborator: Jianhui Wang, Argonne National Laboratory

Sponsor: MOST

Duration: Jan.2012-Aug. 2016

