Yi Guo, Ph.D. Student

E-mail: vi.guo2@utdallas.edu Phone: (+1) 469.655.3362

Website: http://www.utdallas.edu/~yi.guo2

EDUCATION

Ph.D. Student in Mechanical Engineering,

Control, Optimization, & Networks Laboratory.

August $2016 \sim Present$

The University of Texas at Dallas, Richardson, TX, USA,

Master of Science in Electrical Engineering,

Department of Electrical and Computer Engineering, Dearborn, MI, USA, May 2015 The Rackham Graduate School at The University of Michigan, Ann Arbor, MI, USA,

Exchange Student in Electrical Engineering,

Department of Electrical Engineering, Dearborn, MI, USA,

 $2012\,\sim\,2013$

The University of Michigan, Dearborn, MI, USA

Bachelor of Engineering in Electrical Engineering,

Department of Electrical Engineering,

July 2013

Xi'an JiaoTong University, Xi'an, Shaanxi, China

Professional Experience & Research Positions

Research Assistant, Control, Optimization, & Networks Laboratory

The University of Texas at Dallas, Richardson, TX, USA,

Research Scientist, Smart Grid Operation and Optimization Lab

Tsinghua University, Beijing, China

Research Assistant, Smart Grid Lab

The University of Michigan, Dearborn, MI, USA

Research Summers Intern, Smart Grid Operation and Optimization Lab

Tsinghua University, Beijing, China

AWARDS

Major Academic Best Author Award, Journal of Power System Technology 2016 Nonresident Graduate Student Scholarship, University of Michigan 2013-2015 Nonresident Undergraduate Student Scholarship, University of Michigan 2012-2013 2010 - 2013Siyuan Scholarship, Xi'an JiaoTong University

Journal Publications

- 1. Y. Guo, K. Baker, E. Dall'Anese, Z. Hu and T.H. Summers, "Data-based distributionally robust stochastic optimal power flow, Part I: Methodologies", submitted to IEEE Transactions on Power Systems, 2018 [arXiv.org available].
- 2. Y. Guo, K. Baker, E. Dall'Anese, Z. Hu and T.H. Summers, "Data-based distributionally robust stochastic optimal power flow, Part II: Case studies", submitted to IEEE Transactions on Power Systems, 2018 [arXiv.org available].
- 3. Y. Guo, T.H. Summers, and Z. Hu, "Distributed control of intelligent EV charging stations", in preparation for IEEE Transactions on Smart Grid, 2018
- 4. K.-L. Chen, Y. Guo, J. Wang and X. Yang, "Using electric field sensor for islanding detection", IEEE Transactions on Industrial Electronics, 2018, (Under Review).

- 5. K.-L. Chen, Y. Guo, and X. Ma, "Contactless voltage sensor for overhead transmission lines", *IET Generation*, *Transmission & Distribution*, vol.12, No.4, pp.957-966, Feb. 2018.
- K.-L. Chen, R.-S. Wang, Y. Guo, N. Chen, and W.-J. Lee, "A redundancy mechanism design for Hall-based electronic current transformers", Energies, vol.10, no.3, 312, March, 2017
- Y. Guo, J. Xiong, S. Xu, and W. Su, "Two-stage economic operation of microgrid-like electric vehicle parking deck", *IEEE Transactions on Smart Grid*, vol.6, no.3, pp.1703-1712, May 2016
- 8. Y. Guo, Z. Hu, H. Zhang, W. Su, K. Zhan, and Z. Xu, "A statistical method to evaluate the capability of residential distribution network for accommodating electric vehicle charging load", *Power System Technology*, vol.39, no.9, Sept.2015. (2016 Best Author Award)
- 9. J. Xiong, K. Zhang, Y. Guo, and W. Su, "Investigate the impacts of PEV charging facilities on integrated electric distribution system and electrified transportation system", *IEEE Transactions on Transportation Electrification*, vol.1, no.2, pp.178-187, Aug 2015.

Conference Publications

- 1. Y. Guo, K. Baker, E. Dall'Aness, Z. Hu, and T.H. Summers, "Stochastic optimal power flow based on data-driven distributionally robust optimization", 2018 Annual American Control Conference, Milwaukee, USA, 2018.
- 2. K.-L. Chen, X. Yang, X. Ma and Y. Guo, High-voltage phasing test using a contactless sensor, 3rd International Conference on Intelligent Green Building and Smart Grid, Yilan, Taiwan, Apr. 2018.
- 3. Y. Guo, S. Xu, and W. Su, "Smart management systems of plug-in electric vehicle charging services", in Proc. of 2015 IEEE Transportation Electrification Conference and Expo, Dearborn, Michigan, USA. June 14-17, 2015
- 4. Y. Guo, X. Liu, Y. Yan, N. Zhang and W. Su, "Economic analysis of plug-in electric vehicles parking deck with dynamic pricing", in Proc. of 2014 IEEE Power and Energy Society General Meeting, National Harbor, MD, USA. July 27-31, 2014
- 5. Y. Guo, J. Hu, and W. Su, "Stochastic optimization for economic operation of plug-in electric vehicle charging stations at a municipal parking deck integrated with on-site renewable energy generation", in Proc. of 2014 IEEE Transportation Electrification Conference and Expo, Dearborn, Michigan, USA. June 15-18, 2014
- X. Liu, Y. Guo and W. Su, "Day-ahead resource scheduling for economic operation of residential green building with low-carbon emissions, Present at Fourth Annual Great Lakes Symposium on Smart Grid and the New Energy Economy, Chicago, USA. September 22-25, 2014

TEACHING EXPERIENCE

Teaching Assistant, The University of Texas at Dallas

MECH 6326: Optimal Control and Dynamic Programming, Spring 2018

Teaching Assistant, The University of Michigan

ECE 542: Introduction to Power Management and Reliability, Winter 2014

ECE 4432: Renewable Power System, Fall 2013

Professional Activities

 Program Technical Committee, 2016-2019 International Conference on Vehicle Technology and Intelligent Transport Systems (VEHITS).

- Conference Paper Reviewer, 2015-2018 IEEE Transportation Electrification Conference and Expo, Metro Detroit, USA.
- Conference Paper Reviewer, 2018 IEEE Conference on Decision and Control, Miami Beach, FL, USA.
- Conference Paper Reviewer, ASME 2018 Dynamic Systems and Control Conference, Atlanta, Georgia, USA
- Journal Reviewer, IEEE Transactions on Transportation Electrification, IEEE Transactions on Industrial Informatics, IEEE Transactions on Smart Grid, IET Generation & Transmission & Distribution, Robotics and Autonomous Systems, China Communication, Power system technology, IEEE Control System Letters.

TECHNICAL SKILLS

- Engineering: Mathematic Modeling and Matlab Simulation; ILOG CPLEX Optimization Studio; Powersim and Pspice Software Circuit Simulation; Electronic Circuitry Design, Test and Experiments
- Programming: C/C++ language, Python