

CONTACT INFORMATION	HEC 358, ECE Department University of Central Florida Orlando, FL 32816	Tel: (407) 823-3284 Email: Qun.Zhou@ucf.edu Homepage: http://www.eecs.ucf.edu/~qzhou/
RESEARCH INTERESTS	Data analytics and machine learning in power systems Renewable energy integration Power economics Transmission planning	
CURRENT ACADEMIC APPOINTMENTS	Assistant Professor Department of Electrical and Computer Engineering University of Central Florida, Orlando, FL	Aug 2016 – Present
	<ul style="list-style-type: none">• Laboratory: UCF Smart Infrastructure Data Analytics Laboratory (SIDAL)• Affiliation: FEEDER Center	
PREVIOUS POSITIONS	Visiting Assistant Professor Department of Electrical and Computer Engineering University of Central Florida, Orlando, FL	Aug. 2015 – May 2016
	<ul style="list-style-type: none">• Affiliation: FEEDER Center	
	Power System Engineer GE, Redmond, WA	Aug. 2011 – Jan. 2013
	<ul style="list-style-type: none">• Developed power market software and provided operational support for the PJM Interconnection; helped PJM to comply with Federal Energy Regulatory Commission (FERC) order 745 and 755 on energy storage and demand response.	
	Development Intern Genscape, Boston, MA	May. 2009 – Aug. 2009
	<ul style="list-style-type: none">• Advanced the company’s price forecasting and power trading tool using fundamental analysis with detailed unit commitment and economic dispatch models for the 7 U.S. power market regions.	
EDUCATION	Ph.D. Electrical Engineering Iowa State University, Ames, IA	Aug. 2007 – Apr. 2011
	<ul style="list-style-type: none">• Dissertation: <i>Economic Analysis for Transmission Operation and Planning</i>• Advisors: Professor Chen-Ching Liu and Professor Leigh Tesfatsion• Minor: Statistics	
	B.S. Electrical Engineering Huazhong University of Science and Technology, Wuhan, China	Sep. 2003 – Jul. 2007
	<ul style="list-style-type: none">• Specialization: Power Engineering• Advisor: Professor Chengxiong Mao	
RESEARCH	University of Central Florida	

- Data analytics and machine learning for power systems applications including state estimation, cyber security, and renewable energy forecasting

Iowa State University

- Transmission investment for renewable energy integration
- Forecasting of transmission congestions and electricity prices

Huazhong University of Science and Technology

- Digital load design and simulation

TEACHING

University of Central Florida

- EEL6938 Data Analytics in Power Systems
- EEL4216 Fundamentals of Electrical Power Systems
- EEL4932ST Global Energy Issues
- EEL3004 Electrical Networks

Iowa State University

- EE458 Power Economics (as a Teaching Assistant)

GRANTS

1. **Qun Zhou** (PI), "Deep Learning in Sensor-Enabled Energy Systems (DeepSEES): Distribution System State Estimation," Southeastern Center for Electrical Engineering Education, \$51,000, 2017-2018
2. **Qun Zhou** (PI), "Big Data Analytics in Utility Systems," Leidos, \$25,000, 2016-2017.
3. **Qun Zhou** (co-PI), "Scalable/Secure Cooperative Algorithms and Framework for Extremely-high Penetration Solar Integration (SolarExPert)," Department of Energy, \$2,000,000, 2017-2020.
4. **Qun Zhou** (co-PI), "FEEDER: Strategic Expansion to Achieve GEARED Goals," Department of Energy, \$1 million (plus \$250k matching funds), 2016-2018.

PUBLICATIONS

Peer-Reviewed Journal Papers

1. A. Golshani, W. Sun, **Q. Zhou**, Q. P. Zheng, J. Wang, and F. Qiu, "Coordination of wind and pumped-storage hydro units in power system restoration," *IEEE Transactions on Sustainable Energy*, 2018.
2. A. Golshani, W. Sun, **Q. Zhou**, Q. P. Zheng, and J. Tong, "Two-stage adaptive restoration decision support system for a self-healing power grid," *IEEE Transactions on Industrial Informatics*, vol. 13, no. 6, pp. 2802-2812, 2017.
3. A. Golshani, W. Sun, **Q. Zhou**, Q. P. Zheng, and Y. Hou, "Incorporating wind energy in power system restoration planning," *IEEE Transactions on Smart Grid*, 2017.
4. **Q. Zhou**, L. Tesfatsion, C. C. Liu, R. F. Chu, and W. Sun, "A Nash approach to planning merchant transmission for renewable resource integration," *IEEE Transactions on Power Systems*, vol. 28, no. 3, pp. 2086-2100, Aug. 2013.
5. **Q. Zhou**, L. Tesfatsion, and C.C. Liu, "Short-term congestion forecasting in wholesale power market," *IEEE Transactions on Power Systems*, vol. 26, no.

4, pp. 2185-2196, Nov. 2011.

6. **Q. Zhou**, C. Mao, J. Lu, H. Liu, and H. Wang, "Digital simulation of power system load," *Proceedings of the CSU-EPSCA*, vol. 20, no.3, Jun. 2008.

Peer-Reviewed Conference Papers

1. R. Widjaja, H. Panamtaash, **Q. Zhou**, and D. Li, "Solar power forecasting with model selection analysis," *2018 Power Systems Conference*, Charleston, SC, September 4-7, 2018
2. G. Tian, **Q. Zhou**, and L. Du, "Deep convolutional neural networks for distribution system fault classification," *2018 IEEE PES General Meeting*, Portland, OR, August 5-10, 2018.
3. H. Panamtaash and **Q. Zhou**, "Coherent probabilistic solar power forecasting," *15th International Conference on Probabilistic Methods Applied to Power Systems*, Boise, ID, June 24-28, 2018.
4. A. Golshani, W. Sun, and **Q. Zhou**, "PHEVs contribution to self-healing process of distribution systems," *2016 IEEE Power & Energy Society General Meeting*, Boston, MA, Jul. 2016.
5. D. Chaudhary, W. Sun, **Q. Zhou**, and A. Golshani, "Chance-constrained real-time volt/var optimization using simulated annealing," *2015 IEEE Power & Energy Society General Meeting*, Denver, CO, Jul. 2015.
6. A. Golshani, W. Sun, and **Q. Zhou**, "Optimal PMU placement for power system restoration," *Power Systems Conference*, Clemson University, 2015.
7. N. Kadel, W. Sun, and **Q. Zhou**, "On battery storage system for load pickup in power system restoration," *2014 IEEE Power & Energy Society General Meeting*, National Harbor, MD, 27-31 Jul. 2014.
8. W. Sun and **Q. Zhou**, "Maintenance strategies for a generation company in a CO₂ allowance market environment," *2012 IEEE Power & Energy Society General Meeting*, San Diego, CA, Jul. 2012.
9. **Q. Zhou**, W. Guan and W. Sun, "Impact of demand response contracts on load forecasting in a smart grid environment," Invited paper, *2012 IEEE Power & Energy Society General Meeting*, San Diego, CA, Jul. 2012.
10. W. Sun, P. Zhang and **Q. Zhou**, "Optimization-based strategies towards a self-healing smart grid," *IEEE Power & Energy Society Innovative Smart Grid Technologies Asia 2012*, Tianjin, China, May 2012.
11. **Q. Zhou**, L. Tesfatsion, and C. C. Liu, "Global sensitivity analysis for the short-term prediction of system variables," *Proc. IEEE Power & Energy Society General Meeting*, 2010, Minneapolis, MN, Jul. 2010.
12. **Q. Zhou**, L. Tesfatsion, and C. C. Liu, "Scenario generation for price forecasting in restructured wholesale power markets," *IEEE Power Systems Conference & Exposition 2009*, Seattle, WA, Mar. 2009.

TALKS AND PRESENTATIONS

1. "Hierarchical solar power forecasting," *UCF Department of Statistics*, Orlando, FL, Dec. 2017.
2. "Short-term probabilistic forecasting of transmission network congestion,"

UCF FEEDER Seminar, Orland, FL, Sep. 2015.

3. "Impact of demand response contracts on load forecasting in a smart grid environment," *IEEE Power and Energy Society General Meeting*, San Diego, CA, Jul. 2012
4. "Economic analysis for transmission operation and planning," *Group Seminar at Alstom Grid*, Redmond, WA, Jul. 2011.
5. "Short-term congestion forecasting in wholesale power market," *IEEE Power and Energy Society General Meeting*, Detroit, MI, Jul. 2011
6. "Global sensitivity analysis for the short-term prediction of system variables," *IEEE Power and Energy Society General Meeting*, Minneapolis, MN, Jul. 2010
7. "Forecasting grid congestion for transmission grid operation and investment," poster presentation, *IEEE Power and Energy Society General Meeting*, Calgary, Alberta, Canada, Jul. 2009
8. "Scenario generation for price forecasting in restructured wholesale power markets," *IEEE Power Systems Conference & Exposition*, Seattle, WA, Mar. 2009
9. "Forecasting grid congestion for transmission grid operation and investment," *EPRC seminar*, Iowa State University, Ames, IA, Mar. 2008.

PROFESSIONAL
MEMBERSHIPS

Member of Institute of Electrical and Electronics Engineers (IEEE)
Member of IEEE Power & Energy Society (PES)

PROFESSIONAL
SERVICE

Professional Society Service

1. Session Chair, "Deep Learning and Smart Grid Applications", IEEE PES General Meeting, Portland, OR, 2018

Grant Reviewer Service

1. Grant reviewer for Research Growth Initiative at the University of Wisconsin-Milwaukee, 2017
2. Grant reviewer for NSF ECCS EPCN proposal review panel, 2018

Paper Referee Service

1. Journal Referee
 - European Transactions on Electrical Power
 - IEEE Transactions on Power Systems
 - IEEE Transactions on Smart Grid
 - IEEE Transactions on Sustainable Energy
 - IEEE Power & Energy Society Letters
 - Applied Energy
 - Energy Systems
2. Conference Referee
 - Power and Energy Society General Meeting
 - Power Tech
 - North American Power Symposium
 - International Conference on Probabilistic Methods Applied to Power Systems

University Service

1. Member of RISES Cluster Search Committee
2. Reviewer for Undergraduate Research Excellence