# **Biographical Sketches for Yuan Liao**

# (a) Professional preparation

Undergraduate institution	Major Degree & Year	
Xi'an JiaoTong University, Xi'an, China	B.S.	Electrical engineering, 1993
Graduate institutions	Major Degree & Year	
Xi'an JiaoTong University, Xi'an, China	M.S.	Electrical engineering, 1996
National University of Singapore, Singapore	M.S.	Electrical engineering, 1997
Texas A&M University, College Station, Texas	Ph.D.	Electrical engineering, 2000

## (b) Appointments

07/2010 - present	Associate Director for the Graduate Program of Power and Energy
	Institute of Kentucky, University of Kentucky, Lexington, KY
07/2009 - present	Associate Professor, Dept. of Electrical and Computer Engineering,
	University of Kentucky, Lexington, KY
08/2005 - 07/2009	Assistant Professor, Dept. of Electrical and Computer Engineering,
	University of Kentucky, Lexington, KY
03/2005 - 08/2005	Principal Consulting R&D Engineer, Power Technology Division, ABB
	Corporate Research Center, Raleigh, NC
08/2000 - 03/2005	Consulting R&D Engineer, Power Technology Division, ABB Corporate
	Research Center, Raleigh, NC

### (c) Selected recent publications

- 1. Esa A. Paaso, Yuan Liao, and Aaron M. Cramer, "Formulation and solution of distribution system voltage and var control with distributed generation as a mixed integer non-linear programming problem," *Electric Power Systems Research Journal*, vol. 108, pp. 164-169, March 2014.
- 2. Yuan Liao, Matthew Turner, and Yan Du, "Development of a smart grid roadmap for Kentucky," *Electric Power Components and Systems*, vol. 42, no. 3-4, pp. 267-279, February 2014.
- 3. Wanjing Xiu and Yuan Liao, "Novel fault location methods for ungrounded radial distribution systems using measurements at substation," *Electric Power Systems Research*, vol. 106, pp. 95-100, January 2014.

- 4. Ning Kang and Yuan Liao, "Double-circuit transmission line fault location utilizing synchronized current phasors," *IEEE Transactions on Power Delivery*, vol. 28, no. 2, pp. 1040-1047, April 2013.
- 5. Yuan Liao, "Generalized fault location methods for overhead electric distribution systems," *IEEE Transactions on Power Delivery*, vol. 26, no. 1, pp. 53-64, January 2011.
- 6. Xiaoming Feng and Yuan Liao, "Unit commitment by structure based solution and efficient Lagrangian relaxation," *International Journal of Emerging Electric Power Systems*, Vol. 11, No. 1, Article 9, 2010.
- 7. Yuan Liao, "Fault location observability analysis and optimal meter placement based on voltage measurements," *Electric Power Systems Research*, Vol. 79, No. 7, July 2009, pp. 1062-1068.
- 8. Thai Nguyen and Yuan Liao, "Power quality disturbance classification utilizing s-transform and binary feature matrix method," *Electric Power Systems Research*, Vol. 79, No. 4, April 2009, pp. 569-575.
- 9. Yuan Liao and Ning Kang, "Fault location algorithms without utilizing line parameters based on distributed parameter line model," *IEEE Transactions on Power Delivery*, Vol. 24, No. 2, April 2009, pp. 579 584.
- 10. Yuan Liao, "Fault location for single-circuit line based on bus impedance matrix utilizing voltage measurements," *IEEE Transactions on Power Delivery*, Vol. 23, No. 2, April 2008, pp. 609-617.

#### (d) Professional Affiliations

IEEE and Power System Relaying Committee member

### (e) Students Advised

## The following Ph.D. students have graduated:

Thai Dang Nguyen, Ning Kang, Pramote Chaiwan, Yan Du, Jiaxiong Chen, Wanjing Xiu, Esa Aleksi Paaso