PANIDA JIRUTITIJAROEN

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EDUCATION

Texas A&M University, College Station, TX
Doctor of Philosophy, Department of Electrical and Computer Engineering, August 2007
Advisor Dr. Chanan Singh

Chulalongkorn University, Bangkok, Thailand
Bachelor of Electrical Engineering (Honors), March 2002
Dean's list 1998, 1999 and 2001

RESEARCH INTEREST

Power system analysis, Reliability theory applied to power systems, Optimization techniques applied to power systems

ACADEMIC EXPERIENCE

Postdoctoral Researcher Sept 2007—present
Department of Electrical and Computer Engineering, Texas A&M University

Research Assistant May 2004—Aug 2007
Develop novel approaches for reliability analysis and optimization using dynamic programming, stochastic programming, and heuristic techniques for power system capacity planning problem with explicit reliability consideration.

Research Assistant Aug 2002—Apr 2004
Propose a probabilistic maintenance model for a transformer; develop closed-form equations relating maintenance practices, maintenance cost, and transformer lifetime, and devise optimal maintenance schedule for the transformer.

TEACHING INTEREST

- Power system operation and control
- Application of optimization methods to power systems
- Power system reliability
- Feedback control system

TEACHING EXPERIENCE

Department of Electrical and Computer Engineering, Texas A&M University
Teaching assistant in ELEN 460, Power System Operation and Control* Sept—Dec 2006
Teaching assistant in ELEN 643, Electric Power System Reliability Jan—Apr 2006

*Teaching materials can be found at http://www.ece.tamu.edu/~pjirut/teaching.htm

Department of Electrical Engineering, Chulalongkorn University
Teaching assistant in Feedback Control System Nov 2001—Mar 2002

SELECTED COURSEWORK

- Electric Power System Reliability
- Methods of Electric Power System Analysis
- Modern Control Theory
- Power System Electromagnetic Transients
- Power System State Estimation
- Linear Programming
- Non-linear and Dynamic Programming
- Integer Programming
- Large Scale Stochastic Optimization
- Statistical Communication Theory

SERVICE

Reviewer of IEEE Transactions on Industrial Informatics — Aug 2007—present
Reviewer of IEEE Transactions on Power Systems — Dec 2006—present

PUBLICATION

Journal

J1. Panida Jirutitijaroen and Chanan Singh, "Reliability and Cost Trade-Off in Multi-Area Power System Generation Expansion Using Dynamic Programming and Global Decomposition", IEEE Transactions on Power Systems, Vol. 21, No. 3, August 2006.
J2. Panida Jirutitijaroen and Chanan Singh, "The Effect of Transformer Maintenance Parameters on Reliability and cost: a probabilistic model", Electric Power System Research 72 (2004) 213-224.
J3. Panida Jirutitijaroen and Chanan Singh, "Comparison of Simulation Methods for Power System Reliability Indexes and their Distributions", IEEE transactions on Power Systems, TPWRS-00822-2006, to be published.
J4. Panida Jirutitijaroen and Chanan Singh, "Reliability Constrained Multi-Area Adequacy Planning Using Stochastic Programming with Sample-Average Approximations", *submitted* to IEEE transactions on Power Systems, TPWRS-00863-2006, 2nd review, December 2006.

Conference

C1. Panida Jirutitijaroen and Chanan Singh, "Stochastic Programming Approach for Unit Availability Consideration in Multi-Area Generation Expansion Planning", in Proceedings of the 2007 Power Engineering Society General Meeting, Tempa, Florida, June 2007.
C2. Panida Jirutitijaroen and Chanan Singh, "Multi-Area Generation Adequacy Planning Using Stochastic Programming", in Proceedings of the 2006 IEEE PES Power Systems Conference and Exposition, Atlanta, Georgia, October 2006.
C3. Panida Jirutitijaroen and Chanan Singh, "A Hybrid Method for Multi-Area Generation Expansion using Tabu-search and Dynamic Programming", in Proceedings of the 2006 International Conference on Power System Technology , Chongqing, China, October 2006.
C4. Panida Jirutitijaroen and Chanan Singh, "A Global Decomposition Algorithm for Reliability Constrained Generation Planning and Placement", in Proceedings of the 9th International Conference on Probabilistic Method Applied to Power Systems, Stockholm, Sweden, June 2006.
C5. Panida Jirutitijaroen and Chanan Singh, "A Method for Generation Adequacy Planning in Multi-Area Power Systems Using Dynamic Programming and Global Decomposition", in Proceedings of the 2006 Power Engineering Society General Meeting, Montreal, Quebec, Canada, June 2006.
C6. Panida Jirutitijaroen and Chanan Singh, "A Global Decomposition Algorithm for Reliability Constrained Transmission Line Planning in Multi-Area Power Systems", student poster of the 2006 IEEE PES Transmission and Distribution Conference and Exposition, Dallas, Texas, May 2006.
C7. Satish Natti, Panida Jirutitijaroen, Malden Kezunovic, and Chanan Singh, "Circuit Breaker and Transformer Inspection and Maintenance: Probabilistic Models", in Proceedings of the 8th International Conference on Probabilistic Method Applied to Power System, Ames, Iowa, September 2004.
C8. Panida Jirutitijaroen and Chanan Singh, "Oil-immersed Transformer Inspection and Maintenance: Probabilistic models", North American Power Symposium, Rolla, Missouri, October 2003.

INVITED PRESENTATION

Reliability Constrained Multi-Area Adequacy Planning Using Stochastic Programming with Sample-Average Approximations
Department of Electrical and Computer Engineering,
The University of Texas at Austin — Mar 2007

Reliability Constrained Multi-Area Adequacy Planning Using Stochastic Programming with Sample-Average Approximations
Department of Electrical and Computer Engineering,
National University of Singapore — Mar 2007