

## **BRIEF BIOGRAPHY**

**PARVIZ RASTGOUFARD, Ph.D.**

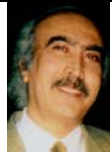
**Entergy Chair for Power Systems Engineering  
The University of New Orleans 2007- Present**

**Professor of Electrical Engineering  
Department of Electrical Engineering  
834 Engineering Building  
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The University of New Orleans  
New Orleans, LA 70148**

**January 2009**

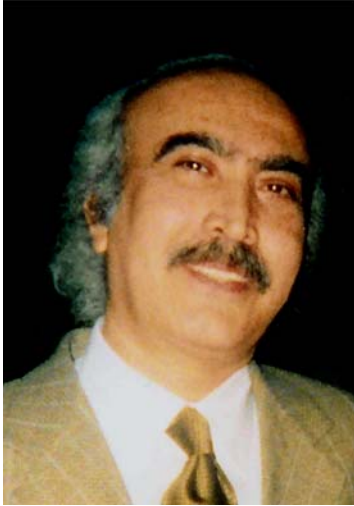
# THREE-PAGE PORTFOLIO

## Executive Summary



### **Parviz Rastgoufard, Ph.D.**

- Professor
  - Entergy Endowed Chair for Power Systems Engineering
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  - (504) 280-5524
  - [prastgou@uno.edu](mailto:prastgou@uno.edu)
  
  - UNO-Entergy Power and Energy Research Laboratory (PERL)  
CERM 514  
(504) 280-7290
- Systems Science: Systems Modeling, Simulation, Design, and Control
  - Power Systems: Stability and Security, Large Scale Systems Online Decision and Control, Deregulated Power Market Pricing, Smart Grids,
  - Electric System Energy Efficiency: Electro mechanics, Electrodynamics, Transmission System Integration and Management
  - Application of Computational Intelligence in Power Systems



## Parviz Rastgoufard

### AREAS OF INTEREST AND SPECIALIZATION:

- Systems Science: Systems Modeling, Simulation, Design, and Control
- Power Systems: Stability and Security, Large Scale Systems Online Decision and Control, Deregulated Power Market Pricing, Smart Grids,
- Electric System Energy Efficiency: Electro mechanics, Electrodynamics, Transmission System Integration and Management
- Application of Computational Intelligence in Power Systems

### SUMMARY:

- Professor of Electrical Engineering, Electrical Engineering, The UNO 2007-Present
- Entergy Chair for Power Systems Engineering, EE UNO, 2007-Present
- Professor of Electrical Engineering and Computer Science, Tulane University, 1997 - 2007
- Professor and Chair of Electrical Engineering and Computer Science, Tulane University 1998 - 2007
- Entergy Chair in Electric Power Engineering, Tulane University, 1997- 2007
- Director of Entergy Electric Power Research Laboratory, Tulane University, 1991 – 2007
- Tulane University Senator representing School of Engineering, 1992-1998
- Senior Member of IEEE
- Professional Engineer and Engineering Consultant
- Supervisor for more than 50 M.S. and Ph.D. students and four Post-Doctoral Fellows
- Tulane University AAUP President- 2003 - 2006
- Ph.D. from Michigan State University, 1983

### TEACHING:

#### Courses developed and taught:

- Optimal Control Theory
- Digital Control Systems
- Electric Machinery
- Advanced Electric Machines Analysis
- Electromechanical Energy Devices
- Large Scale Systems Modeling and Optimization
- Power Systems Optimization and Control
- Advanced Systems Topics
- Power Systems Analysis
- Power System Voltage Stability
- Transient and Small Signal Stability
- Fuzzy Logic Power Systems: Theory and Application in Power Systems

### SAMPLE OF RESEARCH PROJECTS:

- Chatter in Load Tap Changers: Entergy Services Inc., \$135,000, Principal Investigator, June 1995-March 1996.
- Predictive Maintenance of Induction Motors: Entergy Operations, \$134,760, Principal Investigator, March 1996-June 1997.
- Electrical and Mechanical Performance Analysis of TLH-21 Load Tap Changers: Entergy Services Inc., \$135,000, Principal Investigator, March 1996-June 1997.
- Signature Techniques to Assess the Operational Capability of Load Tap: Entergy Services Inc, \$135,000, co-principal investigator, July 1993- 94.

- Pattern Analysis of Induction Motors for Efficient Predictive Maintenance: Entergy Operations, \$52,000, Principal Investigator, July 97-August 98.
- Selection of Algorithms for Optimum Transmission Congestion Contracts and Future Transmission Rights: Entergy Services, Principal Investigator, \$117,600, April-December 2004.
- Establishment of Real Time Simulation Facilities for Power Engineering Studies: Entergy Services, approximately \$870,000, Principal Investigator, 2004-2007

#### **SAMPLE OF RESEARCH PUBLICATIONS:**

- K. Tinnium\*, P. Rastgoufard, P. Duvoisin, "Probabilistic Ranking of Large Scale Transmission System Projects", Electric Power Systems Research Journal, vol.42,pp 21-25,1997.
- W. Barcelo\*, P. Rastgoufard, "Control Area Performance Improvement by Extended Security Constrained Economic Dispatch", IEEE Transactions on Power Systems, vol 12, No. 1, pp 120-128, 1997.
- S. El-Sayed\*, P. Rastgoufard, "Detection of Power System Operation Violations Via Fuzzy Set Theory", Electric Power Systems Research Journal, vol 38, pp 83-90, February 1997.
- W. Barcelo\*, P. Rastgoufard, "Dynamic Economic Dispatch Using the Extended Security Constrained Economic Dispatch Algorithm", IEEE Transactions on Power Systems, Vol 12, No 2,pp 961-967, May 1997.
- Bian\*, P. Rastgoufard, "Measures of Voltage Instability and Voltage Collapse, Part I: Theoretical Development", Journal of Electric Machines and Power Systems, Vol 23 No.4, pp 361-374, July-August 1995.
- Brij N. Singh, Ambrish Chandra, and Parviz Rastgoufard, "Simulation and digital implementation of a simple technique of active filter for elimination of switching ripples/distortion in the supply current," *The Journal of European Trans. on Electrical Power*, vol. 12, no.1 pp. 63-72, Jan/Feb 2002.
- Brij N. Singh, Ambrish Chandra, and Parviz Rastgoufard, "An improved design/control of a single-phase switch mode boost rectifier and its applications to three-phase delta/star topologies," Accepted for publication in the *Journal of Electric Power Components & Systems (EPCS)*.
- B.N. Singh, A. Chandra, P. Rastgoufard, K. Al-Haddad, "DSP based control method of active filter: Elimination of switching ripples", APEC 2000, New Orleans, LA Vol.1,pp 427-433, February 6-10 2000, under review process for possible publication in *IEEE Transactions on Industry Applications*.
- Brij N. Singh, Parviz Rastgoufard, Bhim Singh, Ambrish Chandra, and Kamal Al-Haddad, "Design, simulation, and implementation of three-pole/four-pole topologies of active filters," *The Journal of IEE Proceedings Electric Power Applications*, vol.151, no.4, pp.467-476, July 2004.
- Fethi Belkhouche\*, B. Belkhouche and P. Rastgoufard, A linearized model for the line of sight guidance law, In the Proceedings of *IEEE International Conference on Position, Location and Navigation*, PLANS 2004, pp. 201-207, California, April 2004.
- Fethi Belkhouche\*, B. Belkhouche and P. Rastgoufard, Line of sight robot navigation towards a moving goal, *IEEE Transactions on Systems, Man and Cybernetics, Part B*. In press.

#### **SAMPLE OF RESEARCH CONSULTING AND INDUSTRY AFFILIATIONS:**

- Entergy Services Inc, New Orleans LA
- Louisiana Power and Light
- Mississippi Power and Light
- Gulf States Utilities
- Central Louisiana Electric Company, Pineville, Louisiana
- Tulane Medical Center, New Orleans, Louisiana
- National Fire Associates, Kansas City
- Tropicana, Inc., Bradenton, Florida
- Carolina Power & Light, Raleigh, North Carolina
- Department of Education, Washington D.C.
- Avondale Industries, New Orleans, LA.
- Electric Power Research Institute, Palo Alto, CA
- Northrop Grumman, New Orleans, LA
- Louisiana Steam Equipment, New Orleans, LA
- Millennium Rankine Technology Inc., Reston, VA
- Kadant Johnson Control, Kalamazoo, MI

## ***BIOGRAPHICAL SKETCH***

### ***Parviz Rastgoufard, Ph.D.***

Parviz Rastgoufard received his Bachelor of Science in Electrical Engineering from State University of New York in Buffalo in 1976, and Master of Science and Doctor of Philosophy degrees in Systems Science from Michigan State University in 1978 and 1983 respectively. After receiving his Ph.D. degree, he joined the Department of Electrical Engineering of North Carolina State University (NCSU) in January 1983, the Department of Electrical Engineering of Tulane University in August of 1987, and the Department of Electrical Engineering of The University of New Orleans in August of 2007.

Parviz was with Tulane University School of Engineering from 1987 to June 2007- until closure of School of Engineering at Tulane University due to Katrina. While at Tulane University, he served as the Entergy Chair in Electric Power Engineering from 1997 to 2007, the Chair of the Department of Electrical Engineering and Computer Science from 1998 to 2007, and the Director of the Entergy Electric Power Research Laboratory from 1991 to 2007. Through his collaboration with Entergy Corporation engineers and management, Parviz has served as Principal Investigator on more thirty five research projects producing several power systems engineers and scientists serving industry and academia. Parviz was instrumental in creation of the Entergy Center for Electrical Engineering and Computer Science in 1998 and the Entergy-Tulane Energy Institute in 2003 at Tulane University.

Parviz is a senior member of IEEE and is currently serving as the Entergy Endowed Chair for Power Systems Engineering at the College of Engineering of The University of New Orleans. His area of specialty and current practice is in modeling, simulation, analysis, and design of Large Scale power systems encompassing power system stability and security, real time simulation, and assessment and prevention of blackouts.