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Research Website (<http://ece.tamu.edu/~empelab/index.htm>)

Google Scholar Profile (<http://scholar.google.com/citations?user=aHlwUzMMAAAJ&hl&hl=en>)

Research Interests

- Novel electric machines for different applications
- Condition monitoring and fault diagnosis of electric machinery
- Electric and Hybrid Electric Vehicles

- Electromechanical energy storage batteries
- Active power filters for power systems network
- Fuel cell operated electric motor drives
- Distributed Energy Systems; Wind Mills, Microturbines, Solar Power Plants
- Smart Grids and their components
- Auxiliary power generators
- Power converters for electric machines including multilevels
- Uninterruptible power supplies (UPS)
- Sensors and Sensorless electric motor drive and spindle motors
- DSP-based power electronics systems
- Simulation techniques such as finite elements analysis and Pspice and Saber.
- Consulting in related fields and serving as an expert witness

Awards & Honors

IEEE Fellow

IEEE Nikola Tesla Award

Best Paper Second Prize Award, IEEE Industrial Electronics Society, Electrical Machine Technical Committee, IECON 2008.

IEEE Industry Applications Society Executive Board, Member, Jan. 2008- Dec. 2009.

Prize Paper Award, IEEE Power Engineering Society (PES), 2007.

Prize Paper Award, IEEE Power Engineering Electric Machinery Committee, 2007.

Patent and Innovation Award, Texas A&M University System Office of Technology Commercialization's, 2007.

TEES Fellow Award, Texas Engineering Experiment Station (TEES), \$5000.0 prize award, Fall 2006.

Third Prize Transactions Paper Award, IEEE Industry Applications Society, 2006.

Professional Engineer, State of Texas , P.E. # 97974.

Outstanding Professor Award, Department of Electrical and Computer Engineering, Texas A&M University, \$5000.0 prize award, Fall 2005.

Cyrill Veinott Electromechanical Energy Conversion Award, IEEE Power Engineering Society, \$5000 prize award, 2004.

TEES Fellow Award, Texas Engineering Experiment Station (TEES), \$5000.0 prize award, Fall 2004.

Editor, IEEE Transactions on Energy Conversion, 2001-present.

Distinguished Achievement Award, in recognition of distinguished achievements in teaching, Association of Former Students, Texas A&M University , Fall 2003, \$2000 prize award.

E.D. Brockett Professorship Award, Texas Engineering Experiment Station (TEES), \$4000.0 prize award, 2002-2003.

Appeared on People's Agenda talk show of KERA 90.1 Dallas/Fort Worth/ Denton on "Fuel Cell Research and other Aspects of Automotive Research," January 7, 2003, 10:00 AM-11:00 AM.

Member of Editorial Board, The Institution of Engineering and Technology, Electric Power Applications, United Kingdom, Sep. 2007 – present.

Schlumberger Foundation Technical Awards, \$25,000 prize award, April 2001.

Eugene E. Webb'43 Faculty Fellow Award, Texas Engineering Experiment Station (TEES), , \$5000.0 prize award, for "Overall contribution to the Engineering Program including classroom instruction, scholarly activities and professional service", 2000-2001.

Select Young Investigator Award, Texas Engineering Experiment Station (TEES), \$5000.0 stipend, 1999.

Schlumberger Foundation Technical Awards, \$30,000.0 prize award, April 2000.

Space Act Award by NASA Inventions and Contributions Board, \$250.0 prize award, April 1999.

Prize Paper Award, Electric Machinery Committee of the IEEE Power Engineering Society, Best Transactions paper, 1996.

Education

Ph.D., University of Wisconsin-Madison, May 1991

MS, West Virginia University, May 1986

BS, Sharif University of Technology, Iran, May 1982

Selected Publications

DSP-Based Electromechanical Motion Control, CRC Press, Florida , 2003, 344 pages.

Handbook of Electric Motors, 2nd Edition, Marcel Dekker, New York , 2004, 805 pages.

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