



Siroos Hemmati, Curriculum Vitae

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Education

- **2008-2013:** PhD, Electrical Engineering Department, K. N. Toosi University of Technology, Tehran, Iran.
- **2011-2012:** Visiting Scholar, Electrical and Computer Engineering Department, University of Wisconsin Madison, Madison, WI, USA.
- **2006-2008:** MSc, Electrical Engineering Department, K. N. Toosi University of Technology, Tehran, Iran.
- **2002-2006:** BSc, Electrical Engineering Department, Buali Sina University of Hamedan, Iran.

Theses

- PhD thesis: “**Model Based Detection and Diagnosis of Internal Short Circuit Faults in Stator Winding of Synchronous Generator including core saturation**”, Supervisor: Dr.Sh.Shokri.
- MSc thesis: “**Modeling and Simulation of Internal Short Circuit Faults in a 263 MVA Synchronous Generator**”, Supervisors: Dr.K.Abbaszadeh and Dr.M.Ardebili.
- BSc thesis: “**Hard Disk Drive Spindle Motor**”, Supervisor: Dr.A.Deihimi.

Honors

2002-20006: Ranked One among BS student on graduation.

Publications

Journal Papers

1. **Siroos Hemmati**, Shokrollah ShokriKojoori, Seyedamin Saied, and Thomas A. Lipo, ”Modeling and Experimental Validation of Internal Short Circuit Fault In Salient Pole Synchronous Machines Using Numerical Gap Function Including Stator and Rotor Core Saturation” **IET Electr. Power Appl.**, 2013, Vol. 7, Iss. 5, pp. 391–399.
2. **S. Hemmati** & T. A. Lipo, "Field Weakening of a Surface-mounted Permanent Magnet Motor by Winding Switching" **Taylor & Francis, Electric Power Components and Systems**, 41:1213–1222, 2013.
3. Karim Abbaszadeh, Seyedamin Saied, **Siroos Hemmati**, and Alberto Tenconi, "Inverse Transform Method for Magnet Defect Diagnosis in PM Machines" **IET**

Electr. Power Appl., 2013.

4. S. Asghar Gholamian, **S. Hemmati**, Reza Nasiri, S. A. Saied and S. Esmail Jafarabadi, "Optimum Design of Axial Flux Permanent Magnet Slotted TOORUS Moto Using Genetic Algorithm" **International Journal of Applied Engineering Research**, Volume 4, No. 1 (2009), pp. 655–76.
5. S.A. Saied, K. Abbaszadeh, **S. Hemmati**, M. Fadaie, "A New Approach to Cogging Torque Reduction in Surface Mounted Permanent Magnet Motors" **European Journal of Scientific Research**, Vol.26 No.4(2009), pp.499-509.

Conference Papers

6. **Siroos Hemmati**, Shokrollah Shokri Kojoori, Mahdi Aliyari Shoorehdeli, "Model Based Short Circuit Fault Diagnosis System for Salient Pole Synchronous Machine" International Conference on Power and Control Engineering, Paris August 2013.
7. **S. Hemmati**, Sh. ShokriKojoori, R. Ghobadi and M. I. Ghiasi, "A Practical Approach to Cogging Torque Reduction In a Permanent Magnet Synchronous Motor Using Non-dominated Sorting Genetic Algorithm" 4th Power Electronics, Drive Systems & Technologies Conference (PEDSTC2013), 2013, Tehran, Iran.
8. **S. Hemmati**, T. A. Lipo "Field Weakening of a Surface Mounted Permanent Magnet Motor by Winding Switching" International Symposium on Power Electronics, Electrical Drives, Automation and Motion (SPEEDAM2012), 2012, Sorrento, Italy.
9. **S. Hemmati**, Sh. Shokri, S.A. Saied, "Modeling and Simulation of Internal Short Circuit Faults in Large Hydro Generators with Wave Windings" Accepted for presentation in 3th International Conference on Power Engineering, Energy and Electrical Drives, 2011, Malaga, Spain.
10. M. H. Karimi, H. Zamani, K. Abbaszadeh, **S. Hemmati**, "DSP-based Optimal Sensor-Less Vector Control Drive for Axial-Flux PM motor" Accepted for presentation in 3th International Conference on Power Engineering, Energy and Electrical Drives, 2011, Malaga, Spain.