Curriculum Vitae

1) Personal Information:

First Name: *Amir*
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2) Education:

Ph.D., 2009~2014, Power Electrical Engineering, Shahrood University of Technology, Shahrood, Iran, Thesis: "Modeling, Design and Performance Analysis of a Superconducting Synchronous Machine",

M.Sc., 2006-2009, Power Electrical Engineering, Shahrood University of Technology, Shahrood, Iran, Thesis: “Evaluation of Dynamic Transient Parameters of a Synchronous Machine Using FE”,

B.Sc. 2002-2006, Power Electrical Engineering, Ferdowsi University of Mashhad, Mashhad, Iran, Thesis: “Simulation of Adaptive Distance Protection System”,

3) Journal Papers:

[1] A. Hassannia, "Self-Compensation of Torque Reaction in an Induction Contra-Rotating Propulsion Motor”, Accepted for publication in **IET Electric Power Applications,** pp. 1-11, 2022, doi: 10.1049/elp2.12198.

[2] M. Samimi and A. Hassannia, "Investigation of Multi-layer Secondary Concept of an Electromagnetic Launcher," **IEEE Transactions on Energy Conversion**, vol. 37, no. 2, pp. 921-926, June 2022, doi: 10.1109/TEC.2021.3130930.

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[4] Amir Hassannia, “Conceptual Design of Fractional Slot Concentrated Winding Dual-Rotor Double-Speed Synchronous Motor”, **IEEE Transactions on Energy Conversion,** vol. 35, no. 2, pp. 986-993, June 2020, doi: 10.1109/TEC.2019.2956073.

[5] Amin Nobahari, Ahmad Darabi, Amir Hassannia, “Various skewing arrangements and relative position of dual rotor of an axial flux induction motor, modelling and performance evaluation” , **IET Electric Power Applications**, Vol. 12, No. 4, April 2018. doi: 10.1049/iet-epa.2017.0716.

[6] S. Ghorbanzadeh, M. Nazari, M. Shahmardan, A. Hasannia, M. Nazari, “Simultaneous Numerical Modelling of Heat Transfer and Magnetic Fields in a Vacuum Induction Furnace”, **Modares Mechanical Engineering**. Vol. 19, No. 4, 2019.

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[10] Mojtaba Vahedi, Amir Hassannia, Hossein Lotfian, “Unique Solution for Dynamic Parameters Identification of a Synchronous Machine Using DC Decay Test”, **Journal of Electrical Engineering**, Vol. 13, Ed. 3, 2013.

[11] Hossein Gholizadeh, Amir Hassannia, Azita Azarfar, “Chaos detection and control in a typical power system”, **Chinese Physics B**, Vol. 22, No. 1, 010503, 2013.

[12] Alireza Alfi, S.Ehsan Razavi, Amir Hassannia, " GA-Based Fuzzy State Feedback Controller applied to a Nonlinear Power System", **Journal of American Science**, Vol. 8, No. 1, 2012.

[13] A. Darabi, S.A. Soleamani, A. Hassannia, "Fuzzy Based Digital Automatic Voltage Regulator of a Synchronous Generator with Unbalanced Loads", **American journal of Engineering and Applied Science**, Vol. 4, No. 4, pp. 280-286, 2008.

4) Teaching:

- **2009-up now**, Electrical Machines, Power Electronic, Modern Electrical Machines, Electrical Machines Design (Shahrood University of Technology)
- **2012**, Power Systems Dynamics, Power Systems Operation and Generation, (Islamic Azad University of Shahrood)
- **2013**, Power Electronic, Electrical Machines Design, (Islamic Azad University of Damghan)
- **2007-2009**, Electrical Circuits, Electrical Machines, Power System Analysis, (Islamic Azad University of Gonabad)

5) Selected Research Projects:

- 2021 - “Design and manufacturing of PM generator for wind turbine”,
- 2021 - “Performance improvement of contra-rotating DC motor”,
- 2020 - “Design and manufacturing of DC brushless motor for electric bike”,
- 2019 - “Design and manufacturing of gearless PM motor for elevator”,
- 2012 - "Design of a high temperature superconducting motor for submarine propulsion",
- 2012 - "Design of an axial flux PM motor for submarine propulsion",

6) Software Skills:

- JMAG-Designer
- SolidWorks
- COMSOL Multiphysics
- ANSYS Maxwell
- MATLAB/Simulink