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Curriculum Vitae

Aliasghar Pourmoosa

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Birth:	**June 22, 1986, Mazandaran, Iran**
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EDUCATIONS

Sep 2010   **M.S. Degree**

–Jan 2013   **Department of Electrical Engineering,** Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran.

Thesis: Design Optimization and Prototyping of a Linear Induction Motor with Toroidal Winding.

Supervisor: Prof. Mojtaba Mirsalim

Sep 2005   **B.S. Degree**

–Sep 2009   **Department of Electrical Engineering**, Azarbaijan Shahid Madani University, Tabriz, Iran.

Thesis: Improving the Performance of Power Network in the Presence of Wind Power Plants Using FACTS Devices.

Supervisor: Dr. Ali Ajami

RESEARCH EXPERIENCE

2011 -present   ***Research Assistant,*** Electrical Machines & Transformer Research Laboratory (EMTRL), Amirkabir University of Technology.

2017	Experimental Project: ***Observer based control for DC-DC Boost Converter*** (Cooperation in Ph.D. thesis of Eng. Milad Malekzade, under the advisorship of **Dr. Mehdi Tavan**)**,** Department of Electrical Engineering, Babol Noshirvani University of Technology, Babol, Iran. **[Link]**
2015	Experimental Project: ***Design and prototyping of a segmented switched reluctance motor by ready transformer foil*** (Cooperation in M.Sc. thesis of Eng. Mahmood Movahed, under the supervision of Prof. Mirsalim), Electrical Machines & Transformer Research Laboratory **(EMTRL)**, Amirkabir University of Technology. **[Link]**
2015	Experimental Project: ***Design and Implementation of Robust Speed Controller for a Permanent Magnet Motor*** (Cooperation in M.S. thesis of Eng. Changiz Mohebi, under the supervision of **Dr. mehdi Tavan**), Electrical Engineering Department, Azad University-Mahmudabad Branch, Mazandaran, Iran.
2014	Experimental Project: ***A Novel Nonlinear Adaptive Control to Reduce Vibration in Induction Motor*** (Cooperation in M.S. thesis of Eng. Majid Ghasemian, under the supervision of **Dr. Mehdi Tavan**), Electrical Engineering Department, Azad University-Mahmudabad Branch, Mazandaran, Iran.
2013	Experimental Project: ***Linear Induction Motor with Variable Number of Poles Suitable for Vertical elevators*** (This work was financially supported by Scientific Association of Amirkabir University of Technology), under the supervision of **Prof. Jafar Milimonfared**, Amirkabir University of Technology, Tehran, Iran.
2013	Experimental Project: ***Design Optimization and Prototyping of A Linear Induction Motor with Toroidal Winding***, Electrical Machines & Transformer Research Laboratory **(EMTRL)**, Department of Electrical Engineering, Amirkabir University of Technology, Tehran, Iran. **[Link]**
2009	***Research Project***, B.Sc. thesis, Azarbaijan Shahid Madani University, Tabriz, Iran.
2007	***Research Project*** at **Electronic Circuits Lab**, Member of Robotics Team, Azarbaijan Shahid Madani University, Tabriz.

TEACHING EXPERIENC

Spring 2018	***Lecturer***, Electrical Machine II, and Design of Electrical Transmission Lines, Faculty of Electrical Engineering, Technical and Vocational University-Mahmudabad Branch, Mazandaran, Iran.
Spring 2016	***Lecturer***, Electrical Machines Lab, and Electrical Machine II, Department of Electrical Engineering, Azad University-Mahmudabad Branch, Mazandaran, Iran.
Fall 2015	***Lecturer***, Electrical Machines Lab, and Electrical Machine I, Department of Electrical Engineering, Azad University-Mahmudabad Branch, Mazandaran, Iran.
Spring 2015	***Lecturer***, Electrical Machines Lab, and Electrical Machine II, Department of Electrical Engineering, Azad University-Mahmudabad Branch, Mazandaran, Iran.

Fall 2014	**_Lecturer_**, Linear Control Systems, Department of Electrical Engineering, Azad University-Mahmudabad Branch, Mazandaran, Iran.
Spring 2014	**_Lecturer_**, Electrical Machine I, Department of Electrical Engineering, Azad University-Mahmudabad Branch, Mazandaran, Iran.
Fall 2013	**_Lecturer_**, Electrical Machine II, Department of Electrical Engineering, Azad University-Mahmudabad Branch, Mazandaran, Iran.
Fall 2013	**_Teaching ANSOFT Maxwell_**, Department of Electrical Engineering, Amirkabir University of Technology.

HONORS & AWARDS

2014	**_Recognized as Exceptional Talent by "National Elites Foundation"_**, Iran.
2014	**_Awarded a grant from "National Elites Foundation"_**, Innovation and Development of the Iran's National Elites Foundation Festival, Tehran, Iran.
2009	**_Awarded by West Regional Electric Company_** for cooperation in provincial project in the field of FACTS Devices.
2003	**_2nd place, Electronic Student Competitions_**, Province stage, High School Education, Mazandaran, Iran.

PUBLICATIONS

[1]   **A. A. Pourmoosa**, and M. Mirsalim, **"**Analytical Calculation of the Synchronous Inductance in Permanent Magnet Transverse Flux Machines Considering Magnetic Saturation Effect ", **IEEE Transactions on Energy Conversion,** 2018 (submit).

[2]   **A. A. Pourmoosa**, and M. Mirsalim, "A Comprehensive MEC-Based Analytical Modelling for Permanent Magnet Transverse Flux Machine", **IEEE Transactions on Magnetics,** 2018 (Revise and resubmit).

[3]   **A. A. Pourmoosa**, and M. Mirsalim, "A Transverse Flux Generator with a Single Row of Permanent Magnets: Analytical Design and Performance Evaluation", **IEEE Transactions on Industrial Electronics,** 2018. **[Link]**

[4]   **A. A. Pourmoosa**, and M. Mirsalim, "Design Optimization, Prototyping, and Performance Evaluation of a Low-Speed Linear Induction Motor With Toroidal Winding", **IEEE Transactions on Energy Conversion**, vol. 30, no. 4, pp. 1546-1555, Aug 2015. **[Link]**

[5]   **A. A. Pourmoosa**, and M. Mirsalim, "Equivalent circuit of Linear Induction Motor based on coupled-circuit model and optimization design using Imperialist Competitive Algorithm", The 4th Power Electronics, Drive Systems and Technologies Conference (PEDSTC 2013), Tehran, Iran, pp. 349-354 (indexed by IEEE Explore). **[Link]**

PATENTS

[1] **A. A. Pourmoosa**, and M. Mirsalim, "Linear Induction motor with toroidal winding", Iranian patent, 2013. (Scientifically approved by Iran's National Elites Foundation, and also by **Prof. Jafar Milimonfared**, Amirkabir University of Technology, Tehran, Iran. **[Link]**

FIELDS OF INTERESTS

Design, optimization, Finite Element (FE) analysis, prototyping, control, and drive of linear and rotary electrical machines; Power electronics; Power systems; Renewable energies; electronic circuits design.

LANGUAGES

Persian   (Native)
English   (TOEFL)

COMPUTER SKILLS

Engineering Software: Ansoft Maxwell, Infolytica Magnet, Matlab/Simulink, Pspice, Proteus, PSCAD.
Programming Language: C++.
General: Microsoft Office.

HOBBIES

Soccer, swimming, music, movies.