

Education:

- Laboratory Instructor 2015-present.
University of Tehran, Tehran, Iran
(Electrical Machines Laboratory, Industrial Electronic Laboratory)
 - M.Sc. Power Electronics Engineering 2012-2015
University of Tehran, Tehran, Iran
GPA: 18.13/20 (4/4)
Master thesis subject:
“Control System for stand – alone doubly fed induction Generators Feeding Unbalanced and Nonlinear Loads”
Supervised by Prof. Shahrokh Farhangi and Dr. Saeed Afsharnia.
Marked: 19.3/20
 - B.Sc. Electrical Engineering 2008-2012
Ferdowsi University of Mashhad, Iran
Overall GPA: 16.98/20
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Research Interests:

- **Design, modeling, analysis and control of power electronics converters**
 - **Hybrid Vehicles**
 - **Renewable energy**
 - **Photovoltaic Systems**
 - **Wind Turbines**
 - **FACTS Devices**
 - **Motor drives**
 - **Power Quality Issues**
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Honors:

- 2012 Ranked **28** (among more than 10000 students) in the “National Universities Graduate Entrance Exam” in Iran.
- 2012-2015 become the second GPA in the Electrical Engineering department, University of Tehran, Tehran, Iran
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Publications:

Journal Papers:

- [1]. **F. Khalilzadeh Moghaddam, Hossein, Iman-eini.**, "A Method for Elimination of Leakage Current in Grid Connected CHB Inverters," **was submitted in IET Journal of Power Electronics.**

Conference Papers:

- [1]. **F. Khalilzadeh Moghaddam, S. Farhangi.**, "Improvement of the stand-alone DFIG performance feeding nonlinear and unbalanced loads using active and reactive power theory," 2015 IEEE Conference on Energy Conversion (CENCON), Johor Bahru, 2015, pp. 128-133.
- [2]. **F. Khalilzadeh Moghaddam, R. Moosavi, H. Nehzati.**, "New Voltage Balancer for Bipolar DC Distribution Systems", **in preparation.**
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Work Experiences:

- Two years of work experience as research scientist in "Vehicle, fuel and environment" research institute (VFERI) (since February, 2016). Design and build a voltage balancer for a 8KW DC/DC converter in a hybrid bus using microcontroller STM32F407. Also Working with VFERI team on the project of "150 kW Traction Drive Development".
Reference: <http://vferi.com>
- Designing and building electrical PCBs in different research projects such as Interface boards for both DSP microprocessors and ARM microcontrollers, voltage and current sensor boards, gate drivers of power electronic switches and so on.
- Highly educated in Programming with Code Composer Studio and Keil uvision.
- Member of "DFIG Wind turbine simulator" design and implementation team in University of Tehran, Tehran, Iran.

Research Experiences:

- Design, simulation and implementation of a new topology for a transformer-less grid-tied photovoltaic multilevel inverter using DSP F28335 (spring and summer 2016).
 - Design, simulation and implementation of a new topology for a DC Link Balancer in Automotive application using ARM STM32F407 (winter, spring and summer 2016).
 - Design and implementation of an active filter based on instantaneous active and reactive power theory using DSP F2812 (Fall 2014).
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Teaching Assistant

- Fall 2015, Power Electronics II, University of Tehran, Tehran, Iran
Supervisor: Prof. Shahrokh Farhangi
 - Winter 2015 Industrial Electronic Lab, University of Tehran, Tehran, Iran
Supervisor: Prof. Shahrokh Farhangi
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Technical Skills:

- **Technical Software:**
 - MATLAB and SIMULINK: Excellent
 - PSCAD/EMTDC: Excellent
 - Altium Designer (PCB Design Software): Excellent
 - Code Composer studio: Excellent
 - PSIM: good
 - Keil uVision : good
 - Ansys(Electronics): good
 - Orcad: good
 - Codevision: good
 - Proteus: good

