Curriculum vitae

Personal Info.

Frist Name: Mahbod	**Last Name:** Moein-Jahromi	**Birth date:** 21-Sep-1988
Military Service status: Done as a member of National Elite Foundation	**ID No.:** 11824	**National ID No.:** 2471749305
Marital status: Married	**Mobile:** +989171922164	**Telephone**:+982161050854
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Education

Degree	From	to	Total Ave.	Field	University	Project Title	Advisor
PhD.	2014	2018	19.58	Mechanical Eng., Energy conversion	Amirkabir University of Technology (polytechnic Tehran)	Degradation modeling of cathode catalyst layer in a PEM fuel cell	Dr. Kermani
MSc.	2011	2013	18.03	Mechanical Eng., Energy conversion	Amirkabir University of Technology (polytechnic Tehran)	Modeling of performance of PEMFC via agglomerate simulation	Dr. Kermani
BSc.	2007	2011	17.49	Mechanical Eng., Solid mechanics	University of Sistan and Baluchestan	Buckling analysis of thermal stress in a finned rings	Dr. Hossien-nejad
Diploma	2003	2007	19.22	Mathematic	Khajehnasir high school	---	---

Skills

1- **Software:** Ansys, Fluent, CFX, PV-elite, Matlab, Maple, Microsoft office pakage
2- **Foreign language**: English
   Reading: Excellent , **Speaking**: Good, **Listening**: Good,
   Comprehensive: Good.
3- **Training course**:
   (a) Homologation of vehicle in Bahman Motor Company
   (b) CFX software in Amirkabir University of Technology.
   (c) PV-elite software in Novin Parsian Institute.

Papers and Projects title

Journal Papers:

1−Moein-Jahromi M, Kermani MJ. **Computation of PEMFC Cathode Catalyst Layer Using Agglomerate Model**. International Journal of Hydrogen Energy 2012(38) 17954−17966.

2−Moein-Jahromi M, Movahed S, Kermani MJ. **Numerical Study of the Cathode Electrode in the Microfluidic Fuel Cell Using Agglomerate Model.** Journal of Power Sources 2015(277) 180-192.

3− Moein-Jahromi M, Kermani MJ, Movahed S. **Degradation forecast for PEMFC cathode-catalysts under cyclic loads.** Journal of Power Sources 359 (2017) 611-625.

4−Moein-Jahromi M, Kermani MJ. **Simulation of a Polymer Exchange Membrane Fuel Cell with Focus on the Electrochemical and Transitional Properties of Membrane (Nafion®117).** Computer and Chemical Engineering (Under Review).

Conference Papers:

1- Moein-Jahromi M, Kermani MJ. **Development of Homogeneous to Agglomerate Model for the Computation of Cathode Catalyst Layer of PEM Fuel Cells**. International Conference on Renewable Energy: Generation and Applications (ICREGA 2012) 2012 Al-Ain, UAE.

2- Moein-Jahromi M, Kermani MJ. **Mass Transport and Water Management in Polymer Exchange Membrane Fuel Cell**. Fuel Cell 2012 Science & Technology 2012 Berlin, Germany.

3- Moein-Jahromi M, Kermani MJ.**Modeling of Nafion** 115 **Membrane and GDL in Anode and Cathode Sides of a PEMFC**. 20th Annual International Iranian Mechanical Engineering Conference 2012 Shiraz, Iran.

4- Moein-Jahromi M, Kermani MJ, Dehsara M, Ahmadi-Sarbast V. **Comparison of Homogenous and Agglomerate Model for PEM Electro-Catalyst Layer**. 5th Iranian Fuel Cell Seminar 2012 Tehran, Iran.

5- Dehsara M, Kermani MJ, Moein-Jahromi M, Ahmadi-Sarbast V. **The Effect of Semicircular Indents Gas Flow Channels on the Performance of PEM Fuel Cells**. 5th Iranian Fuel Cell Seminar 2012 Tehran, Iran.

6- Ahmadi-Sarbast V, Dehsara M, Kermani MJ, Moein-Jahromi M. **Study of Cathode Catalyst Layer Operational Parameters on the Performance of a PEM Fuel Cell**. 5th Iranian Fuel Cell Seminar 2012 Tehran, Iran.

7- Moein-Jahromi M, Kermani MJ, Movahed S. **Degradation Prediction of PEMFC Catalyst Layer Using an Empirical Based Model**. The Second Materials Challenges for Fuel Cells and Hydrogen Technologies 2015 Grenoble, France.

Projects:

1- Modal, structural and vibration analysis of compressor brackets in vehicles

2- CFD simulation of vehicle cooling system including all coolant ducts in block, radiator, fan

3- Analysis of tractive force, dynamic force and aerodynamic force to calculate the gradeability, and performance curve.

4- Bending, torsion and vibration analysis of propeller shaft

5- Belt design for different systems of power transporting

6- Numerical modeling of full Navire-Stocks equation in internal and external flows to do a CFD analysis such as: CFD analysis of air intake box, CFD analysis of exhausted pipe etc.

7- Modeling of new systems for power generations as fuel cells

8- Degradation models

Honors

1- First rank in mechanical engineering department in BSc.
2- First rank in the 15th mechanical engineering Olympiad between universities in 7 hub
3- Privileged student in mechanical engineering department in MSc.
4- Top thesis in Amirkabir University of Technology in 2013.
5- Member of National Elite Foundation to fulfill the military service
6- Academic award from National Elite Foundation for PhD in 2016
7- Academic award from National Elite Foundation for PhD in 2017

Work experience:

Year	Position	Place	Descriptions	Length
2008	Trainee	Fars Combined cycle power plant	Being familiar with power plant equipment	2 months
2011	Trainee	Dairy production factory	Being familiar with process of production of dairy and bottle	2 months
2013	Elite soldier	Renewable energy department in Energy ministry	Modeling of high temperature fuel cells	12 months
2014	R&D expert	Bahman Motor Company	Design and analysis and homologations	48 month

Teaching experience:

Year		**Course**	**Place**
From	**To**	Heat transfer 1	Amirkabir University of technology
2011	2012	Engineering mathematics	Amirkabir University of technology