

# Mohamad Ali Vakilian Zand

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<b>Personal</b>	Date of Birth: February 11 <sup>th</sup> , 1987	
<b>Education</b>	<b>Master of Science in Electrical Engineering- Power electronics and machine design</b> Amirkabir University of Technology (Tehran Polytechnic) - Final project: Efficiency Improvement of Industrial 110kw Submersible Electro-Pump Using Finite Element Method Advisor: Dr. J.S. Moghani	<b>2010-2012</b>
	<b>Bachelor of Science in Electrical Engineering</b> Ferdowsi University of Mashhad, Iran - Final Project : Feasibility Study on Peak Shaving of Urban Consumers by UPS Devices	<b>2005-2010</b>
	<b>High School Diploma in Mathematics &amp; Physics</b> Hasheminezhad High School – NODET, Mashhad, Iran - Hasheminezhad High School in Mashhad is affiliated with Iran’s National Organization for Development of Exceptional Talents – NODET. NODET provides education for talented students identified through highly competitive nationwide exams.	<b>2001-2005</b>
<b>Projects</b>	<b>Machine design using Finite Element Method(FEM):</b> <ul style="list-style-type: none"> <li>Intelligent Crutch Capable of Damping and Absorbing Shock by Using The Magneto-Rheological Fluid Technology <b>patented in Iran 2015</b></li> <li>An Interior Permanent-Magnet Eddy-Current Coupler for Contactless Torque Transfer Applications Having Low Vibrations such as Wind Turbines, Pumps and Working with Toxic Materials <b>patented in Iran 2014</b></li> <li>Optimization of Efficiency and Power Factor on 18 Types Of Different Power Range of Industrial Induction Motors Used in Submersible Pumps <b>2012-2016</b></li> </ul>	
<b>Conference Papers</b>	<b>1-Vakilian-Zand, A. ; Mohammadi, S. ; Moghani, J.S. ; Mirsalim, M. ,”Sensitivity analysis and performance optimization of an industrial squirrel-cage induction motor used for a 150 HP floating pump “,Power Electronics, Drive Systems and Technologies Conference (PEDSTC), 2014 5th</b>  <b>2-Givi, H. ; Moghani, J.S. ; Vakilian, Z.M.A. ; Noroozi, M.A. ,”Three dimensional finite element modeling of a current transformer and analyzing its operation under normal condition “ , Electrical Engineering (ICEE), 2013 21st Iranian Conference</b>  <b>3-Hadi Givi,Javad Shokrollahi Moghani,Gevorg B. Gharehpetian,Mohammad Ali Vakilian Zand,”Finite Element Analysis of the Asymmetric Field Distribution Effect on the Operation of a Current Transformer”, 15th Iranian Student Conference on Electrical Engineering</b>	
<b>Teaching Experiences</b>	PAPKO MAGNETICS Co. <sup>1</sup> <i>Teacher</i> Finite Element software ( Ansys Maxwell ) course	

<sup>1</sup> <http://www.papkomagnetics.com/>

	Designing of permanent magnet separator <i>Personal tutor</i> Finite Element software ( Ansys Maxwell ) for M.Sc. and PhD. students	
	Vandad Puya Pars robotic institute <sup>2</sup> <i>Teacher</i> Fundamentals of Robotics Introduction to Electronic circuits ( for 9-12years old children)	
<b>Special courses</b>	Finite Element Method in Electromagnetic (19.5/20)	<b>2010-2011</b>
<b>Computer Skills</b>	<ul style="list-style-type: none"> <li>▪ <b>Proficient in Ansys Maxwell , Simplorer</b></li> <li>▪ <b>General:</b> Microsoft Office.</li> <li>▪ <b>Programming Language:</b> C, C++, AVR Microcontroller languages (Bascom &amp; Codevision).</li> <li>▪ <b>Engineering Software:</b> MATLAB/Simulink (proficient with MATLAB programming)</li> <li>▪ Pspice</li> <li>▪ Altium Designer</li> <li>▪ Proteus</li> <li>▪ PSIM</li> </ul>	
<b>Memberships</b>	Presidency of Islamic republic of Iran national elite foundation <sup>3</sup> Iranian construction engineering organization Electrical Engineering students association at Ferdowsi University of Mashhad	<b>2013-2016</b> <b>2014-2016</b> <b>2005-2007</b>
<b>Languages</b>	English: Fluent TOEFL iBT score: 99 (Reading 24/30 Listening 30/30 Speaking 23/30 Writing 22/30) – Persian: Native Language	
<b>Fields of interests</b>	<ul style="list-style-type: none"> <li>- Design, modeling, Finite Element analysis, optimization and prototyping of rotary and linear electric machines</li> <li>- Power electronics and renewable energies.</li> <li>- Couplers , Magnetic Clutches, Magneto Rheological dampers</li> <li>- Robotics, Microcontroller Programming, Electronic Circuits Design.</li> </ul>	
<b>Hobbies</b>	<ul style="list-style-type: none"> <li>- Picnic, Mountain, Soccer, Swimming, Movie, Music.</li> <li>- rally competitions</li> <li>- table tennis</li> </ul>	
<b>References</b>	<p><b>Javad Shokrelahi Moghani</b> <i>Associate Professor</i>, Department of Electrical Engineering Amirkabir University of Technology (Tehran Polytechnic) <a href="mailto:moghani@aut.ac.ir">moghani@aut.ac.ir</a></p> <p><b>Hamid Fathi</b> <i>Professor</i>, Department of Electrical Engineering Amirkabir University of Technology (Tehran Polytechnic) <a href="mailto:fathi@aut.ac.ir">fathi@aut.ac.ir</a></p>	

<sup>2</sup> <http://www.robosch.com/>

<sup>3</sup> <http://www.bmn.ir/>