

Curriculum Vitae

Abolfazl Vahedi



BIOGRAPHICAL DATA

Born 1966 in Tehran

Married – 2 children

Dr. A. Vahedi,

Professor

Google Scholar: H index 15

Research Gate: RG Index 27.7

ADDRESS

Work: Power Engineering Department

Iran University of science & Technology

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Education

PhD in Electrical Engineering from Polytechnic Institute of Lorraine France (1996)

D.E.A in Electrotechnic from Polytechnic Institute of Lorraine - France (1992)

B.Sc. in Electrical engineering from Mashhad university – Iran (1989)

Languages

- Persian (native speaker)
 - English
 - French
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Major area of interest

- Modeling, Analysis and Design of conventional & special electrical machines
 - Control and monitoring of electrical machines & Transformer
 - Power system Dynamics
 - Finite Elements in Electrical Engineering
 - Modeling, Analysis and Design of conventional & special Transformer
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Teaching courses

- Generalized Theory of Electrical Machines (graduate course)
- Finite elements in Electrical Engineering (graduate course)
- Design of Electric Machines (graduate course)
- Control of Electric machines (graduate course)

- Electrical Machines I,II,III
 - Special Electrical Machines
 - Electromagnetic
 - Fundamentals of Electrical Engineering
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Recent Funded projects

- Investigate of the effect of static eccentricity on the axial flux motor's performance
 - Design of axial flux motor something in different cooling's situation and duty cycle
 - Design of electric motor for hybrid vehicle
 - Modeling and Design of flywheel Energy Storage System
 - Design and modeling of linear induction motor with flywheel
 - Developing the design process of induction machines
 - Design and construction of estimators of induction motor parameters
 - Design and implementation of monitoring system for synchronous machine load angle
 - Development of hysteresis motor's design algorithm
 - Analysis and optimization of axial flux hysteresis motor
 - Design and construction of rebar detector device in concrete foundations
 - Optimization of Axial Flux Permanent Magnet Motors
 - Sensitivity analysis and performance improvement of hysteresis synchronous motor
 - design of pulse transformers
 - Design and implementation of 1-ph & 3-ph induction motor parameters identification system
 - Modeling of Microturbine Generator system
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Experiences

- Head of Electric machine research laboratory in IUST (2004 - present)
- Deputy of Research and International Relations of University campus(2014-present)
- Head of power Engineering department in IUST (2008 - 2010)
- University Vice president in academic affairs in IUST (2001-2004)
- Head of open education office in IUST (1999-2001)
- Deputy director of power engineering department in presidency Technology cooperation office (1996-1999)
- Member of electrical machines standard committee
- Member of power transformers standard committee

Books

- **Special Electrical Machines**
A. vahedi, Sharif university Press, 2015
- **Modeling & simulation of electric machinery (Translation Persian)**
S. Afsharnia, A. vahedi, Tehran University Press, 2005
- **Design of small electric machines (Translation Persian)**
A. vahedi, S. Dehrooie, Iran University of Science & Technology Press, 2004
- **Power Electronics and Electric machines drives (Translation Persian)**
A. vahedi, S. Afsharnia, Iran University of Science & Technology Press, 2000

Journal Publications

- A Zohoori, A Vahedi, MA Noroozi, S Meo, "A new outer-rotor flux switching permanent magnet generator for wind farm applications," *Journal of Wind Energy* 20 (1), 3-17, 2017.
- S. Meo, A. Zohoori and A. Vahedi, "Optimal design of permanent magnet flux switching generator for wind applications via artificial neural network and multi-objective particle swarm optimization hybrid approach", *Energy Conversion and Management Elsevier*, vol.110, pp.230-239, 2016.
- A. Zohoori, A. Vahedi, S. Meo, V. Sorrentino, "An Improved AHP Method for Multi-Objective Design of FSPM Machine for Wind Farm Applications," *Journal of Intelligent & Fuzzy Systems* 30 (1), 159-169, 2016.
- H. Azizi and A. Vahedi, "Sensitivity analysis and optimum design for the stator of synchronous reluctance machines using the coupled finite element and Taguchi methods", *Turkish Journal of Electrical Engineering & Computer Science*, vol.23, pp. 38-51, 2015.
- A. Vahedi, S. Meo, and A. Zohoori, "An AHP-based approach for design optimization of flux-switching permanent magnet generator for wind turbine applications", *International Transactions on Electrical Energy Systems*, 2015.
- F. Marignetti, A. Vahedi and S.M. Mirimani, "An Analytical Approach to Eccentricity in Axial Flux Permanent Magnet Synchronous Generators for Wind Turbines", *Electric Power Components Taylor & Francis*, vol.43, pp.1039-1050, 2015.
- A. Baktash and A. Vahedi, "Design of a Wound Core Pulse Transformer Using Multi-objective Optimization Method", *IEEE Transactions on Plasma Science*, vol.43, pp.857-863, 2015
- A. Baktash and A. Vahedi, "Determination of Wound Core Transformer Losses and Temperature Rise", *EPE Journal* 25 (1), 6-11, 2015.
- A. Baktash and A. Vahedi, "Calculation of Parasitic Elements in Toroidal Core Transformers", *IEEE Transactions on Plasma Science*, vol 42, pp.1690-1696, 2014.

- M. J. Zandzadeh and A. Vahedi, "Modeling and Improvement of Direct Power Control of DFIG Under Unbalanced Grid Voltage Condition", *International Journal of Electrical Power & Energy Systems*, Elsevier, vol. 59, pp. 58-65, 2014.
- S. Mirimani, A. Vahedi, F. Marignetti and R. Di Stefano, "An Online Method for Static Eccentricity Fault Detection in Axial Flux Machines," *IEEE Transactions on Industrial Electronics*, vol.62, pp.1931-1942, 2014.
- J. Soleimani, A. Vahedi, A. Ejlalil and M. Barzegari Bafghi," Study on interior permanent magnet synchronous motors for hybrid electric vehicle traction drive application considering permanent magnet type and temperature," *Turkish Journal of Electrical Engineering & Computer Science*, vol.22, pp. 1517-1527, 2014.
- V. Behjat and A. Vahedi, "An Experimental Approach for Investigating Low-level Interturn Winding Faults in Power Transformers", *Electrical Engineering Springer*, vol. 95, pp. 135-145, 2013.
- V. Behjat and A. Vahedi, "Analysis of Internal Winding Short Circuit Faults in Power Transformers Using Transient Finite Element Method Coupling With External Circuit Equations", *International Journal of Numerical Modelling, Electronic Networks, Devices and Fields*, vol. 26, pp. 425- 442, 2013.
- M. E. Adabi and A. Vahedi, "A survey of shaft voltage reduction strategies for induction generators in wind energy applications", *Renewable Energy Elsevier*, vol. 50, pp. 177-187, 2013.
- H. Azizil and A. Vahedi, "Rotor geometry parameter optimization of synchronous reluctance motor using Taguchi Method," *Przegląd Elektrotechniczny*, vol. 89, 2013.
- S. M. Mirimani, A. Vahedi, F. Marignetti, and E. De Santis, "Static Eccentricity Fault Detection in Single-Stator–Single-Rotor Axial-Flux Permanent-Magnet Machines", *IEEE Transactions on Industry Applications*, vol. 48, pp. 1838-1845, 2012.
- S. M. Mirimani, A. Vahedi, and F. Marignetti, "Effect of inclined static eccentricity fault in single stator-single rotor axial flux permanent magnet machines," *IEEE Transactions on Magnetics*, vol. 48, pp. 143-149, 2012.
- V. Behjat, A. Vahedi, A. Setayeshmehr, H. Borsi, and E. Gockenbach, "Sweep frequency response analysis for diagnosis of low level short circuit faults on the windings of power transformers: an experimental study," *International Journal of Electrical Power & Energy Systems Elsevier*, vol. 42, pp. 78-90, 2012.
- J. Soleimani and A. Vahedi, "IPM Synchronous Motor for Traction Applications: Performance Analysis Considering Airgap Variation," *Przegląd Elektrotechniczny*, vol. 88, pp. 200-205, 2012.
- M. H. Bafghi, A. Vahedi, and J. Soleimani, "Optimized design of PM torquer for dynamically tuned gyroscope", *IEEE Transactions on Industry Applications*, vol. 48, pp. 2268-2276, 2012.
- A. Vahedi and V. Behjat, "Online monitoring of power transformers for detection of internal winding short circuit faults using negative sequence analysis," *European Transactions on Electrical Power*, vol. 21, pp. 196-211, 2011.
- V. Behjat, A. Vahedi, A. Setayeshmehr, H. Borsi, and E. Gockenbach, "Diagnosing shorted turns on the windings of power transformers based upon online FRA using capacitive and inductive couplings", *IEEE Transactions on Power Delivery*, vol. 26, pp. 2123-2133, 2011.

- Vahid Behjat, Abolfazl Vahedi, Alireza Setayeshmehr, Hossein Borsi and Ernst Gockenbach, "Sweep Frequency Response Analysis for Diagnosis of Low Level Short Circuit Faults in Power Transformers Windings:An experimental study", IEEJ Transactions on Electrical and Electronic Engineering Elsevier,vol.42,pp.78-90,2012.
- V. Behjat and A. Vahedi, "Numerical modeling of transformers interturn faults and characterizing the faulty transformer behavior under various faults and operating conditions", IET electric power applications, vol. 5, pp. 415-431, 2011.
- V. Behjat and A. Vahedi, "A DWT-based approach for detection of interturn faults in power transformers", COMPEL-The International Journal for Computation and Mathematics in Electrical and Electronic Engineering, vol. 30, pp. 483-504, 2011.
- M. Shahnazari and A. Vahedi, "Improved dynamic average modelling of brushless excitation system in all rectification modes", Electric Power Applications IET, vol. 4, pp. 657-669, 2010.
- Abolfazl Vahedi, and Vahid Behjat, "Online monitoring of power transformers for detection of internal winding short circuit faults using negative sequence analysis", Eurpeen Transaction on Electrical Power (ETEP), vol. 21, pp. 196-211, 2011.
- J. Soleimani, A. Vahedi and A. Ejlali, " New Structures of IPM Machine for HEV Traction: Investigation on Field Weakening Performance and Harmonic Analyzing ", International Review of Electrical Engineering, Vol. 6, pp. 2310-2318, No. 5, 2011.
- M. R. Ghazanchaei, A. Vahedi, M. Mirimani and A. Baktash, "Sensitivity Analysis of Hysteresis Motor through a Circiut Coupled 3D FEM Model", International Review of Electrical Engineering Journal, vol. 5, No. 4, pp. 1543-1549, August 2010.
- M.Savaghebi, A.Gholami, A.Vahedi and H.Hoshyar, "A new approach for transformer loading capability assessment based on fuzzy thermal model", International Review of Electrical Engineering Journal, vol. 5, No. 3, pp. 927-935, May 2010.
- M. Modarres, A. Vahedi, and M.R. Ghazanchai, "Study on axial flux hysteresis motors considering airgap variation", Journal of Electromagnetic Analysis & Application, vol. 2, No.4, pp. 252-257, 2010.
- M. Mirimani and A. Vahedi, "Developping a 3D-FEM model for electromagnetic analysis of an axal flux permanent magnet machine", Journal of Electromagnetic Analysis & Application, vol. 2, No. 4, pp. 258-263, 2010.
- M. Shanazari and A. Vahedi, "Improved Dynamic Average Modeling of Synchronous Machine with Diode-Rectified Output", International Review of Electrical Engineering Journal, vol. 4, No. 6, pp. 1248-1251, 2009.
- D. Azizi, A. Gholami and A. vahedi, "Analysis of Deterioration Effects of stator Insulation on its ElectroThermal Propoerty", International Journal of Electrical and Electronics Engineering, vol. 2, no. 3, pp. 697-701, 2009.
- A. Halvaei Niasar, A. Vahedi, H. Moghbelli, "Low Cost Sensorless Control of Four-Switch, Brushless DC Motor Drive with Direct Back EMF Detection", Journal of Zhejiang University - springer, vol.10, pp. 201-208, 2009.
- A. Baktash, A.Vahedi and M.A.S. Masoum, "New Switching Table for Improved Direct Power Control of Three-Phase PWM Rectifier", Australian Journal of Electrical & Electronics Engineering (AJEEE)- Taylor & Francis ,vol.5, pp.161-167, 2009.

- A. HalvaeiNiasar, A. Vahedi, and H. Moghbelli, "A novel position sensorless control of a four-switch, brushless DC motor drive without phase shifter," *Power Electronics IEEE Transactions*, vol. 23, pp.3079-3087, 2008.
- H.alvaei Niasar, A. Vahedi and H. Moghbelli, "Low Cost Sensorless Control of Four-Switch, Brushless DC Motor Drive with Direct Back EMF Detection" , *Journal of Zhejiang University-springer*, vol.10, pp.201-208, 2008.
- Nikjamal, A. Vahedi, "Pulsed Power Magnification Using Multiple Wound Transmission Lines", *International Review of Electrical Engineering*, Vol. 5. No 4, pp. 1812-1816, 2008.
- A. Halvaei Niasar, H. Moghbelli and A. Vahedi, "High Performance Torque Control of Brushless DC Motor Drive based on TMS320LF2407 DSP Controller", *International Review of Electrical Engineering Journal*, vol. 2, No. 3, pp. 438-447, 2007.
- V. Behjat and A. Vahedi, "Minimizing the Torque ripple of the Variable Capacitance Electrostatic Micromotors", *Journal of Electrostatics Elsevier*, Vol. 64, pp.361-367, 2006.
- V. Behjat and A. Vahedi, "Study the Influence of Geometric Parameters on the Torque of the Electrostatic Micromotors", *Electrical Engineering Journal Springer*, Vol.89,No.1,pp.61-65,2006

Scientific- research papers (Iranian)

- A. Baktash and A .Vahedi, "Nonlinear Model of Tape Wound Core Transformers", *Iranian Journal of Electrical & Electronic*, vol.11, No.1, 2015.
- S. Mirimani, A. Vahedi, M. R. Ghazanchaei, and A. Baktash, "Electromagnetic Analysis of Hysteresis Synchronous Motor Based on Complex Permeability Concept", *Iranian Journal of Electrical and Electronic Engineering*, vol. 9, pp. 88-93, 2013.
- Halvaei Niasar, A. Vahedi and H. Moghbelli, "Design and Implementation of Sensorless Control for Four-Switch, Three-Phase Brushless DC Motor Drive based on DSP Technology", *Iranian Journal of Electrical and Computer Engineering (IJECE)*, vol. 8, no. 1, pp. 1-8, 2009.
- M. Shanazari and A. Vahedi, "Accurate Average Value Modeling of Synchronous Machine-Rectifier System Considering Stator Resistance", *Iranian Journal of Electrical and Electronics Engineering (IJECE)*, vol. 5, no. 4, pp. 253-260, 2009.
- A.Vahedi, M.Ramezani, "Analysis of converter-permanent magnet synchronous machine set by improved average-value modeling", *Iranian Journal of Electrical Engineering*, Vol. 1, No.2, pp. 81-87, 2005.
- J. Soleimani, A. Vahedi and S. M. Mirimani, "Inner Permanent Magnet Synchronous Machine optimization for HEV Traction Drive Application in Order to Achieve Maximum Torque per Ampere", *Iranian Journal of Electrical & Electronic Engineering*, vol. 7, p.p 241, 2011.
- Halvaei Niasar, A. Vahedi and H. Moghbelli, "A Novel Method for Commutation Torque Ripple Reduction of Four-Switch, Three-Phase Brushless DC Motor Drive", *Iranian Journal of Electrical and Electronics Engineering (IJECE)*, vol.3, No. 3, pp. 83-97,2007.

Scientific- research papers (Abroad):

- S. Meo, V. Sorrentino, A. Zohoori, A. Vahedi, " Second-Order Sliding Mode Control of a Smart Inverter for Renewable Energy System," *International Review of Electrical Engineering (IREE)* 9 (6), 1090-1096, 2014.

- J. Soleimani and A. Vahedi, " 3-Phase Surface Mounted PMSM improvement Improvement Considering Hard Magnetic Material Type ", International Journal of Advanced Engineering Sciences and Technologies, vol. 7, No. 1, pp. 36-41, 2011.
- V Behjat, A Vahedi and A.Setayeshmehr, "Identification of the most sensitive frequency response measurement technique for diagnosis of interturn faults in power transformers", Measurements of Science & Technology, vol. 21, No. 5, pp. 1-14, July 2010.
- M. Modarres, A. Vahedi, M.R. Ghazanchaei, "Investigation on dynamic and steady state performance of axial flux hysteresis motor considering rotor configuration", International Review of Electrical Engineering Journal, vol. 5, No. 2, pp. 155-159, 2010.
- M. Modarres, A. Vahedi, M.R. Ghazanchai, "Dual Rotor Structure with Modified Performance for Circumferential Hysteresis Synchronous Motors", International Review of Modeling and simulation., vol. 5, No. 3, pp. 833-839, October 2010.

Conference Publications in recent years (English)

- S. H. Ebrahimi and A. Vahedi, "Analytical modeling of hybrid electromagnetic excited linear synchronous motor," Electrical Machines (ICEM), 2016 XXII International Conference on, 671-676.
- M. M. Firozjaee, A. Vahedi, "Performance of insulation materials to enhance grading method effect in high voltage cable," Electrical Engineering (ICEE), 2016 24th Iranian Conference on, 1624-1628.
- M. M. Firozjaee, A. Vahedi, M Sanikhani, "Comparing the effect of using new hysteresis material on the performance of a hysteresis motor," Power Electronics and Drive Systems Technologies Conference (PEDSTC), 2016.
- R. Haghghian, M. R. Mazinanian, A. Vahedi, "Sensitivity analysis to improve the design process of an induction motor using MEC," Power Electronics and Drive Systems Technologies Conference (PEDSTC), 2016.
- M. Rahnama, A. Vahedi, "Rotary diode failure detection in brushless exciter system of power plant synchronous generator," Thermal Power Plants (CTPP), 2016 6th Conference on, 6-11.
- A. V. Baktash, A. Vahedi, "Modeling of tape wound cores using reluctance networks for distribution transformers," International Power System Conference, 27-29, 2014.
- E. Adabi and A. Vahedi, "A Common Mode Voltage Reduction Strategy for a DFIG with a Three-Level Back-to-Back Converter", PEDSTC 2011, Tehran, Iran.
- M. Shahnazari and A. vahedi, "Improved Average Modeling of a Converter Connected Synchronous Machine", 1st Power Electronic and Drive Technologies Conference (PEDSTC 2010), Tehran,iran.
- M. Modarres, A. vahedi and M.R. Ghazanchaei, "Effect of Air Gap Variation on Characteristics of an Axial Flux Hysteresis Motor", 1st Power Electronic & Drive Technologies Conference (PEDSTC) 2010, Tehran,iran.

- M. Mirimani and A. vahedi, "Effect of Static Eccentricity in Axial Flux Permanent Magnet Machines", 1st Power Electronic & Drive Technologies Conference (PEDSTC) 2010, Tehran,iran.
- M. Ranjbar, S. Serajian, A. Jalilian and A. vahedi, "A Hybrid Active Power Filter with a New Control Strategy Used in 25-Kv Electrified Railway Systems for Power Quality Improvement", 2nd International Conference on Recent Advances in Railway Engineering (ICRARE) 2010, Tehran, Iran.
- M. Modaress, A. vahedi and M.R. Ghazanchaei. "New Topology of a Slotted Disk Type Hysteresis Motor", the International Conference for Inductive & Electromagnetic Component (CWIEME) Inductica, November 2009, Mumbai, India.
- H. Mobaraki and A. Vahedi, "Axial Movement Effect on Inverted Winding's FRA of Power Transformer", The International Conference for Inductive & Electromagnetic Component (CWIEME) Inductica, November 2009, Mumbai, India.
- H. Mobaraki and A. Vahedi, "Turn on Turn Fault's Effect on Inverted Winding's FRA of Power Transformer", The International Conference for Inductive & Electromagnetic Component (CWIEME) Inductica, November 2009, Mumbai, India.
- M. Shahnazari and A. Vahedi," Analysis of Brushless Exciter Operation in all Modes of Rotating Rectifier", ICIEA 2009, Xian, China.
- M. Shahnazari and A. Vahedi, "Average Value Modeling of Synchronous Machine- Rectifier Considering Stator Resistance", ICIEA 2009, Xian, China.
- M. Shahnazari and A. Vahedi, "Modeling and Simulation of Brushless Excitation System in Synchronous Generator", ICEE 2009, Tehran.
- M. Shahnazari and A. Vahedi, "Modeling of Pilot Excitor in Brushless Synchronous Generators Using Average Modeling Approach", PSC 2009, Tehran,iran.
- A.Baktash and A. Vahedi, "Performance Investigation of Direct Power Control Method in Current Source Rectifier under Different Operation Conditions", 16th Mediterranean Conference on Control and Automation, September 2009, Ajaccio, France.
- A.Baktash and A. Vahedi, "Sensorless direct power control of current source rectifier based on virtual flux", 16th Mediterranean Conference on Control and Automation, September 2009, Ajaccio, France.
- A.Halvaei, H. Moghbelli and A. Vahedi, "A New Method to Minimize the Commutation Torque ripple in four switch brushless dc machines" 5th CES/IEEE International Power Electronics and Motion Control Conference, 2009, PELS-IPEMC06, Shanghai, China.
- A.Halvaei, A. Vahedi and H. Moghbelli, "Analysis of Torque Ripple due to Phase Commutation four switch brushless dc machines", 5th CES/IEEE International Power Electronics and Motion Control Conference, 2009, PELS-IPEMC06, Shanghai, China.
- E. Najafi, A. Vahedi, A. Mahanfar, and A. Yatim, "A New Controlling Method Based on Peak Current Mode (PCM) for PFC", 2nd IEEE International Conference on Power and Energy 2009, Bahru, Malaysia.
- Sh.Taheri, A. Vahedi, A.Gholami and H. Taheri, "Estimation of Hot Spot Temperature in Distribution Transformer Considering Core Design Using FEM", 2nd IEEE International Conference on Power and Energy 2009, Bahru, Malaysia.

- Hslvaei Niasar, H. Moghbeli and A. Vahedi, "Adaptive Neuro-Fuzzy Control with Fuzzy Supervisory Learning Algorithm for Speed Regulation of 4-Switch Inverter Brushless DC Machines", 5th CES/IEEE International Power Electronics and Motion Control, Shanghai Conference, 2006, PELS-IPEMC06.
- M. Shahnazari and A. vahedi, "Modeling of a rectifier connected PMSG applied in wind energy conversion system using state machine approach", First renewable energy & distribution generation conference, March 2009, Birjand, Iran.
- A.Halvaei, H. Moghbeli, A. Vahedi, "Study on Hunting in High Speed Hysteresis Motors Due to the Rotor Hysteresis Material", EUROCORN 2009, Foggi, Italy.
- M. Savaghebi, A. Gholami, A. Vahedi and H. Hooshyar, " A Fuzzy-Based Approach for Transformer Dynamic Loading Capability Assessment", UPEC 2008, Padova, Italy.
- A.Halvaei Niasar, H. Moghbelli and A. Vahedi, "A Low-Cost Sensorless Control for Reduced-Parts, Brushless DC Motor Drives", ISIE 2008, Cambridge.
- V. Behjat and A. Vahedi, "Analysis and Optimization of MEMS Electrostatic Microactuator", International Conference on Industrial and Information Systems 2007.
- M. Dabaghi and A. Vahedi, "Multivariable Pulse Generation Using Two-Stage Blumlein PFL", PSC 2008, Tehran, Iran.
- A.Halvaei, H. Moghbeli and A. Vahedi, "A Novel Sensorless Control Method for Four-Switch, Brushless DC Motor Drive without Using any 30 phase Shifter", International Conference on Electrical Machines and Systems 2007, Seoul.
- A.Halvaei, H.Moghbeli and A. Vahedi, "Torque Control of Brushless DC Motor Drive based on DSP Technology", International Conference on Electrical Machines and Systems 2007, Seoul.
- A.Halvaei, H. Moghbeli and A. Vahedi, "Implementation of Four-Switch inverter for Brushless DC Motor Drive on TMS320LF2407 DSP", ICSPC 2007, Dubai, UAE.
- M. A. Talebi, M. Rahimpour, A. Gholami, A. Vahedi and H. A. Shayanfar, "A Genetic Algorithm approach for Identifying Synchronous Generator Parameters from Excitation Disturbance Test", Power Engineering Society General Meeting, 2007. IEEE, Tampa, Florida.
- Mazhari, R. Hadidi and A. Vahedi, "A Comprehensive Approach to Investigate Parameters Sensitivity of Three Phase Induction Motors using MATLAB/ simulink", International Conference on Electrical Engineering, 2007 ICEE, Islamabad.
- V. Behjat and A. Vahedi, "Analysis and Optimization of MEMS Electrostatic Microactuator, International Conference on Industrial and Information Systems, ICIS 2007, Penadeniya, Srilanka.
- H. Hooshyar, M. Savaghebi and A. Vahedi, "Synchronous Generator: Past, Present and Future", AFRICON 2007, Windhoek, South Africa.
- H. Azizi, A. Vahedi and A. Baktash, "Investigation of voltage unbalance, Voltage sag and voltage fluctuation on DPC-PWM rectifier in advanced electrical machines drive system", PSC 2007, Tehran, Iran.
- H. Azizi, A. Vahedi, and A. Baktash, "Investigation on Voltage Unbalance, Voltage Sag and Voltage Fluctuation on DPC-PWM Rectifier in Advanced Electrical Machines Drive System", PSC 2007, Tehran.
- A.Halvaei, H. Moghbelli and A. Vahedi, "Sensorless Control of a Four-Switch, Three-Phase Brushless DC Motor Drive", ICEE2007, May 2007.

- A.Baktash, A.Vahedi and M.A.S. Masoum, "Improved switching table for direct power control of three-phase PWM rectifier", IEEE – AUPEC 2007.
- I. Mazhari, A.Vahedi and M.A.S. Masoum, "Induction motor load generator system using direct torque control method", IEEE – AUPEC 2007 .
- S. E. Abdollahi and A. Vahedi, "Dinamic Simulation of Micro turbine Generation System ", 18th International Conference and Exhibition on Electricity Distribution, CIRED 2005.
- H.R. Soroush, A.R. Rahmati, H. Moghbeli and A. H. Niasar, "Study on the Hunting in High Speed Hysteresis Motors Due to the rotor Hysteresis Material", EUROCON,2009.
- R. Dashti, A. Vahedi, B. Ranjbar and D. Babachahi, " Transient Analysis of Induction Generator jointed to Network at Balanced and Unbalanced Short Circuit Faults ", UPEC 2007.
- Shiri, A. Vahedi and A. Shoulaie, "The Effect of Parameter Variation on the Performance of Indirect Vector Control Induction Motor Drive", International symposium on the Industrial Electronic, 2006.
- H. Niasar, H. Moghbelli and A. Vahedi, "Commutation Torque Ripple of Four-Switch Brushless DC Motor Drives, Part I: Analysis", the 9th International Workshop on Advanced Motion Control, March 27-29, 2006, AMC 2006, Turkey.
- H. Niasar, H. Moghbelli and A. Vahedi; "Commutation Torque Ripple of Four-Switch Brushless DC Motor Drives, Part II: Controllability and Minimization", the 9th International Workshop on Advanced Motion Control, March 27-29, 2006, AMC 2006, Turkey.
- Zakipour, A. Vahedi, D. A. Khaburi, and A.R.Ghorbani, " Simultaneous Application of EKF and RLS Methods for Induction Speed and Parameters Motor Estimation ", PSC 2006, Tehran.
- S. A. Kamali, A. Babaei, A. Vahedi, A. Gholami and M. R. Shariati, "Performance Analysis of HTS Fault Current Limiter Combined With a ZnO Varistor against Transient Overvoltage", IEEE ICIT 2006, New Delhi, India.
- H.Alvaei ,A. Vahedi and H. Moghbelli, "Analysis and Control of Commutation Torque Ripple in Four-Switch, Three+-Phase Brushless DC Motor Drive", IEEE ICIT 2006, New Delhi, India.
- M. Gilvanejad and A. Vahedi, "Modeling the Frequency Response of Power Transformer by means of Time Domain variable frequency models", AUPEC 2006, Australia.
- M. Gilvanejad, M. Saniei and A. Vahedi, "Performance of Pulse Forming Lines (PFLs) in Non-Matched Load Operation", AUPEC 2006, Australia.
- M. Mallaki, A.Vahedi and A.Bali, "Study of Parameters Effect on Voltage Distribution over HV Winding of Transformers Using Distributed Model", ICMSAO, February 2005, Sharjah, United Arab Emirates,.
- A.Halvai, H. Moghbeli and A.Vahedi, "Comparison of Different Modeling and Simulation Methods for Brushless DC Motors", ICMSAO, February 2005,Sharjah, United Arab Emirates.
- H.Azizi, A.Vahedi, H. Toossian Shandiz and I.Mzhari, "Inductive sensor for detecting metal bars in concrete structure; Design and Implementation", ICMSAO, February 2005, Sharjah, United Arab Emirates.
- H.Azizi and A.Vahedi, "Performance Analysis of Direct Power Controlled PWM Rectifier under Disturbed AC Line Voltage", Mars 2005, ICREPQT Zaragoza, Spain.
- S. E. Abdollahi, and A.Vahedi, "Dynamic Modeling of Micro-Turbine Generation Systems Utilizing Matlab/Simulink Environment", Mars 2005, ICREPQT Zaragoza, Spain.

- A.Halvaei, H. Moghbelli and A. Vahedi, "Drive Train Design Methodology of a Series-Parallel Hybrid Electric Vehicle (SPHEV) and Determination of its Power Flow Control (PFC) Strategy", May 2005, IEMDC San Antonio, USA,.
- A.Vahedi, H. Heidari and F. Faghihi, "Analysis and simulation of pulse transformer considering Leakage Inductance and Capacitance", CIRED 2005, Turin, Italy.
- H. Heidari, A.Vahedi, F. Faghihi and M.Safdari, "Using of High Temperature Superconductive in Secondary Winding of Two Types of Transformer: Fault Current Limiter and Current Injection Transformer", CIRED 2005 Turin, Italy, June 2005.
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