



Abolfazl Halvaei Niasar

Associate Professor

College: Faculty of Electrical and Computer Engineering

Department: Electrical Engineering - Power

Education

Degree	Graduated in	Major	University
BSc	1996	Electrical Engineering - Control	Isfahan University of Technology
MSc	1999	Electrical Engineering - Control	University of Tehran
Ph.D	2006	Electrical Engineering - Power	Iran University of Science and Technology

Employment Information

Faculty/Department	Position/Rank	Employment Type	Cooperation Type	Grade
(not set)	(not set)	Tenured	Full Time	25

Papers in Conferences

1. Seyed Ali Seyedi Seadati, Abolfazl Halvaei Niasar ,Optimal Design and Finite Element Analysis of a High Speed, Axial-Flux Permanent Magnet Synchronous Motor ,9th IEEE Power Electronics, Drive Systems & Technologies Conference (PEDSTC 2018) ,Amirkabir University of Technology, Tehran, Iran ,February 2018.
2. Syyed Hossein Edjtahed, Marzieh Ahmadi, Abolfazl Halvaei Niasar ,Research on Control of Non-Ideal Permanent Magnet Brushless Motor in view of Torque Ripple Minimization ,8th IEEE Power Electronics, Drive Systems & Technologies Conference (PEDSTC 2017) ,pp. 229-234 ,University of Ferdowsi, Mashhad, Iran ,February 2017.
3. Syyed Hossein Edjtahed, Seyed Ali Seyedi Seadati, Abolfazl Halvaei Niasar, Marzieh Ahmadi ,Analytical Design and Finite Element Analysis of High Speed, Axial-Flux Permanent Magnet Synchronous Motor ,8th IEEE Power Electronics, Drive Systems & Technologies Conference (PEDSTC 2017) ,University of Ferdowsi, Mashhad, Iran ,February 2017.
4. AmirHossein PirZadeh, Abolfazl Halvaei Niasar , Syyed Hossein Edjtahed ,Analytical Modeling and Simulation of Overexcitation Process in Hysteresis Motor ,8th IEEE Power Electronics, Drive Systems & Technologies Conference (PEDSTC 2017) ,University of Ferdowsi, Mashhad, Iran ,February 2017.

5. Sayyed Hossein Edjtahed, Abolfazl Halvaei Niasar, Marzieh Ahmadi ,Sensorless Control of Non-Sinusoidal Permanent Magnet Brushless Motor using Selective Torque Harmonic Elimination Method and Sliding Mode Observer ,8th IEEE Power Electronics, Drive Systems & Technologies Conference (PEDSTC 2017) ,University of Ferdowsi, Mashhad, Iran ,February 2017.
6. Abolfazl Halvaei Niasar, Mohsen Teimoori ,Design and Simulation of Z-Source Inverter Fed Brushless DC Motor Drive Supplied With Fuel Cell for Automotive Applications ,32th International Power System Conference (PSC 2017) ,Tehran, Iran ,October 2017.
7. Majid Moazzemi, Abolfazl Halvaei Niasar ,Design and Implementation of Direct Power Control Method for Standalone Brushless DC Generator ,31th International Power System Conference (PSC 2016) ,Tehran, Iran ,October 2016.
8. Abolfazl Halvaei Niasar, Saeed Khoobi Arani, Amin Haji Zadeh ,Energy Management of a Solar Electric Vehicle Equipped with Two-Energy Storages via Optimized Fuzzy Controller by Genetic Algorithm ,31th International Power System Conference (PSC 2016) ,Tehran, Iran ,October 2016.
9. Mohammad Kebriaei, Abbas Ketabi, Abolfazl Halvaei Niasar ,Three-Phase Pulsed Power Generator using Diode-Capacitor Boost Topology, (in Persian) ,3rd National and First International Conference in applied research on Electrical, Mechanical and Mechatronics Engineering ,Malek-e-Ashtar University of Tehnology, Tehran, Iran ,18-19 Feb. 2015.
10. Mohammad Kebriaei, Abolfazl Halvaei Niasar, Abbas Ketabi ,A New Pulsed Power Generator Topology for Corona Discharge ,7th IEEE Power Electronics, Drive Systems & Technologies Conference (PEDSTC 2016) ,Iran University of Science and Technology (IUST), Tehran, Iran ,February 2016.
11. Abolfazl Halvaei Niasar, Arsham Ghanbari ,Evaluation of Various Dynamic Modeling Methods of a Circumferential-Flux Hysteresis Motors ,7th IEEE Power Electronics, Drive Systems & Technologies Conference (PEDSTC 2016) ,Iran University of Science and Technology (IUST), Tehran, Iran ,February 2016.
12. Saeed Khoobi Arani, Abolfazl Halvaei Niasar, Amin Haji Zadeh ,Energy Management of Dual-Source Propelled Electric Vehicle using Fuzzy Controller Optimized via Genetic Algorithm ,7th IEEE Power Electronics, Drive Systems & Technologies Conference (PEDSTC 2016) ,Iran University of Science and Technology (IUST), Tehran, Iran ,February 2016.
13. Mohammad Kebriaei, Abbas Ketabi, Abolfazl Halvaei Niasar ,A New Resonant CDVM Topology for Pulsed Power Application ,24th Iranian Conference on Electrical Engineering (ICEE 2016) ,Shiraz University, Shiraz, Iran ,May 2016.
14. Abolfazl Halvaei Niasar, Arsham Ghanbari, AmirHossein PirZadeh ,An Improved Analytical Dynamic Modeling of Hysteresis Motor ,24th Iranian Conference on Electrical Engineering (ICEE 2016) ,Shiraz University, Shiraz, Iran ,May 2016.
15. Mohammad Kebriaei, Abolfazl Halvaei Niasar, Behzad Asaei ,Hybrid electric vehicles: An overview ,4th International Conference on Connected Vehicles and Expo (ICCVE 2015) ,Shenzhen, China ,October 2015.
16. Mohammad Kebriaei, Abbas Ketabi, Abolfazl Halvaei Niasar ,Water and Gas Treatment by Using Pulsed Corona Discharge Technique ,IEEE International Conference on Plasma Sciences (ICOPS) ,Antalya, Turkey ,May 2015.
17. Saber Jamshidi far, Abolfazl Halvaei Niasar, AliReza Faraji ,Position Sensorless Direct Power Control of Brushless DC Motor Drive ,Seminar on Power Electronics Technologies (TPES 2015) ,Sharif University of Technology, Tehran, Iran ,March 2015.
18. Abolfazl Halvaei Niasar, Ehsan Bolor Kashani ,Implementation of Constant Current of Five-Phase Stepper Motor Drive, using One-Cycle Control Strategy (in Persian) ,Seminar on Power Electronics Technologies (TPES 2015) ,Sharif University of Technology, Tehran, Iran ,March 2015.
19. Abolfazl Halvaei Niasar, Zahra Zare, Fahimeh Rabiei Far ,A Low-Cost P&O based Maximum Power Point Tracking, Combined with Two-Degree Sun Tracker ,6th IEEE Power Electronics, Drive Systems & Technologies Conference (PEDSTC 2015) ,Shahid Beheshti University, Tehran, Iran ,February 2015.
20. Omid Mohammadpour, Abolfazl Halvaei Niasar ,One Cycle Control of Buck-Type,Current Source

- Inverter-Fed, Brushless DC Motor Drive ,6th IEEE Power Electronics, Drive Systems & Technologies Conference (PEDSTC 2015) ,Shahid Beheshti University, Tehran, Iran ,February 2015.
21. Abolfazl Halvaei Niasar, Dariush Zamani, Hassan Moghbeli ,Power System Stabilizer Design Based On Honey-Bee Mating Optimization Algorithm ,Qatar Foundation Annual Research Conference ,Doha, Qatar ,February 2014.
 22. Abolfazl Halvaei Niasar, Hassan Moghbeli, Hossein Rahimi Khoei ,Sensorless Direct Power Control Of Induction Motor Drive Using Artificial Neural Network ,Qatar Foundation Annual Research Conference ,Doha, Qatar ,February 2014.
 23. Omid Mohammadpour, Abolfazl Halvaei Niasar ,Comparison of One-Cycle Control and PWM Strategies in Sensorless Drive of Brushless DC Motor Drive (in Persian) ,8th National Conference on Engineering, Science and Novel Ideas ,Tonekabon, Iran ,11 May 2014.
 24. Omid Mohammadpour, Abolfazl Halvaei Niasar ,Current Source Inverter, Brushless DC Motor Drive based on One Cycle Control Strategy (in Persian) ,First National Conference on Electrical and Computer in North of Iran ,Bandar Anzali, Iran ,12 June 2014.
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 26. Hassan Moghbeli, Abolfazl Halvaei Niasar, Mozghan Behzadi Shahrabak ,Direct Power Control of Brushless DC Motor Drive ,IEEE Industrial Electronics Society Conf., (ISIE 2014) ,Istanbul, Turkey ,June 2014.
 27. Hassan Moghbeli, Abolfazl Halvaei Niasar, Naser Fallahi ,Fuzzy Energy Control Strategy of Through-To-Road Hybrid Electric Vehicle ,IEEE Industrial Electronics Society Conf., (ISIE 2014) ,Istanbul, Turkey ,June 2014.
 28. Ehsan Bolor Kashani, Abolfazl Halvaei Niasar ,Implementation of a Novel Brushless DC Motor Drive based on One-Cycle Control Strategy ,5th IEEE Power Electronics, Drive Systems & Technologies Conference (PEDSTC 2014) ,Tehran, Iran ,February 2014.
 29. Abolfazl Halvaei Niasar, Mozghan Behzadi Shahrabak ,Direct Power Control of Brushless DC Generator for Automotive Applications ,5th IEEE Power Electronics, Drive Systems & Technologies Conference (PEDSTC 2014) ,Tehran, Iran ,February 2014.
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 33. S. Falahati, A. Halvaei Niasar ,Design of Power System Stabilizer via Optimal Control, (in Persian) ,15th Iranian Student Conference on Electrical Engineering (ISCEE) ,University of Kashan, Kashan, Iran ,28-30 August 2012.
 34. E. Bolor Kashani, A. Halvaei Niasar ,XMEGA-Based Implementation of Four-Switch, Three-Phase Voltage Source Inverter-Fed Induction Motor Drive, (in Persian) ,15th Iranian Student Conference on Electrical Engineering (ISCEE) ,University of Kashan, Kashan, Iran ,28-30 August 2012.
 35. S.A. Seyedi, A. Halvaei Niasar ,State of Charge Estimation of Battery using Kalman Filter, (in Persian) ,15th Iranian Student Conference on Electrical Engineering (ISCEE) ,University of Kashan, Kashan, Iran ,28-30 August 2012.
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39. Afsoon Abolfathi, Manizheh Jafaie, Sayyedah Armaghan Moghaddasi, Abolfazl Halvaei Niasar, Hassan Moghbelli ,Design and Implementation of a Low-Cost Photovoltaic Traffic Light Signal System ,American Society for Engineering Education (ASEE) Annual Conference ,San Antonio, Texas, USA ,June 2012.
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42. A. Halvaei Niasar, S. Golabi ,Design and Manufacturing of Hybrid Electric Vehicle Pride at University of Kashan, Part 2: Electrical Considerations, (in Persian) ,First National Conference on Electric and Hybrid Vehicles ,Tehran, Iran ,23-24 Oct. 2011.
43. S. Golabi, A. Halvaei Niasar ,Design and Manufacturing of Hybrid Electric Vehicle Pride at University of Kashan, Part 1: Mechanical Considerations, (in Persian) ,First National Conference on Electric and Hybrid Vehicles ,Tehran, Iran ,23-24 Oct. 2011.
44. Hassan Moghbelli, Mahmood Amani, A. Halvaei Niasar, Sh. Agrawal, J.J. Abraham ,Conversion of Gasoline Vehicles to CNG Vehicles and Hybrid Vehicles (CNG-Electric) ,American Society for Engineering Education (ASEE) Annual Conference ,McNeese State University, Louisiana, USA ,2010.
45. A. Halvaei Niasar, A. Vahedi, H. Moghbelli ,Estimation Error Analysis of the Position Sensorless-Controlled BLDC Motor Drive based on Line-to-Line Voltages Measurement ,17th Iranian Conference on Electrical Engineering (ICEE) ,Iran University of Science and Technology, Tehran, Iran ,May 2009.
46. A. Halvaei Niasar, H. Moghbelli, A. Vahedi ,Modeling, Simulation and Implementation of Four-Switch, Three-Phase Brushless DC Motor Drive based on Switching Function Concept ,IEEE Eurocon conference ,Russia ,May 2009.
47. H. R. Soroush, A. R. Rahmati, H. Moghbelli, A. Vahedi, A. Halvaei Niasar ,Study on the Hunting in High Speed Hysteresis Motors due to the Rotor Hysteresis Material ,IEEE Eurocon conference ,Russia ,May 2009.
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49. A. Halvaei Niasar, Abolfazl Vahedi, Hsaan Moghbelli ,Torque Control of Brushless DC Motor Drive based on DSP Technology ,IEEE International Conference on Electrical Machines and Systems (ICEMS) ,Seoul, South Korea ,October 2007.
50. A. Halvaei Niasar, H. Moghbelli, A. Vahedi ,A Novel Sensorless Control Method for Four-Switch, Brushless DC Motor Drive without Using any 30 degree Phase Shifter ,IEEE International Conference on Electrical Machines and Systems (ICEMS) ,Seoul, South Korea ,October 2007.
51. Abolfazl Halvaei Niasar, Hassan Moghbelli, Abolfazl Vahedi ,Implementation of Four-Switch Brushless DC Motor Drive based on TMS320LF2407 DSP ,IEEE International Conference on Signal Processing and Communications (ICSPC) ,Dubai, UAE ,November 2007.
52. H. Moghbelli, A. Halvaei Niasar, R. Langari ,New Generation of Passenger Vehicles: FCV or HEV? ,International Conference on Renewable Energy and Power Quality (ICRE PQ) ,Sevilla, Spain ,March 2007.
53. A. Halvaei Niasar, H. Moghbelli ,Mild Hybrid, A New Strategy for Fuel Consumption Optimization in

- Internal Combustion Engine and Energy Saving, (in Persian) ,9th Iranian Student Conference on Electrical Engineering (ISCEE) ,University of Tehran, Tehran, Iran ,September 2006.
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57. A. Halvaei Niasar, H. Moghbelli, A. Vahedi ,Commutation Torque Ripple of Four-Switch Brushless DC Motor Drives_Part I: Analysis ,9th IEEE International Workshop on Advanced Motion Control (AMC) ,Istanbul, Turkey ,March 2006.
58. S.A. Kamali, A.Vahedi, A.Halvaei ,Performance Analysis of HTS Fault Current Limiter Combined with a ZnO Varistor ,8th IEEE International Conference on Electrical Machines and Systems (ICEMS) ,Nanjing, China ,September 2005.
59. A. M. Kashtiban, A. Vahedi, A. Halvaei ,Investigation of Winding Type effect on Leakage Flux of Single Phase Shell Type Transformer Using FEM ,8th IEEE International Conference on Electrical Machines and Systems (ICEMS) ,Nanjing, China ,September 2005.
60. A. Halvaei Niasar, A. Vahedi, H. Moghbelli ,Speed Control of a Brushless DC Motor Drive via Adaptive Neuro-Fuzzy Controller based on Emotional Learning Algorithm ,8th IEEE International Conference on Electrical Machines and Systems (ICEMS) ,Nanjing, China ,September 2005.
61. A. Halvaei Niasar, H. Moghbelli, A. Vahedi ,Design Methodology of Drive Train for a Series-Parallel Hybrid Electric Vehicle (SP-HEV) and its Power Flow Control Strategy ,IEEE International Electric Machines and Drives Conference (IEMDC) ,San Antonio, Texas, USA ,May 2005.
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63. A. Halvaei Niasar, SH. Jadid, H. Moghbelli ,Dynamic Stability of a Grid-Connected Photovoltaic System and Interactive Effects Analysis, (in Persian) ,19th International Power System Conference (PSC) ,Tehran, Iran ,November 2004.
64. A. Halvaei Niasar ,Superconductive Magnetic Energy Storage Systems (SMES): Control and Applications in Electrical Power Systems, (in Persian) ,7th Iranian Student Conference on Electrical Engineering (ISCEE) ,Khajeh Nasiraddin Toosi University, Tehran, Iran ,September 2004.
65. A. Halvaei Niasar, A. Gholami, H. Moghbelli ,Lifetime Assessment and Aging Acceleration of Power and Distribution Transformers Insulation under Combined Electrical & Thermal Stresses, (in Persian) ,9th Conference of Electric Power Distribution Networks (EPDN) ,Zanjan, Iran ,May 2004.
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67. A. Halvaei Niasar, A. Kazemi, H. Moghbelli, M. Kalantar ,Reactive Power Distribution and Control of a Wind Farm Made up with Doubly Fed Induction Generators using Adaptive Neuro-Fuzzy Inference Systems (ANFIS), (in Persian) ,12th Iranian Conference of Electrical Engineering (ICEE) ,Mashhad, Iran ,May 2004.
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Papers in Journals

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