

# Abolfazl Vahedi

## List of Publications by Year in descending order

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89  
papers

1,101  
citations

516710

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477307

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g-index

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89  
docs citations

89  
times ranked

934  
citing authors

#	ARTICLE	IF	CITATIONS
1	Diagnosing Shorted Turns on the Windings of Power Transformers Based Upon Online FRA Using Capacitive and Inductive Couplings. IEEE Transactions on Power Delivery, 2011, 26, 2123-2133.	4.3	111
2	Effect of Inclined Static Eccentricity Fault in Single Stator-Single Rotor Axial Flux Permanent Magnet Machines. IEEE Transactions on Magnetics, 2012, 48, 143-149.	2.1	72
3	A Novel Position Sensorless Control of a Four-Switch, Brushless DC Motor Drive Without Phase Shifter. IEEE Transactions on Power Electronics, 2008, 23, 3079-3087.	7.9	59
4	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 and Energy Systems, 2012, 42, 78-90.	5.5	59
5	An Online Method for Static Eccentricity Fault Detection in Axial Flux Machines. IEEE Transactions on Industrial Electronics, 2015, 62, 1931-1942.	7.9	59
6	Static Eccentricity Fault Detection in Single-Stator Single-Rotor Axial-Flux Permanent-Magnet Machines. IEEE Transactions on Industry Applications, 2012, 48, 1838-1845.	4.9	53
7	Improved switching table for direct power control of three-phase PWM rectifier. , 2007, , .		45
8	Review of model predictive control strategies for matrix converters. IET Power Electronics, 2019, 12, 3021-3032.	2.1	45
9	Design Optimization of Transversely Laminated Synchronous Reluctance Machine for Flywheel Energy Storage System Using Response Surface Methodology. IEEE Transactions on Industrial Electronics, 2017, 64, 9748-9757.	7.9	42
10	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, 2016, 110, 230-239.	9.2	35
11	Specification and Design of Ring Winding Axial Flux Motor for Rim-Driven Thruster of Ship Electric Propulsion. IEEE Transactions on Vehicular Technology, 2019, 68, 1318-1326.	6.3	34
12	Online monitoring of power transformers for detection of internal winding short circuit faults using negative sequence analysis. European Transactions on Electrical Power, 2011, 21, 196-211.	1.0	27
13	An Analytical Approach to Eccentricity in Axial Flux Permanent Magnet Synchronous Generators for Wind Turbines. Electric Power Components and Systems, 2015, 43, 1039-1050.	1.8	25
14	A survey of shaft voltage reduction strategies for induction generators in wind energy applications. Renewable Energy, 2013, 50, 177-187.	8.9	23
15	Modeling and improvement of direct power control of DFIC under unbalanced grid voltage condition. International Journal of Electrical Power and Energy Systems, 2014, 59, 58-65.	5.5	21
16	A new outer-rotor flux switching permanent magnet generator for wind farm applications. Wind Energy, 2017, 20, 3-17.	4.2	19
17	Machine learning approach for fault detection in brushless synchronous generator using vibration signals. IET Science, Measurement and Technology, 2019, 13, 852-861.	1.6	18
18	A Modified Permanent Magnet-Assisted Synchronous Reluctance Motor Design for Torque Characteristics Improvement. IEEE Transactions on Energy Conversion, 2022, 37, 989-998.	5.2	17

#	ARTICLE	IF	CITATIONS
19	Magnetic equivalent circuit modelling of ring winding axial flux machine. IET Electric Power Applications, 2018, 12, 293-300.	1.8	15
20	Design study of FSPM generator with novel outer rotor configuration for small wind turbine application. , 2014, , .		14
21	Rotary diode failure detection in brushless exciter system of power plant synchronous generator. , 2016, , .		14
22	Minimisation of torque ripple in slotless axial flux BLDC motors in terms of design considerations. IET Electric Power Applications, 2017, 11, 1124-1130.	1.8	14
23	An AHP-based approach for design optimization of flux-switching permanent magnet generator for wind turbine applications. International Transactions on Electrical Energy Systems, 2016, 26, 1318-1338.	1.9	13
24	Design and Analysis of Interior Permanent Magnet Motor for Electric Vehicle Application Considering Irreversible Demagnetization. IEEE Transactions on Industry Applications, 2022, 58, 284-293.	4.9	13
25	Online synchronous generator out-of-step prediction by electrical power curve fitting. IET Generation, Transmission and Distribution, 2020, 14, 1169-1176.	2.5	12
26	Analysis and Control of Commutation Torque Ripple in Four-Switch, Three-Phase Brushless DC Motor Drive. , 2006, , .		11
27	An experimental approach for investigating low-level interturn winding faults in power transformers. Electrical Engineering, 2013, 95, 135-145.	2.0	11
28	Calculation of Parasitic Elements in Toroidal Core Transformers. IEEE Transactions on Plasma Science, 2014, 42, 1690-1696.	1.3	11
29	Torque characteristics enhancement of ring winding axial flux permanent magnet generator for direct-drive wind turbine. IET Electric Power Applications, 2020, 14, 1584-1591.	1.8	11
30	Minimizing the torque ripple of variable capacitance electrostatic micromotors. Journal of Electrostatics, 2006, 64, 361-367.	1.9	10
31	Low-cost sensorless control of four-switch, brushless DC motor drive with direct back-EMF detection. Journal of Zhejiang University: Science A, 2009, 10, 201-208.	2.4	10
32	Implementation of Four-Switch Brushless DC Motor Drive based on TMS320LF2407 DSP. , 2007, , .		9
33	An Improved AHP Method for Multi-Objective Design of FSPM Machine for Wind Farm Applications. Journal of Intelligent and Fuzzy Systems, 2015, 30, 159-169.	1.4	9
34	Sensitivity analysis and multiobjective design optimization of flux switching permanent magnet motor using MLP-ANN modeling and NSGA-II algorithm. International Transactions on Electrical Energy Systems, 2020, 30, e12511.	1.9	9
35	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, 2011, 30, 483-504.	0.9	8
36	A common-mode voltage reduction strategy for a DFIG with a three-level back-to-back converter. , 2011, , .		8

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37	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 and Computer Sciences, 2014, 22, 1517-1527.	1.4	8
38	A novel sensorless control method for four-switch, brushless DC motor drive without using any 30° phase shifter. , 2007, , .		8
39	Effects of static eccentricity in axial flux permanent magnet machines. , 2010, , .		7
40	Voltage quality improvement in islanded microgrids supplying nonlinear loads. , 2012, , .		7
41	Effect of static eccentricity in back-EMF of Axial Flux Permanent Magnet Machines. , 2012, , .		6
42	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, 2013, 26, 425-442.	1.9	6
43	Study on Axial Flux Hysteresis Motors Considering Airgap Variation. Journal of Electromagnetic Analysis and Applications, 2010, 02, 252-257.	0.2	5
44	Second-Order Sliding Mode Control of a Smart Inverter for Renewable Energy System. International Review of Electrical Engineering, 2014, 9, 1090.	0.2	5
45	ANFIS-Based Controller with Fuzzy Supervisory Learning for Speed Control of 4-Switch Inverter Brushless DC Motor Drive. , 0, , .		4
46	Optimized Design of PM Torquer for Dynamically Tuned Gyroscope. IEEE Transactions on Industry Applications, 2012, 48, 2268-2276.	4.9	4
47	Sensitivity analysis of 6&#x2013;19 pole outer rotor configuration of FSPM generator for wind turbine application. , 2014, , .		4
48	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 and Computer Sciences, 2015, 23, 38-51.	1.4	4
49	Analysis of Commutation Torque Ripple in Three-Phase, Four-Switch Brushless DC (BLDC) Motor Drives. , 0, , .		3
50	Permanent Magnet DC Linear Motor for Aircraft Electromagnetic Launcher. , 2008, , .		3
51	A novel direct power control strategy for integrated DFIG/active filter system. , 2012, , .		3
52	Design of a Wound Core Pulse Transformer Using Multiobjective Optimization Method. IEEE Transactions on Plasma Science, 2015, 43, 857-863.	1.3	3
53	Simple boost control of a new high voltage gain Z-source inverter. , 2018, , .		3
54	Optimization of Geometry and Dimensions of Magnetic Switch Core with Approach of Flux Density Uniformity. , 2019, , .		3

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55	Demagnetization Fault Diagnosis of FSPM Motor Based on ReliefF and SVM. , 2019, , .		3
56	Irreversible demagnetization analysis of RWAFPM motor using modified MEC algorithm. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2020, 39, 1227-1239.	0.9	3
57	Sensitivity-Based Optimization of Interior Permanent Magnet Synchronous Motor for Torque Characteristic Enhancement. Energies, 2021, 14, 2240.	3.1	3
58	Modified Halbach design for torque profile improvement in a permanent magnet synchronous motor dedicated to an electric city bus. IET Electric Power Applications, 2022, 16, 1410-1425.	1.8	3
59	Torque control of brushless DC motor drive based on DSP technology. , 2007, , .		3
60	Induction motor load generator system using direct torque control method. , 2007, , .		2
61	Performance investigation of Direct Power Control method in Current Source Rectifier under different operation conditions. , 2008, , .		2
62	Sensorless direct power control of current source rectifier based on virtual flux. , 2008, , .		2
63	Design Optimization of Reluctance Synchronous Linear Machines for Electromagnetic Aircraft Launch System. , 2008, , .		2
64	Detecting and locating turn to turn Fault on layer winding of distribution transformer. , 2014, , .		2
65	Sensitivity analysis to improve the design process of an induction motor using MEC. , 2016, , .		2
66	Analytical modeling of hybrid electromagnetic excited linear synchronous motor. , 2016, , .		2
67	A Conservative Approach for Investigation of Transient Overvoltage Acceptability in Customersâ€™ Terminals by Considering Voltage Vulnerability Curves of Customers. IEEE Transactions on Energy Conversion, 2018, 33, 1590-1593.	5.2	2
68	Shaft twisting effect on steady state performance of flux switching motor with long rotor. International Journal of Applied Electromagnetics and Mechanics, 2019, 61, 315-327.	0.6	2
69	Torque Profile Improvement of a Synchronous Reluctance Motor through Optimizing the Rotor Flux Barriers Ends. , 2019, , .		2
70	Position Sensor Error Analysis for PMA-SynR Motor Drive system. , 2019, , .		2
71	Transient stability improvement based on out-of-step prediction. Electric Power Systems Research, 2021, 194, 107108.	3.6	2
72	Diagnosis of Moisture Content in Oil-Paper Bushings Using Statistical Indicators Based on Frequency Domain Spectroscopy. Smart Innovation, Systems and Technologies, 2022, , 287-298.	0.6	2

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73	A continuous control set of the model predictive controller of PMA-SynRM machine for high-performance flywheel energy storage system. International Journal of Dynamics and Control, 2022, 10, 1553-1566.	2.5	2
74	Transient analysis of induction generator jointed to network at balanced and unbalanced short circuit faults. , 2007, , .		1
75	Effect of Air gap variation on characteristics of an Axial flux hysteresis motor. , 2010, , .		1
76	An online eccentricity fault detection method for Axial Flux machines. , 2014, , .		1
77	Determination of Wound Core Transformer Losses and Temperature Rise. EPE Journal (European) Tj ETQq1 1 0.784314 rgBT /Overlock	0.7	1
78	A dynamic model for the investigation of twisting effect in long flux-switching PM motors in ESPs. International Transactions on Electrical Energy Systems, 2021, 31, e13235.	1.9	1
79	Electrical machines surrogate-based design optimization based on novel waveform targeting strategy with improvement of the computational efficiency. IET Electric Power Applications, 2022, 16, 1286-1299.	1.8	1
80	Common mode voltage reduction with a modified hysteresis current control strategy. , 2011, , .		0
81	Torque ripple reduction by multi-layering technique in an interior permanent magnet motor used in hybrid electric vehicle. , 2014, , .		0
82	Performance of insulation materials to enhance grading method effect in high voltage cable. , 2016, , .		0
83	Comparing the effect of using new hysteresis material on the performance of a hysteresis motor. , 2016, , .		0
84	Average value modeling of six-pulse diode rectifier considering unbalance conditions in supply voltage and impedance. International Transactions on Electrical Energy Systems, 2020, 30, e12216.	1.9	0
85	ANN-based optimization approach devoted to the sizing of arbitrary rotor pole geometries of permanent magnet motors for electric motorcycle. International Journal of Applied Electromagnetics and Mechanics, 2021, 64, S155-S166.	0.6	0
86	Robust Design of BLDC Motor for Jetboard Application. , 2021, , .		0
87	Optimal Sizing of Permanent Magnets with Non-Conventional Geometries in Synchronous Machines. , 2019, , .		0
88	Investigation of start-up conditions on electric submersible pump driven with flux switching motor. Turkish Journal of Electrical Engineering and Computer Sciences, 2019, 27, 3967-3979.	1.4	0
89	Diagnosis of brushless synchronous generator using numerical modeling. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2020, 39, 1241-1254.	0.9	0