Xiaoyong Zhu

List of Publications by Year in Descending Order

128	2,077	25	41
papers	citations	h-index	g-index
167	2,796	3.9	5.48
ext. papers	ext. citations	avg, IF	L-index

#	Paper	IF	Citations
128	A Pole-Changing Doubly Salient Permanent Magnet Motor. *IEEE Transactions on Transportation Electrification*, **2022**, 1-1	7.6	0
127	Torque Ripple Suppression of a Permanent Magnet Vernier Motor from Perspective of Shifted Air-gap Permeance Distribution. *IEEE Transactions on Magnetics*, **2022**, 1-1	2	
126	Design and Optimization of Double-Stator Vernier Permanent Magnet Motor with Improved Torque Characteristics Based on Flux Modulation Theory. *IEEE Transactions on Magnetics*, **2022**, 1-1	2	
125	Research on Magnetic Coupling Characteristic of a Double Rotor Flux-Switching PM Machine from the Perspective of Air-Gap Harmonic Groups. *IEEE Transactions on Industrial Electronics*, **2022**, 1-1	8.9	9
124	A Robust Optimization Design Approach for Hybrid PM Machine Considering Asymmetric Uncertainties of PMs. *IEEE Transactions on Magnetics*, **2022**, 1-1	2	1
123	Broadening Design and Optimization of High Efficiency Region for a Dual-Mechanical-Port Flux-Switching Permanent Magnet Motor. *IEEE Transactions on Magnetics*, **2022**, 1-1	2	
122	Design and Analysis of a V-Shaped Permanent Magnet Vernier Motor for High Torque Density. *CES Transactions on Electrical Machines and Systems*, **2022**, 6, 20-28	2.3	2
121	Torque Component Redistribution and Enhancement for Hybrid Permanent Magnet Motor with Permanent Magnet Offset Placement. *IEEE Transactions on Transportation Electrification*, **2022**, 1-1	7.6	
120	Comparative Analysis and Design of Partitioned Stator Hybrid Excitation Axial Flux Switching PM Motors for In-Wheel Traction Applications. *IEEE Transactions on Energy Conversion*, **2021**, 1-1	5.4	2
119	Flux-Leakage Design Principle and Multiple-Operating Conditions Modeling of Flux Leakage Controllable PM Machine Considering Driving Cycles. *IEEE Transactions on Industrial Electronics*, **2021**, 1-1	8.9	3
118	Different Active Disturbance Rejection Controllers Based on the Same Order GPI Observer. *IEEE Transactions on Industrial Electronics*, **2021**, 1-1	8.9	5
117	Partitioned Stator Hybrid Excitation Doubly Salient Machine With Slot Halbach PM Arrays. *IEEE Transactions on Vehicular Technology*, **2021**, 70, 3187-3196	6.8	6
116	Elimination of DC-Link Voltage Ripple in PMSM Drives With a DC-Split-Capacitor Converter. *IEEE Transactions on Power Electronics*, **2021**, 36, 8141-8154	7.2	2
115	Optimization Design of Power Factor for an In-Wheel Vernier PM Machine From the Perspective of Air-Gap Harmonic Modulation. *IEEE Transactions on Industrial Electronics*, **2021**, 68, 9265-9276	8.9	15
114	Multi-objective Optimization Design of Variable-Saliency-Ratio PM Motor Considering Driving Cycles. *IEEE Transactions on Industrial Electronics*, **2021**, 68, 6516-6526	8.9	23
113	Fault-Tolerant Control for Multiple Open-Leg Faults in Open-End Winding Permanent Magnet Synchronous Motor System Based on Winding Reconnection. *IEEE Transactions on Power Electronics* , **2021**, 36, 6068-6078	7.2	17
112	Flux-Weakening Capability Enhancement Design and Optimization of a Controllable Leakage Flux Multilayer Barrier PM Motor. *IEEE Transactions on Industrial Electronics*, **2021**, 68, 7814-7825	8.9	12

111	Design and Analysis of a New Permeability-Modulated Interior Permanent-Magnet Synchronous Machine. *IEEE Transactions on Magnetics*, **2021**, 57, 1-5	2	
110	Anti-Demagnetization Capability Research of a Less-Rare-Earth Permanent-Magnet Synchronous Motor Based on the Modulation Principle. *IEEE Transactions on Magnetics*, **2021**, 57, 1-6	2	1
109	Investigation on Torque Characteristic and PM Operation Point of Flux-Intensifying PM Motor Considering Low-Speed Operation. *IEEE Transactions on Magnetics*, **2021**, 57, 1-5	2	5
108	Power Oriented Design and Optimization of Dual Stator Linear-Rotary Generator with Halbach PM Array for Ocean Energy Conversion. *IEEE Transactions on Energy Conversion*, **2021**, 1-1	5.4	1
107	Multi-Objective-Layered Optimization of a Magnetic Planetary Gear for Hybrid Powertrain. *IEEE Journal of Emerging and Selected Topics in Power Electronics*, **2021**, 1-1	5.6	1
106	Torque Ripple Reduction of PMSM With Small Capacitor Drive Systems Based on Combined Control Method. *IEEE Access*, **2021**, 9, 98874-98882	3.5	1
105	Partitioned Stator Hybrid Excited Machine With DC-Biased Sinusoidal Current. *IEEE Transactions on Industrial Electronics*, **2021**, 1-1	8.9	5
104	Comparative Study of Stepwise Optimization and Global Optimization on a Nine-Phase Flux-Switching PM Generator. *Energies*, **2021**, 14, 4754	3.1	0
103	Research on Power Factor Characteristic for a Flux-Modulated Permanent Magnet Motor From Perspective of Magnetic Source Topologies Effect. *IEEE Transactions on Applied Superconductivity*, **2021**, 31, 1-6	1.8	0
102	Airgap-Harmonic-Based Multilevel Design and Optimization of a Double-Stator Flux-Modulated Permanent-Magnet Motor. *IEEE Transactions on Industrial Electronics*, **2021**, 68, 10534-10545	8.9	11
101	Comparative Analysis and Multi-Objective Optimization of Hybrid Permanent Magnet Motors Considering Different Saliency Characteristics. *IEEE Transactions on Applied Superconductivity*, **2021**, 31, 1-5	1.8	1
100	Research On Enhanced Harmonic Effect of a Dual-PM-Excited Flux-Modulated Motor. *IEEE Transactions on Applied Superconductivity*, **2021**, 31, 1-6	1.8	0
99	Investigation on Electromagnetic Torque of a Flux-Switching Permanent Magnet Motor from Perspective of Flux Density Harmonic Reduction Ratio. *IEEE Transactions on Magnetics*, **2021**, 1-1	2	
98	. *IEEE Transactions on Industrial Electronics*, **2021**, 1-1	8.9	3
97	Torque Characteristics Investigation of a Flux-Controllable Permanent Magnet Motor Considering Different Flux-leakage Operation Conditions. *IEEE Transactions on Magnetics*, **2021**, 1-1	2	1
96	A Generalized Open-Circuit Fault-Tolerant Control Strategy for FOC and DTC of Five-Phase Fault-Tolerant Permanent-Magnet Motor. *IEEE Transactions on Industrial Electronics*, **2021**, 1-1	8.9	8
95	Multi-Objective Optimization Design of a Multi-Permanent-Magnet Motor Considering Magnet Characteristic Variation Effects. *IEEE Transactions on Industrial Electronics*, **2021**, 1-1	8.9	8
94	Low Harmonics Design for Modular PM Synchronous Machine Using Partitioned Winding. *IEEE Transactions on Industrial Electronics*, **2021**, 1-1	8.9	1

93	Robust Optimization Design for Permanent Magnet Machine Considering Magnet Material Uncertainties. *IEEE Transactions on Magnetics*, **2021**, 1-1	2	1
92	Suppression of Torque Ripple of a Flux-Switching Permanent Magnet Motor in Perspective of Flux-Modulation Principle. *IEEE Transactions on Transportation Electrification*, **2021**, 1-1	7.6	1
91	Decoupling control of a dual-stator linear and rotary permanent magnet generator for offshore joint wind and wave energy conversion system. *IET Electric Power Applications*, **2020**, 14, 561-569	1.8	7
90	Robust-Oriented Optimization Design for Permanent Magnet Motors Considering Parameter Fluctuation. *IEEE Transactions on Energy Conversion*, **2020**, 35, 2066-2075	5.4	3
89	Analysis and Design of a New Type of Less-Rare-Earth Hybrid-Magnet Motor With Different Rotor Topologies. *IEEE Transactions on Applied Superconductivity*, **2020**, 30, 1-6	1.8	9
88	Equivalent Magnetic Circuit Analysis of Doubly Salient PM Machine With E-Shaped Stator Iron Core Segments. *IEEE Transactions on Applied Superconductivity*, **2020**, 30, 1-5	1.8	6
87	Low-Loss-Design of a Flux-Switching Motor Considering Air-Gap Harmonics. *IEEE Transactions on Applied Superconductivity*, **2020**, 30, 1-5	1.8	1
86	Electromagnetic Performance Analysis of an Axial Flux Partitioned Stator Hybrid-Excited Less-Rare-Earth PM Synchronous Motor. *IEEE Transactions on Applied Superconductivity*, **2020**, 30, 1-5	1.8	1
85	Design and Analysis of a Multi-Flux-Modulated Permanent Magnet Motor. *IEEE Transactions on Applied Superconductivity*, **2020**, 30, 1-5	1.8	2
84	Electromagnetic–Mechanical Coupling Optimization of an IPM Synchronous Machine with Multi Flux Barriers. *Energies*, **2020**, 13, 1819	3.1	3
83	Design and Analysis of New Five-Phase Flux-Intensifying Fault-Tolerant Interior-Permanent-Magnet Motor for Sensorless Operation. *IEEE Transactions on Industrial Electronics*, **2020**, 67, 6055-6065	8.9	18
82	ANALYSIS AND OPTIMIZATION OF DOUBLE-SIDE HYBRID EXCITATION FLUX-SWITCHING MOTOR. *Progress in Electromagnetics Research C*, **2020**, 101, 219-232	0.9	
81	Dual Quasi-Resonant Controller Position Observer Based on High Frequency Pulse Voltage Injection Method. *IEEE Access*, **2020**, 8, 213266-213276	3.5	3
80	Design and Optimization of a Flux-Modulated Permanent Magnet Motor Based on an Airgap-Harmonic-Orientated Design Methodology. *IEEE Transactions on Industrial Electronics*, **2020**, 67, 5337-5348	8.9	39
79	Optimal flux-weakening control of a new five-phase FT-IPM motor based on DTC and SVPWM for electric vehicle applications. *IET Electric Power Applications*, **2019**, 13, 73-80	1.8	7
78	Design and Analysis of Double-Air-Gap Flux-Modulated Permanent Magnet Motor Considering Leading Working Harmonics. *IEEE Transactions on Magnetics*, **2019**, 55, 1-5	2	5
77	Multi-objective optimisation of a permanent magnet flux-switching motor by combined parameter sensitivities analysis with non-linear varying-network magnetic circuit method. *IET Electric Power Applications*, **2019**, 13, 24-30	1.8	5
76	Active Disturbance Rejection Controller for Speed Control of Electrical Drives Using Phase-Locking Loop Observer. *IEEE Transactions on Industrial Electronics*, **2019**, 66, 1748-1759	8.9	58

75	. *IEEE Transactions on Industrial Electronics*, **2019**, 66, 2613-2627	8.9	70
74	Principle and Analysis of Doubly Salient PM Motor With □Shaped Stator Iron Core Segments. *IEEE Transactions on Industrial Electronics*, **2019**, 66, 1962-1972	8.9	32
73	Systematic multi-level optimization design and dynamic control of less-rare-earth hybrid permanent magnet motor for all-climatic electric vehicles. *Applied Energy*, **2019**, 253, 113549	10.7	37
72	Optimisation design of a flux memory motor based on a new non-linear MC-DRN model. *IET Electric Power Applications*, **2019**, 13, 2035-2043	1.8	4
71	Indirect Analytical Modeling and Analysis of V-Shaped Interior PM Synchronous Machine. *IEEE Access*, **2019**, 7, 173786-173795	3.5	6
70	Reverse Saliency Optimization of Flux-Intensifying Hybrid Permanent Magnet Machine for Variable Speed Applications. *IEEE Transactions on Applied Superconductivity*, **2019**, 29, 1-5	1.8	3
69	Investigation of an Asymmetrical Rotor Hybrid Permanent Magnet Motor for Approaching Maximum Output Torque. *IEEE Transactions on Applied Superconductivity*, **2019**, 29, 1-4	1.8	14
68	Design and Multi-Objective Stratified Optimization of a Less-Rare-Earth Hybrid Permanent Magnets Motor With High Torque Density and Low Cost. *IEEE Transactions on Energy Conversion*, **2019**, 34, 1178-1189	5.4	48
67	Multiobjective Optimization Design of a Double-Rotor Flux-Switching Permanent Magnet Machine Considering Multimode Operation. *IEEE Transactions on Industrial Electronics*, **2019**, 66, 641-653	8.9	62
66	Temperature Rise Calculation of a Flux-Switching Permanent-Magnet Double-Rotor Machine Using Electromagnetic-Thermal Coupling Analysis. *IEEE Transactions on Magnetics*, **2018**, 54, 1-4	2	21
65	. *IEEE Transactions on Industrial Electronics*, **2018**, 65, 5353-5366	8.9	120
64	Investigation of Optimal Split Ratio in Brushless Dual-Rotor Flux-Switching Permanent Magnet Machine Considering Power Allocation. *IEEE Transactions on Magnetics*, **2018**, 54, 1-4	2	10
63	Multimode Optimization Research on a Multiport Magnetic Planetary Gear Permanent Magnet Machine for Hybrid Electric Vehicles. *IEEE Transactions on Industrial Electronics*, **2018**, 65, 9035-9046	8.9	50
62	Design and Analysis of a Hybrid Permanent Magnet Assisted Synchronous Reluctance Motor Considering Magnetic Saliency and PM Usage. *IEEE Transactions on Applied Superconductivity*, **2018**, 28, 1-6	1.8	22
61	Design and Analysis of an Interior Permanent Magnet Synchronous Machine With Multiflux-Barriers Based on Flux-Intensifying Effect. *IEEE Transactions on Applied Superconductivity*, **2018**, 28, 1-5	1.8	11
60	Comparative Investigation of Hybrid Excitation Flux Switching Machines. *Energies*, **2018**, 11, 1428	3.1	2
59	A V-Shaped PM Vernier Motor With Enhanced Flux-Modulated Effect and Low Torque Ripple. *IEEE Transactions on Magnetics*, **2018**, 54, 1-4	2	7
58	Phase-Shift Decoupled SVPWM Control Strategy for Open Winding Permanent Magnet Synchronous Motor with Common DC Bus **2018**,		3

57	Optimal Design and Analysis of Partitioned Stator Hybrid Excitation Doubly Salient Machine. *IEEE Access*, **2018**, 6, 57700-57707	3.5	9
56	Multi-Objective Optimization Design and Multi-Physics Analysis a Double-Stator Permanent-Magnet Doubly Salient Machine. *Energies*, **2018**, 11, 2130	3.1	4
55	Fault-Tolerant Control for Open Winding PMSM System with Common DC Bus Based on 120° Decoupled Modulation Strategy **2018**,		1
54	Dynamic demagnetisation investigation for less-rare-earth flux switching permanent magnet motors considering three-phase short-circuit fault. *IET Electric Power Applications*, **2018**, 12, 1176-1182	1.8	4
53	Loss and Efficiency of a Flux-Switching Permanent-Magnet Double-Rotor Machine With High Torque Density. *IEEE Transactions on Magnetics*, **2018**, 54, 1-5	2	4
52	Rotor position estimation scheme with harmonic ripple attenuation for sensorless controlled permanent magnet synchronous motors. *IET Electric Power Applications*, **2018**, 12, 1200-1206	1.8	9
51	Comparative Design and Analysis of New Type of Flux-Intensifying Interior Permanent Magnet Motors With Different Q-Axis Rotor Flux Barriers. *IEEE Transactions on Energy Conversion*, **2018**, 33, 2260-2269	5.4	23
50	Characteristic analysis of a less-rare-earth hybrid PM-assisted synchronous reluctance motor for EVs application. *AIP Advances*, **2017**, 7, 056648	1.5	7
49	Design and Analysis of a Spoke-Type Hybrid Permanent Magnet Motor for Electric Vehicles. *IEEE Transactions on Magnetics*, **2017**, 53, 1-4	2	19
48	Orthogonal Magnetic Field Analysis of a Double-Stator Linear-Rotary Permanent Magnet Motor With Orthogonally Arrayed Permanent Magnets. *IEEE Transactions on Magnetics*, **2017**, 53, 1-4	2	12
47	Design and Multicondition Comparison of Two Outer-Rotor Flux-Switching Permanent-Magnet Motors for In-Wheel Traction Applications. *IEEE Transactions on Industrial Electronics*, **2017**, 64, 6137-6148	8.9	72
46	Design and analysis of a new flux-intensifying permanent magnet brushless motor with multilayer flux barriers. *AIP Advances*, **2017**, 7, 056628	1.5	3
45	Electromagnetic Performance Evaluation of an Outer-Rotor Flux-Switching Permanent Magnet Motor Based on Electrical-Thermal Two-Way Coupling Method. *Energies*, **2017**, 10, 677	3.1	5
44	Demagnetization investigation of a partitioned rotor flux switching machine with hybrid permanent magnet. *AIP Advances*, **2017**, 7, 056636	1.5	2
43	Co-Reduction of Torque Ripple for Outer Rotor Flux-Switching PM Motor Using Systematic Multi-Level Design and Control Schemes. *IEEE Transactions on Industrial Electronics*, **2017**, 64, 1102-1112	8.9	85
42	Comprehensive multi-objective scalarisation optimisation of a permanent magnet machine with correlation parameters stratified method. *IET Electric Power Applications*, **2017**, 11, 72-79	1.8	11
41	Design and comparison of two non-rare-earth permanent magnet synchronous reluctance motors for EV applications **2017**,		3
40	Detent Force Reduction of a C-Core Linear Flux-Switching Permanent Magnet Machine with Multiple Additional Teeth. *Energies*, **2017**, 10, 318	3.1	12

39	Analysis of Variable Voltage Gain Power Converter for Switched Reluctance Motor. *IEEE Transactions on Applied Superconductivity*, **2016**, 26, 1-5	1.8	9
38	Multilevel Design Optimization and Operation of a Brushless Double Mechanical Port Flux-Switching Permanent-Magnet Motor. *IEEE Transactions on Industrial Electronics*, **2016**, 63, 6042-6054	8.9	108
37	Multi-Objective Optimization of an Outer-Rotor V-Shaped Permanent Magnet Flux Switching Motor Based on Multi-Level Design Method. *IEEE Transactions on Magnetics*, **2016**, 52, 1-8	2	38
36	Electromagnetic Performance Analysis and Verification of a New Flux-Intensifying Permanent Magnet Brushless Motor With Two-Layer Segmented Permanent Magnets. *IEEE Transactions on Magnetics*, **2016**, 52, 1-4	2	20
35	Performance Analysis of a Double-Salient Permanent-Magnet Double-Rotor Motor Using Electromagnetic–Thermal Coupling Method. *IEEE Transactions on Applied Superconductivity*, **2016**, 26, 1-5	1.8	15
34	Electromagnetic Performance Analysis of a New Stator-Partitioned Flux Memory Machine Capable of Online Flux Control. *IEEE Transactions on Magnetics*, **2016**, 52, 1-4	2	9
33	A New Partitioned-Rotor Flux-Switching Permanent Magnet Motor With High Torque Density and Improved Magnet Utilization. *IEEE Transactions on Applied Superconductivity*, **2016**, 26, 1-5	1.8	15
32	Comparison of Flux-Switching PM Motors With Different Winding Configurations Using Magnetic Gearing Principle. *IEEE Transactions on Magnetics*, **2016**, 52, 1-8	2	47
31	Performance Evaluation of a U-Shaped Less-Rare-Earth Hybrid Permanent Magnet Assisted Synchronous Reluctance Motor **2016**,		5
30	A Full-Pitched Flux-Switching Permanent-Magnet Motor. *IEEE Transactions on Applied Superconductivity*, **2016**, 26, 1-5	1.8	9
29	A Brushless Double Mechanical Port Permanent Magnet Motor for Plug-In HEVs. *IEEE Transactions on Magnetics*, **2015**, 51, 1-4	2	14
28	Energy management control strategy for plug-in hybrid electric vehicle with brushless dual-rotor flux-switching permanent magnet motor **2015**,		1
27	Thermal analysis of a "V"-shape sandwiched flux switching permanent magnet machine for electric vehicles **2015**,		3
26	Equivalent variable permeance-networks analysis for out-rotor double-salient permanent-magnet in-wheel motors **2015**,		1
25	Design and Optimization of Permanent Magnet Brushless Machines for Electric Vehicle Applications. *Energies*, **2015**, 8, 13996-14008	3.1	17
24	A Non-Rare-Earth Doubly Salient Flux Controllable Motor Capable of Fault-Tolerant Control. *IEEE Transactions on Magnetics*, **2015**, 51, 1-4	2	15
23	Design and evaluation of a new flux-intensifying permanent magnet brushless motor **2014**,		2
22	Design of a sandwiched flux switching permanent magnet machine with outer-rotor configuration **2014**,		2

21	Multi-Objective Optimization Design of a Magnetic Planetary Geared Permanent Magnet Brushless Machine by Combined Design of Experiments and Response Surface Methods. *IEEE Transactions on Magnetics*, **2014**, 50, 1-4	2	38
20	The performance of a hybrid excitation flux switching motor with ferrite magnets for EVs **2014**,		4
19	Design of a wireless power transfer system for EV application based on finite element analysis and MATLAB simulation **2014**,		2
18	Design of a new magnetic-planetary-geared outer-rotor permanent-magnet brushless motor for electric vehicles **2014**,		5
17	Comparison and Analysis of Flux-Switching Permanent-Magnet Double-Rotor Machine With 4QT Used for HEV. *IEEE Transactions on Magnetics*, **2014**, 50, 1-4	2	23
16	. *IEEE Transactions on Magnetics*, **2013**, 49, 3826-3829	2	64
15	Design of Five-Phase Modular Flux-Switching Permanent-Magnet Machines for High Reliability Applications. *IEEE Transactions on Magnetics*, **2013**, 49, 3941-3944	2	48
14	Minimization of Cogging Force in a Novel Linear Permanent-Magnet Motor for Artificial Hearts. *IEEE Transactions on Magnetics*, **2013**, 49, 3901-3904	2	40
13	Optimizing Design of Magnetic Planetary Gearbox for Reduction of Cogging Torque **2013**,		3
12	A New Magnetic-Planetary-Geared Permanent Magnet Brushless Machine for Hybrid Electric Vehicle. *IEEE Transactions on Magnetics*, **2012**, 48, 4642-4645	2	41
11	Dual-mode operations of new stator-permanent-magnet double salient flux memory motor drive **2011**,		1
10	Electromagnetic Performance Analysis of a New Stator-Permanent-Magnet Doubly Salient Flux Memory Motor Using a Piecewise-Linear Hysteresis Model. *IEEE Transactions on Magnetics*, **2011**, 47, 1106-1109	2	46
9	Design and Analysis of a New Flux Memory Doubly Salient Motor Capable of Online Flux Control. *IEEE Transactions on Magnetics*, **2011**, 47, 3220-3223	2	51
8	An overview of double power flow motor used in hybrid electrical vehicles **2011**,		1
7	Electromagnetic performance analysis and vector control of a flux-controllable stator-permanent-magnet brushless motor with skewed rotor. *COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering*, **2011**, 30, 62-71	0.7	11
6	Remedial Brushless AC Operation of Fault-Tolerant Doubly Salient Permanent-Magnet Motor Drives. *IEEE Transactions on Industrial Electronics*, **2010**, 57, 2134-2141	8.9	62
5	Design, analysis and control of hybrid excited doubly salient stator-permanent-magnet motor. *Science China Technological Sciences*, **2010**, 53, 188-199	3.5	33
4	Torque ripple minimization of flux-controllable stator-permanent-magnet brushless motors using harmonic current injection. *Journal of Applied Physics*, **2009**, 105, 07F102	2.5	14

3	Analysis of Fault-Tolerant Performance of a Doubly Salient Permanent-Magnet Motor Drive Using Transient Cosimulation Method. *IEEE Transactions on Industrial Electronics*, **2008**, 55, 1739-1748	8.9	61
2	H.264 video encoder implementation and optimization based on DM642 DSP **2008**,		1
1	A Transient Cosimulation Approach to Performance Analysis of Hybrid Excited Doubly Salient Machine Considering Indirect Field-Circuit Coupling. *IEEE Transactions on Magnetics*, **2007**, 43, 2558-2560	2	71