Qian Chen

List of Publications by Year
in descending order

84 papers	1,902 citations	257429 24 h-index	289230 40 g-index
84 all docs	84 docs citations	84 times ranked	1188 citing authors

#	Article	IF	Citations
1	Design and Analysis of a New Fault-Tolerant Permanent-Magnet Vernier Machine for Electric Vehicles. IEEE Transactions on Magnetics, 2012, 48, 4176-4179.	2.1	122
2	Extension of Virtual-Signal-Injection-Based MTPA Control for Five-Phase IPMSM Into Fault-Tolerant Operation. IEEE Transactions on Industrial Electronics, 2019, 66, 944-955.	7.9	89
3	Comparison of Two SVPWM Control Strategies of Five-Phase Fault-Tolerant Permanent-Magnet Motor. IEEE Transactions on Power Electronics, 2016, 31, 6621-6630.	7.9	82
4	Torque Ripple Reduction in Five-Phase IPM Motors by Lowering Interactional MMF. IEEE Transactions on Industrial Electronics, 2018, 65, 8520-8531.	7.9	82
5	A New Fault-Tolerant Permanent-Magnet Machine for Electric Vehicle Applications. IEEE Transactions on Magnetics, 2011, 47, 4183-4186.	2.1	74
6	Design and Comparison of Two Fault-Tolerant Interior-Permanent-Magnet Motors. IEEE Transactions on Industrial Electronics, 2014, 61, 6615-6623.	7.9	71
7	Third Harmonic Current Injection in Fault-Tolerant Five-Phase Permanent-Magnet Motor Drive. IEEE Transactions on Power Electronics, 2018, 33, 6970-6979.	7.9	69
8	Sensorless Control of a Linear Permanent-Magnet Motor Based on an Improved Disturbance Observer. IEEE Transactions on Industrial Electronics, 2018, 65, 9291-9300.	7.9	65
9	A Novel MTPA Control Strategy for IPMSM Drives by Space Vector Signal Injection. IEEE Transactions on Industrial Electronics, 2017, 64, 9243-9252.	7.9	62
10	Fault-Tolerant Direct Thrust Force Control for a Dual Inverter Fed Open-End Winding Linear Vernier Permanent-Magnet Motor Using Improved SVPWM. IEEE Transactions on Industrial Electronics, 2018, 65, 7458-7467.	7.9	60
11	A Novel Spoke-Type PM Motor With Auxiliary Salient Poles for Low Torque Pulsation. IEEE Transactions on Industrial Electronics, 2020, 67, 4762-4773.	7.9	60
12	Improvement of Torque Capability of Permanent-Magnet Motor by Using Hybrid Rotor Configuration. IEEE Transactions on Energy Conversion, 2017, 32, 953-962.	5.2	49
13	Modular Reluctance Network Simulation of a Linear Permanent-Magnet Vernier Machine Using New Mesh Generation Methods. IEEE Transactions on Industrial Electronics, 2017, 64, 5323-5332.	7.9	49
14	Reduction of Torque Ripple in Inset Permanent Magnet Synchronous Motor by Magnets Shifting. IEEE Transactions on Magnetics, 2017, 53, 1-13.	2.1	49
15	Nonlinear Adaptive Lumped Parameter Magnetic Circuit Analysis for Spoke-Type Fault-Tolerant Permanent-Magnet Motors. IEEE Transactions on Magnetics, 2013, 49, 5150-5157.	2.1	41
16	Extension of Space-Vector-Signal-Injection-Based MTPA Control Into SVPWM Fault-Tolerant Operation for Five-Phase IPMSM. IEEE Transactions on Industrial Electronics, 2020, 67, 7321-7333.	7.9	39
17	Principle of Torque-Angle Approaching in a Hybrid Rotor Permanent-Magnet Motor. IEEE Transactions on Industrial Electronics, 2019, 66, 2580-2591.	7.9	35
18	Torque Calculation of Five-Phase Interior Permanent Magnet Machine Using Improved Analytical Method. IEEE Transactions on Energy Conversion, 2019, 34, 1023-1032.	5.2	35

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19	FCS-MPC-Based Fault-Tolerant Control of Five-Phase IPMSM for MTPA Operation. IEEE Transactions on Power Electronics, 2020, 35, 2882-2894.	7.9	34
20	Design and Analysis of the New High-Reliability Motors With Hybrid Permanent Magnet Material. IEEE Transactions on Magnetics, 2014, 50, 1-10.	2.1	32
21	Adjustable Model Predictive Control for IPMSM Drives Based on Online Stator Inductance Identification. IEEE Transactions on Industrial Electronics, 2022, 69, 3368-3381.	7.9	32
22	A Novel Mesh-Based Equivalent Magnetic Network for Performance Analysis and Optimal Design of Permanent Magnet Machines. IEEE Transactions on Energy Conversion, 2019, 34, 1337-1346.	5.2	31
23	A New Modeling Approach for Permanent Magnet Vernier Machine With Modulation Effect Consideration. IEEE Transactions on Magnetics, 2017, 53, 1-12.	2.1	25
24	Modified Flux Linkage Observer for Sensorless Direct Thrust Force Control of Linear Vernier Permanent Magnet Motor. IEEE Transactions on Power Electronics, 2019, 34, 7800-7811.	7.9	25
25	Analysis of a Hybrid Rotor Permanent Magnet Motor Based on Equivalent Magnetic Network. IEEE Transactions on Magnetics, 2018, 54, 1-9.	2.1	23
26	Torque Pulsation Reduction in Fractional-Slot Concentrated-Windings IPM Motors by Lowering Sub-Harmonics. IEEE Transactions on Energy Conversion, 2019, 34, 2084-2095.	5.2	22
27	Fault-Tolerant Operation of a Novel Dual-Channel Switched Reluctance Motor Using Two 3-Phase Standard Inverters. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.7	21
28	Multiobjective Deterministic and Robust Optimization Design of a New Spoke-Type Permanent Magnet Machine for the Improvement of Torque Performance. IEEE Transactions on Industrial Electronics, 2020, 67, 10202-10212.	7.9	21
29	Robust Predictive Current Control for Fault-Tolerant Operation of Five-Phase PM Motors Based on Online Stator Inductance Identification. IEEE Transactions on Power Electronics, 2021, 36, 13162-13175.	7.9	21
30	Principle of Torque Ripple Reduction in Synchronous Reluctance Motors With Shifted Asymmetrical Poles. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2020, 8, 2611-2622.	5.4	20
31	Design and Analysis of a New Equivalent Magnetic Network Model for IPM Machines. IEEE Transactions on Magnetics, 2020, 56, 1-12.	2.1	20
32	Online Diagnosis of Slight Interturn Short-Circuit Fault for a Low-Speed Permanent Magnet Synchronous Motor. IEEE Transactions on Transportation Electrification, 2021, 7, 104-113.	7.8	20
33	Design and analysis of new fault-tolerant permanent magnet motors for four-wheel-driving electric vehicles. Journal of Applied Physics, 2012, 111, .	2.5	19
34	Optimal Design of an Inset PM Motor With Assisted Barriers and Magnet Shifting for Improvement of Torque Characteristics. IEEE Transactions on Magnetics, 2017, 53, 1-4.	2.1	18
35	Reduction of Torque Ripple Caused by Slot Harmonics in FSCW Spoke-Type FPM Motors by Assisted Poles. IEEE Transactions on Industrial Electronics, 2020, 67, 9613-9622.	7.9	18
36	Design and Optimization of a Fault Tolerant Modular Permanent Magnet Assisted Synchronous Reluctance Motor With Torque Ripple Minimization. IEEE Transactions on Industrial Electronics, 2021, 68, 8519-8530.	7.9	18

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37	Modeling and analysis of spoke-type permanent magnet vernier machine based on equivalent magnetic network method. Chinese Journal of Electrical Engineering, 2018, 4, 96-103.	3.4	17
38	Mixed FTS/H_∞ control of vehicle active suspensions with shock road disturbance. Vehicle System Dynamics, 2019, 57, 841-854.	3.7	17
39	Torque Calculation of Stator Modular PMa-SynRM With Asymmetric Design for Electric Vehicles. IEEE Transactions on Transportation Electrification, 2021, 7, 202-213.	7.8	17
40	Sensorless Control for Five-Phase IPMSM Drives by Injecting HF Square-Wave Voltage Signal into Third Harmonic Space. IEEE Access, 2020, 8, 69712-69721.	4.2	16
41	Design of a New Fault-Tolerant Permanent Magnet Machine With Optimized Salient Ratio and Reluctance Torque Ratio. IEEE Transactions on Industrial Electronics, 2020, 67, 6043-6054.	7.9	15
42	Sensorless Control of Linear Vernier Permanent-Magnet Motor Based on Improved Mover Flux Observer. IEEE Transactions on Power Electronics, 2020, 35, 3869-3877.	7.9	14
43	Design and Analysis of Five-Phase Fault-Tolerant Interior Permanent-Magnet Vernier Machine. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.7	13
44	Remedial phase-angle control of a five-phase fault-tolerant permanent-magnet vernier machine with short-circuit fault. CES Transactions on Electrical Machines and Systems, 2017, 1, 83-88.	3.5	13
45	Vibration Investigation of Spoke-Type PM Machine With Asymmetric Rotor Considering Modulation Effect of Stator Teeth. IEEE Transactions on Industrial Electronics, 2021, 68, 9092-9103.	7.9	13
46	Design of a spoke-type permanent-magnet motor with optimal winding configuration for electric vehicle applications. Journal of Applied Physics, 2012, 111, .	2.5	12
47	Design and Analysis of a New Fault-Tolerant Magnetic-Geared Permanent-Magnet Motor. IEEE Transactions on Applied Superconductivity, 2014, 24, 1-5.	1.7	12
48	Multivectors Model Predictive Control With Voltage Error Tracking for Five-Phase PMSM Short-Circuit Fault-Tolerant Operation. IEEE Transactions on Transportation Electrification, 2022, 8, 675-687.	7.8	12
49	Cost Reduction of a New Fault-Tolerant Halbach Permanent Magnet Machine Using Ferrite Magnet. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	11
50	Design and Analysis of a New Fully Stator-HTS Motor. IEEE Transactions on Applied Superconductivity, 2014, 24, 1-5.	1.7	11
51	A Novel Double-Stator Tubular Vernier Permanent-Magnet Motor With High Thrust Density and Low Cogging Force. IEEE Transactions on Magnetics, 2015, 51, 1-7.	2.1	11
52	Power factor improvement of permanent-magnet linear vernier motor by using dual-inverter with hybrid discontinuous PWM. IET Power Electronics, 2019, 12, 3438-3446.	2.1	11
53	Induction Motor Broken Rotor Bar Fault Diagnosis Based on Third-Order Energy Operator Demodulated Current Signal. IEEE Transactions on Energy Conversion, 2022, 37, 1052-1059.	5.2	11
54	Torque Performance Improvement of Consequent-Pole PM Motors With Hybrid Rotor Configuration. IEEE Transactions on Transportation Electrification, 2021, 7, 1561-1572.	7.8	10

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55	MTPA Control of Sensorless IPMSM Drive System Based on Virtual and Actual High-Frequency Signal Injection. IEEE Transactions on Transportation Electrification, 2021, 7, 1516-1526.	7.8	10
56	Fault-Tolerant Control of a Triple Redundant PMA-SynRM Driven Under Single-Phase Open-Circuit by Mono-Inverter. IEEE Transactions on Power Electronics, 2021, 36, 11593-11605.	7.9	9
57	Comparison of five topologies rotor permanent magnet motors with improved fault-tolerance. , 2013, , .		7
58	Mitigation of acoustic noise by minimize torque and radial force fluctuation in fault tolerant permanent magnet machines. , 2014, , .		7
59	Electromagnetic Performance of Double-Stator Flux-Modulation Permanent-Magnet Motor. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.7	7
60	Regulation of High-Efficiency Region in Permanent Magnet Machines According to a Given Driving Cycle. IEEE Transactions on Magnetics, 2017, 53, 1-5.	2.1	7
61	A New Fault-Tolerant Rotor Permanent Magnet Flux-Switching Motor. IEEE Transactions on Transportation Electrification, 2022, 8, 3606-3617.	7.8	7
62	Separation and comparison of average torque in fiveâ€phase IPM machines with distributed and fractional slot concentrated windings. IET Electric Power Applications, 2019, 13, 285-293.	1.8	6
63	Torque ripple improvement for ferrite-assisted synchronous reluctance motor by using asymmetric flux-barrier arrangement. International Journal of Applied Electromagnetics and Mechanics, 2019, 60, 479-488.	0.6	6
64	Multi-objective optimization design of inset-surface permanent magnet machine considering deterministic and robust performances. Chinese Journal of Electrical Engineering, 2021, 7, 73-87.	3.4	6
65	Torque calculation of five-phase synchronous reluctance motors with shifted-asymmetrical-salient-poles under saturation condition. CES Transactions on Electrical Machines and Systems, 2020, 4, 105-113.	3.5	5
66	Performance Comparison of Fault-Tolerant Control for Triple Redundant 3 Ã— 3-Phase Motors Driven by Mono-Inverter. IEEE Transactions on Transportation Electrification, 2022, 8, 1839-1852.	7.8	5
67	Remedy Strategy for Five-Phase FTPMMs Under Single-Phase Short-Circuit Fault by Injecting Harmonic Currents From Third Space. IEEE Transactions on Power Electronics, 2022, 37, 11152-11163.	7.9	5
68	Active Disturbance Rejection Control of a Magnetic Screw Motor for High Tracking Performance. IEEE Transactions on Power Electronics, 2022, 37, 9641-9651.	7.9	5
69	Design and Experimental Validation for Direct-Drive Fault-Tolerant Permanent-Magnet Vernier Machines. Scientific World Journal, The, 2014, 2014, 1-9.	2.1	4
70	Short-circuit fault-tolerant control for five-phase fault-tolerant permanent magnet motors with trapezoidal back-EMF. Fundamental Research, 2022, 2, 964-973.	3.3	4
71	Numerical Study on the Cavitation Characteristics of Micro Automotive Electronic Pumps under Thermodynamic Effect. Micromachines, 2022, 13, 1063.	2.9	3
72	A lumped parameter magnetic circuit model for fault-tolerant machine with Halbach magnetized permanent-magnet. , 2013, , .		2

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73	Decoupling control of a five-phase fault-tolerant permanent magnet motor by radial basis function neural network inverse. AIP Advances, 2018, 8, 056634.	1.3	2
74	Fast calculation method of optimal flux‐barrier‐end position for torque ripple minimisation in SynRMs with and without PMs. IET Electric Power Applications, 2020, 14, 705-715.	1.8	2
75	Comparison of Excitation Topologies for Fully Stator-HTS Fault-Tolerant Machines. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.7	1
76	Online Inductance Identifications of Interior Permanent Magnet Synchronous Machine Based on Adaline Neural Network. , 2016, , .		1
77	Analysis and Application of Two-Layer Unconventional Windings for PM-Assisted Synchronous Reluctance Motors. Energies, 2021, 14, 3447.	3.1	1
78	Position Estimation Error Compensation for Sensorless Control of SPMSM Based on Space Vector Signal Injection. IEEE Transactions on Energy Conversion, 2022, 37, 1324-1334.	5.2	1
79	Multi-phase fault-tolerant switched-flux permanent magnet motors having odd rotor pole number. , 2013, , .		0
80	A new control scheme for 4WID electric vehicle using DSP and CPLD. , 2014, , .		0
81	Electromagnetic performance analysis of fully stator-HTS fault-tolerant motors. , 2015, , .		0
82	Cost reduction of vernier permanent-magnet machine with ferrite magnets. , 2015, , .		0
83	A new fault-tolerance motor with decoupled reluctance channel and PM channel. , 2017, , .		0
84	Improvement of torque performances in consequent-pole PM machines with optimized six-layer winding and Halbach PMs array. International Journal of Applied Electromagnetics and Mechanics, 2020, 62, 109-125.	0.6	0