

Qunjing Wang

List of Publications by Year in descending order

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153
papers

1,488
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331670

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all docs

153
docs citations

153
times ranked

1236
citing authors

#	ARTICLE	IF	CITATIONS
1	Tachless Speed Estimation in Order Tracking: A Review With Application to Rotating Machine Fault Diagnosis. IEEE Transactions on Instrumentation and Measurement, 2019, 68, 2315-2332.	4.7	132
2	An Improved Virtual Space Vector Modulation Scheme for Three-Level Active Neutral-Point-Clamped Inverter. IEEE Transactions on Power Electronics, 2017, 32, 7419-7434.	7.9	88
3	Detection of Interturn Short-Circuit Fault for PMSM With Simple Fault Indicator. IEEE Transactions on Energy Conversion, 2016, 31, 1697-1699.	5.2	63
4	Edge Computing: A Promising Framework for Real-Time Fault Diagnosis and Dynamic Control of Rotating Machines Using Multi-Sensor Data. IEEE Sensors Journal, 2019, 19, 4211-4220.	4.7	52
5	Magnetic field computation of a PM spherical stepper motor using integral equation method. IEEE Transactions on Magnetics, 2006, 42, 731-734.	2.1	48
6	A DC-Flux-Injection Method for Fault Diagnosis of High-Resistance Connection in Direct-Torque-Controlled PMSM Drive System. IEEE Transactions on Power Electronics, 2020, 35, 3029-3042.	7.9	42
7	Integration of Interturn Fault Diagnosis and Torque Ripple Minimization Control for Direct-Torque-Controlled SPMSM Drive System. IEEE Transactions on Power Electronics, 2021, 36, 11124-11134.	7.9	38
8	Neutral-point potential balancing control strategy of three-level active NPC inverter based on SHEPWM. IET Power Electronics, 2017, 10, 1943-1950.	2.1	35
9	Thrust Ripple Reduction in Permanent Magnet Synchronous Linear Motor Based on Tuned Viscoelastic Damper. IEEE Transactions on Industrial Electronics, 2019, 66, 977-987.	7.9	32
10	A Nine-Level Inverter for Low-Voltage Applications. IEEE Transactions on Power Electronics, 2020, 35, 1659-1671.	7.9	32
11	IoT-Based Signal Enhancement and Compression Method for Efficient Motor Bearing Fault Diagnosis. IEEE Sensors Journal, 2021, 21, 1820-1828.	4.7	32
12	Improving attitude detection performance for spherical motors using a MEMS inertial measurement sensor. IET Electric Power Applications, 2019, 13, 198-205.	1.8	31
13	Research on Vector Control Strategy of Surface-mounted Permanent Magnet Synchronous Machine Drive System with High-Resistance Connection. IEEE Transactions on Power Electronics, 2019, , 1-1.	7.9	29
14	Clusters partition and zonal voltage regulation for distribution networks with high penetration of PVs. IET Generation, Transmission and Distribution, 2018, 12, 6041-6051.	2.5	27
15	Efficient Data Reduction at the Edge of Industrial Internet of Things for PMSM Bearing Fault Diagnosis. IEEE Transactions on Instrumentation and Measurement, 2021, , 1-1.	4.7	27
16	Adaptively Estimating Rotation Speed From DC Motor Current Ripple for Order Tracking and Fault Diagnosis. IEEE Transactions on Instrumentation and Measurement, 2019, 68, 741-753.	4.7	25
17	Switched system identification based on the constrained multi-objective optimization problem with application to the servo turntable. International Journal of Control, Automation and Systems, 2016, 14, 1153-1159.	2.7	24
18	Intelligent Bearing Fault Diagnosis Based on Tachless Order Tracking for a Variable-Speed AC Electric Machine. IEEE Sensors Journal, 2019, 19, 1850-1861.	4.7	24

#	ARTICLE	IF	CITATIONS
19	Further Development of Input-to-State Stabilizing Control for Dynamic Neural Network Systems. IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans, 2008, 38, 1425-1433.	2.9	23
20	Modelling of supercapacitors based on SVM and PSO algorithms. IET Electric Power Applications, 2018, 12, 502-507.	1.8	22
21	Torque Calculation of Permanent-Magnet Spherical Motor Based on Permanent-Magnet Surface Current and Lorentz Force. IEEE Transactions on Magnetics, 2020, 56, 1-9.	2.1	22
22	Analytical Modeling and Optimization of Dual-Layer Segmented Halbach Permanent-Magnet Machines. IEEE Transactions on Magnetics, 2020, 56, 1-11.	2.1	22
23	Torque modeling and control algorithm of a permanent magnetic spherical motor. , 2009, , .		21
24	Global Robust Stabilizing Control for a Dynamic Neural Network System. IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans, 2009, 39, 426-436.	2.9	21
25	Open-Phase Fault Detection in Delta-Connected PMSM Drive Systems. IEEE Transactions on Power Electronics, 2018, 33, 6456-6460.	7.9	19
26	Optimization of Permanent-Magnet Spherical Motor Based on Taguchi Method. IEEE Transactions on Magnetics, 2020, 56, 1-7.	2.1	19
27	Modeling and Analysis of Permanent Magnet Spherical Motors by a Multitask Gaussian Process Method and Finite Element Method for Output Torque. IEEE Transactions on Industrial Electronics, 2021, 68, 8540-8549.	7.9	18
28	Bearing Fault Diagnosis of Switched Reluctance Motor in Electric Vehicle Powertrain via Multisensor Data Fusion. IEEE Transactions on Industrial Informatics, 2022, 18, 2452-2464.	11.3	17
29	Robust Adaptive Sliding-Mode Control for Permanent Magnet Spherical Actuator with Uncertainty Using Dynamic Surface Approach. Journal of Electrical Engineering and Technology, 2019, 14, 2341-2353.	2.0	16
30	Analysis of Multi-Physics Coupling Field of Multi-Degree-of-Freedom Permanent Magnet Spherical Motor. IEEE Transactions on Magnetics, 2019, 55, 1-5.	2.1	15
31	Inverse optimal noise- ϵ -state stabilization of stochastic recurrent neural networks driven by noise of unknown covariance. Optimal Control Applications and Methods, 2009, 30, 163-178.	2.1	13
32	Magnetic field analysis and optimisation of permanent magnet machines with novel two-segment Halbach array. IET Electric Power Applications, 2019, 13, 1355-1364.	1.8	13
33	A Model-Based Strategy With Robust Parameter Mismatch for Online HRC Diagnosis and Location in PMSM Drive System. IEEE Transactions on Power Electronics, 2020, 35, 10917-10929.	7.9	13
34	Application of MATLAB/SIMULINK and PSPICE simulation in teaching power electronics and electric drive system. , 2005, , .		12
35	A new control strategy of seamless transfer between grid-connected and islanding operation for micro-grid. , 2017, , .		12
36	Hierarchical Optimization Method for Energy Scheduling of Multiple Microgrids. Applied Sciences (Switzerland), 2019, 9, 624.	2.5	12

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37	Dynamic analysis and current calculation of a permanent magnet spherical motor for point-to-point motion. IET Electric Power Applications, 2019, 13, 426-434.	1.8	11
38	General Analytical Optimization Model of Surface-Inset Electrical Machines With Even-/Odd-Segment Halbach. IEEE Transactions on Magnetics, 2021, 57, 1-9.	2.1	11
39	Rotor Attitude Estimation for Spherical Motors Using Multiobject Kalman KCF Algorithm in Monocular Vision. IEEE Transactions on Industrial Electronics, 2023, 70, 265-275.	7.9	11
40	Effect on harmonic performance for three-level ANPC converter with small change in SHEPWM switch angles. , 2016, , .		10
41	Comparison of dynamic characteristics of field oriented control and model predictive control for permanent magnet synchronous motor. , 2018, , .		10
42	Quantitative Fault Severity Estimation for High-Resistance Connection in PMSM Drive System. IEEE Access, 2019, 7, 26855-26866.	4.2	10
43	3D magnetic field analysis and torque calculation of a PM spherical motor. , 2005, , .		9
44	Levitation Mechanism and Improvements of 3-DOF Deflection Type PM Actuator. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.7	9
45	A New Rotor Position Measurement Method for Permanent Magnet Spherical Motors. Applied Sciences (Switzerland), 2018, 8, 2415.	2.5	9
46	Robust Adaptive Sliding-Mode Control of a Permanent Magnetic Spherical Actuator With Delay Compensation. IEEE Access, 2020, 8, 128096-128105.	4.2	9
47	Investigation on the Measurement Method for Output Torque of a Spherical Motor. Applied Sciences (Switzerland), 2020, 10, 2510.	2.5	9
48	A Closed-Form Analytical Method for Reliable Estimation of Equivalent Thermal Conductivity of Windings With Round-Profile Conductors. IEEE Transactions on Energy Conversion, 2021, 36, 1143-1155.	5.2	9
49	Sensorless Posture Detection of Reluctance Spherical Motor Based on Mutual Inductance Voltage. Applied Sciences (Switzerland), 2021, 11, 3515.	2.5	9
50	Identification and control of the motor drive servo turntable with the switched friction model. IET Electric Power Applications, 2020, 14, 843-849.	1.8	9
51	Optimal Design of Low-Speed Permanent Magnet Generator for Wind Turbine Application. , 2012, , .		8
52	Analyze and compare the efficiency of two-level and three-level inverter in SVPWM. , 2014, , .		8
53	The Optimal Speed-Torque Control of Asynchronous Motors for Electric Cars in the Field-Weakening Region Based on the RFR. IEEE Transactions on Industrial Electronics, 2020, 67, 9601-9612.	7.9	8
54	Analytical Modeling of PM Electrical Machines With Eccentric Surface-Inset Halbach Magnets. IEEE Transactions on Magnetics, 2021, 57, 1-9.	2.1	8

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55	Friction torque field distribution of a permanent-magnet spherical motor based on multi-physical field coupling analysis. IET Electric Power Applications, 2021, 15, 1045-1055.	1.8	8
56	Geometrical Equivalence Principle Based Modeling and Analysis for Monolayer Halbach Array Spherical Motor With Cubic Permanent Magnets. IEEE Transactions on Energy Conversion, 2021, 36, 3241-3250.	5.2	8
57	Analysis and comparison of conduction losses in neutral-point-clamped three-level inverter with PWM control. , 2007, , .		8
58	Studies on vision based absolute orientation detection method of spherical motor. , 2009, , .		7
59	A Study on Neutral-Point Potential in Three-Level NPC Converters. Energies, 2019, 12, 3367.	3.1	7
60	Neutral-Point Potential Balancing Control Strategy for Three-Level ANPC Converter Using SHEPWM Scheme. Energies, 2019, 12, 4328.	3.1	7
61	Optimum Split Ratio in Surface-Mounted Permanent Magnet Machines With Pieced Halbach Magnet Array. IEEE Transactions on Energy Conversion, 2020, 35, 1877-1885.	5.2	7
62	Drive Current Calculation and Analysis of Permanent Magnet Spherical Motor Based on Torque Analytical Model and Particle Swarm Optimization. IEEE Access, 2020, 8, 54722-54729.	4.2	7
63	Attitude estimation of a permanent magnet spherical motor based on an improved fast discriminative scale space tracking algorithm. Measurement Science and Technology, 2020, 31, 055005.	2.6	6
64	Simulation of current control for a permanent magnet spherical stepper motor. , 2007, , .		6
65	A SVPWM based on fluctuate capacitor voltage in 3L-NPC back-to-back converter applied to wind energy. , 2014, , .		5
66	Design of Bi-directional DC-DC converter. , 2016, , .		5
67	High-resistance connection fault severity detection in a permanent magnet synchronous machine drive system. , 2017, , .		5
68	Improved Active Disturbance Rejection Control of Dual-Axis Servo Tracking Turntable with Friction Observer. Electronics (Switzerland), 2021, 10, 2012.	3.1	5
69	A theoretical study of neutral point voltage balancing problem in three-level neutral-point-clamped PWM VSI. , 2007, , .		5
70	Design and analysis of permanent magnetic spherical motor with cylindrical poles. , 2013, , .		4
71	Implementation of a cascade D-STATCOM under unbalanced conditions. , 2014, , .		4
72	Switched system modeling for the radar antenna servo turntable. , 2015, , .		4

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73	Study of predictive direct power control for three-level NPC converter. , 2016, , .		4
74	Demagnetisation fault detection in PMSM using zero sequence current components. Electronics Letters, 2017, 53, 148-150.	1.0	4
75	Magnetic Field Analysis and Iron Loss Calculation of a Special Switched Reluctance Generator. Journal of Electrical Engineering and Technology, 2019, 14, 1991-2003.	2.0	4
76	Droop Control Method of Inverter Based on Variable Virtual Impedance. , 2019, , .		4
77	Design and Analysis of Electromagnetic-Piezoelectric Hybrid Driven Three-Degree-of-Freedom Motor. Sensors, 2020, 20, 1621.	3.8	4
78	Design and Starting Performance Study of a Soft-Start Brushless Doubly Fed Machine. IEEE Transactions on Energy Conversion, 2022, 37, 97-108.	5.2	4
79	Modeling and control of a permanent magnet spherical stepper motor. , 2007, , .		4
80	Research on the mathematics model and parameter optimization of the claw-pole alternator. , 2005, , .		3
81	Vision based orientation detection method and control of a spherical motor. , 2010, , .		3
82	Optimization design of three-phase asynchronous motor based on Multi-objective Ant Colony Algorithm. , 2011, , .		3
83	Rotor orientation detection method of spherical motor based on single 2-DOF optical sensor. , 2014, , .		3
84	Research of orientation detection method for spherical motor and effect on PD control system based on machine vision. , 2014, , .		3
85	Sliding-mode control of permanent magnetic spherical motor based on co-simulation platform. , 2016, , .		3
86	Electromagnetic Modeling and Analysis of 3-DOF Permanent Magnet Spherical Motor Using Magnetic Equivalent Circuit Method. , 2018, , .		3
87	A Simplified Virtual Space Vector Modulation Strategy for Four-level T-Type NNPC Converter. , 2019, , .		3
88	Research on image segmentation method using a structure-preserving region model-based MRF. Cluster Computing, 2019, 22, 15329-15334.	5.0	3
89	Torque Modelling and Validation for a Spherical Motor with Stepped Permanent Magnets. Journal of Electrical Engineering and Technology, 2020, 15, 2661-2673.	2.0	3
90	The simulation and analysis of DC motor driver system for the hybrid electric vehicle. , 0, , .		2

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91	Motion Control Algorithm and Kinematic Analysis of a Spherical Stepper Motor. , 2005, , .		2
92	Design techniques for reducing cogging torque in low-speed permanent magnet wind power generator. , 2011, , .		2
93	Adaptive fuzzy tracking control based on backstepping for permanent magnet spherical motor. , 2014, , .		2
94	Analyze and improve lifetime in 3L-NPC inverter from power cycle and thermal balance. , 2014, , .		2
95	Research on asynchronous motor rotor flux model based on PR controller. , 2015, , .		2
96	Application of fuzzy PID with loss balancing control in three-level active NPC inverter. , 2015, , .		2
97	Study on neutral-point potential control for the NPC three-level converter. , 2016, , .		2
98	Sensorless vector control system of induction motor by nonlinear full-order observer. , 2016, , .		2
99	A torque-injection-based method for stator temperature estimation of direct-torque-controlled permanent magnet synchronous motors. , 2017, , .		2
100	A novel generalized multilevel converter with the application in D-STATCOM. , 2017, , .		2
101	Detection and estimation of high-resistance connection for inverter-fed permanent magnet synchronous machine drives. , 2017, , .		2
102	Study On Neutral-point Potential Control for the APF Based on NPC Three-level Inverter. , 2018, , .		2
103	Inter-turn fault diagnosis of permanent magnet synchronous machine based on variational mode decomposition. , 2018, , .		2
104	Magnetic Field Calculation and Dynamics Simulation of a Permanent Magnetic Hybrid Driven 3-DOF Motor. Journal of Electrical Engineering and Technology, 2019, 14, 711-718.	2.0	2
105	Bearing fault diagnosis of BLDC motor using Vold-Kalman order tracking filter under variable speed condition. , 2019, , .		2
106	Adaptive friction compensation robust control for permanent magnet spherical actuator under compound disturbance. Review of Scientific Instruments, 2021, 92, 075006.	1.3	2
107	Electromagnetic performance analysis and thermal research of an outer-rotor l�-shaped flux-switching permanent-magnet motor with considering driving cycles. IET Electric Power Applications, 2019, 13, 2052-2057.	1.8	2
108	Development of a Fast Thermal Model for Calculating the Temperature of the Interior PMSM. Energies, 2021, 14, 7455.	3.1	2

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109	Time Delay Estimation Control of Permanent Magnet Spherical Actuator Based on Gradient Compensation. Electronics (Switzerland), 2022, 11, 66.	3.1	2
110	Spherical Motor Position Detection Method Based on Accurate Modeling of Wireless Power Transmission. IEEE Transactions on Industrial Electronics, 2023, 70, 2855-2865.	7.9	2
111	System design and development of parallel-hybrid electric vehicle based on CAN bus. , 2005, , .		1
112	The motion control algorithm and orientation detection methodology of a spherical stepper motor. , 0, , .		1
113	Simulation of Fuzzy Optimal Control Strategy on a Parallel Hybrid Electrical Vehicle. , 2006, , .		1
114	Robust neural network controller design for permanent magnet spherical stepper motor. , 2008, , .		1
115	Modeling and optimization of spherical motor based on support vector machine and chaos. , 2009, , .		1
116	Analysis on electromagnetic calculation method of bilateral closed-slot submersible motor. , 2015, , .		1
117	Parameters estimation of IM with the Extended Kalman filter and least-squares. , 2015, , .		1
118	A smooth changeover method of the hybrid control strategy for five-level active NPC converter. , 2016, , .		1
119	Simulation and optimization of electric machine based on SIMULINK and genetic algorithm. , 2017, , .		1
120	Loss reduction of permanent magnet synchronous machines based on decoupling control strategy. , 2017, , .		1
121	Study on the Electro-Thermal Characteristics of Three-Level NPC Inverter Based on 60°Discontinuous Space Vector PWM Strategy. , 2018, , .		1
122	Direct Torque Control for Complementary Magnetic-Geared Double-Rotor Motor Using Space Vector Pulse Width Modulation. , 2018, , .		1
123	The Optimal "Speed-Torque" Control of Asynchronous Motors in the Field-Weakening Region Based on ADRC and ELM. , 2019, , .		1
124	Analysis of vibration characteristics of spherical bearing of three-degree-of-freedom motor with liquid suspension. Journal of Low Frequency Noise Vibration and Active Control, 2021, 40, 154-168.	2.9	1
125	A Deflectable Switched Reluctance Motor/Generator for Wave Energy Conversion and Underwater Propulsion Systems. Journal of Electrical Engineering and Technology, 0, , 1.	2.0	1
126	Optimal design of wireless power transmission system suitable for multi-degree-of-freedom motion devices. Journal of Electromagnetic Waves and Applications, 2022, 36, 457-478.	1.6	1

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127	Effect of different SVPWM modulation carrier forms on performance and loss of permanent magnet synchronous motor. International Transactions on Electrical Energy Systems, 2021, 31, e12642.	1.9	1
128	Performance Analysis and Comparison of two kinds of Double-layer Permanent Magnet Synchronous Motors. , 2020, , .		1
129	Estimate End-Winding Temperature for Water-Cooled Interior Permanent Magnet Motors Under Variable-Speed Driving Cycles: A Solution to the Exact Challenge. IEEE Transactions on Transportation Electrification, 2023, 9, 370-381.	7.8	1
130	Continuous non-singular terminal sliding mode control of permanent magnet spherical actuator for trajectory tracking based on a modified nonlinear disturbance observer. IET Electric Power Applications, 0, , .	1.8	1
131	Attitude measurement of multi-DOF actuator based on multiple-inputs and single-output WPT system modeling. Measurement Science and Technology, 2022, 33, 085005.	2.6	1
132	Adaptive backstepping sliding mode control of permanent magnet spherical motor based on disturbance observer. Review of Scientific Instruments, 2022, 93, 065002.	1.3	1
133	Research on modeling and robust adaptive control of a novel permanent magnet spherical stepper motor. , 2008, , .		0
134	Optimization and heat analysis of PM spherical stepper motor. , 2008, , .		0
135	Research on an improved hybrid current control method for APF based on four-leg voltage-source inverters. , 2009, , .		0
136	Nonlinear optimal control of stochastic recurrent neural networks with multiple time delays. , 2012, , .		0
137	Adaptive output feedback control for permanent magnet spherical motor by fuzzy approximation approach. , 2013, , .		0
138	Voltage differential feedback control for three-phase PV inverter based on repetitive control. , 2014, , .		0
139	Adaptive fuzzy decoupling control for permanent magnet spherical motor dynamic system. , 2014, , .		0
140	Research on position detection of spherical motor based on magnetic field measurement. , 2015, , .		0
141	Modeling and simulation of a permanent magnetic spherical motor based on solidworks and ADAMS. , 2015, , .		0
142	Synchronization of stochastic complex networks using nonlinear optimal control. , 2016, , .		0
143	Temperature compensation strategy of output torque for permanent magnet synchronous motor based on BP neural network. , 2017, , .		0
144	Loss reduction of permanent magnet synchronous machines based on three-level structure. , 2018, , .		0

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145	Power loss analysis for five phase PMSM drive system with high-resistance connection fault. , 2018, , .		0
146	Optimization of Model Prediction Control for Permanent Magnet Synchronous Motor. , 2019, , .		0
147	Model Predictive Control Of Permanent Magnet Synchronous Motor Based On Vector Synthesis. , 2019, , .		0
148	Multi-objective optimization design of spherical induction motor. , 2021, , .		0
149	Pole-shape optimization and thermal analysis of PM spherical stepper motor. , 2007, , .		0
150	Analysis of winding MMF of PMSM with multi-phase and multi-layer layout using holospectrum method. International Journal of Applied Electromagnetics and Mechanics, 2022, 68, 387-403.	0.6	0
151	Multicoil torque modeling of reluctance spherical motor based on linear interpolation. International Journal of Applied Electromagnetics and Mechanics, 2022, , 1-19.	0.6	0
152	Spherical actuator attitude measurement method based on multi-to-one WPT modeling. Measurement: Journal of the International Measurement Confederation, 2022, , 111346.	5.0	0
153	Toroidal expansion based modeling and analysis of spherical motor with stepped cylindrical permanent magnets. International Journal of Applied Electromagnetics and Mechanics, 2022, , 1-19.	0.6	0