

Gaolin Wang

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

127
papers

3,282
citations

33
h-index

55
g-index

159
ext. papers

4,544
ext. citations

6.6
avg, IF

5.88
L-index

#	Paper	IF	Citations
127	Phase Current Reconstruction Error Suppression Method for Single DC-Link Shunt PMSM Drives at Low-Speed Region. <i>IEEE Transactions on Power Electronics</i> , 2022 , 37, 7067-7081	7.2	1
126	Online Temperature Identification Strategy for Position Sensorless PMSM Drives With Position Error Adaptive Compensation. <i>IEEE Transactions on Power Electronics</i> , 2022 , 1-1	7.2	2
125	Fuzzy Self-tuning Torque Control Strategy 2022 , 105-121		
124	Speed Detection Method at Low-Speed Operation 2022 , 67-87		
123	Starting Torque Control Strategy Based on Offset-Free Model Predictive Control Theory 2022 , 123-140		
122	Mathematical Model of Gearless PMSM Traction Elevators 2022 , 11-37		
121	Initial Position Detection for PMSM Traction Drives 2022 , 39-66		
120	ADRC Strategy for Gearless PMSM Traction Elevators 2022 , 163-181		
119	Enhanced MPC for Rollback Mitigation During Elevator Startup 2022 , 141-161		
118	Starting Torque Control Based on Dichotomy and Staircase Methods 2022 , 89-103		
117	Permanent Magnet Synchronous Motor Traction System An Overview 2022 , 1-9		
116	Nonlinear Active Disturbance Rejection Control Strategy for Permanent Magnet Synchronous Motor Drives. <i>IEEE Transactions on Energy Conversion</i> , 2022 , 1-1	5.4	1
115	Analysis and Compensation of Position Estimation Error for Sensorless Reduced DC-Link Capacitance IPMSM Drives. <i>IEEE Transactions on Industrial Electronics</i> , 2022 , 1-1	8.9	
114	Torque Ripple Compensation with Anti-Overvoltage for Electrolytic Capacitor-less PMSM Compressor Drives. <i>IEEE Journal of Emerging and Selected Topics in Power Electronics</i> , 2022 , 1-1	5.6	
113	Basic Knowdge of AC Motor Drives 2021 , 1-25		
112	High Power Factor Control of Grid Input Current 2021 , 27-52		
111	Resonance Suppression Between Line Inductor and DC-Link Capacitor 2021 , 53-83		

110 Impedance Model Based Stability Control **2021**, 85-101

109 Analysis and Suppression of Beat Phenomenon **2021**, 103-121

108 Flux-Weakening Control Method **2021**, 123-146

107 Motor Loss Based Anti-Overvoltage Control **2021**, 147-187

106 Optimized Overmodulation Strategy **2021**, 189-211

105 An Inverter-Nonlinearity-Immune Offline Inductance Identification Method for PMSM Drives Based on Equivalent Impedance Model. *IEEE Transactions on Power Electronics*, **2021**, 1-1 7.2 1

104 Adaptive Iterative Learning Control Based Rotor Position Harmonic Error Suppression Method for Sensorless PMSM Drives. *IEEE Transactions on Industrial Electronics*, **2021**, 1-1 8.9 3

103 Position and Speed Detection Method Based on Adaptive Extended Moving-Window Linear Regression for Traction Machine Drives. *IEEE Transactions on Transportation Electrification*, **2021**, 1-1 7.6 0

102 Crosstalk Suppression Method for GaN-Based Bridge Configuration Using Negative Voltage Self-Recovery Gate Drive. *IEEE Transactions on Power Electronics*, **2021**, 1-1 7.2 1

101 An Impedance Model-Based Multiparameter Identification Method of PMSM for Both Offline and Online Conditions. *IEEE Transactions on Power Electronics*, **2021**, 36, 727-738 7.2 26

100 Torque Ripples Minimization of Sensorless SynRM Drives for Low-Speed Operation Using Bi-HFSI Scheme. *IEEE Transactions on Industrial Electronics*, **2021**, 68, 5559-5570 8.9 4

99 Adaptive Pseudorandom High-Frequency Square-Wave Voltage Injection Based Sensorless Control for SynRM Drives. *IEEE Transactions on Power Electronics*, **2021**, 36, 3200-3210 7.2 12

98 Current Reconstruction Considering Time-Sharing Sampling Errors for Single DC-Link Shunt Motor Drives. *IEEE Transactions on Power Electronics*, **2021**, 36, 5760-5770 7.2 11

97 Modeling and Analysis of Bridge-Leg Crosstalk of GaN HEMT Considering Nonlinear Junction Capacitances. *IEEE Transactions on Power Electronics*, **2021**, 36, 4429-4439 7.2 5

96 Suppression of Beat Phenomenon for Electrolytic Capacitorless Motor Drives Accounting for Sampling Delay of DC Link Voltage. *IEEE Transactions on Industrial Electronics*, **2021**, 1-1 8.9 1

95 Current Vector Angle Adaptive Adjustment Based Rotor Position Offset Error Suppression Method for Sensorless PMSM Drives. *IEEE Transactions on Power Electronics*, **2021**, 36, 10536-10547 7.2 2

94 Position and Speed Detection Method Based on Cross-Decoupling Network Filtering for Gearless Traction Motor Drives at Low-Speed Operation. *IEEE Transactions on Power Electronics*, **2021**, 36, 11862-11874 7.2 2

93 Integrated Modulation of Dual-Parallel Three-Level Inverters With Reduced Common Mode Voltage and Circulating Current. *IEEE Transactions on Power Electronics*, **2021**, 36, 13332-13344 7.2 6

92	Online Estimation Method of DC-Link Capacitors for Reduced DC-Link Capacitance IPMSM Drives. <i>IEEE Transactions on Power Electronics</i> , 2021 , 36, 12196-12201	7.2	3
91	An Offline Parameter Self-Learning Method Considering Inverter Nonlinearity With Zero-Axis Voltage. <i>IEEE Transactions on Power Electronics</i> , 2021 , 36, 14098-14109	7.2	4
90	A Rotor Position and Speed Estimation Method Using an Improved Linear Extended State Observer for IPMSM Sensorless Drives. <i>IEEE Transactions on Power Electronics</i> , 2021 , 36, 14062-14073	7.2	11
89	Hybrid Pseudorandom Signal Injection for Position Sensorless SynRM Drives with Acoustic Noise Reduction. <i>IEEE Transactions on Transportation Electrification</i> , 2021 , 1-1	7.6	4
88	Current Sensor Fault-Tolerant Control Strategy for Encoderless PMSM Drives Based on Single Sliding Mode Observer. <i>IEEE Transactions on Transportation Electrification</i> , 2020 , 6, 679-689	7.6	24
87	Low-Noise Initial Position Detection Method for Sensorless Permanent Magnet Synchronous Motor Drives. <i>IEEE Transactions on Power Electronics</i> , 2020 , 35, 13333-13344	7.2	10
86	Overmodulation Strategy for Electrolytic Capacitorless PMSM Drives: Voltage Distortion Analysis and Boundary Optimization. <i>IEEE Transactions on Power Electronics</i> , 2020 , 35, 9574-9585	7.2	12
85	A Five-Level Space Vector Modulation Scheme for Parallel Operated Three-Level Inverters With Reduced Line Current Distortion. <i>IEEE Transactions on Power Electronics</i> , 2020 , 35, 11235-11249	7.2	5
84	Implementation of Five-Level DPWM on Parallel Three-Level Inverters to Reduce Common-Mode Voltage and AC Current Ripples. <i>IEEE Transactions on Industry Applications</i> , 2020 , 56, 4017-4027	4.3	7
83	Pseudo-Random-Frequency Signal Injection for Acoustic Reduction 2020 , 81-121		
82	Practical Issues of Sensorless Control for PMSM Drives 2020 , 281-295		
81	Saliency-Tracking-Based Sensorless Control for PMSM Drives 2020 , 37-80		0
80	Low-Frequency Ratio Sensorless Control for High-Speed PMSM Drives 2020 , 203-232		
79	Position Sensorless Permanent Magnet Synchronous Machine Drives—A Review. <i>IEEE Transactions on Industrial Electronics</i> , 2020 , 67, 5830-5842	8.9	113
78	A Symmetrical Control Method for Grid-Connected Converters to Suppress the Frequency Coupling Under Weak Grid Conditions. <i>IEEE Transactions on Power Electronics</i> , 2020 , 35, 13488-13499	7.2	11
77	Current Sensor Fault-Tolerant Control for Encoderless IPMSM Drives Based on Current Space Vector Error Reconstruction. <i>IEEE Journal of Emerging and Selected Topics in Power Electronics</i> , 2020 , 8, 3658-3668	5.6	14
76	Robust Predictive Current Control of PMSM With Extended State Modeling Based Kalman Filter: For Time-Varying Disturbance Rejection. <i>IEEE Transactions on Power Electronics</i> , 2020 , 35, 2208-2221	7.2	18
75	An Antiovervoltage Control Scheme for Electrolytic Capacitorless IPMSM Drives Based on Stator Current Vector Orientation. <i>IEEE Transactions on Industrial Electronics</i> , 2020 , 67, 3517-3527	8.9	6

74	Dual Antiovervoltage Control Scheme for Electrolytic Capacitorless IPMSM Drives With Coefficient Autoregulation. <i>IEEE Transactions on Power Electronics</i> , 2020 , 35, 2895-2907	7.2	5
73	Pseudorandom-Frequency Sinusoidal Injection for Position Sensorless IPMSM Drives Considering Sample and Hold Effect. <i>IEEE Transactions on Power Electronics</i> , 2019 , 34, 9929-9941	7.2	12
72	Pseudorandom-Frequency Sinusoidal Injection Based Sensorless IPMSM Drives With Tolerance for System Delays. <i>IEEE Transactions on Power Electronics</i> , 2019 , 34, 3623-3632	7.2	21
71	Impedance Based Stabilization Control Method for Reduced DC-Link Capacitance IPMSM Drives. <i>IEEE Transactions on Power Electronics</i> , 2019 , 34, 9879-9890	7.2	8
70	Current Sensor Fault Diagnosis and Fault-Tolerant Control for Encoderless PMSM Drives Based on Dual Sliding-Mode Observers 2019 ,		6
69	Offline Parameter Self-Learning Method for General-Purpose PMSM Drives With Estimation Error Compensation. <i>IEEE Transactions on Power Electronics</i> , 2019 , 34, 11103-11115	7.2	49
68	Sensorless Control Scheme of IPMSMs Using HF Orthogonal Square-Wave Voltage Injection Into a Stationary Reference Frame. <i>IEEE Transactions on Power Electronics</i> , 2019 , 34, 2573-2584	7.2	43
67	Inductor Current Feedback Active Damping Method for Reduced DC-Link Capacitance IPMSM Drives. <i>IEEE Transactions on Power Electronics</i> , 2019 , 34, 4558-4568	7.2	10
66	High Frequency Torque Ripple Suppression for High Frequency Signal Injection Based Sensorless Control of SynRMs 2019 ,		2
65	Position Error Fluctuation Elimination for Model-Based Self-Sensing IPMSM Drives Incorporating ROGI Decoupling Network 2019 ,		1
64	Performance Improvement for PMSM Drives with Internal Model Based State Feedback Control Strategy 2019 ,		1
63	Beat Phenomenon Suppression for Reduced DC-Link Capacitance IPMSM Drives With Fluctuated Load Torque. <i>IEEE Transactions on Industrial Electronics</i> , 2019 , 66, 8334-8344	8.9	10
62	Saliency-Based Sensorless Control for SynRM Drives With Suppression of Position Estimation Error. <i>IEEE Transactions on Industrial Electronics</i> , 2019 , 66, 5839-5849	8.9	21
61	Enhanced Flux-Weakening Control Method for Reduced DC-Link Capacitance IPMSM Drives. <i>IEEE Transactions on Power Electronics</i> , 2019 , 34, 7788-7799	7.2	16
60	Enhanced Linear ADRC Strategy for HF Pulse Voltage Signal Injection-Based Sensorless IPMSM Drives. <i>IEEE Transactions on Power Electronics</i> , 2019 , 34, 514-525	7.2	90
59	Rotor Position Estimation of PMSM in Low-Speed Region and Standstill Using Zero-Voltage Vector Injection. <i>IEEE Transactions on Power Electronics</i> , 2018 , 33, 7948-7958	7.2	52
58	Analysis and Suppression of Circulating Current Caused by Carrier Phase Difference in Parallel Voltage Source Inverters With SVPWM. <i>IEEE Transactions on Power Electronics</i> , 2018 , 33, 11007-11020	7.2	29
57	A review of sensorless control methods for AC motor drives. <i>CES Transactions on Electrical Machines and Systems</i> , 2018 , 2, 104-115	2.3	91

56	Active Disturbance Rejection Control Strategy for Signal Injection-Based Sensorless IPMSM Drives. <i>IEEE Transactions on Transportation Electrification</i> , 2018 , 4, 330-339	7.6	47
55	Sensorless Control of IPMSM Drives Using a Pseudo-Random Phase-Switching Fixed-Frequency Signal Injection Scheme. <i>IEEE Transactions on Industrial Electronics</i> , 2018 , 65, 7660-7671	8.9	31
54	Generalized Proportional Integral Observer Based Robust Finite Control Set Predictive Current Control for Induction Motor Systems With Time-Varying Disturbances. <i>IEEE Transactions on Industrial Informatics</i> , 2018 , 1-1	11.9	50
53	An Improved Feedforward Control Method Considering PLL Dynamics to Improve Weak Grid Stability of Grid-Connected Inverters. <i>IEEE Transactions on Industry Applications</i> , 2018 , 54, 5143-5151	4.3	90
52	Static-Errorless Deadbeat Predictive Current Control Using Second-Order Sliding-Mode Disturbance Observer for Induction Machine Drives. <i>IEEE Transactions on Power Electronics</i> , 2018 , 33, 2395-2403	7.2	68
51	Inverter Power Control Based on DC-Link Voltage Regulation for IPMSM Drives Without Electrolytic Capacitors. <i>IEEE Transactions on Power Electronics</i> , 2018 , 33, 558-571	7.2	48
50	An Active Damping Control Method for Reduced DC-Link Capacitance IPMSM Drives. <i>IEEE Transactions on Industrial Electronics</i> , 2018 , 65, 2057-2068	8.9	20
49	A Novel Demodulation Method Based High-Frequency Signal Injection for Sensorless SPMSM Control Considering Cross-Saturation Effect 2018 ,		1
48	. <i>IEEE Transactions on Power Electronics</i> , 2018 , 33, 7927-7937	7.2	35
47	GaN HEMT Driving Scheme of Totem-Pole Bridgeless PFC Converter 2018 ,		1
46	Fault Diagnosis Method of Current Sensor for Permanent Magnet Synchronous Motor Drives 2018 ,		7
45	Comparative Investigation of Pseudorandom High-Frequency Signal Injection Schemes for Sensorless IPMSM Drives. <i>IEEE Transactions on Power Electronics</i> , 2017 , 32, 2123-2132	7.2	76
44	. <i>IEEE Transactions on Industrial Electronics</i> , 2017 , 64, 838-847	8.9	36
43	Control of Parallel Three-Phase PWM Converters Under Generalized Unbalanced Operating Conditions. <i>IEEE Transactions on Power Electronics</i> , 2017 , 32, 3206-3215	7.2	25
42	Discrete-Time Low-Frequency-Ratio Synchronous-Frame Full-Order Observer for Position Sensorless IPMSM Drives. <i>IEEE Journal of Emerging and Selected Topics in Power Electronics</i> , 2017 , 5, 870-879	5.6	30
41	Weight-transducerless control strategy based on active disturbance rejection theory for gearless elevator drives. <i>IET Electric Power Applications</i> , 2017 , 11, 289-299	1.8	12
40	Low-Frequency Pulse Voltage Injection Scheme-Based Sensorless Control of IPMSM Drives for Audible Noise Reduction. <i>IEEE Transactions on Industrial Electronics</i> , 2017 , 64, 8415-8426	8.9	39
39	Saliency-based position sensorless control methods for PMSM drives - A review. <i>Chinese Journal of Electrical Engineering</i> , 2017 , 3, 14-23	4	20

38	Square-Wave Voltage Injection Algorithm for PMSM Position Sensorless Control With High Robustness to Voltage Errors. <i>IEEE Transactions on Power Electronics</i> , 2017 , 32, 5425-5437	7.2	75
37	High efficiency remanufacturing of induction motors with interior permanent-magnet rotors and synchronous-reluctance rotors 2017 ,		7
36	A Novel Filtering Method Based on a Nonlinear Tracking Differentiator for the Speed Measurement of Direct-drive Permanent Magnet Traction Machines. <i>Journal of Power Electronics</i> , 2017 , 17, 358-367	0.9	3
35	Weight-Transducerless Rollback Mitigation Adopting Enhanced MPC With Extended State Observer for Direct-Drive Elevators. <i>IEEE Transactions on Power Electronics</i> , 2016 , 31, 4440-4451	7.2	26
34	Inverter Nonlinear Error Compensation Using Feedback Gains and Self-Tuning Estimated Current Error in Adaptive Full-Order Observer. <i>IEEE Transactions on Industry Applications</i> , 2016 , 52, 472-482	4.3	15
33	Pseudo-Random High-Frequency Square-Wave Voltage Injection Based Sensorless Control of IPMSM Drives for Audible Noise Reduction. <i>IEEE Transactions on Industrial Electronics</i> , 2016 , 63, 7423-7433	8.9	69
32	ADALINE-Network-Based PLL for Position Sensorless Interior Permanent Magnet Synchronous Motor Drives. <i>IEEE Transactions on Power Electronics</i> , 2016 , 31, 1450-1460	7.2	148
31	Robustness Improvement of Speed Estimation in Speed-Sensorless Induction Motor Drives. <i>IEEE Transactions on Industry Applications</i> , 2016 , 52, 2525-2536	4.3	33
30	Multiple-AVF Cross-Feedback-Network-Based Position Error Harmonic Fluctuation Elimination for Sensorless IPMSM Drives. <i>IEEE Transactions on Industrial Electronics</i> , 2016 , 63, 821-831	8.9	43
29	Zero Stator Current Frequency Operation of Speed-Sensorless Induction Motor Drives Using Stator Input Voltage Error for Speed Estimation. <i>IEEE Transactions on Industrial Electronics</i> , 2016 , 63, 1490-1498	8.9	20
28	Speed-Sensorless Induction Machine Control in the Field-Weakening Region Using Discrete Speed-Adaptive Full-Order Observer. <i>IEEE Transactions on Power Electronics</i> , 2016 , 31, 5759-5773	7.2	44
27	Design Method of Adaptive Full Order Observer With or Without Estimated Flux Error in Speed Estimation Algorithm. <i>IEEE Transactions on Power Electronics</i> , 2016 , 31, 2609-2626	7.2	57
26	Synchronous Switching of Non-Line-Start Permanent Magnet Synchronous Machines From Inverter to Grid Drives. <i>IEEE Transactions on Power Electronics</i> , 2016 , 31, 3717-3727	7.2	6
25	Synchronous switching of non-line-start permanent magnet synchronous machines between inverter and grid drives 2016 ,		1
24	High power factor control of IPMSM drive system without electrolytic capacitor 2016 ,		1
23	A Modified Modular Multilevel Converter With Reduced Capacitor Voltage Fluctuation. <i>IEEE Transactions on Industrial Electronics</i> , 2015 , 62, 6108-6119	8.9	60
22	Maximum Efficiency Per Ampere Control of Permanent-Magnet Synchronous Machines. <i>IEEE Transactions on Industrial Electronics</i> , 2015 , 62, 2135-2143	8.9	91
21	Sensorless robust predictive current control for induction motor using a speed adaptive full-order observer 2015 ,		5

20	A Novel Control Method for Transformerless H-Bridge Cascaded STATCOM With Star Configuration. <i>IEEE Transactions on Power Electronics</i> , 2015 , 30, 1189-1202	7.2	75
19	Closed-Loop Precharge Control of Modular Multilevel Converters During Start-Up Processes. <i>IEEE Transactions on Power Electronics</i> , 2015 , 30, 524-531	7.2	50
18	Analysis of the Phase-Shifted Carrier Modulation for Modular Multilevel Converters. <i>IEEE Transactions on Power Electronics</i> , 2015 , 30, 297-310	7.2	223
17	Antirollback Control for Gearless Elevator Traction Machines Adopting Offset-Free Model Predictive Control Strategy. <i>IEEE Transactions on Industrial Electronics</i> , 2015 , 62, 6194-6203	8.9	17
16	Offline inductance identification of PMSM with adaptive inverter nonlinearity compensation 2015 ,		7
15	Self-Commissioning of Permanent Magnet Synchronous Machine Drives at Standstill Considering Inverter Nonlinearities. <i>IEEE Transactions on Power Electronics</i> , 2014 , 29, 6615-6627	7.2	70
14	Weight-Transducerless Starting Torque Compensation of Gearless Permanent-Magnet Traction Machine for Direct-Drive Elevators. <i>IEEE Transactions on Industrial Electronics</i> , 2014 , 61, 4594-4604	8.9	16
13	Enhanced Position Observer Using Second-Order Generalized Integrator for Sensorless Interior Permanent Magnet Synchronous Motor Drives. <i>IEEE Transactions on Energy Conversion</i> , 2014 , 29, 486-495	5.4	75
12	Investigation of d - and q -Axis Inductances Influenced by Slot-Pole Combinations Based on Axial Flux Permanent-Magnet Machines. <i>IEEE Transactions on Industrial Electronics</i> , 2014 , 61, 4539-4551	8.9	29
11	Improvements in permanent magnet synchronous machines with delta-connected winding 2014 ,		4
10	Remanufacturing of low-efficiency induction machines with interior permanent-magnet rotors for energy efficiency improvement 2014 ,		1
9	Position Estimation Error Reduction Using Recursive-Least-Square Adaptive Filter for Model-Based Sensorless Interior Permanent-Magnet Synchronous Motor Drives. <i>IEEE Transactions on Industrial Electronics</i> , 2014 , 61, 5115-5125	8.9	84
8	Adaptive Compensation Method of Position Estimation Harmonic Error for EMF-Based Observer in Sensorless IPMSM Drives. <i>IEEE Transactions on Power Electronics</i> , 2014 , 29, 3055-3064	7.2	124
7	Quadrature PLL-Based High-Order Sliding-Mode Observer for IPMSM Sensorless Control With Online MTPA Control Strategy. <i>IEEE Transactions on Energy Conversion</i> , 2013 , 28, 214-224	5.4	134
6	DSP-Based Control of Sensorless IPMSM Drives for Wide-Speed-Range Operation. <i>IEEE Transactions on Industrial Electronics</i> , 2013 , 60, 720-727	8.9	195
5	. <i>IEEE Transactions on Industry Applications</i> , 2012 , 48, 996-1005	4.3	32
4	Initial rotor position estimation for sensorless interior PMSM with signal injection 2010 ,		7
3	Improved rotor flux estimation based on voltage model for sensorless field-oriented controlled induction motor drives. <i>Power Electronics Specialist Conference (PESC), IEEE</i> , 2008 ,		5

- 2 Low Speed Control of Permanent Magnet Synchronous Motor Based on Instantaneous Speed Estimation **2006**, 3
- 1 Model Predictive Control on Three-Phase Converter for PMSM Drives with a Small DC-link Capacitor 0