

Gaolin Wang

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127
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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	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
126	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
125	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
124	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
123	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
122	Position Sensorless Permanent Magnet Synchronous Machine Drives: A Review. <i>IEEE Transactions on Industrial Electronics</i> , 2020 , 67, 5830-5842	8.9	113
121	Maximum Efficiency Per Ampere Control of Permanent-Magnet Synchronous Machines. <i>IEEE Transactions on Industrial Electronics</i> , 2015 , 62, 2135-2143	8.9	91
120	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
119	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
118	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
117	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
116	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
115	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
114	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
113	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
112	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
111	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

110	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
109	A Modified Modular Multilevel Converter With Reduced Capacitor Voltage Fluctuation. <i>IEEE Transactions on Industrial Electronics</i> , 2015 , 62, 6108-6119	8.9	60
108	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
107	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
106	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
105	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
104	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
103	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
102	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
101	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
100	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
99	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
98	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
97	. <i>IEEE Transactions on Industrial Electronics</i> , 2017 , 64, 838-847	8.9	36
96	. <i>IEEE Transactions on Power Electronics</i> , 2018 , 33, 7927-7937	7.2	35
95	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
94	. <i>IEEE Transactions on Industry Applications</i> , 2012 , 48, 996-1005	4.3	32
93	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

92	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
91	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
90	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
89	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
88	An Impedance Model-Based Multiparameter Identification Method of PMSM for Both Offline and Online Conditions. <i>IEEE Transactions on Power Electronics</i> , 2021 , 36, 727-738	7.2	26
87	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
86	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
85	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
84	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
83	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
82	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
81	Saliency-based position sensorless control methods for PMSM drives - A review. <i>Chinese Journal of Electrical Engineering</i> , 2017 , 3, 14-23	4	20
80	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
79	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
78	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
77	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
76	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
75	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

74	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
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	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
71	Adaptive Pseudorandom High-Frequency Square-Wave Voltage Injection Based Sensorless Control for SynRM Drives. <i>IEEE Transactions on Power Electronics</i> , 2021 , 36, 3200-3210	7.2	12
70	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
69	Current Reconstruction Considering Time-Sharing Sampling Errors for Single DC-Link Shunt Motor Drives. <i>IEEE Transactions on Power Electronics</i> , 2021 , 36, 5760-5770	7.2	11
68	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
67	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
66	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
65	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
64	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
63	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
62	High efficiency remanufacturing of induction motors with interior permanent-magnet rotors and synchronous-reluctance rotors 2017 ,		7
61	Offline inductance identification of PMSM with adaptive inverter nonlinearity compensation 2015 ,		7
60	Initial rotor position estimation for sensorless interior PMSM with signal injection 2010 ,		7
59	Fault Diagnosis Method of Current Sensor for Permanent Magnet Synchronous Motor Drives 2018 ,		7
58	Current Sensor Fault Diagnosis and Fault-Tolerant Control for Encoderless PMSM Drives Based on Dual Sliding-Mode Observers 2019 ,		6
57	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

56	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
55	Integrated Modulation of Dual-Parallel Three-Level Inverters With Reduced Common Mode Voltage and Circulating Current. <i>IEEE Transactions on Power Electronics</i> , 2021 , 36, 13332-13344	7.2	6
54	Sensorless robust predictive current control for induction motor using a speed adaptive full-order observer 2015 ,		5
53	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
52	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
51	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
50	Modeling and Analysis of Bridge-Leg Crosstalk of GaN HEMT Considering Nonlinear Junction Capacitances. <i>IEEE Transactions on Power Electronics</i> , 2021 , 36, 4429-4439	7.2	5
49	Improvements in permanent magnet synchronous machines with delta-connected winding 2014 ,		4
48	Torque Ripples Minimization of Sensorless SynRM Drives for Low-Speed Operation Using Bi-HFSI Scheme. <i>IEEE Transactions on Industrial Electronics</i> , 2021 , 68, 5559-5570	8.9	4
47	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
46	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
45	Low Speed Control of Permanent Magnet Synchronous Motor Based on Instantaneous Speed Estimation 2006 ,		3
44	Adaptive Iterative Learning Control Based Rotor Position Harmonic Error Suppression Method for Sensorless PMSM Drives. <i>IEEE Transactions on Industrial Electronics</i> , 2021 , 1-1	8.9	3
43	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
42	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
41	High Frequency Torque Ripple Suppression for High Frequency Signal Injection Based Sensorless Control of SynRMs 2019 ,		2
40	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
39	Current Vector Angle Adaptive Adjustment Based Rotor Position Offset Error Suppression Method for Sensorless PMSM Drives. <i>IEEE Transactions on Power Electronics</i> , 2021 , 36, 10536-10547	7.2	2

38	Position and Speed Detection Method Based on Cross-Decoupling Network Filtering for Gearless Traction Motor Drives at Low-Speed Operation. <i>IEEE Transactions on Power Electronics</i> , 2021 , 36, 11862-11874	7.2	1 ²
37	A Novel Demodulation Method Based High-Frequency Signal Injection for Sensorless SPMSM Control Considering Cross-Saturation Effect 2018 ,		1
36	Remanufacturing of low-efficiency induction machines with interior permanent-magnet rotors for energy efficiency improvement 2014 ,		1
35	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
34	An Inverter-Nonlinearity-Immune Offline Inductance Identification Method for PMSM Drives Based on Equivalent Impedance Model. <i>IEEE Transactions on Power Electronics</i> , 2021 , 1-1	7.2	1
33	Crosstalk Suppression Method for GaN-Based Bridge Configuration Using Negative Voltage Self-Recovery Gate Drive. <i>IEEE Transactions on Power Electronics</i> , 2021 , 1-1	7.2	1
32	Synchronous switching of non-line-start permanent magnet synchronous machines between inverter and grid drives 2016 ,		1
31	High power factor control of IPMSM drive system without electrolytic capacitor 2016 ,		1
30	Position Error Fluctuation Elimination for Model-Based Self-Sensing IPMSM Drives Incorporating ROGI Decoupling Network 2019 ,		1
29	Performance Improvement for PMSM Drives with Internal Model Based State Feedback Control Strategy 2019 ,		1
28	Suppression of Beat Phenomenon for Electrolytic Capacitorless Motor Drives Accounting for Sampling Delay of DC Link Voltage. <i>IEEE Transactions on Industrial Electronics</i> , 2021 , 1-1	8.9	1
27	GaN HEMT Driving Scheme of Totem-Pole Bridgeless PFC Converter 2018 ,		1
26	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
25	Model Predictive Control on Three-Phase Converter for PMSM Drives with a Small DC-link Capacitor		0
24	Position and Speed Detection Method Based on Adaptive Extended Moving-Window Linear Regression for Traction Machine Drives. <i>IEEE Transactions on Transportation Electrification</i> , 2021 , 1-1	7.6	0
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| 1 | 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 |