

# Jung-Ik Ha

## List of Publications by Citations

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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.

135  
papers

2,155  
citations

21  
h-index

43  
g-index

194  
ext. papers

2,890  
ext. citations

5  
avg. IF

5.41  
L-index

#	Paper	IF	Citations
135	Sensorless drive of surface-mounted permanent-magnet motor by high-frequency signal injection based on magnetic saliency. <i>IEEE Transactions on Industry Applications</i> , <b>2003</b> , 39, 1031-1039	4.3	288
134	Sensorless field-orientation control of an induction machine by high-frequency signal injection. <i>IEEE Transactions on Industry Applications</i> , <b>1999</b> , 35, 45-51	4.3	185
133	Analysis of permanent-magnet machine for sensorless control based on high-frequency signal injection. <i>IEEE Transactions on Industry Applications</i> , <b>2004</b> , 40, 1595-1604	4.3	171
132	Sensorless rotor position estimation of an interior permanent-magnet motor from initial states. <i>IEEE Transactions on Industry Applications</i> , <b>2003</b> , 39, 761-767	4.3	144
131	PWM Switching Frequency Signal Injection Sensorless Method in IPMSM. <i>IEEE Transactions on Industry Applications</i> , <b>2012</b> , 48, 1576-1587	4.3	122
130	Direct energy recovery system for membrane capacitive deionization. <i>Desalination</i> , <b>2016</b> , 398, 144-150	10.3	78
129	Voltage Injection Method for Three-Phase Current Reconstruction in PWM Inverters Using a Single Sensor. <i>IEEE Transactions on Power Electronics</i> , <b>2009</b> , 24, 767-775	7.2	74
128	Current Prediction in Vector-Controlled PWM Inverters Using Single DC-Link Current Sensor. <i>IEEE Transactions on Industrial Electronics</i> , <b>2010</b> , 57, 716-726	8.9	63
127	Position-controlled synchronous reluctance motor without rotational transducer. <i>IEEE Transactions on Industry Applications</i> , <b>1999</b> , 35, 1393-1398	4.3	60
126	Direct Power Control of a Three-Phase Inverter for Grid Input Current Shaping of a Single-Phase Diode Rectifier With a Small DC-Link Capacitor. <i>IEEE Transactions on Power Electronics</i> , <b>2015</b> , 30, 3794-3803	7.2	52
125	Design Principle and Loss Engineering for Photovoltaic-Electrolysis Cell System. <i>ACS Omega</i> , <b>2017</b> , 2, 1009-1018	3.9	39
124	Low-Common Mode Voltage H-Bridge Converter with Additional Switch Legs. <i>IEEE Transactions on Power Electronics</i> , <b>2013</b> , 28, 1773-1782	7.2	38
123	Hybrid Modulation of Dual Inverter for Open-End Permanent Magnet Synchronous Motor. <i>IEEE Transactions on Power Electronics</i> , <b>2015</b> , 30, 3286-3299	7.2	38
122	Control Method for Mono Inverter Dual Parallel Surface-Mounted Permanent-Magnet Synchronous Machine Drive System. <i>IEEE Transactions on Industrial Electronics</i> , <b>2015</b> , 62, 6096-6107	8.9	30
121	Evaluation of Back-EMF Estimators for Sensorless Control of Permanent Magnet Synchronous Motors. <i>Journal of Power Electronics</i> , <b>2012</b> , 12, 604-614	0.9	29
120	A hybrid speed estimator of flux observer for induction motor drives. <i>IEEE Transactions on Industrial Electronics</i> , <b>2006</b> , 53, 130-137	8.9	28
119	A Family of High-Frequency Single-Switch DC/DC Converters With Low Switch Voltage Stress Based on Impedance Networks. <i>IEEE Transactions on Power Electronics</i> , <b>2017</b> , 32, 2913-2924	7.2	25

118	Variable Time Step Control for Six-Step Operation in Surface-Mounted Permanent Magnet Machine Drives. <i>IEEE Transactions on Power Electronics</i> , <b>2018</b> , 33, 1501-1513	7.2	23
117	Analog Filtering Method for Sensorless AC Machine Control With Carrier-Frequency Signal Injection. <i>IEEE Transactions on Industrial Electronics</i> , <b>2015</b> , 62, 5348-5358	8.9	23
116	Phase Current Reconstructions from DC-Link Currents in Three-Phase Three-Level PWM Inverters. <i>IEEE Transactions on Power Electronics</i> , <b>2014</b> , 29, 582-593	7.2	22
115	Sensorless displacement estimation of a shape memory alloy coil spring actuator using inductance. <i>Smart Materials and Structures</i> , <b>2013</b> , 22, 025001	3.4	22
114	Grid Current Shaping Method with DC-Link Shunt Compensator for Three-Phase Diode Rectifier-Fed Motor Drive System. <i>IEEE Transactions on Power Electronics</i> , <b>2017</b> , 32, 1279-1288	7.2	19
113	Single-Phase Active Power Filtering Method Using Diode-Rectifier-Fed Motor Drive. <i>IEEE Transactions on Industry Applications</i> , <b>2015</b> , 51, 2227-2236	4.3	19
112	Dynamic Matching System for Radio-Frequency Plasma Generation. <i>IEEE Transactions on Power Electronics</i> , <b>2018</b> , 33, 1940-1951	7.2	19
111	Single-Phase Grid-Connected Motor Drive System With DC-Link Shunt Compensator and Small DC-Link Capacitor. <i>IEEE Transactions on Power Electronics</i> , <b>2017</b> , 32, 1268-1278	7.2	18
110	Single-Switch High-Frequency DCDC Converter Using Parasitic Components. <i>IEEE Transactions on Power Electronics</i> , <b>2017</b> , 32, 3651-3661	7.2	18
109	Power enhancement of dual inverter for open-end permanent magnet synchronous motor <b>2013</b> ,		18
108	Fault-Tolerant Operation Under Single-Phase Open in Mono Inverter Dual Parallel SMPMSM With Single Shaft. <i>IEEE Transactions on Power Electronics</i> , <b>2019</b> , 34, 12064-12079	7.2	15
107	Discontinuous Grid Current Control of Motor Drive System With Single-Phase Diode Rectifier and Small DC-Link Capacitor. <i>IEEE Transactions on Power Electronics</i> , <b>2017</b> , 32, 1324-1334	7.2	14
106	Analysis and Suppression of Slotting and Cross-Coupling Effects on Current Control in PM Synchronous Motor Drives. <i>IEEE Transactions on Power Electronics</i> , <b>2019</b> , 34, 9942-9956	7.2	14
105	Control Method of Monoinverter Dual Parallel Drive System With Interior Permanent Magnet Synchronous Machines. <i>IEEE Transactions on Power Electronics</i> , <b>2015</b> , 1-1	7.2	14
104	. <i>IEEE Transactions on Energy Conversion</i> , <b>2013</b> , 28, 413-424	5.4	14
103	Analysis of Inherent Magnetic Position Sensors in Symmetric AC Machines for Zero or Low Speed Sensorless Drives. <i>IEEE Transactions on Magnetics</i> , <b>2008</b> , 44, 4689-4696	2	14
102	Droop Control Using Impedance of Grid-Integrated DFIG within Microgrid. <i>IEEE Transactions on Energy Conversion</i> , <b>2019</b> , 34, 88-97	5.4	12
101	Analysis of the Phase Current Measurement Boundary of Three Shunt Sensing PWM Inverters and an Expansion Method. <i>Journal of Power Electronics</i> , <b>2013</b> , 13, 232-242	0.9	12

100	Intracortical lipoma of the femur. <i>Skeletal Radiology</i> , <b>2007</b> , 36 Suppl 1, S77-81	2.7	12
99	Single-Phase Inverter Drive for Interior Permanent Magnet Machines. <i>IEEE Transactions on Power Electronics</i> , <b>2017</b> , 32, 1355-1366	7.2	11
98	Physical understanding of high frequency injection method to sensorless drives of an induction machine		11
97	Temperature Estimation of PMSM Using a Difference-Estimating Feedforward Neural Network. <i>IEEE Access</i> , <b>2020</b> , 8, 130855-130865	3.5	11
96	Cell balancing control using adjusted filters in flyback converter with single switch <b>2013</b> ,		9
95	A novel hybrid speed estimator of flux observer for induction motor drives <b>2002</b> ,		9
94	Hydrogen Production via Water Electrolysis: The Benefits of a Solar Cell-Powered Process. <i>IEEE Electrification Magazine</i> , <b>2018</b> , 6, 19-25	2.6	8
93	Series arc fault detection method based on statistical analysis for dc Microgrids <b>2016</b> ,		8
92	Inner Supply Data Transmission in Quasi-Resonant Flyback Converters for Li-Ion Battery Applications Using Multiplexing Mode. <i>IEEE Transactions on Power Electronics</i> , <b>2019</b> , 34, 64-73	7.2	8
91	Active cell balancing algorithm for serially connected li-ion batteries based on power to energy ratio <b>2017</b> ,		8
90	Analysis and control of mono inverter dual parallel SPMSM drive system <b>2014</b> ,		8
89	Sensorless drive of SMPM motor by high frequency signal injection		8
88	Direction Priority Control Method for Magnetic Manipulation System in Current and Voltage Limits. <i>IEEE Transactions on Industrial Electronics</i> , <b>2017</b> , 64, 2914-2923	8.9	7
87	Active power control for minimum switching of three-phase electrolytic capacitor-less PWM converter <b>2013</b> ,		7
86	Single external source control of doubly-fed induction machine using dual inverter <b>2013</b> ,		7
85	Control Method of Double Inverter Fed Wound Machine for Minimizing Copper Loss in Maximized Operating Area. <i>IEEE Transactions on Industrial Electronics</i> , <b>2017</b> , 64, 7700-7710	8.9	6
84	<b>2015</b> ,		6
83	System conditions monitoring method for a wireless cellular phone charger <b>2014</b> ,		6

82	Single-phase active power filtering method using diode-rectifier-fed motor drive <b>2013</b> ,		6
81	Design and selection of AC machines for saliency-based sensorless control		6
80	Advanced control strategy of parallel hybrid low emission electric vehicle		6
79	Dynamic decoupling control method for PMSM drive with cross-coupling inductances <b>2017</b> ,		5
78	Resonant Switching Cell Model for High-Frequency Single-Ended Resonant Converters. <i>IEEE Transactions on Power Electronics</i> , <b>2019</b> , 34, 11897-11911	7.2	5
77	Active DC-link circuit for single-phase diode rectifier system with small capacitance <b>2014</b> ,		5
76	Control of a Synchronous Motor With an Inverter Integrated Rotor. <i>IEEE Transactions on Industry Applications</i> , <b>2012</b> , 48, 1993-2001	4.3	5
75	Cell Balancing Method in Flyback Converter without Cell Selection Switch of Multi-Winding Transformer. <i>Journal of Electrical Engineering and Technology</i> , <b>2016</b> , 11, 367-376	1.4	5
74	A Battery Charging Method with Natural Synchronous Rectification Features for Full-bridge CLLC Converters. <i>IEEE Transactions on Power Electronics</i> , <b>2021</b> , 1-1	7.2	5
73	The Electric Variable Transmission without slip ring for the Hybrid Electric Vehicle driving structure <b>2015</b> ,		4
72	DC-link shunt compensator for three-phase system with small DC-link capacitor <b>2015</b> ,		4
71	Cell balancing control of single switch flyback converter using generalized filters <b>2014</b> ,		4
70	Wound Rotor Machine Fed by a Single-Phase Grid and Controlled by an Isolated Inverter. <i>IEEE Transactions on Power Electronics</i> , <b>2014</b> , 29, 4843-4854	7.2	4
69	Grid current shaping of single phase diode rectifier with small DC-link capacitor for three phase motor drive <b>2014</b> ,		4
68	Variable time step control for six-step operation in SMPMSM <b>2015</b> ,		4
67	Output voltage control for series-series compensated wireless power transfer system without direct feedback from measurement or communication <b>2017</b> ,		4
66	Design of single switch DC-DC converter with parasitic parameters <b>2015</b> ,		4
65	Thermal design of hot plate for 300-mm wafer heating in post-exposure bake. <i>Microelectronic Engineering</i> , <b>2011</b> , 88, 3195-3198	2.5	4

64	Voltage injection method for boundary expansion of output voltages in three shunt sensing PWM inverters <b>2011,</b>	4
63	Initial voltage angle detection method of a PWM converter without any grid voltage measurement using conduction state of diodes for smooth starting <b>2012,</b>	4
62	Sensorless field orientation control of an induction machine by high frequency signal injection	4
61	Carrier-Based Signal Injection Method for Harmonic Suppression in PWM Inverter Using Single DC-link Current Sensor. <i>Industrial Electronics Society (IECON), Annual Conference of IEEE, 2006,</i>	4
60	Analysis of permanent magnet machine for sensorless control based on high frequency signal injection	4
59	Data transmission method without additional circuits in bidirectional wireless power transfer system <b>2016,</b>	4
58	Design and Control Method for Synchronous Permanent Magnet Motor Drive System with Series Capacitor <b>2018,</b>	4
57	Design and Control of Single-Phase Grid-Connected Photovoltaic Microinverter with Reactive Power Support Capability <b>2018,</b>	4
56	Analysis and design of resonant rectifier for high-frequency dc-dc converters <b>2017,</b>	3
55	Low voltage modulation method in six-step operation of three phase inverter <b>2015,</b>	3
54	Reduced sampling rate for cell voltage sensing in high-level Modular Multilevel Converter <b>2014,</b>	3
53	Efficiency control of multi-string PV system considering switching losses analysis <b>2014,</b>	3
52	Individual MPPTs of single-phase three-level split DC-bus inverter <b>2014,</b>	3
51	Design of GaN transistor-based class E DC-DC converter with resonant rectifier circuit <b>2015,</b>	3
50	Synchronous PWM with single voltage vector per sector in voltage source inverter <b>2015,</b>	3
49	Analysis of parameter variations on mono inverter dual parallel SPMSM drive system <b>2015,</b>	3
48	Carrier signal injection method in three shunt sensing inverter for sensorless AC machine drive <b>2014,</b>	3
47	PWM switching frequency signal injection sensorless method in IPMSM <b>2011,</b>	3

46	Controller Design of Sensorless Induction Machine by High Frequency Voltage Injection. <i>IEEJ Transactions on Industry Applications</i> , <b>2000</b> , 120, 1257-1264	0.2	3
45	Seamless black start and reconnection of LCL-filtered solid state transformer based on droop control <b>2016</b> ,		3
44	Design and Analysis of Single-Inductor Power Converter for Both Battery Balancing and Voltage Regulation. <i>IEEE Transactions on Industrial Electronics</i> , <b>2021</b> , 1-1	8.9	3
43	Resonant Converter Design Using Two-Port Passive Network: Single Frequency Design <b>2018</b> ,		3
42	Variable time step control with synchronous PWM in flux weakening region of PMSM <b>2016</b> ,		2
41	Power Capability Improvement of Interior Permanent Magnet Synchronous Motor Drives Using Capacitive Network <b>2019</b> ,		2
40	Control method for mono inverter dual parallel interior permanent magnet synchronous machine drive system <b>2015</b> ,		2
39	Sensorless vector control of doubly fed induction machine using a reduced order observer estimating <b>2012</b> ,		2
38	<b>2012</b> ,		2
37	A low common mode noise bridgeless boost-buck-boost power factor correction rectifier <b>2012</b> ,		2
36	Six step phase modulation of dual inverter for open-end permanent magnet synchronous motor <b>2013</b> ,		2
35	Fabrication and Characterization of AZ91/CNT Magnesium Matrix Composites. <i>Materials Science Forum</i> , <b>2009</b> , 620-622, 271-274	0.4	2
34	High efficiency dual inverter drives for a PMSM considering field weakening region <b>2012</b> ,		2
33	High frequency injection method improved by flux observer for sensorless control of an induction motor		2
32	Accuracy Enhancement of Parameter Estimation and Sensorless Algorithms Based on Current Shaping. <i>Journal of Power Electronics</i> , <b>2016</b> , 16, 1-8	0.9	2
31	Magnetically Actuated Forward-Looking Interventional Ultrasound Imaging: Feasibility Studies. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2020</b> , 67, 1797-1805	5	2
30	Design and Control Method for a Surface-Mounted Permanent Magnet Motor Drive System With Passive Output Power Network. <i>IEEE Transactions on Power Electronics</i> , <b>2020</b> , 35, 3891-3905	7.2	2
29	High Reliable Power Conversion System with Active Battery Balancing Capability <b>2020</b> ,		2

28	Variable time step control with synchronous PWM in low frequency modulation index for AC machine drive <b>2016</b> ,		2
27	Resonant network design methodology based on two-port network analysis considering load impedance variation <b>2019</b> ,		2
26	Harmonic Torque Reduction Using Adaptive Sector-Based Torque Feedforward Method for PMSM <b>2018</b> ,		2
25	Enhancement of parameter estimation accuracy using current shaping in PM machine drive <b>2015</b> ,		1
24	Cost-Effective High-Performance Digital Control Method in Series-Series Compensated Wireless Power Transfer System. <i>Electronics (Switzerland)</i> , <b>2020</b> , 9, 1772	2.6	1
23	Analysis and Design of 4-to-1 Capacitor-Stacking Balancer for Stacked Voltage Domain. <i>IEEE Access</i> , <b>2020</b> , 8, 110252-110263	3.5	1
22	Power Capability Improvement of Interior Permanent Magnet Synchronous Motor Drives Using Capacitive Network. <i>IEEE Transactions on Industrial Electronics</i> , <b>2020</b> , 67, 10109-10120	8.9	1
21	Nonlinearity analysis and linear modulation method for two level voltage source inverter with low switching to operating frequency ratio <b>2016</b> ,		1
20	Dual voltage regulations of single switch flyback converter using variable switching frequency <b>2016</b> ,		1
19	Minimum copper loss control of doubly-fed induction generator for wind turbines <b>2014</b> ,		1
18	Novel topology and control of single inverter system for two permanent magnet synchronous machines <b>2014</b> ,		1
17	Decoupled current control with novel anti-windup for PMSM drives <b>2017</b> ,		1
16	Enhancement of output voltage using current shaping in sensorless AC machine drive <b>2014</b> ,		1
15	A low-common mode noise and high-efficiency buck-buck-boost inverter <b>2013</b> ,		1
14	A new sensorless thrust control of linear induction motor		1
13	Sensorless position control and initial position estimation of an interior permanent magnet motor		1
12	Consideration of the Carrier Based Signal Injection Method in Three Shunt Sensing Inverters for Sensorless Motor Control. <i>Journal of Power Electronics</i> , <b>2016</b> , 16, 1791-1801	0.9	1
11	Efficient and Reconfigurable Multi-cell Battery Pack for Portable Electronic Devices with Simultaneous Charging and Discharging Capability <b>2021</b> ,		1



10	Model-based MTPA control of permanent magnet synchronous machine drives under one-phase open-circuit fault <b>2016</b> ,			1
9	Design Method of Capacitor Network for Interior Permanent Magnet Synchronous Machine Drive <b>2019</b> ,			1
8	Control Area Expansion Using Null Space Vector Injection Under Current Limit in Magnetic Manipulation System <b>2018</b> ,			1
7	Single-Phase Inverter Scheme for Permanent Magnet Synchronous Motor Drive with Resonant Capacitor <b>2018</b> ,			1
6	Fault-tolerant operation with 1-phase open in parallel-connected motor <b>2018</b> ,			1
5	Impedance Compressing Matching Network Based on Two-Port Network Analysis for Wireless Power Transfer System. <i>IEEE Journal of Emerging and Selected Topics in Industrial Electronics</i> , <b>2021</b> , 1-1	2.6		1
4	Wound Rotor Machine With Single-Phase Stator and Three-Phase Rotor Windings Controlled by Isolated Three-Phase Inverter. <i>IEEE Transactions on Energy Conversion</i> , <b>2015</b> , 30, 558-568	5.4		0
3	Dynamic current control using synchronous pulse-width modulation for permanent magnet machines. <i>Journal of Power Electronics</i> , <b>2020</b> , 20, 501-510	0.9		0
2	Control Method in Minimum Infinity-Norm Approach for Multi-Coil Magnetic Manipulation system. <i>IEEE Transactions on Magnetics</i> , <b>2021</b> , 1-1		2	
1	Design and Control Method for Interior Permanent Magnet Synchronous Machine Drive With Capacitor Power Network. <i>IEEE Journal of Emerging and Selected Topics in Power Electronics</i> , <b>2021</b> , 9, 259-273		5.6	