Sang-Shin Kwak

List of Publications by Citations

74 papers	1,083 citations	18 h-index	31 g-index
88 ext. papers	1,441 ext. citations	3.6 avg, IF	5.4 L-index

#	Paper	IF	Citations
74	Predictive-Control-Based Direct Power Control With an Adaptive Parameter Identification Technique for Improved AFE Performance. *IEEE Transactions on Power Electronics*, **2014**, 29, 6178-6187	7.2	131
73	Switching Strategy Based on Model Predictive Control of VSI to Obtain High Efficiency and Balanced Loss Distribution. *IEEE Transactions on Power Electronics*, **2014**, 29, 4551-4567	7.2	91
72	Model Predictive Control Methods to Reduce Common-Mode Voltage for Three-Phase Voltage Source Inverters. *IEEE Transactions on Power Electronics*, **2015**, 30, 5019-5035	7.2	85
71	Suboptimal Control Scheme Design for Interior Permanent-Magnet Synchronous Motors: An SDRE-Based Approach. *IEEE Transactions on Power Electronics*, **2014**, 29, 3020-3031	7.2	57
70	Model-Predictive Direct Power Control With Vector Preselection Technique for Highly Efficient Active Rectifiers. *IEEE Transactions on Industrial Informatics*, **2015**, 11, 44-52	11.9	53
69	Modular Multilevel Converters (MMCs) Controlled by Model Predictive Control With Reduced Calculation Burden. *IEEE Transactions on Power Electronics*, **2018**, 33, 9176-9187	7.2	49
68	Core Design and Optimization for Better Misalignment Tolerance and Higher Range of Wireless Charging of PHEV. *IEEE Transactions on Transportation Electrification*, **2017**, 3, 445-453	7.6	43
67	Predictive Control Method With Future Zero-Sequence Voltage to Reduce Switching Losses in Three-Phase Voltage Source Inverters. *IEEE Transactions on Power Electronics*, **2015**, 30, 1558-1566	7.2	38
66	Light Fuel-Cell Hybrid Electric Vehicles Based on Predictive Controllers. *IEEE Transactions on Vehicular Technology*, **2011**, 60, 89-97	6.8	36
65	Finite control set predictive control based on Lyapunov function for three-phase voltage source inverters. *IET Power Electronics*, **2014**, 7, 2726-2732	2.2	33
64	State observer based sensor less control using Lyapunov's method for boost converters. *IET Power Electronics*, **2015**, 8, 11-19	2.2	32
63	Four-Leg-Based Fault-Tolerant Matrix Converter Schemes Based on Switching Function and Space Vector Methods. *IEEE Transactions on Industrial Electronics*, **2012**, 59, 235-243	8.9	32
62	Predictive Current Control Methods With Reduced Current Errors and Ripples for Single-Phase Voltage Source Inverters. *IEEE Transactions on Industrial Informatics*, **2015**, 11, 1006-1016	11.9	29
61	Reducing Common-Mode Voltage of Three-Phase VSIs using the Predictive Current Control Method based on Reference Voltage. *Journal of Power Electronics*, **2015**, 15, 712-720	0.9	29
60	Common-mode voltage mitigation with a predictive control method considering dead time effects of three-phase voltage source inverters. *IET Power Electronics*, **2015**, 8, 1690-1700	2.2	27
59	Model predictive control method for CHB multi-level inverter with reduced calculation complexity and fast dynamics. *IET Electric Power Applications*, **2017**, 11, 784-792	1.8	26
58	Nearest-Level Control Method With Improved Output Quality for Modular Multilevel Converters. *IEEE Access*, **2020**, 8, 110237-110250	3.5	21

57	Single pole switch leg based multi-port converter with an energy storage. *IET Power Electronics*, **2016**, 9, 1322-1330	2.2	18
56	Model Predictive Current Control Method with Improved Performances for Three-Phase Voltage Source Inverters. *Electronics (Switzerland)*, **2019**, 8, 625	2.6	13
55	Simplified Indirect Model Predictive Control Method for a Modular Multilevel Converter. *IEEE Access*, **2018**, 6, 62405-62418	3.5	13
54	A Flexible Voltage Bus Converter for the 48-/12-V Dual Supply System in Electrified Vehicles. *IEEE Transactions on Vehicular Technology*, **2017**, 66, 2010-2018	6.8	11
53	Phase-Shifted Carrier Pulse-Width Modulation Algorithm With Improved Dynamic Performance for Modular Multilevel Converters. *IEEE Access*, **2019**, 7, 170949-170960	3.5	11
52	Performance Comparison of Model Predictive Control Methods for Active Front End Rectifiers. *IEEE Access*, **2018**, 6, 77272-77288	3.5	11
51	Optimal design of five-phase permanent magnet assisted synchronous reluctance motor for low output torque ripple **2014**,		10
50	A Compact Error Management Algorithm to Minimize False-Alarm Rate of Motor/Generator Faults in (Hybrid) Electric Vehicles. *IEEE Journal of Emerging and Selected Topics in Power Electronics*, **2014**, 2, 618-626	5.6	10
49	Model Predictive Virtual Flux Control to Improve Performance Under Distorted Input Voltage Conditions. *IEEE Access*, **2018**, 6, 34921-34933	3.5	9
48	Core design for better misalignment tolerance and higher range of wireless charging for HEV **2016**,		9
47	Frequency-Domain Characteristics of Series DC Arcs in Photovoltaic Systems with Voltage-Source Inverters. *Applied Sciences (Switzerland)*, **2020**, 10, 8042	2.6	8
46	A Highly Efficient Single-Phase Three-Level Neutral Point Clamped (NPC) Converter Based on Predictive Control with Reduced Number of Commutations. *Energies*, **2018**, 11, 3524	3.1	8
45	Series DC Arc Fault Detection Using Machine Learning Algorithms. *IEEE Access*, **2021**, 1-1	3.5	8
44	Direct Power Control Method With Minimum Reactive Power Reference for Three-Phase AC-to-DC Matrix Rectifiers Using Space Vector Modulation. *IEEE Access*, **2019**, 7, 67515-67525	3.5	7
43	Enhance Reliability of Semiconductor Devices in Power Converters. *Electronics (Switzerland)*, **2020**, 9, 2068	2.6	7
42	A Comprehensive Double-Vector Approach to Alleviate Common-Mode Voltage in Three-Phase Voltage-Source Inverters with a Predictive Control Algorithm. *Electronics (Switzerland)*, **2019**, 8, 872	2.6	6
41	Power Factor Control Method Based on Virtual Capacitors for Three-Phase Matrix Rectifiers. *IEEE Access*, **2019**, 7, 12484-12494	3.5	6
40	Comparative study of three model predictive current control methods with two vectors for three-phase DC/AC VSIs. *IET Electric Power Applications*, **2017**, 11, 1284-1297	1.8	6

39	Model Predictive Control Method With NP Voltage Balance by Offset Voltage Injection for Three-Phase Three-Level NPC Inverter. *IEEE Access*, **2020**, 8, 172175-172195	3.5	6
38	DC Series Arc Detection Algorithm Based on Adaptive Moving Average Technique. *IEEE Access*, **2021**, 9, 94426-94437	3.5	6
37	Deep learning-based series AC arc detection algorithms. *Journal of Power Electronics*, **2021**, 21, 1621-1631	0.9	6
36	Simple algorithm with fast dynamics for cascaded H-bridge multilevel inverter based on model predictive control method **2017**,		5
35	Direct model-based predictive control scheme without cost function for voltage source inverters with reduced common-mode voltage. *International Journal of Electronics*, **2018**, 105, 629-644	1.2	5
34	Predictive Direct Power Control Technique for Voltage Source Converter With High Efficiency. *IEEE Access*, **2018**, 6, 23540-23550	3.5	4
33	Resonant Energy-Recovery Circuit With Asymmetric Voltage Excitation and No Circulating Current for Plasma Display Panel. *Journal of Display Technology*, **2012**, 8, 562-569		4
32	Simplified sustain driver with low-voltage semiconductor devices and low-voltage power supply for AC plasma display panel. *IEEE Transactions on Consumer Electronics*, **2011**, 57, 297-304	4.8	4
31	DC series arc diagnosis based on deep-learning algorithm with frequency-domain characteristics. *Journal of Power Electronics*, **2021**, 21, 1900	0.9	4
30	Improved Indirect Model Predictive Control for Enhancing Dynamic Performance of Modular Multilevel Converter. *Electronics (Switzerland)*, **2020**, 9, 1405	2.6	4
29	Open-Circuit Switch-Fault Tolerant Control of a Modified Boost DC-DC Converter for Alternative Energy Systems. *IEEE Access*, **2019**, 7, 69535-69544	3.5	3
28	Plasma Display Panel Driver With Dissymmetric Energy Transfer Speed for High Efficiency and Fast Voltage Transition. *Journal of Display Technology*, **2012**, 8, 707-713		3
27	A high-efficient sustain driver with low current stresses for plasma displays. *IEEE Transactions on Consumer Electronics*, **2010**, 56, 2047-2053	4.8	3
26	Different Domains Based Machine and Deep Learning Diagnosis for DC Series Arc Failure. *IEEE Access*, **2021**, 9, 166249-166261	3.5	3
25	Power Performance Analysis According to the Configuration and Load Control Algorithm of Power Take-Off System for Oscillating Water Column Type Wave Energy Converters. *Energies*, **2020**, 13, 6415	3.1	3
24	Switching Loss Balancing Technique for Modular Multilevel Converters Operated by Model Predictive Control Method. *Electronics (Switzerland)*, **2019**, 8, 1175	2.6	3
23	Predictive Nearest-Level Control Algorithm for Modular Multilevel Converters With Reduced Harmonic Distortion. *IEEE Access*, **2021**, 9, 4769-4783	3.5	3
22	Dual Motor Drive for HVAC Applications Based on a Multifunctional Bidirectional Energy Conversion System. *IEEE Transactions on Energy Conversion*, **2015**, 30, 1556-1564	5.4	2

21	A generalized predictive current control method based on two vectors for three-phase voltage source inverters **2015**,		2
20	Review of Health Monitoring Techniques for Capacitors Used in Power Electronics Converters. *Sensors*, **2020**, 20,	3.8	2
19	. *IEEE Access*, **2020**, 8, 136828-136842	3.5	2
18	Experimental Comparisons and Evaluations of Different Types of DC-link Capacitors for VSI-Based Electric Compressors in Battery Electric Vehicle Systems. *Electronics (Switzerland)*, **2020**, 9, 1276	2.6	2
17	Three-Phase Three-Level Neutral Point Clamped Rectifier with Predictive Control Method without Employing Weighting Factor. *Applied Sciences (Switzerland)*, **2020**, 10, 5149	2.6	2
16	Model Predictive Control Method Based on Deterministic Reference Voltage for Single-Phase Three-Level NPC Converters. *Applied Sciences (Switzerland)*, **2020**, 10, 8840	2.6	2
15	Quad-bus motor drive system for electrified vehicles based on a dual-output single-inductor structure. *IET Electric Power Applications*, **2019**, 13, 1985-1992	1.8	2
14	Reduction of DC Current Ripples by Virtual Space Vector Modulation for Three-Phase AC-DC Matrix Converters. *Energies*, **2019**, 12, 4319	3.1	2
13	Three-phase three-level four-leg NPC converters with advanced model predictive control. *Journal of Power Electronics*, **2021**, 21, 1574-1584	0.9	2
12	Parallel DC Arc Failure Detecting Methods Based on Artificial Intelligent Techniques. *IEEE Access*, **2022**, 10, 26058-26067	3.5	2
11	Detection Algorithms of Parallel Arc Fault on AC Power Lines Based on Deep Learning Techniques. *Journal of Electrical Engineering and Technology*, **2022**, 17, 1195	1.4	1
10	Design of High-Power Ultra-High-Speed Rotor for Portable Mechanical Antenna Drives. *IEEE Transactions on Industrial Electronics*, **2021**, 1-1	8.9	1
9	A Study on Model Predictive Current Control Method of Power Converter for Fast Dynamics Response in OWC Wave Energy Converter. *Journal of the Korean Society for Marine Environment & Energy*, **2020**, 23, 1-12	0.4	1
8	Simplified Model Predictive Control with preselection Technique for Reduction of Calculation Burden in 3-Level 4-Leg NPC Inverter **2020**,		1
7	A Compromising Approach to Switching Losses and Waveform Quality in Three-phase Voltage Source Converters with Double-vector based Predictive Control Method. *Electronics (Switzerland)*, **2019**, 8, 1372	2.6	1
6	Direct Power-Based Three-Phase Matrix Rectifier Control with Input Power Factor Adjustment. *Electronics (Switzerland)*, **2019**, 8, 1427	2.6	1
5	Hybrid System Control for Robot Motors Based on a Reduced Component, Multi-Voltage Power Supply System. *IEEE Transactions on Circuits and Systems II: Express Briefs*, **2021**, 1-1	3.5	1
4	Indirect MPC method with improved output voltage and current waveforms for MMCs. *Journal of Power Electronics*, **2022**, 22, 674	0.9	0

3	Deep learning-based estimation technique for capacitance and ESR of input capacitors in single-phase DC/AC converters. *Journal of Power Electronics*, **2022**, 22, 513-521	0.9 0
2	Corrections to Remedial Switching Function Approach to Improve Reliability for AC–AC Converters [Jun 07 541-543]. *IEEE Transactions on Energy Conversion*, **2013**, 28, 460-460	5.4
1	Predictive Control Method Based on Adjacent Vector Confinement Technique for a Three-Phase AC-DC Matrix Converter with High Efficiency. *Electronics (Switzerland)*, **2019**, 8, 1535	2.6