

Shehab Ahmed

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	A Nine-Switch-Converter-Based Integrated Motor Drive and Battery Charger System for EVs Using Symmetrical Six-Phase Machines. IEEE Transactions on Industrial Electronics, 2016, 63, 5326-5335.	7.9	115
2	A Review of Integrated On-Board EV Battery Chargers: Advanced Topologies, Recent Developments and Optimal Selection of FSCW Slot/Pole Combination. IEEE Access, 2020, 8, 85216-85242.	4.2	110
3	Low Space Harmonics Cancellation in Double-Layer Fractional Slot Winding Using Dual Multiphase Winding. IEEE Transactions on Magnetics, 2015, 51, 1-10.	2.1	102
4	A New Protection Scheme for HVDC Converters Against DC-Side Faults With Current Suppression Capability. IEEE Transactions on Power Delivery, 2014, 29, 1569-1577.	4.3	93
5	A Single-Stage Three-Phase Inverter Based on Cuk Converters for PV Applications. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2014, 2, 797-807.	5.4	84
6	A Flywheel Energy Storage System for Fault Ride Through Support of Grid-Connected VSC HVDC-Based Offshore Wind Farms. IEEE Transactions on Power Systems, 2016, 31, 1671-1680.	6.5	78
7	Effect of Multilayer Windings With Different Stator Winding Connections on Interior PM Machines for EV Applications. IEEE Transactions on Magnetics, 2016, 52, 1-7.	2.1	72
8	Single-Sensor-Based Three-Phase Permanent-Magnet Synchronous Motor Drive System With Luenberger Observers for Motor Line Current Reconstruction. IEEE Transactions on Industry Applications, 2014, 50, 2602-2613.	4.9	71
9	A Switched-Capacitor Submodule for Modular Multilevel HVDC Converters With DC-Fault Blocking Capability and a Reduced Number of Sensors. IEEE Transactions on Power Delivery, 2016, 31, 313-322.	4.3	59
10	Effect of Current Harmonic Injection on Constant Rotor Volume Multiphase Induction Machine Stators: A Comparative Study. IEEE Transactions on Industry Applications, 2012, 48, 2002-2013.	4.9	57
11	Single-stage Three-phase Differential-mode Buck-Boost Inverters with Continuous Input Current for PV Applications. IEEE Transactions on Power Electronics, 2016, , 1-1.	7.9	53
12	A Dual Modular Multilevel Converter With High-Frequency Magnetic Links Between Submodules for MV Open-End Stator Winding Machine Drives. IEEE Transactions on Power Electronics, 2018, 33, 5142-5159.	7.9	53
13	A Transition Arm Modular Multilevel Universal Pulse-Waveform Generator for Electroporation Applications. IEEE Transactions on Power Electronics, 2017, 32, 8979-8991.	7.9	51
14	A Four-Switch Three-Phase SEPIC-Based Inverter. IEEE Transactions on Power Electronics, 2015, 30, 4891-4905.	7.9	47
15	A Switched PV Approach for Extracted Maximum Power Enhancement of PV Arrays During Partial Shading. IEEE Transactions on Sustainable Energy, 2015, 6, 767-772.	8.8	44
16	A Six-Phase 24-Slot/10-Pole Permanent-Magnet Machine With Low Space Harmonics for Electric Vehicle Applications. IEEE Transactions on Magnetics, 2016, 52, 1-10.	2.1	44
17	A Modular Multilevel Converter With Ripple-Power Decoupling Channels for Three-Phase MV Adjustable-Speed Drives. IEEE Transactions on Power Electronics, 2019, 34, 4048-4063.	7.9	43
18	Modular Multilevel Converter-Based Bipolar High-Voltage Pulse Generator With Sensorless Capacitor Voltage Balancing Technique. IEEE Transactions on Plasma Science, 2016, 44, 1187-1194.	1.3	37

#	ARTICLE	IF	CITATIONS
19	Full-Bridge Modular Multilevel Submodule-Based High-Voltage Bipolar Pulse Generator With Low-Voltage DC, Input for Pulsed Electric Field Applications. IEEE Transactions on Plasma Science, 2017, 45, 2857-2864.	1.3	37
20	A Transformerless Bipolar/Unipolar High-Voltage Pulse Generator With Low-Voltage Components for Water Treatment Applications. IEEE Transactions on Industry Applications, 2017, 53, 2307-2319.	4.9	36
21	Effect of Winding Configuration on Six-Phase Induction Machine Parameters and Performance. IEEE Access, 2020, 8, 223009-223020.	4.2	36
22	A Modular Multilevel-Based High-Voltage Pulse Generator for Water Disinfection Applications. IEEE Transactions on Plasma Science, 2016, 44, 2893-2900.	1.3	34
23	An Interline Dynamic Voltage Restoring and Displacement Factor Controlling Device (IVDFC). IEEE Transactions on Power Electronics, 2014, 29, 2737-2749.	7.9	28
24	A Droop Control Design for Multiterminal HVDC of Offshore Wind Farms With Three-Wire Bipolar Transmission Lines. IEEE Transactions on Power Systems, 2016, 31, 1546-1556.	6.5	27
25	A Full-Bridge Submodule-Based Modular Unipolar/Bipolar High-Voltage Pulse Generator With Sequential Charging of Capacitors. IEEE Transactions on Plasma Science, 2017, 45, 91-99.	1.3	27
26	An Optimal PWM Technique for Dual-Output Nine-Switch Boost Inverters With Minimum Passive Component Count. IEEE Transactions on Power Electronics, 2021, 36, 1065-1079.	7.9	27
27	Interior permanent magnet motor-based isolated onboard integrated battery charger for electric vehicles. IET Electric Power Applications, 2018, 12, 124-134.	1.8	26
28	Low-Order Space Harmonic Modeling of Asymmetrical Six-Phase Induction Machines. IEEE Access, 2019, 7, 6866-6876.	4.2	24
29	Analysis and mitigation of common mode voltages in photovoltaic power systems. , 2011, , .		23
30	Nine-Phase Six-Terminal Induction Machine Modeling Using Vector Space Decomposition. IEEE Transactions on Industrial Electronics, 2019, 66, 988-1000.	7.9	23
31	High voltage pulse generator based on DC-to-DC boost converter with capacitor-diode voltage multipliers for bacterial decontamination. , 2015, , .		22
32	Application of stator shifting to five-phase fractional-slot concentrated winding interior permanent magnet synchronous machine. IET Electric Power Applications, 2016, 10, 681-690.	1.8	21
33	Arrestless DC fault current limiter based on precharged external capacitors for half-bridge modular multilevel converters. IET Generation, Transmission and Distribution, 2017, 11, 93-101.	2.5	20
34	Fault Identification of Photovoltaic Array Based on Machine Learning Classifiers. IEEE Access, 2021, 9, 159113-159132.	4.2	20
35	A modular multilevel converter with isolated energy-balancing modules for MV drives incorporating symmetrical six-phase machines. , 2017, , .		19
36	Quasi two-level PWM operation of a nine-arm modular multilevel converter for six-phase medium-voltage motor drives. , 2018, , .		19

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37	A Boost-Inverter-Based Bipolar High-Voltage Pulse Generator. IEEE Transactions on Power Electronics, 2017, 32, 2846-2855.	7.9	18
38	A series flywheel architecture for power levelling and mitigation of DC voltage transients in multi-terminal HVDC grids. IET Generation, Transmission and Distribution, 2014, 8, 1951-1959.	2.5	17
39	A Unipolar/Bipolar High-Voltage Pulse Generator Based on Positive and Negative Buck-Boost DC-DC Converters Operating in Discontinuous Conduction Mode. IEEE Transactions on Industrial Electronics, 2017, 64, 5368-5379.	7.9	17
40	A sensorless Kalman filter-based active damping technique for grid-tied VSI with LCL filter. International Journal of Electrical Power and Energy Systems, 2017, 93, 146-155.	5.5	17
41	A Non-Isolated Hybrid-Modular DC-DC Converter for DC Grids: Small-Signal Modeling and Control. IEEE Access, 2019, 7, 132459-132471.	4.2	17
42	Generation, performance evaluation and control design of single-phase differential-mode buck-boost current-source inverters. IET Renewable Power Generation, 2016, 10, 916-927.	3.1	16
43	A Hybrid Nine-Arm Modular Multilevel Converter for Medium-Voltage Six-Phase Machine Drives. IEEE Transactions on Industrial Electronics, 2019, 66, 6681-6691.	7.9	16
44	Bidirectional Buck-Boost Inverter-Based HVDC Transmission System With AC-Side Contribution Blocking Capability During DC-Side Faults. IEEE Transactions on Power Delivery, 2014, 29, 1249-1261.	4.3	15
45	Steady-State Equivalent Circuit of Five-Phase Induction Machines with Different Stator Connections under Open Line Conditions. IEEE Transactions on Industrial Electronics, 2016, , 1-1.	7.9	15
46	Multi-module high voltage pulse generator based on DC-DC boost converter and CDVMs for drinking water purification. , 2016, , .		14
47	Self-balanced non-isolated hybrid modular DC-DC converter for medium-voltage DC grids. IET Generation, Transmission and Distribution, 2018, 12, 3626-3636.	2.5	14
48	A Self-Balanced Bidirectional Medium-/High-Voltage Hybrid Modular DC-DC Converter With Low-Voltage Common DC-Link and Sequential Charging/Discharging of Submodules Capacitors. IEEE Transactions on Industrial Electronics, 2019, 66, 2714-2725.	7.9	14
49	Postfault Operation of Five-Phase Induction Machine With Minimum Total Losses Under Single Open-Phase Fault. IEEE Access, 2020, 8, 208696-208706.	4.2	14
50	Postfault Operation of Onboard Integrated Battery Charger via a Nine-Phase EV-Drive Train. IEEE Transactions on Industrial Electronics, 2021, 68, 5626-5637.	7.9	14
51	Zero-/Low-Speed Operation of Multiphase Drive Systems With Modular Multilevel Converters. IEEE Access, 2019, 7, 14353-14365.	4.2	13
52	Standard Three-Phase Stator Frames for Multiphase Machines of Prime-Phase Order: Optimal Selection of Slot/Pole Combination. IEEE Access, 2019, 7, 78239-78259.	4.2	13
53	IoT-Based Supervisory Control of an Asymmetrical Nine-Phase Integrated on-Board EV Battery Charger. IEEE Access, 2020, 8, 62619-62631.	4.2	13
54	Improved NPC Inverters without Short-Circuit and Dead-time Issues. IEEE Transactions on Power Electronics, 2021, , 1-1.	7.9	13

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55	Modeling and Control of Single-Stage Quadratic-Boost Split Source Inverters. IEEE Access, 2022, 10, 24162-24180.	4.2	12
56	Feasibility analysis of solar photovoltaic array cladding on commercial towers in Doha, Qatar â€“ a case study. International Journal of Sustainable Energy, 2010, 29, 76-86.	2.4	11
57	A nine-arm modular multilevel converter (9A-MMC) for six-phase medium voltage motor drives. , 2015, , .		11
58	Medium voltage AC collection grid for large scale photovoltaic plants based on medium frequency transformers. , 2014, , .		10
59	Harmonic rejection in current source inverterâ€based distributed generation with grid voltage distortion using multiâ€synchronous reference frame. IET Power Electronics, 2014, 7, 1323-1330.	2.1	10
60	A new fifteen-switch inverter topology for two five-phase motors drive. , 2016, , .		10
61	A new dual series-connected Nine-Switch Converter topology for a twelve-phase induction machine wind energy system. , 2017, , .		10
62	Modular multilevel DCâ€DC converter with arm interchange concept. IET Generation, Transmission and Distribution, 2020, 14, 564-576.	2.5	10
63	Improved Mathematical Modeling of Six Phase Induction Machines Based on Fractional Calculus. IEEE Access, 2021, 9, 53146-53155.	4.2	10
64	Coupled Field Analysis Needs in the Design of Submersible Electric Motors. , 2007, , .		9
65	Open loop V/f control of multiphase induction machine under open-circuit phase faults. , 2013, , .		9
66	An asymmetrical six-phase induction motor drive based on nine-arm Modular Multilevel Converter (9AMMC) with circulating current suppression. , 2015, , .		9
67	A hybrid boost modular multilevel converter-based bipolar high voltage pulse generator. IEEE Transactions on Dielectrics and Electrical Insulation, 2017, 24, 2873-2880.	2.9	9
68	Carrier-Based PWM Strategy for Quasi-Z Source Nine-Switch Inverters. , 2019, , .		9
69	Optimal Design of A 12-Slot/10-Pole Six-Phase SPM Machine with Different Winding Layouts for Integrated On-Board EV Battery Charging. Energies, 2021, 14, 1848.	3.1	9
70	Predictive Current Control of Six-Phase IM-Based Nonisolated Integrated On-Board Battery Charger Under Different Winding Configurations. IEEE Transactions on Power Electronics, 2022, 37, 8345-8358.	7.9	9
71	An active damping technique for a current source inverter employing a virtual negative inductance. , 2010, , .		8
72	A new single tooth winding layout for a single-phase induction motor with segmented stator. , 2015, , .		8

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73	A Grid-Connected Capacitor-Tapped Multimodule Converter for HVDC Applications: Operational Concept and Control. IEEE Transactions on Industry Applications, 2018, 54, 5523-5535.	4.9	8
74	A Memory-Efficient Implementation of Perfectly Matched Layer With Smoothly Varying Coefficients in Discontinuous Galerkin Time-Domain Method. IEEE Transactions on Antennas and Propagation, 2021, 69, 3605-3610.	5.1	8
75	Sensorless speed control of a five-phase induction machine under open-phase condition. Journal of Engineering, 2014, 2014, 201-209.	1.1	7
76	Three-wire bipolar high-voltage direct current line using an existing single-circuit high-voltage alternating current line for integrating renewable energy sources in multiterminal DC networks. IET Renewable Power Generation, 2016, 10, 370-379.	3.1	7
77	Predictive current control based pseudo six-phase induction motor drive. AEJ - Alexandria Engineering Journal, 2022, 61, 3937-3948.	6.4	7
78	A Family of Discontinuous PWM Strategies for Quasi Z-Source Nine-Switch Inverters. IEEE Access, 2021, 9, 169161-169176.	4.2	7
79	Simplified generic on-line PWM technique for single phase grid connected current source inverters. , 2012, , .		6
80	A five-phase induction machine model using multiple DQ planes considering the effect of magnetic saturation. , 2014, , .		6
81	Operation of three-phase modular multilevel converter (MMC) with reduced number of arms. , 2016, , .		6
82	Series-connected multi-half-bridge modules converter for integrating multi-megawatt wind multi-phase permanent magnet synchronous generator with dc grid. IET Electric Power Applications, 2017, 11, 981-990.	1.8	6
83	Nine-phase six-terminal pole-amplitude modulated induction motor for electric vehicle applications. IET Electric Power Applications, 2019, 13, 1696-1707.	1.8	6
84	Hybrid Modular Multilevel Converter With Arm-Interchange Concept for Zero-/Low- Frequency Operation of AC Drives. IEEE Access, 2020, 8, 14756-14766.	4.2	6
85	A modular multilevel DC-DC converter with self-energy equalization for DC grids. IET Renewable Power Generation, 2021, 15, 1736-1747.	3.1	6
86	Modular Multilevel Converter With Self-Energy Equalization for Medium Voltage AC Drive Applications. IEEE Transactions on Industrial Electronics, 2021, 68, 11881-11894.	7.9	5
87	Design and Multi-Objective Optimization of a 12-Slot/10-Pole Integrated OBC Using Magnetic Equivalent Circuit Approach. Machines, 2021, 9, 329.	2.2	5
88	Low standby power consumption and high cross regulation of active clamp flyback converter with SSPR. , 2010, , .		4
89	A cascaded boost inverter-based open-end winding three-phase induction motor drive for photovoltaic-powered pumping applications. , 2015, , .		4
90	A robust controller for medium voltage AC collection grid for large scale Photovoltaic plants based on medium frequency transformers. , 2016, , .		4

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91	Performance Evaluation of an On-Board Integrated Battery Charger System Using a 12-Slot/10-Pole Surface-Mounted PM Propulsion Motor. , 2017, , .		4
92	High-voltage pulse generator based on sequentially charged MMCs operating in a voltage boost mode. IET Power Electronics, 2019, 12, 749-758.	2.1	4
93	Dual modular multilevel converter with shared capacitor sub-module for MV open-end stator winding machine drives. Journal of Engineering, 2019, 2019, 4401-4405.	1.1	4
94	Multimodule Boost-Converter-Based Pulse Generators: Design and Operation. IEEE Transactions on Plasma Science, 2020, 48, 219-227.	1.3	4
95	Novel Multilevel Inverters Based on AC-AC Converter for Photovoltaic Applications. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 3384-3393.	5.4	4
96	A grid-connected switched PV array. , 2015, , .		3
97	A grid-connected HVDC shunt tap based on series-input parallel-output DC-AC multi-module 2-level voltage source converters. , 2015, , .		3
98	Performance evaluation of five-phase outer-rotor Permanent magnet vernier machines. , 2016, , .		3
99	A Six-Arm Symmetrical Six-Phase Hybrid Modular Multilevel Converter With Unidirectional Current Full-Bridge Submodules. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 3457-3467.	5.4	3
100	Novel Three and Four Switch Inverters With Wide Input and Output Voltage Range for Renewable Energy Systems. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2022, 10, 7385-7396.	5.4	3
101	Phase locked loop with fast tracking over wide stability range under grid faults. , 2014, , .		2
102	Modular multilevel converter with DHB energy-balancing channels for medium-voltage adjustable-speed drives. Journal of Engineering, 2019, 2019, 4116-4121.	1.1	2
103	A Three-Phase Nonisolated Pseudo-Six-Phase-Based Integrated Onboard Battery Charger for Electric Vehicles. IEEE Transactions on Transportation Electrification, 2023, 9, 1300-1310.	7.8	2
104	Harmonic rejection using Multi-Synchronous Reference Frame technique for CSI-based distributed generation with grid voltage distortion. , 2011, , .		1
105	Secondary side post regulator for improving cross regulation and reducing standby power consumption. International Journal of Electronics, 2013, 100, 976-998.	1.4	1
106	Control of Power Converters for Emerging Applications of Power Electronics. Journal of Control Science and Engineering, 2016, 2016, 1-2.	1.0	1
107	Four-Arm Three-Phase Modular Multilevel Converter (4A-TPMMC). Electric Power Components and Systems, 2017, 45, 1951-1961.	1.8	1
108	Series-Connected Multi-Half-Bridge Modules Active Front-End Rectifier for Medium Voltage Variable Speed Drives. , 2018, , .		1

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109	Power angle control of grid-connected capacitor-tapped multi-module voltage source converter. , 2018, , .		1
110	Investigation of three-phase capacitor-tapped multi-module voltage source converter with selective harmonic elimination. , 2018, , .		0
111	HVDC shunt tap based on three singleâ€phase halfâ€bridge seriesâ€connected MMCs operated under 2L modulation. IET Generation, Transmission and Distribution, 2019, 13, 3601-3611.	2.5	0
112	Nine-Phase-based Fractional-Slot Winding Layouts for Integrated EV On-board Battery Chargers. , 2021, , .		0