

# Shehab Ahmed

## List of Publications by Year in descending order

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papers

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218677

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docs citations

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times ranked

1830  
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	Predictive current control based pseudo six-phase induction motor drive. AEJ - Alexandria Engineering Journal, 2022, 61, 3937-3948.	6.4	7
3	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
4	Modeling and Control of Single-Stage Quadratic-Boost Split Source Inverters. IEEE Access, 2022, 10, 24162-24180.	4.2	12
5	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
6	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
7	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
8	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
9	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
10	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
11	Improved Mathematical Modeling of Six Phase Induction Machines Based on Fractional Calculus. IEEE Access, 2021, 9, 53146-53155.	4.2	10
12	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
13	A modular multilevel DC-DC converter with self-energy equalization for DC grids. IET Renewable Power Generation, 2021, 15, 1736-1747.	3.1	6
14	Nine-Phase-based Fractional-Slot Winding Layouts for Integrated EV On-board Battery Chargers. , 2021, , ,		0
15	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
16	Improved NPC Inverters without Short-Circuit and Dead-time Issues. IEEE Transactions on Power Electronics, 2021, , 1-1.	7.9	13
17	Fault Identification of Photovoltaic Array Based on Machine Learning Classifiers. IEEE Access, 2021, 9, 159113-159132.	4.2	20
18	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

#	ARTICLE	IF	CITATIONS
19	A Family of Discontinuous PWM Strategies for Quasi Z-Source Nine-Switch Inverters. IEEE Access, 2021, 9, 169161-169176.	4.2	7
20	Multimodule Boost-Converter-Based Pulse Generators: Design and Operation. IEEE Transactions on Plasma Science, 2020, 48, 219-227.	1.3	4
21	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
22	Effect of Winding Configuration on Six-Phase Induction Machine Parameters and Performance. IEEE Access, 2020, 8, 223009-223020.	4.2	36
23	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
24	IoT-Based Supervisory Control of an Asymmetrical Nine-Phase Integrated on-Board EV Battery Charger. IEEE Access, 2020, 8, 62619-62631.	4.2	13
25	Modular multilevel DCâ€“DC converter with arm interchange concept. IET Generation, Transmission and Distribution, 2020, 14, 564-576.	2.5	10
26	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
27	A Self-Balanced Bidirectional Medium-/High-Voltage Hybrid Modular DCâ€“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
28	Nine-Phase Six-Terminal Induction Machine Modeling Using Vector Space Decomposition. IEEE Transactions on Industrial Electronics, 2019, 66, 988-1000.	7.9	23
29	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
30	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
31	Modular multilevel converter with DHB energyâ€“balancing channels for mediumâ€“voltage adjustableâ€“speed drives. Journal of Engineering, 2019, 2019, 4116-4121.	1.1	2
32	Zero-/Low-Speed Operation of Multiphase Drive Systems With Modular Multilevel Converters. IEEE Access, 2019, 7, 14353-14365.	4.2	13
33	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
34	Highâ€“voltage pulse generator based on sequentially charged MMCâ€“SMs operating in a voltageâ€“boost mode. IET Power Electronics, 2019, 12, 749-758.	2.1	4
35	Carrier-Based PWM Strategy for Quasi-Z Source Nine-Switch Inverters. , 2019, , .		9
36	Dual modular multilevel converter with shared capacitor subâ€“module for MV openâ€“end stator winding machine drives. Journal of Engineering, 2019, 2019, 4401-4405.	1.1	4

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37	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
38	Nine-phase six-terminal pole-amplitude modulated induction motor for electric vehicle applications. IET Electric Power Applications, 2019, 13, 1696-1707.	1.8	6
39	Low-Order Space Harmonic Modeling of Asymmetrical Six-Phase Induction Machines. IEEE Access, 2019, 7, 6866-6876.	4.2	24
40	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
41	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
42	Interior permanent magnet motor-based isolated on-board integrated battery charger for electric vehicles. IET Electric Power Applications, 2018, 12, 124-134.	1.8	26
43	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
44	Series-Connected Multi-Half-Bridge Modules Active Front-End Rectifier for Medium Voltage Variable Speed Drives. , 2018, , .		1
45	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
46	Quasi two-level PWM operation of a nine-arm modular multilevel converter for six-phase medium-voltage motor drives. , 2018, , .		19
47	Power angle control of grid-connected capacitor-tapped multi-module voltage source converter. , 2018, , .		1
48	Investigation of three-phase capacitor-tapped multi-module voltage source converter with selective harmonic elimination. , 2018, , .		0
49	A Boost-Inverter-Based Bipolar High-Voltage Pulse Generator. IEEE Transactions on Power Electronics, 2017, 32, 2846-2855.	7.9	18
50	Arrester-less DC fault current limiter based on pre-charged external capacitors for half-bridge modular multilevel converters. IET Generation, Transmission and Distribution, 2017, 11, 93-101.	2.5	20
51	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
52	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
53	A new dual series-connected Nine-Switch Converter topology for a twelve-phase induction machine wind energy system. , 2017, , .		10
54	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

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55	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
56	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
57	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
58	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
59	A modular multilevel converter with isolated energy-balancing modules for MV drives incorporating symmetrical six-phase machines. , 2017, , .		19
60	Four-Arm Three-Phase Modular Multilevel Converter (4A-TPMMC). Electric Power Components and Systems, 2017, 45, 1951-1961.	1.8	1
61	Performance Evaluation of an On-Board Integrated Battery Charger System Using a 12-Slot/10-Pole Surface-Mounted PM Propulsion Motor. , 2017, , .		4
62	A Transition Arm Modular Multilevel Universal Pulse-Waveform Generator for Electroporation Applications. IEEE Transactions on Power Electronics, 2017, 32, 8979-8991.	7.9	51
63	Control of Power Converters for Emerging Applications of Power Electronics. Journal of Control Science and Engineering, 2016, 2016, 1-2.	1.0	1
64	Operation of three-phase modular multilevel converter (MMC) with reduced number of arms. , 2016, , .		6
65	A new fifteen-switch inverter topology for two five-phase motors drive. , 2016, , .		10
66	Performance evaluation of five-phase outer-rotor Permanent magnet vernier machines. , 2016, , .		3
67	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
68	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
69	A Modular Multilevel-Based High-Voltage Pulse Generator for Water Disinfection Applications. IEEE Transactions on Plasma Science, 2016, 44, 2893-2900.	1.3	34
70	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
71	A robust controller for medium voltage AC collection grid for large scale Photovoltaic plants based on medium frequency transformers. , 2016, , .		4
72	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

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73	Multi-module high voltage pulse generator based on DC-DC boost converter and CDVMs for drinking water purification. , 2016, , .		14
74	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
75	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
76	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
77	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
78	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
79	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
80	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
81	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
82	A grid-connected switched PV array. , 2015, , .		3
83	High voltage pulse generator based on DC-to-DC boost converter with capacitor-diode voltage multipliers for bacterial decontamination. , 2015, , .		22
84	A new single tooth winding layout for a single-phase induction motor with segmented stator. , 2015, , .		8
85	A cascaded boost inverter-based open-end winding three-phase induction motor drive for photovoltaic-powered pumping applications. , 2015, , .		4
86	A nine-arm modular multilevel converter (9A-MMC) for six-phase medium voltage motor drives. , 2015, , .		11
87	An asymmetrical six-phase induction motor drive based on nine-arm Modular Multilevel Converter (9AMMC) with circulating current suppression. , 2015, , .		9
88	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
89	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
90	A grid-connected HVDC shunt tap based on series-input parallel-output DC-AC multi-module 2-level voltage source converters. , 2015, , .		3

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91	A Four-Switch Three-Phase SEPIC-Based Inverter. IEEE Transactions on Power Electronics, 2015, 30, 4891-4905.	7.9	47
92	Medium voltage AC collection grid for large scale photovoltaic plants based on medium frequency transformers. , 2014, , .		10
93	A five-phase induction machine model using multiple DQ planes considering the effect of magnetic saturation. , 2014, , .		6
94	Harmonic rejection in current source inverter-based distributed generation with grid voltage distortion using multi-synchronous reference frame. IET Power Electronics, 2014, 7, 1323-1330.	2.1	10
95	Sensorless speed control of a five-phase induction machine under open-phase condition. Journal of Engineering, 2014, 2014, 201-209.	1.1	7
96	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
97	An Interline Dynamic Voltage Restoring and Displacement Factor Controlling Device (IVDFC). IEEE Transactions on Power Electronics, 2014, 29, 2737-2749.	7.9	28
98	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
99	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
100	Phase locked loop with fast tracking over wide stability range under grid faults. , 2014, , .		2
101	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
102	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
103	Open loop V/f control of multiphase induction machine under open-circuit phase faults. , 2013, , .		9
104	Secondary side post regulator for improving cross regulation and reducing standby power consumption. International Journal of Electronics, 2013, 100, 976-998.	1.4	1
105	Simplified generic on-line PWM technique for single phase grid connected current source inverters. , 2012, , .		6
106	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
107	Analysis and mitigation of common mode voltages in photovoltaic power systems. , 2011, , .		23
108	Harmonic rejection using Multi-Synchronous Reference Frame technique for CSI-based distributed generation with grid voltage distortion. , 2011, , .		1

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109	Low standby power consumption and high cross regulation of active clamp flyback converter with SSPR. , 2010, , .		4
110	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
111	An active damping technique for a current source inverter employing a virtual negative inductance. , 2010, , .		8
112	Coupled Field Analysis Needs in the Design of Submersible Electric Motors. , 2007, , .		9