Arash Khoshkbar-Sadigh

List of Publications by Year
in descending order

83 papers	1,369 citations	430874 18 h-index	377865 34 g-index
83 all docs	83 docs citations	83 times ranked	983 citing authors

#	Article	IF	Citations
1	A New Five-Level Switched-Capacitor-Based Transformer-less Common-Grounded Grid-Tied Inverter. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2024, , 1-1.	5.4	8
2	Analysis, Design, and Investigation of a Soft-Switched Buck Converter With High Efficiency. IEEE Transactions on Power Electronics, 2022, 37, 6899-6912.	7.9	9
3	ZVT High Step-Up Boost Converter With Wide Input Voltage and Wide Output Power for Renewable Energy Applications. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2022, 10, 6057-6069.	5.4	6
4	An Interleaved Soft Switched High Step-Up Boost Converter With High Power Density for Renewable Energy Applications. IEEE Transactions on Power Electronics, 2022, 37, 13782-13798.	7.9	7
5	Fault-Tolerant Method to Reduce Voltage Stress of Submodules in Postfault Condition for Regenerative MMC-Based Drive. IEEE Transactions on Industrial Electronics, 2021, 68, 4718-4726.	7.9	19
6	Active Voltage Balancing and Thermal Performance Analysis of Dual Flying-Capacitor Active Neutral-Point-Clamped (DFC-ANPC) Inverters. IEEE Transactions on Industry Applications, 2021, 57, 637-649.	4.9	11
7	A Software-Based Fault-Tolerant Strategy for Modular Multilevel Converter Using DC Bus Voltage Control. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 3436-3445.	5.4	11
8	Simple Active Capacitor Voltage Balancing Method Without Cost Function Optimization for Seven-Level Full-Bridge Flying-Capacitor-Multicell Inverters. IEEE Transactions on Industry Applications, 2021, 57, 1629-1643.	4.9	12
9	Power Loss Modeling and Thermal Comparison of SiC-MOSFET-Based 2-level Inverter and 3-level Flying Capacitor Multicell Inverter. , 2021, , .		3
10	A Fault-Tolerant Approach for Hybrid Modular Multilevel Converter Using Negative Voltage Levels. , 2021, , .		0
11	Multi-Input High Step-Up DCâ€“DC Converter With Independent Control of Voltage and Power for Hybrid Renewable Energy Systems. IEEE Transactions on Industrial Electronics, 2021, 68, 12079-12087.	7.9	20
12	Performance Analysis and Reliability Investigation of a High Step-up DC-DC Converter. , 2021, , .		3
13	A New Control Technique for Improved Active-Neutral-Point-Clamped (I-ANPC) Multilevel Converters Using Logic-Equations Approach. IEEE Transactions on Industry Applications, 2020, 56, 488-497.	4.9	18
14	Phase-Disposition PWM Based Active Voltage Control of Seven-Level Nested Neutral-Point-Piloted (NNPP) Inverters. , 2020, , .		0
15	Space Vector Modulation Scheme for Dual-Output Four-Leg Inverter. , 2020, , .		1
16	An LC Filter Design Based on the Maximum Ripple Current for Two-Level Inverters Controlled with a Bipolar Switching Scheme. , 2020, , .		0
17	Comparative and Quantitative analyze on Reliability of MMC-Based and CHB-Based Drive Systems Considering Various Redundancy Strategies. , 2020, , .		10
18	A Flexible Step-up Modular Multilevel Converter for High-Power Drive Application. , 2020, , .		7

#	Article	IF	Citations
19	Flying-Capacitor Voltage-Balancing Control in Five-Level Active Neutral-Point-Clamped (A-NPC) Converters Using Phase-Disposition PWM. , 2020, , .		2
20	Multiple Zero-Sequence Harmonic Injection Method using Optimized Coefficients. , 2020, , .		0
21	A New Structure of Bidirectional DC-DC Converter for Electric Vehicle Applications. , 2020, , .		8
22	Analytical Approach to Calculate Inductor Current Ripple Cancellation in Two-Phase Interleaved Single-phase Inverter. , 2020, , .		3
23	Dynamic Voltage Restorer Controlled with Energy Minimized Compensation Method Based on Double Flying Capacitor Multicell Inverter. , 2020, , .		3
24	Peer-to-Peer Operation Strategy of PV Equipped Office Buildings and Charging Stations Considering Electric Vehicle Energy Pricing. IEEE Transactions on Industry Applications, 2020, 56, 5848-5857.	4.9	59
25	New auxiliary circuit for boost converter to achieve softâ€switching operation and zero input current ripple. IET Power Electronics, 2020, 13, 3910-3921.	2.1	6
26	Fundamental Circuit Topology of Duo-Active-Neutral-Point-Clamped, Duo-Neutral-Point-Clamped, and Duo-Neutral-Point-Piloted Multilevel Converters. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2019, 7, 1224-1242.	5.4	27
27	A Unique Five-Level Converter Topology Comprising High-Frequency, Low-Frequency, and Line-Frequency Switching Semiconductor Power Devices Without Flying-Capacitors and Clamping-Diodes. , 2019, , .		0
28	New Active Capacitor Voltage Balancing Method for Seven-Level Full-Bridge Flying-Capacitor-Multicell (FCM) Inverters. , 2019, , .		1
29	Thermal and Performance Comparison of Active Neutral-Point-Clamped (ANPC) and Dual FlyingCapacitor ANPC (DFC-ANPC) Inverters. , 2019, , .		3
30	Reduction of Switches and Flying Capacitors in a Hybrid Topology of the Stacked Multicell Converters. , 2019, , .		0
31	A New Three-Level Active Neutral-Point-Clamped (A-NPC) Multilevel Converter Topology. , 2019, , .		5
32	Analytical Design of LC Filter Inductance for Two-Level Inverters Based on Maximum Ripple Current. , 2019, , .		5
33	Duo-active-neutral-point-clamped multilevel converter: An exploration of the fundamental topology and experimental verification. , 2018, , .		6
34	Logic-Equations-Based Modulation Technique for Natural Balance Control of an Improved Active-Neutral-Point-Clamped (I-ANPC) Multilevel Converter. , 2018, , .		4
35	Logic-Equations Method for Active Voltage-Control of a Flying-Capacitor Multilevel Converter Topology. , 2018, , .		1
36	Control of a Modular-Concatenated-Cell (MCC) Multilevel Converter Topology Exploiting Logic-Equations Method. , 2018, , .		2

#	Article	IF	Citations
37	Modular-Concatenated-Cell (MCC) Multilevel Converter: A Novel Circuit Topology and Innovative Logic-Equations-Based Control Technique. , 2018, , .		4
38	Novel multiâ€terminal MMCâ€based dc/dc converter for MVDC grid interconnection. IET Power Electronics, 2018, 11, 1266-1276.	2.1	13
39	Analytical exploration of conduction power losses for stacked multicell converters. , 2017, , .		1
40	Logic-Form-Equation-Based Active Capacitor Voltage Balancing Control Technique for Stacked Multicell Converters. IEEE Transactions on Industrial Electronics, 2017, 64, 3456-3466.	7.9	18
41	New Active Capacitor Voltage Balancing Method for Flying Capacitor Multicell Converter Based on Logic-Form-Equations. IEEE Transactions on Industrial Electronics, 2017, 64, 3467-3478.	7.9	62
42	Medium-voltage DC grid connection using modular multilevel converter. , 2017, , .		8
43	Closed-form equations for analytical exploration and comparison of switching power losses in flying capacitor multicell and active neutral-point-clamped multilevel converters. , 2016, , .		1
44	New logic-form-equation based active voltage control for four-level flying capacitor multicell (FCM) converter. , 2016, , .		0
45	New Flying-Capacitor-Based Multilevel Converter With Optimized Number of Switches and Capacitors for Renewable Energy Integration. IEEE Transactions on Energy Conversion, 2016, 31, 846-859.	5.2	47
46	New active capacitor voltage balancing method for five-level stacked multicell converter. , 2016, , .		3
47	New flying-capacitor-based multilevel converter with optimized number of switches and capacitors controlled with a new logic-form-equation based active voltage balancing technique. , 2016, , .		6
48	Application of reduced stacked multicell converter in dual-function dynamic voltage restorer (DVR). , 2016, , .		0
49	Medium voltage dynamic voltage restorer (DVR) based on DFCM converter for power quality improvement. , 2016, , .		3
50	New configuration of dynamic voltage restorer for medium voltage application. , 2016, , .		2
51	Analytical determination of conduction losses for modified flying capacitor multicell converters. , 2016, , .		5
52	Investigation of Conduction and Switching Power Losses in Modified Stacked Multicell Converters. IEEE Transactions on Industrial Electronics, 2016, 63, 7780-7791.	7.9	26
53	Analytical determination of conduction power loss and investigation of switching power loss for modified flying capacitor multicell converters. IET Power Electronics, 2016, 9, 175-187.	2.1	19
54	Dual Flying Capacitor Active-Neutral-Point-Clamped Multilevel Converter. IEEE Transactions on Power Electronics, 2016, 31, 6476-6484.	7.9	41

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55	Analytical Determination of Conduction and Switching Power Losses in Flying-Capacitor-Based Active Neutral-Point-Clamped Multilevel Converter. IEEE Transactions on Power Electronics, 2016, 31, 5473-5494.	7.9	96
56	Analytic determination of conduction power losses in flying capacitor multicell power converter. , 2015, , .		7
57	Calculation of conduction power losses in double flying capacitor multicell converter. , 2015, , .		4
58	Hybrid double flying capacitor multicell converter for renewable energy integration. , 2015, , .		2
59	Selective harmonic elimination for extended cascaded multicell multilevel power converters. , 2015, , .		4
60	DSP-based digital control of a set of phase-shifted full-bridge DC-DC converters. , 2015, , .		3
61	New Multilevel Converter Based on Cascade Connection of Double Flying Capacitor Multicell Converters and Its Improved Modulation Technique. IEEE Transactions on Power Electronics, 2015, 30, 6568-6580.	7.9	35
62	Hybrid double flying capacitor multicell converter and its application in gridâ€tied renewable energy resources. IET Generation, Transmission and Distribution, 2015, 9, 947-956.	2.5	22
63	Active voltage balancing of five-level H-bridge flying capacitor multicell converter controlled with level-shifted-carrier PWM. , 2015, , .		3
64	A New Breed of Optimized Symmetrical and Asymmetrical Cascaded Multilevel Power Converters. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2015, 3, 1160-1170.	5.4	50
65	Enhanced double flying capacitor multicell power converter controlled with a new switching pattern. IET Power Electronics, 2015, 8, 2386-2395.	2.1	9
66	A New Family of Modular Multilevel Converter Based on Modified Flying-Capacitor Multicell Converters. IEEE Transactions on Power Electronics, 2015, 30, 138-147.	7.9	128
67	Active voltage balancing of reduced stacked multiceli multilevel power converter and its application in static VAR compensation. , 2014, , .		1
68	Reduced DC voltage source flying capacitor multicell multilevel inverter: analysis and implementation. IET Power Electronics, 2014, 7, 439-450.	2.1	58
69	Elimination of DC voltage sources and reduction of power switches voltage stress in stacked multicell converters: analysis, modeling, and implementation. International Transactions on Electrical Energy Systems, 2014, 24, 653-676.	1.9	13
70	DC (direct current) voltage source reduction in stacked multicell converter based energy systems. Energy, 2012, 46, 649-663.	8.8	26
71	Topologies and Control Strategies of Multilevel Converters. Green Energy and Technology, 2012, , 311-340.	0.6	13
72	Flying Capacitors Reduction in an Improved Double Flying Capacitor Multicell Converter Controlled by a Modified Modulation Method. IEEE Transactions on Power Electronics, 2012, 27, 3875-3887.	7.9	102

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73	Voltage sag and swell compensation with DVR based on asymmetrical cascade multicell converter. , 2011, , .		13
74	Double Flying Capacitor Multicell Converter Based on Modified Phase-Shifted Pulsewidth Modulation. IEEE Transactions on Power Electronics, 2010, 25, 1517-1526.	7.9	179
75	Unified power flow controller based on two shunt converters and a series capacitor. Electric Power Systems Research, 2010, 80, 1511-1519.	3.6	14
76	New method for estimating flying capacitor voltages in stacked multicell and flying capacitor multicell converters. Journal of Zhejiang University: Science C, 2010, 11, 654-662.	0.7	7
77	Voltage flicker mitigation with dynamic voltage restorer. , 2010, , .		2
78	Active power filter with new compensation principle based on synchronous reference frame. , 2009, , .		2
79	A new 2-cell shunt active power filter with compensation principle based on synchronous reference frame. , 2009, , .		2
80	Stacked multicell converter based DVR with energy minimized compensation strategy. , 2009, , .		12
81	Flying capacitor multicell converter based dynamic voltage restorer. , 2009, , .		22
82	Elimination of instantaneous backward mmf in single phase induction motors. , 2009, , .		0
83	A simple soft-switched buck converter without implementing auxiliary switch. Electrical Engineering, 0, , 1.	2.0	1