Guidong Zhang

List of Publications by Year
in descending order

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69 papers	1,195 citations	471061 17 h-index	414034 32 g-index
69 all docs	69 docs citations	69 times ranked	968 citing authors

#	Article	IF	Citations
1	A Single-Switch Quadratic Buckâ€“Boost Converter With Continuous Input Port Current and Continuous Output Port Current. IEEE Transactions on Power Electronics, 2018, 33, 4157-4166.	5.4	122
2	Power electronics converters: Past, present and future. Renewable and Sustainable Energy Reviews, 2018, 81, 2028-2044.	8.2	111
3	LLC resonant converter topologies and industrial applications â€" A review. Chinese Journal of Electrical Engineering, 2020, 6, 73-84.	2.3	98
4	A 3-Z-Network Boost Converter. IEEE Transactions on Industrial Electronics, 2015, 62, 278-288.	5.2	75
5	An Impedance Network Boost Converter With a High-Voltage Gain. IEEE Transactions on Power Electronics, 2017, 32, 6661-6665.	5.4	60
6	Understanding the cascading failures in Indian power grids with complex networks theory. Physica A: Statistical Mechanics and Its Applications, 2013, 392, 3273-3280.	1.2	57
7	A Z-Source Half-Bridge Converter. IEEE Transactions on Industrial Electronics, 2014, 61, 1269-1279.	5.2	50
8	Systematic Derivation of Dead-Zone Elimination Strategies for the Noninverting Synchronous Buckâ€“Boost Converter. IEEE Transactions on Power Electronics, 2018, 33, 3497-3508.	5.4	30
9	Hybrid modulation method combining variable frequency and double phaseâ€shift for a 10ÂkW LLC resonant converter. IET Power Electronics, 2018, 11, 2161-2169.	1.5	27
10	Highâ€performance quasiâ€Zâ€source inverter with low capacitor voltage stress and small inductance. IET Power Electronics, 2015, 8, 1061-1067.	1.5	26
11	Forming a Reliable Hybrid Microgrid Using Electric Spring Coupled With Non-Sensitive Loads and ESS. IEEE Transactions on Smart Grid, 2020, 11, 2867-2879.	6.2	26
12	A critical topology review of power electronic transformers: In view of efficiency. Chinese Journal of Electrical Engineering, 2018, 4, 90-95.	2.3	25
13	A Generalized Additional Voltage Pumping Solution for High-Step-Up Converters. IEEE Transactions on Power Electronics, 2019, 34, 6456-6467.	5.4	25
14	A Multiple Modular Isolated DC/DC Converter With Bidirectional Fault Handling and Efficient Energy Conversion for DC Distribution Network. IEEE Transactions on Power Electronics, 2020, 35, 11502-11517.	5.4	25
15	A Simplified Modulation Strategy of Nine-Switch Inverter to Cut Off Half of Switching Modes. IEEE Access, 2018, 6, 7254-7261.	2.6	24
16	Unique Modular Structure of Multicell High-Boost Converters With Reduced Component Currents. IEEE Transactions on Power Electronics, 2018, 33, 7795-7804.	5.4	24
17	A DSE-Based SMC Method of Sensorless DFIG Wind Turbines Connected to Power Grids for Energy Extraction and Power Quality Enhancement. IEEE Access, 2018, 6, 76596-76605.	2.6	20
18	Control Design and Performance Analysis of a Double-Switched LLC Resonant Rectifier for Unity Power Factor and Soft-Switching. IEEE Access, 2020, 8, 44511-44521.	2.6	20

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19	A Dual-Active-Bridge With Half-Bridge Submodules DC Solid-State Transformer for DC Distribution Networks. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 1891-1904.	3.7	18
20	Sneak Circuit Phenomena in a DCM Boost Converter Considering Parasitic Parameters. IEEE Transactions on Power Electronics, 2017, 32, 3946-3958.	5.4	17
21	Immunizing Variable Frequency Transformer From Dual-Side Asymmetrical Grid Faults via a Single-Converter-Based Novel Control Strategy. IEEE Transactions on Power Delivery, 2020, 35, 1330-1338.	2.9	17
22	Advanced fourâ€modeâ€modulationâ€based fourâ€switch nonâ€inverting buckâ€“boost converter with extra operation zone. IET Power Electronics, 2020, 13, 2049-2059.	1.5	16
23	Controllability Analysis and Verification for High-Order DCâ€“DC Converters Using Switched Linear Systems Theory. IEEE Transactions on Power Electronics, 2021, 36, 9678-9688.	5.4	14
24	Four Novel Embedded Z-Source DCâ€“DC Converters. IEEE Transactions on Power Electronics, 2022, 37, 607-616.	5.4	14
25	3-Z-Network Boost Converter. Studies in Systems, Decision and Control, 2018, , 55-82.	0.8	14
26	Design and HIL Realization of an Online Adaptive Dynamic Programming Approach for Real-Time Economic Operations of Household Energy Systems. IEEE Transactions on Smart Grid, 2022, 13, 330-341.	6.2	13
27	Cascading failures of power grids caused by line breakdown. International Journal of Circuit Theory and Applications, 2015, 43, 1807-1814.	1.3	12
28	A Self-Protected Single-Stage LLC Resonant Rectifier. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 3361-3372.	3.7	12
29	Enhanced One-Cycle Control for Multicell Power Converters. IEEE Transactions on Power Electronics, 2020, 35, 8846-8856.	5.4	11
30	A Novel Single-Inputâ€“Dual-Output Impedance Network Converter. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2017, 5, 1133-1141.	3.7	10
31	A Simplified Minimum DC-Link Voltage Control Strategy for Shunt Active Power Filters. Energies, 2018, 11, 2407.	1.6	10
32	A Fractional-Order Element (FOE)-Based Approach to Wireless Power Transmission for Frequency Reduction and Output Power Quality Improvement. Electronics (Switzerland), 2019, 8, 1029.	1.8	10
33	A Î”-Y Hybrid Impedance Network Boost Converter With Reduced Input Current Ripple. IEEE Transactions on Power Electronics, 2018, 33, 2803-2808.	5.4	9
34	An Aerodynamics-Based Novel Optimal Power Extraction Strategy for Offshore Wind Farms With Central VSCs. IEEE Access, 2018, 6, 44351-44361.	2.6	9
35	Sneak Circuit Theory Based Approach to Avoiding Short-Circuit Paths in Reconfigurable Battery Systems. IEEE Transactions on Industrial Electronics, 2021, 68, 12353-12363.	5.2	9
36	A multi-timescale smart grid energy management system based on adaptive dynamic programming and Multi-NN Fusion prediction method. Knowledge-Based Systems, 2022, 241, 108284.	4.0	9

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37	Inherently Non-Pulsating Input Current DC-DC Converter for Battery Storage Systems. IEEE Access, 2020, 8, 140293-140302.	2.6	8
38	Novel Cuk-Based Bridgeless Rectifier of Wireless Power Transfer System With Wide Power Modulation Range and Low Current Ripple. IEEE Transactions on Industrial Electronics, 2022, 69, 2533-2544.	5.2	8
39	Impedance Strengthening and Weakening Networks for Power Converter Analysis and Design. IEEE Transactions on Power Electronics, 2021, 36, 9717-9721.	5.4	8
40	A Graph-Modeling Approach to Topology Simplification in Power Converters. IEEE Transactions on Power Electronics, 2022, 37, 8248-8261.	5.4	8
41	Adaptive Modulation Strategy for Modular Multilevel High-Frequency DC Transformer in DC Distribution Networks. IEEE Access, 2020, 8, 16397-16408.	2.6	7
42	Sneak Circuit Identification of an Improved Boost Converter With Soft-Switching Realization. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2019, 7, 2394-2402.	3.7	6
43	Hourglassâ€shaped impedance network based nonelectrolytic capacitors high stepâ€up converter with low voltage stress. International Journal of Circuit Theory and Applications, 2021, 49, 1147-1163.	1.3	6
44	A General Polynomial Reverse Design of Step-Up Converters for EV Battery Applications. IEEE Transactions on Vehicular Technology, 2022, 71, 2628-2638.	3.9	6
45	An anyâ€unitâ€toâ€anyâ€unit method for hybridâ€structured voltage equalizer in seriesâ€connected battery/superâ€capacitor strings. International Journal of Circuit Theory and Applications, 2022, 50, 2016-2034.	1.3	6
46	Two Impedance-Network DC-DC Converters Based on Switched-Capacitor Techniques. , 2018, , .		5
47	An Investigation into Cascading Failure in Large-Scale Electric Grids: A Load-Redistribution Approach. Applied Sciences (Switzerland), 2018, 8, 1033.	1.3	5
48	Analytical Determination of Fast-Scale Instability Boundaries for Current Mode Controlled DCâ€“DC Converters With CPL and Closed Voltage Loop. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2021, 11, 39-48.	2.7	5
49	Generalized Flexible Voltage Pumping Module for Extra High Voltage Gain Converters in Electric Vehicles. IEEE Transactions on Vehicular Technology, 2021, 70, 6463-6471.	3.9	5
50	Boost-type pushâ€“pull converter with reduced switches. Journal of Power Electronics, 2020, 20, 645-656.	0.9	4
51	An extendable singleâ€switch nâ€cell boost converter with high voltage gain and low components stress for renewable energy. International Journal of Circuit Theory and Applications, 2020, 48, 817-831.	1.3	4
52	Novel method to operation conditions identification of high-order power converters. Journal of Advanced Research, 2021, 28, 175-181.	4.4	4
53	Advanced smallâ€signalâ€based analytical approach to modelling highâ€order power converters. IET Power Electronics, 2019, 12, 228-236.	1.5	3
54	Fast Voltage-Based MPPT Control for High Gain Switched Inductor DC-DC Boost Converters. , 2020, , .		3

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55	Performance evaluation for an hourglassâ€shaped impedanceâ€networkâ€based high stepâ€up converter in a photovoltaic system using PSIM Â© simulation. International Journal of Circuit Theory and Applications, 2021, 49, 2670-2685.	1.3	3
56	An X-shaped-switching-network high-step-up converter for grid integration of renewable energy sources. AEU - International Journal of Electronics and Communications, 2021, 136, 153776.	1.7	3
57	A Kernel-Based Real-Time Adaptive Dynamic Programming Method for Economic Household Energy Systems. IEEE Transactions on Industrial Informatics, 2023, 19, 2374-2384.	7.2	3
58	A unified converter topology for Electric Spring. , 2016, , .		2
59	A Five-Terminal Impedance Network Based Three-Port Converter. IEEE Access, 2018, 6, 29474-29485.	2.6	2
60	A Novel Alternative to Traditional n HSLC: An n -Switched-Cell Based Approach to High-Step-up Converters. IEEE Access, 2019, 7, 114529-114538.	2.6	2
61	Improvement of Stability in a PCM-Controlled Boost Converter with the Target Period Orbit-Tracking Method. Electronics (Switzerland), 2019, 8, 1432.	1.8	2
62	A Novel Impedance-Network-Based Electric Spring. IEEE Access, 2020, 8, 129123-129135.	2.6	2
63	Nonâ€electrolyticâ€capacitor boost converter with nonâ€pulsating rippleâ€free output current. International Journal of Circuit Theory and Applications, 2021, 49, 2719-2735.	1.3	2
64	Replacing All ECs With NECs in Step-Up Convertersâ€”A Systematic Approach. IEEE Transactions on Power Electronics, 2022, 37, 31-36.	5.4	2
65	A Family of Y-Impedance-Network Half-Bridge Converters with Additional Voltage Adjustment Function. Energies, 2019, 12, 3430.	1.6	1
66	4-kW 3-phase rectifier with high efficiency and wide operational range via 3-mode SVPWM. Journal of Power Electronics, 2020, 20, 1433-1444.	0.9	1
67	A DUAL-OUTPUT Z-SOURCE HALF-BRIDGE CONVERTER. , 2016, , .		0
68	A Waveform-Subtraction Based Single-Stage Ripple-Suppression Converter Family for Multiple Waveform Generation. IEEE Transactions on Industrial Electronics, 2020, 67, 1890-1898.	5.2	0
69	Z-source Half-Bridge Converter. Studies in Systems, Decision and Control, 2018, , 83-105.	0.8	0