

Andrii Chub

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

106
papers

947
citations

13
h-index

25
g-index

134
ext. papers

1,396
ext. citations

4.2
avg, IF

4.91
L-index

#	Paper	IF	Citations
106	Mitigation of pulsed power load effect on power system using FLC-SMES. <i>Energy Reports</i> , 2022 , 8, 463-471	4.16	0
105	Reliability Evaluation of Isolated Buck-Boost DC-DC Series Resonant Converter. <i>IEEE Open Journal of Power Electronics</i> , 2022 , 3, 131-141	2.5	0
104	Application of Cycle Skipping Modulation in Buck-Boost Photovoltaic Microconverters. <i>IEEE Transactions on Industry Applications</i> , 2022 , 1-1	4.3	
103	The DC Transformer Power Electronic Building Block: Powering Next-Generation Converter Design. <i>IEEE Industrial Electronics Magazine</i> , 2022 , 2-16	6.2	1
102	Reliability analysis of battery energy storage system for various stationary applications. <i>Journal of Energy Storage</i> , 2022 , 50, 104217	7.8	1
101	Bidirectional Isolated Hexa-Mode DC-DC Converter. <i>IEEE Transactions on Power Electronics</i> , 2022 , 1-1	7.2	2
100	Implementation of Global Maximum Power Point Tracking in Photovoltaic Microconverters: A Survey of Challenges and Opportunities. <i>IEEE Journal of Emerging and Selected Topics in Power Electronics</i> , 2021 , 1-1	5.6	2
99	High-Efficiency Single-Stage On-Board Charger for Electrical Vehicles. <i>IEEE Transactions on Vehicular Technology</i> , 2021 , 1-1	6.8	6
98	An Embedded Half-Bridge \mathbb{Z} -Source Inverter with Reduced Voltage Stress on Capacitors. <i>Energies</i> , 2021 , 14, 6433	3.1	0
97	Wide Range Series Resonant DC-DC Converter with a Reduced Component Count and Capacitor Voltage Stress for Distributed Generation. <i>Energies</i> , 2021 , 14, 2051	3.1	2
96	Wide-Range Operation of High Step-Up DC-DC Converters with Multimode Rectifiers. <i>Electronics (Switzerland)</i> , 2021 , 10, 914	2.6	1
95	Topology Morphing Control with Soft Transients for Multimode Series Resonant DC-DC Converter 2021 ,		4
94	Accelerated Global MPPT for Multimode Series Resonant DC-DC Converter 2021 ,		3
93	DC Voltage Sensorless Predictive Control of a High-Efficiency PFC Single-Phase Rectifier Based on the Versatile Buck-Boost Converter. <i>Sensors</i> , 2021 , 21,	3.8	4
92	Design for Accelerated Testing of DC-Link Capacitors in Photovoltaic Inverters Based on Mission Profiles. <i>IEEE Transactions on Industry Applications</i> , 2021 , 57, 741-753	4.3	1
91	Single-Phase String Solar qZS-based Inverter: Example of Multi-Objective Optimization Design. <i>IEEE Transactions on Industry Applications</i> , 2021 , 57, 3120-3130	4.3	8
90	High Gain DC-AC High-Frequency Link Inverter with Improved Quasi-Resonant Modulation. <i>IEEE Transactions on Industrial Electronics</i> , 2021 , 1-1	8.9	4

89	Utility-Scale Energy Storage Systems: A Comprehensive Review of Their Applications, Challenges, and Future Directions. <i>IEEE Industrial Electronics Magazine</i> , 2021 , 0-0	6.2	3
88	Dual-mode magnetically integrated photovoltaic microconverter with adaptive mode change and global maximum power point tracking. <i>IET Renewable Power Generation</i> , 2021 , 15, 86-98	2.9	2
87	An MPPT Algorithm for PV Systems Based on a Simplified Photo-Diode Model. <i>IEEE Access</i> , 2021 , 9, 33189-33202	3.5	2
86	. <i>IEEE Transactions on Power Electronics</i> , 2021 , 36, 13763-13778	7.2	6
85	An Overview and Comprehensive Comparative Evaluation of Constant-Frequency Voltage Buck Control Methods for Series Resonant DCDC Converters. <i>IEEE Open Journal of the Industrial Electronics Society</i> , 2021 , 2, 65-79	3.6	10
84	High-Frequency Split-Bobbin Transformer Design with Adjustable Leakage Inductance 2021 ,		2
83	Impact of Transformer Turns Ratio on the Power Losses and Efficiency of the Wide Range Isolated BuckBoost Converter for Photovoltaic Applications. <i>Energies</i> , 2020 , 13, 5645	3.1	4
82	Improved Modulation Method for Full-Bridge AC-DC HF-Link Converter 2020 ,		2
81	Review of Isolated Matrix Inverters: Topologies, Modulation Methods and Applications. <i>Energies</i> , 2020 , 13, 2394	3.1	9
80	Three-Port Flyback Converter for Photovoltaic Module Integration in Bipolar DC Microgrids 2020 ,		1
79	Efficiency Improvement of Step-Up Series Resonant DC-DC Converter in Buck Operating Mode 2020 ,		4
78	. <i>IEEE Industrial Electronics Magazine</i> , 2020 , 14, 32-52	6.2	7
77	Hybrid DCDC Converters with Topology Morphing Control and Post-fault Operation Capability. <i>Lecture Notes in Electrical Engineering</i> , 2020 , 433-445	0.2	1
76	Series Resonant DC-DC Converter with Single-Switch Full-Bridge Boost Rectifier Operating at Fixed Switching Frequency 2020 ,		2
75	Wide Input Voltage Range Operation of the Series Resonant DC-DC Converter with Bridgeless Boost Rectifier. <i>Energies</i> , 2020 , 13, 4220	3.1	4
74	Performance Improvement of PWM Control Methods for Voltage Step-Down in Series Resonant DCDC Converters. <i>Energies</i> , 2020 , 13, 4569	3.1	3
73	. <i>IEEE Access</i> , 2020 , 8, 153941-153955	3.5	5
72	Step-Up Series Resonant DCDC Converter with Bidirectional-Switch-Based Boost Rectifier for Wide Input Voltage Range Photovoltaic Applications. <i>Energies</i> , 2020 , 13, 3747	3.1	2

71	Bidirectional DCDC Converter for Modular Residential Battery Energy Storage Systems. <i>IEEE Transactions on Industrial Electronics</i> , 2020 , 67, 1944-1955	8.9	26
70	Voltage Gain Extension Techniques for High Step-Up Galvanically Isolated DC-DC Converters 2020 ,		1
69	Analysis of Fault-Tolerant Operation Capabilities of an Isolated Bidirectional Current-Source DCDC Converter. <i>Energies</i> , 2019 , 12, 3203	3.1	3
68	Mission Profile-based Accelerated Testing of DC-link Capacitors in Photovoltaic Inverters 2019 ,		3
67	MPPT performance enhancement of low-cost PV microconverters. <i>Solar Energy</i> , 2019 , 187, 156-166	6.8	13
66	Snubberless boost full-bridge converters: Analysis of soft switching performance and limitations. <i>International Journal of Circuit Theory and Applications</i> , 2019 , 47, 884-908	2	5
65	Comprehensive Comparative Analysis of Impedance-Source Networks for DC and AC Application. <i>Electronics (Switzerland)</i> , 2019 , 8, 405	2.6	8
64	Wear-Out Failure Analysis of an Impedance-Source PV Microinverter Based on System-Level Electrothermal Modeling. <i>IEEE Transactions on Industrial Electronics</i> , 2019 , 66, 3914-3927	8.9	37
63	Solar OptiverterA Novel Hybrid Approach to the Photovoltaic Module Level Power Electronics. <i>IEEE Transactions on Industrial Electronics</i> , 2019 , 66, 3869-3880	8.9	35
62	Three-Mode Reconfigurable Rectifier for DC-DC Converters with Wide Input Voltage Range 2019 ,		1
61	Input Voltage Range Extension Methods in the Series-Resonant DC-DC Converters 2019 ,		6
60	Sliding Mode Based Control of Dual Boost Inverter for Grid Connection. <i>Energies</i> , 2019 , 12, 4241	3.1	6
59	Fault-Tolerant Bidirectional Series Resonant DC-DC Converter with Minimum Number of Components 2019 ,		8
58	Photovoltaic Energy Yield Improvement in Two-Stage Solar Microinverters. <i>Energies</i> , 2019 , 12, 3774	3.1	5
57	Multiphase Quasi-Z-Source DCDC Converters for Residential Distributed Generation Systems. <i>IEEE Transactions on Industrial Electronics</i> , 2018 , 65, 8361-8371	8.9	31
56	Reliability evaluation of an impedance-source PV microconverter 2018 ,		1
55	Boost half-bridge DC-DC converter with reconfigurable rectifier for ultra-wide input voltage range applications 2018 ,		5
54	Smart transformer universal operation 2018 ,		3

53	Bidirectional soft-switching dc/dc converter for battery energy storage systems. <i>IET Power Electronics</i> , 2018 , 11, 2000-2009	2.2	19
52	Maximizing energy harvest of the impedance source PV microconverter under partial shading conditions 2018 ,		4
51	Asymmetric snubberless current-fed full-bridge isolated DC-DC converters. <i>Electrical, Control and Communication Engineering</i> , 2018 , 14, 5-11	0.7	2
50	Bidirectional Soft Switching Current Source DC-DC Converter for Residential DC Microgrids 2018 ,		4
49	Design of Multiphase Single-Switch Impedance-Source Converters 2018 ,		1
48	Wear-Out Failure Analysis of Solar Optiverter Operating with 60- and 72-Cell Si Crystalline PV Modules 2018 ,		2
47	Versatile Power Electronic Building Block for Residential DC Microgrids 2018 ,		1
46	Reverse power flow control possibilities of galvanically isolated impedance-source DC-DC converters 2017 ,		3
45	. <i>IEEE Transactions on Industrial Electronics</i> , 2017 , 64, 5984-5993	8.9	19
44	Wide Input Voltage Range Photovoltaic Microconverter With Reconfigurable BuckBoost Switching Stage. <i>IEEE Transactions on Industrial Electronics</i> , 2017 , 64, 5974-5983	8.9	39
43	Magnetically integrated high step-up resonant DC-DC converter for distributed photovoltaic systems 2017 ,		3
42	Analysis and design of asymmetric quad-active-bridge converter 2017 ,		3
41	Low-cost photovoltaic microinverter with ultra-wide MPPT voltage range 2017 ,		9
40	Multiphase galvanically isolated impedance-source DC-DC converter for residential renewable energy applications 2017 ,		2
39	High-Performance Quasi-Z-Source Series Resonant DCDC Converter for Photovoltaic Module-Level Power Electronics Applications. <i>IEEE Transactions on Power Electronics</i> , 2017 , 32, 3634-3650 ²		59
38	Comparison of Performance of Phase-Shift and Asymmetrical Pulsewidth Modulation Techniques for the Novel Galvanically Isolated BuckBoost DCDC Converter for Photovoltaic Applications. <i>IEEE Journal of Emerging and Selected Topics in Power Electronics</i> , 2017 , 5, 624-637	5.6	19
37	Evaluation of low-and high-voltage GaN transistors in soft-switching DC-DC converter 2017 ,		4
36	Shade-tolerant photovoltaic microinverter with time adaptive seamless P-V curve sweep MPPT 2017 ,		12

35	. <i>IEEE Transactions on Power Electronics</i> , 2016 , 31, 2808-2828	7.2	119
34	Asymmetrical PWM control of galvanically isolated impedance-source series resonant DC-DC converters 2016 ,		2
33	Input-parallel output-series cascading possibilities of single-switch galvanically isolated quasi-Z-source DC-DC converters 2016 ,		4
32	Zero-voltage switching galvanically isolated current-fed full-bridge DC-DC converter 2016 ,		4
31	Evaluation of GaN HEMTs for high-voltage stage of isolated DC-DC converters 2016 ,		14
30	Multi-mode quasi-Z-source series resonant DC/DC converter for wide input voltage range applications 2016 ,		9
29	Hysteresis current control with distributed shoot-through states for impedance source inverters. <i>International Journal of Circuit Theory and Applications</i> , 2016 , 44, 783-797	2	9
28	Current sensorless control for half-bridge based AC/DC PFC converter with consideration of conduction losses. <i>International Journal of Circuit Theory and Applications</i> , 2016 , 44, 2072-2084	2	4
27	Full-soft-switching high step-up bidirectional isolated current-fed push-pull DC-DC converter for battery energy storage applications 2016 ,		7
26	Efficiency improvement from topology modification of the single-switch isolated quasi-Z-source DC-DC converter 2016 ,		3
25	Full soft-switching bidirectional isolated current-fed dual inductor push-pull DC-DC converter for battery energy storage applications 2016 ,		5
24	Single-switch galvanically isolated step-up DC-DC converter for residential photovoltaic applications 2016 ,		6
23	Galvanically isolated quasi-Z-source DC-DC converters with combined energy transfer for renewable energy sources integration 2015 ,		7
22	Full soft-switching high step-up current-fed DC-DC converters with reduced conduction losses 2015 ,		7
21	. <i>IEEE Transactions on Industrial Electronics</i> , 2015 , 62, 7547-7556	8.9	46
20	Analysis of buck mode realization possibilities in quasi-Z-source DC-DC converters with voltage doubler rectifier 2015 ,		4
19	Quasi-Z-source half-bridge DC-DC converter for photovoltaic applications 2015 ,		13
18	Asymmetrical quasi-Z-source half-bridge DC-DC converters 2015 ,		11

17	Experimental study of high step-up quasi-Z-source DC-DC converter with synchronous rectification 2015,		13
16	Study on power losses of the full soft-switching current-fed DC/DC converter with Si and GaN devices 2015,		3
15	Single-switch galvanically isolated quasi-Z-source DC-DC converter 2015,		13
14	Comparative Analysis of Semiconductor Power Losses of Galvanically Isolated Quasi-Z-Source and Full-Bridge Boost DC-DC Converters. <i>Electrical, Control and Communication Engineering</i> , 2015 , 8, 5-12	0.7	5
13	Full soft-switching bidirectional current-fed DC-DC converter 2015,		11
12	Improved switched-inductor quasi-switched-boost inverter with low input current ripple 2015,		5
11	Voltage Distortion Approach for Output Filter Design for Off-Grid and Grid-Connected PWM Inverters. <i>Journal of Power Electronics</i> , 2015 , 15, 278-287	0.9	22
10	Grid integration issues of PMSG-based residential wind turbines 2014,		3
9	Passive modular structure of a SEPIC based DC/DC converter 2014,		2
8	Input-parallel output-series connection of isolated quasi-Z-source DC-DC converters 2014,		13
7	Switched-capacitor current-fed quasi-Z-source inverter 2014,		11
6	Impedance-source galvanically isolated DC/DC converters: State of the art and future challenges 2014,		9
5	Novel family of quasi-Z-source DC/DC converters derived from current-fed push-pull converters 2014,		10
4	Comparative Study of Rectifier Topologies for Quasi-Z-Source Derived Push-Pull Converter. <i>Elektronika Ir Elektrotechnika</i> , 2014 , 20,	1.7	5
3	Steady-state analysis of qZS-derived push-pull DC/DC converter with wide input voltage regulation range 2013,		2
2	Feasibility study of Si and SiC MOSFETs in high-gain DC/DC converter for renewable energy applications 2013,		10
1	Simulation Study of Nonlinear PI-Controller with Quasi-Z-Source Derived Push-Pull Converter. <i>Electrical, Control and Communication Engineering</i> , 2013 , 4, 26-31	0.7	