

Carlos Roncero-Clemente

List of Publications by Year in descending order

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80
papers

1,089
citations

516561

16
h-index

477173

29
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82
all docs

82
docs citations

82
times ranked

674
citing authors

#	ARTICLE	IF	CITATIONS
1	Single phase three-level neutral-point-clamped quasi-Z-source inverter. IET Power Electronics, 2015, 8, 1-10.	1.5	156
2	Comparison of Impedance-Source Networks for Two and Multilevel Buck-Boost Inverter Applications. IEEE Transactions on Power Electronics, 2016, 31, 7564-7579.	5.4	95
3	Three-level three-phase quasi-Z-source neutral-point-clamped inverter with novel modulation technique for photovoltaic application. Electric Power Systems Research, 2016, 130, 10-21.	2.1	69
4	Optimization and Implementation of the Proportional-Resonant Controller for Grid-Connected Inverter With Significant Computation Delay. IEEE Transactions on Industrial Electronics, 2020, 67, 1201-1211.	5.2	68
5	Carrier Level-Shifted Based Control Method for the PWM 3L-T-Type qZS Inverter With Capacitor Imbalance Compensation. IEEE Transactions on Industrial Electronics, 2018, 65, 8297-8306.	5.2	50
6	Novel Family of Single-Stage Buck-Boost Inverters Based on Unfolding Circuit. IEEE Transactions on Power Electronics, 2019, 34, 7662-7676.	5.4	39
7	Single phase three-level quasi-z-source inverter with a new boost modulation technique. , 2012, , .		29
8	Novel Space Vector Pulsewidth Modulation Strategies for Single-Phase Three-Level NPC Impedance-Source Inverters. IEEE Transactions on Power Electronics, 2019, 34, 4820-4830.	5.4	29
9	Voltage Distortion Approach for Output Filter Design for Off-Grid and Grid-Connected PWM Inverters. Journal of Power Electronics, 2015, 15, 278-287.	0.9	29
10	CCM operation analysis of the single-phase three-level quasi-Z-source inverter. , 2012, , .		22
11	Experimental Investigation of high frequency 3L-NPC qZS inverter for photovoltaic application. , 2013, , .		19
12	Comprehensive Comparative Analysis of Impedance-Source Networks for DC and AC Application. Electronics (Switzerland), 2019, 8, 405.	1.8	19
13	A multi-criteria computer package for power transformer fault detection and diagnosis. Applied Mathematics and Computation, 2018, 319, 153-164.	1.4	18
14	Control and operation of a three-phase local energy router for prosumers in a smart community. IET Renewable Power Generation, 2020, 14, 560-570.	1.7	18
15	Single-Phase String Solar qZS-based Inverter: Example of Multi-Objective Optimization Design. IEEE Transactions on Industry Applications, 2021, 57, 3120-3130.	3.3	18
16	Novel Concept of Solar Converter With Universal Applicability for DC and AC Microgrids. IEEE Transactions on Industrial Electronics, 2022, 69, 4329-4341.	5.2	18
17	Power-Flow-Based Secondary Control for Autonomous Droop-Controlled AC Nanogrids With Peer-to-Peer Energy Trading. IEEE Access, 2021, 9, 22339-22350.	2.6	18
18	PV Array Emulator for Testing Commercial PV Inverters. Elektronika Ir Elektrotechnika, 2013, 19, .	0.4	18

#	ARTICLE	IF	CITATIONS
19	Experimental Comparison of Two-Level Full-SiC and Three-Level SiC Quasi-Z-Source Inverters for PV Applications. <i>Energies</i> , 2019, 12, 2509.	1.6	17
20	A Simple Space Vector Modulation Method With DC-Link Voltage Balancing and Reduced Common-Mode Voltage Strategy for a Three-Level T-Type Quasi-Z Source Inverter. <i>IEEE Access</i> , 2021, 9, 82747-82760.	2.6	17
21	Control Strategy for Electric Vehicle Charging Station Power Converters with Active Functions. <i>Energies</i> , 2019, 12, 3971.	1.6	16
22	Comparison of three MPPT algorithms for three-level neutral-point-clamped qz-source inverter. , 2013, , .		13
23	Three-Level Neutral-Point-Clamped Quasi-Z-Source Inverter with Maximum Power Point Tracking for Photovoltaic Systems. <i>IFIP Advances in Information and Communication Technology</i> , 2013, , 334-342.	0.5	13
24	Maximum boost control for interleaved single-phase Quasi-Z-Source inverter. , 2017, , .		12
25	Passive power decoupling approach for three-level single-phase impedance Source Inverter based on resonant and PID controllers. , 2017, , .		11
26	PWM for Single Phase 3L Z/qZ-Source Inverter with Balanced Power Losses. <i>Elektronika Ir Elektrotehnika</i> , 2014, 20, .	0.4	11
27	Three-Level T-Type Quasi-Z Source PV Grid-Tied Inverter With Active Power Filter Functionality Under Distorted Grid Voltage. <i>IEEE Access</i> , 2022, 10, 44503-44516.	2.6	11
28	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.	1.3	10
29	Interleaved single-phase quasi-Z-source inverter with special modulation technique. , 2017, , .		10
30	Comparison of two power flow control strategies for photovoltaic inverters. , 2012, , .		9
31	Simulation study of the grid-connected single-phase impedance-sourced NPC inverter with different control methods. , 2015, , .		9
32	New interleaved single-phase quasi-Z-source inverter with active power decoupling. , 2018, , .		9
33	Simulation Study of Different Modulation Techniques for Three-Level Quasi-Z-Source Inverter. <i>Electrical, Control and Communication Engineering</i> , 2012, 1, 11-17.	0.4	8
34	Single-phase 3L PR controlled qZS inverter connected to the distorted grid. , 2016, , .		8
35	Component design guidelines for new single-stage buck-boost inverter with unfolding circuit. , 2017, , .		8
36	Improvements on the Carrier-Based Control Method for a Three-Level T-Type, Quasi-Impedance-Source Inverter. <i>Electronics (Switzerland)</i> , 2019, 8, 677.	1.8	8

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37	Bidirectional Twisted Single-Stage Single-Phase Buck-Boost DC-AC Converter. <i>Energies</i> , 2019, 12, 3505.	1.6	8
38	Control scheme of a Three-Phase Three-Level NPC qZ-Source inverter with LCL filter for RES applications. , 2016, , .		7
39	Three-level single-phase quasi-Z source inverter with active power decoupling circuit. , 2017, , .		7
40	Energy management strategy to coordinate batteries and ultracapacitors of a hybrid energy storage system in a residential prosumer installation. , 2017, , .		7
41	An Indirect Model Predictive Current Control (CCS-MPC) for Grid-Connected Single-Phase Three-Level NPC Quasi-Z-Source PV Inverter. , 2018, , .		7
42	Secondary Control for Storage Power Converters in Isolated Nanogrids to Allow Peer-to-Peer Power Sharing. <i>Electronics (Switzerland)</i> , 2020, 9, 140.	1.8	7
43	Energy router for SC: GC, SA and transition mode controls. <i>IET Renewable Power Generation</i> , 2020, 14, 914-924.	1.7	7
44	MPPT and GMPPT Implementation for Buck-Boost Mode Control of Quasi-Z-Source Inverter. <i>IEEE Transactions on Industrial Electronics</i> , 2022, 69, 11348-11358.	5.2	6
45	PSCAD/EMTDC model for photovoltaic modules with MPPT based on manufacturer specifications. , 2013, , .		5
46	Design of three-phase three-level CIC T-source inverter with maximum boost control. , 2015, , .		5
47	Carrier based modulation with capacitor balancing for three-level neutral-point-clamped qZS inverter. , 2015, , .		5
48	Voltage Control Tuning of a Single-Phase Grid-Connected 3L qZS-Based Inverter for PV Application. , 2018, , .		5
49	Optimal LCL-filter study for Buck-Boost Inverter Based on Unfolding Circuit. , 2020, , .		5
50	A Comprehensive Control Strategy for Multibus Nanogrids With Power Exchange Between Prosumers. <i>IEEE Access</i> , 2021, 9, 104281-104293.	2.6	5
51	Output filter design for grid connected single phase three-level quasi-Z-source inverter. , 2013, , .		4
52	New hysteresis current control for grid connected single-phase three-level quasi-Z-source inverter. , 2014, , .		4
53	Three-phase three-level neutral-point-clamped qZ source inverter with active filtering capabilities. , 2015, , .		4
54	Single-phase qZS-based PV inverter with integrated battery storage for distributed energy generation. , 2018, , .		4

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55	Model Predictive Control for Buck-Boost Inverter Based on Unfolding Circuit. , 2019, , .		4
56	A Multi-Criteria Computer Package-Based Energy Management System for a Grid-Connected AC Nanogrid. Mathematics, 2021, 9, 487.	1.1	4
57	A grid-connected PV system based on a four wire dual-buck inverter with ancillary services support. , 2016, , .		3
58	Modified DQ control approach for three-phase inverter. , 2017, , .		3
59	Efficiency and loss distribution analysis of the 3L-Active NPC qZS inverter. , 2018, , .		3
60	Development of a Photovoltaic Array Emulator in a Real Time Control Environment Using xPC Target. IFIP Advances in Information and Communication Technology, 2013, , 325-333.	0.5	3
61	P and Q control strategy for single phase Z/qZ source inverter based on d-q frame. , 2014, , .		2
62	Controlling a battery energy storage system to support residential photovoltaic installations. , 2017, , .		2
63	Comprehensive study of the benefits of integrating a sharing energy strategy between prosumers. , 2017, , .		2
64	Digital Control Strategy for Interleaved Quasi-Z-Source Inverter with Active Power Decoupling. , 2018, , .		2
65	Novel quasi-Z-source derived inverter with unfolding circuit and battery storage. , 2018, , .		2
66	Control Strategy for a Four-Wire T-Type qZSI based PV System to Support Grids with Unbalanced Non-Linear Loads. , 2019, , .		2
67	Grid-Connected Single-Phase 3L-T-type qZS Inverter for Renewable Energy. , 2019, , .		2
68	Grid-Connected Three-Phase 3L-T-type qZS Inverter for Renewable Energy. , 2020, , .		2
69	Resonant and Z-source multilevel inverters. , 2021, , 217-257.		2
70	Experimental evaluation of a new carrierâ€‘based modulation method for a threeâ€‘level Tâ€‘type quasiâ€‘impedanceâ€‘source inverter. IET Power Electronics, 2022, 15, 337-348.	1.5	2
71	Improved Operation Strategy for the High Voltage Input Stage of a Multi-Port Smart Transformer. Energies, 2022, 15, 3778.	1.6	2
72	Reactive Power Injection Capability of Buckâ€‘Boost Inverter With Unfolding Circuit. IEEE Transactions on Power Electronics, 2022, 37, 11876-11886.	5.4	2

#	ARTICLE	IF	CITATIONS
73	Grid-connected PV system based on a single-phase three-level qZS inverter. , 2013, , .		1
74	Evaluation of losses in three-level neutral-point-clamped and T-type quasi-Z-source inverters with modified carrier based modulation method. , 2017, , .		1
75	Quasi-Z Source T-Type Power Converter for PV Based Commercial and Industrial Nanogrids with Active Functions Strategy. Electronics (Switzerland), 2020, 9, 1233.	1.8	1
76	New Operation Strategy for a Grid-Connected Three-Phase Three-Level NPC qZS Inverter Based on Power Losses. Elektronika Ir Elektrotechnika, 2016, 22, .	0.4	1
77	Operation strategy and shoot-through indirect control method for three-phase Z-source inverters. , 2015, , .		0
78	Review of Novel Topologies for PV Applications. IFIP Advances in Information and Communication Technology, 2016, , 369-377.	0.5	0
79	Analysis of Bidirectional Buck/Boost Converter for Energy Storage System. , 2019, , .		0
80	LA CONSTRUCCI3N DE EDIFICIOS CON CONSUMO CASI NULO (NZEB). REVISI3N DE DEFINICIONES Y DETERMINACI3N DE SUS BALANCES ENERG3TICOS MEDIANTE SIMULACI3N. Dyna (Spain), 2018, 93, 36-40.	0.1	0