

Enrique Romero-Cadaval

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.

140
papers

2,290
citations

18
h-index

45
g-index

171
ext. papers

3,017
ext. citations

2.9
avg, IF

5.22
L-index

#	Paper	IF	Citations
140	Transactive Energy: Power Electronics Challenges. <i>IEEE Power Electronics Magazine</i> , 2022 , 9, 20-32	1.5	5
139	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	3.5	0
138	Improved Operation Strategy for the High Voltage Input Stage of a Multi-Port Smart Transformer. <i>Energies</i> , 2022 , 15, 3778	3.1	0
137	Isolated High-Frequency Link PFC Rectifier with High Step-Down Factor and Reduced Energy Circulation. <i>IEEE Journal of Emerging and Selected Topics in Industrial Electronics</i> , 2021 , 1-1	2.6	1
136	Modulation strategy and control of Modular Cascade H-Bridge Converters as Input-side of a Multi-port Smart Transformer 2021 ,		1
135	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
134	A New Approach to the PWM Modulation for the Multiphase Matrix Converters Supplying Loads with Open-End Winding. <i>Energies</i> , 2021 , 14, 466	3.1	
133	Electric Vehicle Charging Infrastructure: From Grid to Battery. <i>IEEE Industrial Electronics Magazine</i> , 2021 , 0-0	6.2	33
132	Improved Three-Phase Integrated Charger Converter Connected to Single-Phase Grid With Torque Cancellation. <i>IEEE Access</i> , 2021 , 9, 108266-108275	3.5	0
131	The Conceptual Research over Low-Switching Modulation Strategy for Matrix Converters with the Coupled Reactors. <i>Energies</i> , 2021 , 14, 675	3.1	
130	A Comprehensive Control Strategy for Multibus Nanogrids With Power Exchange Between Prosumers. <i>IEEE Access</i> , 2021 , 9, 104281-104293	3.5	0
129	. <i>IEEE Access</i> , 2021 , 9, 22339-22350	3.5	8
128	Control and operation of a three-phase local energy router for prosumers in a smart community. <i>IET Renewable Power Generation</i> , 2020 , 14, 560-570	2.9	8
127	Secondary Control for Storage Power Converters in Isolated Nanogrids to Allow Peer-to-Peer Power Sharing. <i>Electronics (Switzerland)</i> , 2020 , 9, 140	2.6	7
126	Determination of wire resistance caused by skin effect using modified 3D finite element model. <i>Electrical Engineering</i> , 2020 , 102, 1513-1520	1.5	
125	Improvements on a Sensorless Scheme for a Surface-Mounted Permanent Magnet Synchronous Motor Using Very Low Voltage Injection. <i>Energies</i> , 2020 , 13, 2732	3.1	2
124	Demand and Storage Management in a Prosumer Nanogrid Based on Energy Forecasting. <i>Electronics (Switzerland)</i> , 2020 , 9, 363	2.6	4

123	Per-Unit Hysteresis and Eddy Loss Method Based on 3D Finite Elements for Non-Symmetric Toroidal Magnetic. <i>IEEE Access</i> , 2020 , 8, 34919-34928	3.5	
122	Quasi-Z Source T-Type Power Converter for PV Based Commercial and Industrial Nanogrids with Active Functions Strategy. <i>Electronics (Switzerland)</i> , 2020 , 9, 1233	2.6	
121	Photovoltaic Power Converter Management in Unbalanced Low Voltage Networks with Ancillary Services Support. <i>Energies</i> , 2019 , 12, 972	3.1	6
120	Advantages of Minimizing Energy Exchange Instead of Energy Cost in Prosumer Microgrids. <i>Energies</i> , 2019 , 12, 719	3.1	16
119	Efficiency Map Comparison of Induction and Synchronous Reluctance Motors 2019 ,		12
118	Comprehensive Comparative Analysis of Impedance-Source Networks for DC and AC Application. <i>Electronics (Switzerland)</i> , 2019 , 8, 405	2.6	8
117	. <i>IEEE Transactions on Power Electronics</i> , 2019 , 34, 4820-4830	7.2	16
116	Improvements on the Carrier-Based Control Method for a Three-Level T-Type, Quasi-Impedance-Source Inverter. <i>Electronics (Switzerland)</i> , 2019 , 8, 677	2.6	5
115	Efficiency Study of the Single-Phase Solar qZS-based Inverter 2019 ,		2
114	Control Strategy for Electric Vehicle Charging Station Power Converters with Active Functions. <i>Energies</i> , 2019 , 12, 3971	3.1	5
113	Optimal Charge/Discharge Scheduling of Batteries in Microgrids of Prosumers. <i>IEEE Transactions on Energy Conversion</i> , 2019 , 34, 468-477	5.4	37
112	Smart Community Electric Energy Micro-Storage Systems With Active Functions. <i>IEEE Transactions on Industry Applications</i> , 2018 , 54, 1975-1982	4.3	12
111	. <i>IEEE Transactions on Industrial Electronics</i> , 2018 , 65, 8297-8306	8.9	34
110	Single-phase qZS-based PV inverter with integrated battery storage for distributed energy generation 2018 ,		2
109	Buck-Boost Unfolder Inverter as a Novel Solution for Single-Phase PV Systems 2018 ,		1
108	Resilient Energy Harvesting System for Independent Monitoring Nodes. <i>IFIP Advances in Information and Communication Technology</i> , 2018 , 274-281	0.5	
107	Efficiency and loss distribution analysis of the 3L-Active NPC qZS inverter 2018 ,		3
106	Noise, Vibration and Harshness on a Permanent Magnet Synchronous Motor for a Remote Laboratory. <i>IFIP Advances in Information and Communication Technology</i> , 2017 , 382-389	0.5	

105	Passive power decoupling approach for three-level single-phase impedance Source Inverter based on resonant and PID controllers 2017 ,		10
104	Comprehensive study of the benefits of integrating a sharing energy strategy between prosumers 2017 ,		1
103	Three-level single-phase quasi-Z source inverter with active power decoupling circuit 2017 ,		4
102	Controlling a battery energy storage system to support residential photovoltaic installations 2017 ,		1
101	Energy management strategy to coordinate batteries and ultracapacitors of a hybrid energy storage system in a residential prosumer installation 2017 ,		4
100	Maximum boost control for interleaved single-phase Quasi-Z-Source inverter 2017 ,		7
99	Interleaved single-phase quasi-Z-source inverter with special modulation technique 2017 ,		9
98	Modified DQ control approach for three-phase inverter 2017 ,		1
97	A Smart Power Electronic Multiconverter for the Residential Sector. <i>Sensors</i> , 2017 , 17,	3.8	8
96	Active, Reactive and Harmonic Control for Distributed Energy Micro-Storage Systems in Smart Communities Homes. <i>Energies</i> , 2017 , 10, 448	3.1	8
95	Three-level three-phase quasi-Z-source neutral-point-clamped inverter with novel modulation technique for photovoltaic application. <i>Electric Power Systems Research</i> , 2016 , 130, 10-21	3.5	52
94	Single-phase 3L PR controlled qZS inverter connected to the distorted grid 2016 ,		6
93	Photovoltaic inverter with smart grid functions 2016 ,		2
92	Software design to calculate and simulate the mechanical response of electromechanical lifts. <i>Journal of Physics: Conference Series</i> , 2016 , 721, 012009	0.3	
91	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
90	Integration of Solar Photovoltaics 2016 , 1-27		
89	Mining sequential patterns to efficiently manage Energy Storage Systems within smart home buildings. <i>Journal of Ambient Intelligence and Smart Environments</i> , 2016 , 8, 287-300	2.2	2
88	Control scheme of a Three-Phase Three-Level NPC qZ-Source inverter with LCL filter for RES applications 2016 ,		2

87	Review of Novel Topologies for PV Applications. <i>IFIP Advances in Information and Communication Technology</i> , 2016 , 369-377	0.5	
86	. <i>IEEE Transactions on Power Electronics</i> , 2016 , 31, 7564-7579	7.2	70
85	Local energy micro-storage systems in smart communities with active, reactive and harmonic control 2016 ,		1
84	Simulation study of the grid-connected single-phase impedance-sourced NPC inverter with different control methods 2015 ,		6
83	Grid-Connected Photovoltaic Plants: An Alternative Energy Source, Replacing Conventional Sources. <i>IEEE Industrial Electronics Magazine</i> , 2015 , 9, 18-32	6.2	66
82	Analysis of Causes and Effects of Harmonic Distortion in Electric Power Systems and Solutions to Comply with International Standards Regarding Power Quality. <i>IFIP Advances in Information and Communication Technology</i> , 2015 , 357-364	0.5	1
81	Three-phase three-level neutral-point-clamped qZ source inverter with active filtering capabilities 2015 ,		3
80	Supraharmonics from power electronics converters 2015 ,		22
79	Overview of plug-in electric vehicles as providers of ancillary services 2015 ,		8
78	Carrier based modulation with capacitor balancing for three-level neutral-point-clamped qZS inverter 2015 ,		2
77	A novel active battery equalization control with on-line unhealthy cell detection and cell change decision. <i>Journal of Power Sources</i> , 2015 , 299, 356-370	8.9	56
76	Grid-connected photovoltaic power plants for helping node voltage regulation. <i>IET Renewable Power Generation</i> , 2015 , 9, 236-244	2.9	18
75	Using Plug-in Electric Vehicles to Implement Ancillary Services in Smart Distribution Grids. <i>Power Systems</i> , 2015 , 309-349	0.4	2
74	Single phase three-level neutral-point-clamped quasi-Z-source inverter. <i>IET Power Electronics</i> , 2015 , 8, 1-10	2.2	124
73	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
72	New hysteresis current control for grid connected single-phase three-level quasi-Z-source inverter 2014 ,		3
71	Point of common coupling voltage regulation with photovoltaic power plant infrastructures 2014 ,		3
70	Grid reactive power compensation by using electric vehicles 2014 ,		14

69	Grid-connected PV plants. Power quality and technical requirements 2014 ,		9
68	Battery equalization active methods. <i>Journal of Power Sources</i> , 2014 , 246, 934-949	8.9	296
67	Power converter interfaces for electrochemical energy storage systems [A review. <i>Energy Conversion and Management</i> , 2014 , 86, 453-475	10.6	144
66	Distributed smart metering by using power electronics systems 2014 ,		1
65	Battery Equalization Control Based on the Shunt Transistor Method. <i>Electrical, Control and Communication Engineering</i> , 2014 , 7, 20-27	0.7	4
64	A battery cell balancing method with linear mode bypass current control 2014 ,		1
63	P and Q control strategy for single phase Z/qZ source inverter based on d-q frame 2014 ,		1
62	Experimental tests of High Impedance Faults in MV rural distribution network 2014 ,		2
61	Design of a simple modular active power electronic transformer 2014 ,		1
60	Generic Losses Model for Traditional Inverters and Neutral Point Clamped Inverters. <i>Elektronika Ir Elektrotehnika</i> , 2014 , 20,	1.7	3
59	PWM for Single Phase 3L Z/qZ-Source Inverter with Balanced Power Losses. <i>Elektronika Ir Elektrotehnika</i> , 2014 , 20,	1.7	7
58	Distributed Smart Metering by Using Power Electronics Systems. <i>IFIP Advances in Information and Communication Technology</i> , 2014 , 289-296	0.5	
57	An Innovator Nonintrusive Method for Disaggregating and Identifying Two Simultaneous Household Loads. <i>IFIP Advances in Information and Communication Technology</i> , 2014 , 297-304	0.5	
56	Supercapacitor energy storage system for attenuating and conditioning power from photovoltaic generation plants 2013 ,		1
55	Comparison of three MPPT algorithms for three-level neutral-point-clamped qz-source inverter 2013 ,		7
54	Cooperative operation of inverters for grid-connected photovoltaic generation systems. <i>Electric Power Systems Research</i> , 2013 , 96, 47-55	3.5	6
53	2013 ,		13
52	Active functions implementation in smart inverters for distributed energy resources 2013 ,		11

51	Grid-Connected Photovoltaic Generation Plants: Components and Operation. <i>IEEE Industrial Electronics Magazine</i> , 2013 , 7, 6-20	6.2	294
50	Output filter design for grid connected single phase three-level quasi-Z-source inverter 2013 ,		1
49	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	6
48	Active power electronic transformer as a power conditioner for nonlinear loads 2013 ,		2
47	Active Battery Balancing for Battery Packs. <i>Electrical, Control and Communication Engineering</i> , 2013 , 2, 40-46	0.7	7
46	Cooperative converter for improving the performance of grid-connected photovoltaic power plants. <i>IET Renewable Power Generation</i> , 2013 , 7, 110-117	2.9	9
45	Experimental Investigation of high frequency 3L-NPC qZS inverter for photovoltaic application 2013 ,		15
44	Optimized energy consumption management for residential applications controlled by a Local Energy Management Unit 2013 ,		1
43	Failure analysis of inverter based anti-islanding systems in photovoltaic islanding events 2013 ,		2
42	Active power injection control of a photovoltaic system through ultracapacitor storage 2013 ,		2
41	Issues and improvements of hardware/software co-design sensorless implementation in a permanent magnet synchronous motor using Veristand 2013 ,		1
40	PSCAD/EMTDC model for photovoltaic modules with MPPT based on manufacturer specifications 2013 ,		5
39	Simulation of Grid Connected Three-Level Neutral-Point-Clamped qZS Inverter using PSCAD. <i>Electrical, Control and Communication Engineering</i> , 2013 , 2, 14-19	0.7	3
38	PV Array Emulator for Testing Commercial PV Inverters. <i>Elektronika Ir Elektrotehnika</i> , 2013 , 19,	1.7	12
37	Local Energy Management Unit for Residential Applications. <i>Elektronika Ir Elektrotehnika</i> , 2013 , 19,	1.7	2
36	Community and Residential Energy Storage in Smart Grids. <i>IFIP Advances in Information and Communication Technology</i> , 2013 , 315-322	0.5	2
35	Intelligent Energy Management System for the Optimization of Power Consumption. <i>Advances in Intelligent Systems and Computing</i> , 2013 , 113-120	0.4	
34	Development of a Photovoltaic Array Emulator in a Real Time Control Environment Using xPC Target. <i>IFIP Advances in Information and Communication Technology</i> , 2013 , 325-333	0.5	2

33	Intelligent Energy Management System for Residential and Community Applications. <i>IFIP Advances in Information and Communication Technology</i> , 2013 , 307-314	0.5	0
32	Electric vehicle battery charger for smart grids. <i>Electric Power Systems Research</i> , 2012 , 90, 18-29	3.5	57
31	State of the art of active power electronic transformers for smart grids 2012 ,		8
30	CCM operation analysis of the single-phase three-level quasi-Z-source inverter 2012 ,		13
29	Single phase three-level quasi-z-source inverter with a new boost modulation technique 2012 ,		20
28	Three-phase single stage photovoltaic inverter with active filtering capabilities 2012 ,		8
27	Comparison of two power flow control strategies for photovoltaic inverters 2012 ,		7
26	A novel nonintrusive load monitoring system based on the S-Transform 2012 ,		12
25	Simulation Study of Different Modulation Techniques for Three-Level Quasi-Z-Source Inverter. <i>Electrical, Control and Communication Engineering</i> , 2012 , 1, 11-17	0.7	2
24	Effect of controller coefficients and converter switching frequency on performance and efficiency of electric drives used in electrical vehicles. <i>International Journal of Vehicle Design</i> , 2012 , 58, 325	2.4	1
23	Three-phase bidirectional battery charger for smart electric vehicles 2011 ,		7
22	Three-phase regenerative electronic load to test shunt power conditioners 2011 ,		3
21	Hybrid Multiconverter Conditioner Topology for High-Power Applications. <i>IEEE Transactions on Industrial Electronics</i> , 2011 , 58, 2283-2292	8.9	28
20	Integration of active power filters in a harmonic load flow algorithm for optimizing location and strategy 2011 ,		2
19	Analysis and optimization of sinusoidal Voltage Source Inverter losses for variable output power applications 2011 ,		6
18	Study of Spread of Harmonics in an Electric Grid. <i>International Federation for Information Processing</i> , 2011 , 457-465		
17	Optimization of Losses in Permanent Magnet Synchronous Motors for Electric Vehicle Application. <i>International Federation for Information Processing</i> , 2011 , 502-509		
16	Hall-effect based semi-fast AC on-board charging equipment for electric vehicles. <i>Sensors</i> , 2011 , 11, 9313-86		11

15	Impact of Grid Connected Photovoltaic System in the Power Quality of a Distribution Network. <i>International Federation for Information Processing, 2011, 466-473</i>		15
14	Cooperative converters in power electronic systems 2010,		1
13	Power injection system for photovoltaic plants based on a multiconverter topology with DC-link capacitor voltage balancing 2010,		3
12	Comparison of controllers for a three-phase Phase Locked Loop system under distorted conditions 2009,		7
11	Quality meter of electric power systems based on IEEE Standard 1459-2000 2009,		5
10	Power Injection System for Grid-Connected Photovoltaic Generation Systems Based on Two Collaborative Voltage Source Inverters. <i>IEEE Transactions on Industrial Electronics, 2009, 56, 4389-4398</i>	8.9	41
9	Overview of medium scale energy storage systems 2009,		16
8	Power injection system for photovoltaic generation plants with active filtering capability 2009,		2
7	A novel Fundamental Voltage Synchronization control strategy for shunt single-phase and three-phase active power filters. <i>Power Electronics Specialist Conference (PESC), IEEE, 2008,</i>		1
6	Comparison of Control Strategies for Shunt Active Power Filters in Three-Phase Four-Wire Systems. <i>IEEE Transactions on Power Electronics, 2007, 22, 229-236</i>	7.2	312
5	Novel method for synchronization to disturbed three-phase and single-phase systems 2007,		14
4	Power Injection Control System and Experimental Model based on Manufacturer Characteristic Curves for a Photovoltaic Generation System 2007,		9
3	A modified switching signal generation technique to minimize the RMS tracking error in active filters. <i>IEEE Transactions on Power Electronics, 2005, 20, 1118-1124</i>	7.2	3
2	Analysis of the Electromagnetic Behaviour of a Variable-Waveform-Supplied Iron Core Inductor, Modelled with Finite Elements 2005, 167-172		
1	Active power line conditioner based on two parallel converters topology		5