

Allan F Cupertino

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.

80
papers

560
citations

13
h-index

19
g-index

102
ext. papers

823
ext. citations

3.9
avg, IF

4.54
L-index

#	Paper	IF	Citations
80	Wear-out failure analysis of modular multilevel converter-based STATCOM: The role of the modulation strategy and IGBT blocking voltage. <i>Microelectronics Reliability</i> , 2022 , 128, 114426	1.2	0
79	Reliability-based trade-off analysis of reactive power capability in PV inverters under different sizing ratio. <i>International Journal of Electrical Power and Energy Systems</i> , 2022 , 136, 107677	5.1	2
78	Reconsideration of solar array simulator based on Thevenin equivalent circuit for low-power applications. <i>International Journal of Electrical Power and Energy Systems</i> , 2022 , 140, 108016	5.1	
77	Benchmarking of Single-Stage and Two-Stage Approaches for an MMC-Based BESS. <i>Energies</i> , 2022 , 15, 3598	3.1	1
76	Minimum DC-Link Voltage Control for Efficiency and Reliability Improvement in PV Inverters. <i>IEEE Transactions on Power Electronics</i> , 2021 , 36, 5512-5520	7.2	5
75	Methodology for bondwire lifetime evaluation of multifunctional PV inverter during harmonic current compensation. <i>International Journal of Electrical Power and Energy Systems</i> , 2021 , 128, 106711	5.1	3
74	Minimum Cell Operation Control for Power Loss Reduction in MMC-Based STATCOM. <i>IEEE Journal of Emerging and Selected Topics in Power Electronics</i> , 2021 , 9, 1938-1950	5.6	7
73	An Improved Fault-Tolerant Control Scheme for Cascaded H-Bridge STATCOM With Higher Attainable Balanced Line-to-Line Voltages. <i>IEEE Transactions on Industrial Electronics</i> , 2021 , 68, 2784-2797	8.9	16
72	Optimum Design of MMC-Based ES-STATCOM Systems: The Role of the Submodule Reference Voltage. <i>IEEE Transactions on Industry Applications</i> , 2021 , 57, 3064-3076	4.3	4
71	Next generation of grid-connected photovoltaic systems: modeling and control 2021 , 509-548		
70	Operation Limits of Grid-Tied Photovoltaic Inverters With Harmonic Current Compensation Based on Capability Curves. <i>IEEE Transactions on Energy Conversion</i> , 2021 , 36, 2088-2098	5.4	4
69	Third-Harmonic Current Injection for Wear-out Reduction in Single-Phase PV Inverters. <i>IEEE Transactions on Energy Conversion</i> , 2021 , 1-1	5.4	1
68	Pursuing computationally efficient wear-out prediction of PV inverters: The role of the mission profile resolution. <i>Microelectronics Reliability</i> , 2020 , 110, 113679	1.2	0
67	Minimum voltage control for reliability improvement in modular multilevel cascade converters-based STATCOM. <i>Microelectronics Reliability</i> , 2020 , 110, 113693	1.2	1
66	Power control strategies for grid connected converters applied to full-scale wind energy conversion systems during LVRT operation. <i>Electric Power Systems Research</i> , 2020 , 184, 106279	3.5	7
65	Benchmarking of Modular Multilevel Converter Topologies for ES-STATCOM Realization. <i>Energies</i> , 2020 , 13, 3384	3.1	10
64	An improved power regulation method for a three-terminal hybrid AC/DC microgrid during module failure. <i>International Journal of Electrical Power and Energy Systems</i> , 2020 , 123, 106330	5.1	3

63	Design for reliability of multifunctional PV inverters used in industrial power factor regulation. <i>International Journal of Electrical Power and Energy Systems</i> , 2020 , 119, 105932	5.1	8
62	High Performance Simulation Models for ES-STATCOM Based on Modular Multilevel Converters. <i>IEEE Transactions on Energy Conversion</i> , 2020 , 35, 474-483	5.4	13
61	Reliability-Oriented Design of Modular Multilevel Converters for Medium-Voltage STATCOM. <i>IEEE Transactions on Industrial Electronics</i> , 2020 , 67, 6206-6214	8.9	14
60	Analysis of Double-Star Modular Multilevel Topologies Applied in HVDC System for Grid Connection of Offshore Wind Power Plants. <i>Journal of Control, Automation and Electrical Systems</i> , 2020 , 31, 436-446	1.5	1
59	Design of parallel plate electrocoagulation reactors supplied by photovoltaic system applied to water treatment. <i>Computers and Electronics in Agriculture</i> , 2020 , 177, 105676	6.5	4
58	On Converter Fault Tolerance in MMC-HVDC Systems: A Comprehensive Survey. <i>IEEE Journal of Emerging and Selected Topics in Power Electronics</i> , 2020 , 1-1	5.6	5
57	Redundancy and Derating Strategies for Modular Multilevel Converter for an Electric Drive. <i>Journal of Control, Automation and Electrical Systems</i> , 2020 , 31, 339-349	1.5	
56	On Inherent Redundancy of MMC-Based STATCOMs in the Overmodulation Region. <i>IEEE Transactions on Power Delivery</i> , 2020 , 35, 1169-1179	4.3	9
55	Adaptive dc-link voltage control strategy to increase PV inverter lifetime. <i>Microelectronics Reliability</i> , 2019 , 100-101, 113439	1.2	6
54	Lifetime evaluation of three-phase multifunctional PV inverters with reactive power compensation. <i>Electric Power Systems Research</i> , 2019 , 175, 105873	3.5	7
53	Partial Harmonic Current Compensation for Multifunctional Photovoltaic Inverters. <i>IEEE Transactions on Power Electronics</i> , 2019 , 34, 11868-11879	7.2	13
52	Flexible harmonic current compensation strategy applied in single and three-phase photovoltaic inverters. <i>International Journal of Electrical Power and Energy Systems</i> , 2019 , 104, 358-369	5.1	13
51	Power converters for battery energy storage systems connected to medium voltage systems: a comprehensive review. <i>BMC Energy</i> , 2019 , 1,	6.5	9
50	Comparison of MPPT Strategies in Three-Phase Photovoltaic Inverters Applied for Harmonic Compensation. <i>IEEE Transactions on Industry Applications</i> , 2019 , 55, 5141-5152	4.3	9
49	Redundancy design for modular multilevel converter based STATCOMs. <i>Microelectronics Reliability</i> , 2019 , 100-101, 113471	1.2	1
48	Impact of the mission profile length on lifetime prediction of PV inverters. <i>Microelectronics Reliability</i> , 2019 , 100-101, 113427	1.2	4
47	Benchmarking of capacitor power loss calculation methods for wear-out failure prediction in PV inverters. <i>Microelectronics Reliability</i> , 2019 , 100-101, 113491	1.2	2
46	Third Harmonic Injection Method for Reliability Improvement of Single-Phase PV Inverters 2019 ,		1

45	On lifetime evaluation of medium-voltage drives based on modular multilevel converter. <i>IET Electric Power Applications</i> , 2019 , 13, 1453-1461	1.8	4
44	Benchmarking of power control strategies for photovoltaic systems under unbalanced conditions. <i>International Journal of Electrical Power and Energy Systems</i> , 2019 , 106, 335-345	5.1	17
43	Comparison of DSCC and SDBC Modular Multilevel Converters for STATCOM Application During Negative Sequence Compensation. <i>IEEE Transactions on Industrial Electronics</i> , 2019 , 66, 2302-2312	8.9	37
42	Design and Selection of High Reliability Converters for Mission Critical Industrial Applications: A Rolling Mill Case Study. <i>IEEE Transactions on Industry Applications</i> , 2018 , 54, 4938-4947	4.3	14
41	Ancillary services provided by photovoltaic inverters: Single and three phase control strategies. <i>Computers and Electrical Engineering</i> , 2018 , 70, 102-121	4.3	23
40	On the Redundancy Strategies of Modular Multilevel Converters. <i>IEEE Transactions on Power Delivery</i> , 2018 , 33, 851-860	4.3	37
39	Damping techniques for grid-connected voltage source converters based on LCL filter: An overview. <i>Renewable and Sustainable Energy Reviews</i> , 2018 , 81, 116-135	16.2	36
38	DSCC-MMC STATCOM Main Circuit Parameters Design Considering Positive and Negative Sequence Compensation. <i>Journal of Control, Automation and Electrical Systems</i> , 2018 , 29, 62-74	1.5	16
37	Comparison of Double Star Topologies of Modular Multilevel Converters in STATCOM Application 2018 ,		3
36	Lifetime evaluation of a multifunctional PV single-phase inverter during harmonic current compensation. <i>Microelectronics Reliability</i> , 2018 , 88-90, 1071-1076	1.2	2
35	Impact of meteorological variations on the lifetime of grid-connected PV inverters. <i>Microelectronics Reliability</i> , 2018 , 88-90, 1019-1024	1.2	6
34	Life consumption of a MMC-STATCOM supporting wind power plants: Impact of the modulation strategies. <i>Microelectronics Reliability</i> , 2018 , 88-90, 1063-1070	1.2	4
33	Modeling, Design and Control of a Solar Array Simulator Based on Two-Stage Converters. <i>Journal of Control, Automation and Electrical Systems</i> , 2017 , 28, 585-596	1.5	8
32	IGBT power modules lifetime in 2-level pv-inverters under harsh environmental conditions 2017 ,		1
31	An improved solar array simulator topology based on LCL filter 2017 ,		3
30	LCL filter losses due to harmonic compensation in a photovoltaic system 2017 ,		2
29	Operating limits of three-phase multifunctional photovoltaic converters applied for harmonic current compensation 2017 ,		2
28	Novel adaptive saturation scheme for photovoltaic inverters with ancillary service capability 2017 ,		1

27	Adaptive current control strategy for harmonic compensation in single-phase solar inverters. <i>Electric Power Systems Research</i> , 2017 , 142, 84-95	3.5	33
26	Design and lifetime analysis of a DSCC-MMC STATCOM 2017 ,		3
25	Performance comparison of different power modules applied in photovoltaic inverters during harmonic current compensation 2017 ,		1
24	Comparison of harmonic detection methods applied in a photovoltaic inverter during harmonic current compensation 2017 ,		1
23	Design of high-reliable converters for medium-voltage rolling mills systems 2017 ,		1
22	Capacitor voltage balance performance comparison of MMC-STATCOM using NLC and PS-PWM strategies during negative sequence current injection 2016 ,		7
21	Low Voltage Ride-Through Capability Solutions for Permanent Magnet Synchronous Wind Generators. <i>Energies</i> , 2016 , 9, 59	3.1	19
20	Three-phase photovoltaic inverters during unbalanced voltage sags: Comparison of control strategies and thermal stress analysis 2016 ,		3
19	Comparison of MPPT strategies applied in three-phase photovoltaic inverters during harmonic current compensation 2016 ,		2
18	Power losses in photovoltaic inverter components due to reactive power injection 2016 ,		1
17	Losses and cost comparison of DS-HB and SD-FB MMC based large utility grade STATCOM 2016 ,		10
16	Adaptive saturation for a multifunctional three-phase photovoltaic inverter 2015 ,		6
15	Interconnection and damping assignment passivity-based control of a PMSG based wind turbine 2015 ,		2
14	A novel adaptive current harmonic control strategy applied in multifunctional single-phase solar inverters 2015 ,		3
13	Modeling and control of a flexible photovoltaic array simulator 2015 ,		5
12	Modeling and design of a flexible solar array simulator topology 2015 ,		3
11	Interconnection and damping assignment passivity-based control of a PMSG based wind turbine for maximum power tracking 2015 ,		3
10	2015 ,		6

9	Current control strategy for reactive and harmonic compensation with dynamic saturation 2015 ,		4
8	Characterization of solar panel using capacitive load 2014 ,		3
7	High Performance Reduced Order Models for Wind Turbines with Full-Scale Converters Applied on Grid Interconnection Studies. <i>Energies</i> , 2014 , 7, 7694-7716	3.1	6
6	Adaptive saturation scheme for a multifunctional single-phase photovoltaic inverter 2014 ,		7
5	Influence of PLL in wind parks harmonic emissions 2013 ,		1
4	Power flow management in hybrid power system using flatness based control 2013 ,		3
3	Use of control based on passivity to mitigate the harmonic distortion level of inverters 2013 ,		6
2	A grid-connected photovoltaic system with a maximum power point tracker using passivity-based control applied in a boost converter 2012 ,		13
1	Comparison of solar panel models for grid integrations studies 2012 ,		6