

Heverton Pereira

List of Publications by Year in descending order

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109
papers

1,129
citations

430442

18
h-index

500791

28
g-index

110
all docs

110
docs citations

110
times ranked

1064
citing authors

#	ARTICLE	IF	CITATIONS
1	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.	8.2	91
2	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.	5.2	70
3	On the Redundancy Strategies of Modular Multilevel Converters. <i>IEEE Transactions on Power Delivery</i> , 2018, 33, 851-860.	2.9	57
4	Adaptive current control strategy for harmonic compensation in single-phase solar inverters. <i>Electric Power Systems Research</i> , 2017, 142, 84-95.	2.1	46
5	Ancillary services provided by photovoltaic inverters: Single and three phase control strategies. <i>Computers and Electrical Engineering</i> , 2018, 70, 102-121.	3.0	43
6	Power converters for battery energy storage systems connected to medium voltage systems: a comprehensive review. <i>BMC Energy</i> , 2019, 1, .	6.3	34
7	Low Voltage Ride-Through Capability Solutions for Permanent Magnet Synchronous Wind Generators. <i>Energies</i> , 2016, 9, 59.	1.6	29
8	Reliability-Oriented Design of Modular Multilevel Converters for Medium-Voltage STATCOM. <i>IEEE Transactions on Industrial Electronics</i> , 2020, 67, 6206-6214.	5.2	28
9	Partial Harmonic Current Compensation for Multifunctional Photovoltaic Inverters. <i>IEEE Transactions on Power Electronics</i> , 2019, 34, 11868-11879.	5.4	27
10	Implementation of fault tolerant control for modular multilevel converter using EtherCAT communication. , 2015, , .		26
11	Harmonic current prediction by impedance modeling of grid-tied inverters: A 1.4 MW PV plant case study. <i>International Journal of Electrical Power and Energy Systems</i> , 2017, 93, 30-38.	3.3	26
12	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.	3.3	26
13	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.	3.3	24
14	High Performance Simulation Models for ES-STATCOM Based on Modular Multilevel Converters. <i>IEEE Transactions on Energy Conversion</i> , 2020, 35, 474-483.	3.7	24
15	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.	1.2	23
16	On Converter Fault Tolerance in MMC-HVDC Systems: A Comprehensive Survey. <i>IEEE Journal of Emerging and Selected Topics in Power Electronics</i> , 2021, 9, 7459-7470.	3.7	23
17	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.	3.3	22
18	Lifetime evaluation of three-phase multifunctional PV inverters with reactive power compensation. <i>Electric Power Systems Research</i> , 2019, 175, 105873.	2.1	22

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19	Design for reliability of multifunctional PV inverters used in industrial power factor regulation. International Journal of Electrical Power and Energy Systems, 2020, 119, 105932.	3.3	22
20	On Inherent Redundancy of MMC-Based STATCOMs in the Overmodulation Region. IEEE Transactions on Power Delivery, 2020, 35, 1169-1179.	2.9	18
21	A grid-connected photovoltaic system with a maximum power point tracker using passivity-based control applied in a boost converter. , 2012, , .		17
22	High Performance Reduced Order Models for Wind Turbines with Full-Scale Converters Applied on Grid Interconnection Studies. Energies, 2014, 7, 7694-7716.	1.6	17
23	Performance comparison of phase shifted PWM and sorting method for modular multilevel converters. , 2015, , .		17
24	MPPT algorithm in single loop current-mode control applied to dcâ€“dc converters with input current source characteristics. International Journal of Electrical Power and Energy Systems, 2022, 138, 107909.	3.3	17
25	Optimum Design of MMC-Based ES-STATCOM Systems: The Role of the Submodule Reference Voltage. IEEE Transactions on Industry Applications, 2021, 57, 3064-3076.	3.3	16
26	Minimum DC-Link Voltage Control for Efficiency and Reliability Improvement in PV Inverters. IEEE Transactions on Power Electronics, 2021, 36, 5512-5520.	5.4	16
27	Comparison of MPPT Strategies in Three-Phase Photovoltaic Inverters Applied for Harmonic Compensation. IEEE Transactions on Industry Applications, 2019, 55, 5141-5152.	3.3	13
28	Use of control based on passivity to mitigate the harmonic distortion level of inverters. , 2013, , .		12
29	Losses and cost comparison of DS-HB and SD-FB MMC based large utility grade STATCOM. , 2016, , .		12
30	Minimum Cell Operation Control for Power Loss Reduction in MMC-Based STATCOM. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 1938-1950.	3.7	12
31	Adaptive saturation scheme for a multifunctional single-phase photovoltaic inverter. , 2014, , .		11
32	Comparison of PI and PR current controllers applied on two-level VSC-HVDC transmission system. , 2015, , .		11
33	Operation Limits of Grid-Tied Photovoltaic Inverters With Harmonic Current Compensation Based on Capability Curves. IEEE Transactions on Energy Conversion, 2021, 36, 2088-2098.	3.7	11
34	Reliability-based trade-off analysis of reactive power capability in PV inverters under different sizing ratio. International Journal of Electrical Power and Energy Systems, 2022, 136, 107677.	3.3	11
35	Capacitor voltage balance performance comparison of MMC-STATCOM using NLC and PS-PWM strategies during negative sequence current injection. , 2016, , .		10
36	Impact of the mission profile length on lifetime prediction of PV inverters. Microelectronics Reliability, 2019, 100-101, 113427.	0.9	10

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37	Modeling, Design and Control of a Solar Array Simulator Based on Two-Stage Converters. Journal of Control, Automation and Electrical Systems, 2017, 28, 585-596.	1.2	9
38	Design of parallel plate electrocoagulation reactors supplied by photovoltaic system applied to water treatment. Computers and Electronics in Agriculture, 2020, 177, 105676.	3.7	9
39	Comparison of solar panel models for grid integrations studies. , 2012, , .		8
40	Adaptive saturation for a multifunctional three-phase photovoltaic inverter. , 2015, , .		8
41	Design and lifetime analysis of a DSCC-MMC STATCOM. , 2017, , .		8
42	Comparison of Double Star Topologies of Modular Multilevel Converters in STATCOM Application. , 2018, , .		8
43	Impact of meteorological variations on the lifetime of grid-connected PV inverters. Microelectronics Reliability, 2018, 88-90, 1019-1024.	0.9	8
44	Adaptive dc-link voltage control strategy to increase PV inverter lifetime. Microelectronics Reliability, 2019, 100-101, 113439.	0.9	8
45	Single-phase multifunctional inverter with dynamic saturation scheme for partial compensation of reactive power and harmonics. , 2015, , .		7
46	Current control strategy for reactive and harmonic compensation with dynamic saturation. , 2015, , .		7
47	Methodology for bondwire lifetime evaluation of multifunctional PV inverter during harmonic current compensation. International Journal of Electrical Power and Energy Systems, 2021, 128, 106711.	3.3	7
48	A novel adaptive current harmonic control strategy applied in multifunctional single-phase solar inverters. , 2015, , .		6
49	Modeling and control of a flexible photovoltaic array simulator. , 2015, , .		6
50	Three-phase photovoltaic inverters during unbalanced voltage sags: Comparison of control strategies and thermal stress analysis. , 2016, , .		6
51	Life consumption of a MMC-STATCOM supporting wind power plants: Impact of the modulation strategies. Microelectronics Reliability, 2018, 88-90, 1063-1070.	0.9	6
52	On lifetime evaluation of medium-voltage drives based on modular multilevel converter. IET Electric Power Applications, 2019, 13, 1453-1461.	1.1	6
53	Third-Harmonic Current Injection for Wear-Out Reduction in Single-Phase PV Inverters. IEEE Transactions on Energy Conversion, 2022, 37, 120-131.	3.7	6
54	Influence of PLL in wind parks harmonic emissions. , 2013, , .		5

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55	Power flow management in hybrid power system using flatness based control. , 2013, , .		5
56	Characterization of solar panel using capacitive load. , 2014, , .		5
57	Benchmarking of capacitor power loss calculation methods for wear-out failure prediction in PV inverters. Microelectronics Reliability, 2019, 100-101, 113491.	0.9	5
58	Pursuing computationally efficient wear-out prediction of PV inverters: The role of the mission profile resolution. Microelectronics Reliability, 2020, 110, 113679.	0.9	5
59	A comparative analysis of wind turbine technologies in focus on the grid integration. , 2010, , .		4
60	A low-cost prototype for sun tracking. , 2012, , .		4
61	An improved solar array simulator topology based on LCL filter. , 2017, , .		4
62	Operating limits of three-phase multifunctional photovoltaic converters applied for harmonic current compensation. , 2017, , .		4
63	Design of high-reliable converters for medium-voltage rolling mills systems. , 2017, , .		4
64	Lifetime evaluation of a multifunctional PV single-phase inverter during harmonic current compensation. Microelectronics Reliability, 2018, 88-90, 1071-1076.	0.9	4
65	Redundancy design for modular multilevel converter based STATCOMs. Microelectronics Reliability, 2019, 100-101, 113471.	0.9	4
66	Wear-out failure analysis of modular multilevel converter-based STATCOM: The role of the modulation strategy and IGBT blocking voltage. Microelectronics Reliability, 2022, 128, 114426.	0.9	4
67	Modeling and design of a flexible solar array simulator topology. , 2015, , .		3
68	Doubly-fed induction generator control during unbalanced grid conditions. , 2015, , .		3
69	LCL filter losses due to harmonic compensation in a photovoltaic system. , 2017, , .		3
70	Low-Cost Solar Irradiance Meter using LDR Sensors. , 2018, , .		3
71	Minimum voltage control for reliability improvement in modular multilevel cascade converters-based STATCOM. Microelectronics Reliability, 2020, 110, 113693.	0.9	3
72	Selection of the Number of Levels of a Modular Multilevel Converter for an Electric Drive. , 2019, , .		3

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73	Reconsideration of solar array simulator based on Thévenin equivalent circuit for low-power applications. International Journal of Electrical Power and Energy Systems, 2022, 140, 108016.	3.3	3
74	Development of a thermal visor to analyze the influence on temperature in the efficiency of a solar panel. , 2013, , .		2
75	Comparison of MPPT strategies applied in three-phase photovoltaic inverters during harmonic current compensation. , 2016, , .		2
76	Power losses in photovoltaic inverter components due to reactive power injection. , 2016, , .		2
77	High level performance models of double-star MMC converters. , 2017, , .		2
78	Comparison of 2L-VSC and MMC-based HVDC Converters: Grid Frequency Support Considering Reduced Wind Power Plants Models. Electric Power Components and Systems, 2017, 45, 2007-2016.	1.0	2
79	Delta-CHB STATCOM with reduced energy storage requirements based on third harmonic injection. , 2021, , .		2
80	Benchmarking of Single-Stage and Two-Stage Approaches for an MMC-Based BESS. Energies, 2022, 15, 3598.	1.6	2
81	Correction strategy for wear-out prediction of PV inverters considering the mission profile resolution effects. Microelectronics Reliability, 2022, 135, 114605.	0.9	2
82	Development of a sun tracker. , 2013, , .		1
83	Comparison of solar panel models for grid integrations studies: Harmonics and voltage disturbances. , 2013, , .		1
84	Comparison of control strategies for grid-connected photovoltaic systems during unbalanced voltage dips. , 2014, , .		1
85	Circulating current suppression strategies for D-STATCOM based on modular Multilevel Converters. , 2015, , .		1
86	Comparison of MPPT strategies in battery charging of photovoltaic systems. , 2015, , .		1
87	Detection method for multi-harmonic current compensation applied in three-phase photovoltaic inverters. , 2016, , .		1
88	Bidirectional power converter with adaptive controller applied in direct-current microgrid voltage regulation. , 2017, , .		1
89	Design of a current harmonic detector method applied in photovoltaic inverters with ancillary service capability. , 2017, , .		1
90	Novel adaptive saturation scheme for photovoltaic inverters with ancillary service capability. , 2017, , .		1

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91	Performance comparison of different power modules applied in photovoltaic inverters during harmonic current compensation. , 2017, , .		1
92	Comparison of harmonic detection methods applied in a photovoltaic inverter during harmonic current compensation. , 2017, , .		1
93	Inherent Redundancy of SDBC-MMCC based STATCOM in the Overmodulation Region. , 2019, , .		1
94	Redundancy and Derating Strategies for Modular Multilevel Converter for an Electric Drive. Journal of Control, Automation and Electrical Systems, 2020, 31, 339-349.	1.2	1
95	Analysis of Double-Star Modular Multilevel Topologies Applied in HVDC System for Grid Connection of Offshore Wind Power Plants. Journal of Control, Automation and Electrical Systems, 2020, 31, 436-446.	1.2	1
96	Detection of Stressed Electronic Components in PV Inverter using Thermal Imaging. IEEE Latin America Transactions, 2020, 18, 1760-1767.	1.2	1
97	Design of Damping Strategies for LC filter in medium voltage induction motor drives. , 2021, , .		1
98	Switching reconfiguration of a solar photovoltaic converter considering shadow conditions. , 2011, , .		0
99	Analysis of topologies of synchronous machine with full converters applied in wind power. , 2013, , .		0
100	Circulating current suppression strategies for D-STATCOM based on modular multilevel converters. , 2015, , .		0
101	Saturation scheme for single-phase photovoltaic inverters in multifunctional operation. , 2015, , .		0
102	Performance comparison of IGBTs and SIC-MOSFET applied in photovoltaic inverters during reactive power injection. , 2017, , .		0
103	Comparison of Current Grid Controllers in a DG Inverter with Grid Harmonic Distortion. , 2018, , .		0
104	Thermal Stress Evaluation of a Multifunctional Modular Multilevel Converter “ STATCOM Operating as Active Filter. , 2019, , .		0
105	Harmonic Compensation Strategies Applied to Multifunctional Photovoltaic Inverters. , 2019, , .		0
106	Partial Harmonic Current Compensation Applied to Multiple Photovoltaic Inverters in a Radial Distribution Line. , 2019, , .		0
107	Next generation of grid-connected photovoltaic systems: modeling and control. , 2021, , 509-548.		0
108	Prediç�es Do N�mero De Refei�es Utilizando Redes Neurais Artificiais. , 0, , .		0

#	ARTICLE	IF	CITATIONS
109	PHOTOVOLTAIC PUMPING: ALTERNATIVE FOR MICROIRRIGATION IN THE MATA MINEIRA AREA. Irriga, 2021, 1, 628-645.	0.2	0