

# Pedro Gomes Barbosa

## List of Publications by Year in descending order

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97  
papers

927  
citations

623188

14  
h-index

580395

25  
g-index

97  
all docs

97  
docs citations

97  
times ranked

796  
citing authors

#	ARTICLE	IF	CITATIONS
1	Boost current multilevel inverter and its application on single-phase grid-connected photovoltaic systems. IEEE Transactions on Power Electronics, 2006, 21, 1116-1124.	5.4	155
2	Control strategy for grid-connected DC-AC converters with load power factor correction. IET Generation, Transmission and Distribution, 1998, 145, 487.	1.1	107
3	Analysis of voltage droop control method for dc microgrids with Simulink: Modelling and simulation. , 2012, , .		66
4	Repetitive controller for improving grid-connected photovoltaic systems. IET Power Electronics, 2014, 7, 1466-1474.	1.5	51
5	Unipolar PWM predictive current-mode control of a variable-speed low inductance BLDC motor drive. IET Electric Power Applications, 2017, 11, 688-696.	1.1	33
6	A study of shunt active power filter based on modular multilevel converter (MMC). , 2012, , .		30
7	Digital proportional multi-resonant current controller for improving grid-connected photovoltaic systems. Renewable Energy, 2015, 76, 662-669.	4.3	30
8	Improvement of PV grid-tied inverters operation under asymmetrical fault conditions. Solar Energy, 2016, 133, 363-371.	2.9	25
9	Zero-sequence voltage compensation of a distribution network through a four-wire modular multilevel static synchronous compensator. International Journal of Electrical Power and Energy Systems, 2019, 109, 57-72.	3.3	25
10	Control algorithm for DSTATCOM to compensate consumer-generated negative and zero sequence voltage unbalance. International Journal of Electrical Power and Energy Systems, 2020, 120, 105957.	3.3	20
11	Fault Current Limiter Based on Resonant Circuit Controlled by Power Semiconductor Devices. IEEE Latin America Transactions, 2007, 5, 311-320.	1.2	17
12	Simultaneous active power filter and G2V (or V2G) operation of EV on-board power electronics. , 2013, , .		17
13	A novel energizing strategy for a grid-connected modular multilevel converter operating as static synchronous compensator. International Journal of Electrical Power and Energy Systems, 2019, 109, 672-684.	3.3	16
14	Robust Control of a Variable-Speed BLDC Motor Drive. IEEE Journal of Emerging and Selected Topics in Industrial Electronics, 2021, 2, 32-41.	3.0	16
15	Shunt-series active power filter for rectifiers AC and DC sides. IET Electric Power Applications, 1998, 145, 577.	1.4	15
16	Low-Frequency Underwater Wireless Power Transfer: Maximum Efficiency Tracking Strategy. IEEE Latin America Transactions, 2020, 18, 1200-1208.	1.2	15
17	Digital single voltage loop control of a VSI with LC output filter. Sustainable Energy, Grids and Networks, 2018, 16, 145-155.	2.3	14
18	Modelling and control of an interface power converter for the operation of small diesel gen-sets in grid-connected and stand-alone modes. Electric Power Systems Research, 2017, 150, 177-187.	2.1	12

#	ARTICLE	IF	CITATIONS
19	Simple and Effective Digital Control of a Variable-Speed Low Inductance BLDC Motor Drive. IEEE Access, 2020, 8, 13240-13250.	2.6	12
20	A flexible co-simulation framework for penetration studies of power electronics based renewable sources: A new algorithm for phasor extraction. International Journal of Electrical Power and Energy Systems, 2019, 113, 419-435.	3.3	10
21	Systematic Design of a DLQR Applied to Grid-Forming Converters. IEEE Journal of Emerging and Selected Topics in Industrial Electronics, 2020, 1, 200-210.	3.0	10
22	Flexible AC Transmission Systems. , 2011, , 851-877.		9
23	Real-time "hardware-in-the-loop" simulation of components of an electric vehicle powertrain: Modeling and implementation. , 2016, , .		9
24	A control strategy for an offshore wind farm with the generating units connected in series with a VSC-HVDC transmission link. Electric Power Systems Research, 2020, 180, 106121.	2.1	9
25	Experimental evaluation of negative-sequence voltage compensation in distribution networks by a modular multilevel static synchronous compensator. Electric Power Systems Research, 2021, 194, 107020.	2.1	9
26	Comparative analysis of current and voltage-controlled photovoltaic Maximum Power Point tracking. , 2011, , .		8
27	Active power filter operation of an electric vehicle applied to single-phase networks. , 2012, , .		8
28	Analysis of non-linear adaptive voltage droop control method applied to a grid connected DC microgrid. , 2013, , .		8
29	Integrated bidirectional single-phase vehicle-to-grid interface with active power filter capability. , 2013, , .		8
30	Circulating currents suppression strategies for modular multilevel converter. , 2017, , .		8
31	Two-phase Three-wire Shunt Active Power Filter Control By Using The Single-phase P-q Theory. Eletr�nica De Pot�ncia, 2014, 19, 303-311.	0.1	8
32	Harmonic analysis of the power distribution Neutral-to-Earth Voltage (NEV) test case using four-wire three-phase harmonic current injection method. , 2009, , .		7
33	Multivariable Optimal Control Applied to a Back-to-Back Power Converter. IEEE Transactions on Industrial Electronics, 2022, 69, 9406-9418.	5.2	7
34	Series-DC connection of Offshore wind generating units - modeling, control and galvanic isolation.. Electric Power Systems Research, 2021, 195, 107149.	2.1	7
35	A single-phase single-stage, high power factor grid-connected PV system, with maximum power point tracking. , 2010, , .		6
36	Grid connection considerations for the integration of PV and wind sources. , 2014, , .		6

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37	Contribution To The Study Of A Single-Phase And Single Stage Photovoltaic System. IEEE Latin America Transactions, 2015, 13, 1265-1271.	1.2	6
38	Adaptation of the instantaneous power theory for two-phase three-wire systems and its application in shunt active power filters. , 2015, , .		6
39	Comprehensive synchronous reference frame discrete-time modelling of a grid-connected PV for fast DC-side voltage control. Electric Power Systems Research, 2017, 150, 162-168.	2.1	6
40	Voltage compensation in multi-grounded distribution network with a three-phase five-wire DSTATCOM.†. Electric Power Systems Research, 2021, 197, 107310.	2.1	6
41	Flexible AC Transmission Systems. , 2007, , 797-822.		5
42	Cálculo do fluxo de harmônicos em sistemas de potência trifásicos utilizando o método de injeção de correntes com solução iterativa. Controle and Automacao, 2008, 19, 178-198.	0.2	5
43	Power system impedance measurement based on wavelet voltage imposed. , 2014, , .		5
44	MatLab-OpenDSS co-simulation environment: An alternative tool to investigate DSG connection. , 2018, , .		5
45	Two-phase, three-wire shunt active power filter using the single-phase P-Q theory. , 2013, , .		4
46	Sliding mode control of a shunt Active Power Filter with indirect current measurement. , 2015, , .		4
47	Grid connected PV system with load power compensation capability using sliding mode control. , 2015, , .		4
48	A Hybrid Simulation Tool for Distributed Generation Integration Studies. , 2018, , .		4
49	A simple dead-time compensation strategy for grid-connected voltage-sourced converters semiconductor switches. Electric Power Systems Research, 2019, 174, 105853.	2.1	4
50	Co-simulation of a Doubly Fed Induction Generator Connected to a Power Network: The use of DSOGI for Phasor Extraction. IEEE Latin America Transactions, 2019, 17, 1070-1079.	1.2	4
51	A Compensation Strategy Based on Consumer's Voltage Unbalance Assessment for a Distribution Static Synchronous Compensator. IEEE Latin America Transactions, 2020, 18, 156-164.	1.2	4
52	A shunt active compensation strategy with zero neutral current in two-phase three-wire systems. , 2015, , .		3
53	Topology and control of a two-phase residential PV system with load compensation capability. , 2015, , .		3
54	A hybrid simulation tool for penetration studies of distributed generation in smartgrids. , 2017, , .		3

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55	Dispatchable distributed generation using a back-to-back converter for grid-forming improvements based on feed-forward action with load current prediction. IET Power Electronics, 2020, 13, 3686-3696.	1.5	3
56	Frequency domain modeling of monopolar High Voltage Direct Current link using three-phase harmonic current injection method. , 2008, , .		2
57	Allocation of power harmonic filters using Genetic Algorithm. , 2012, , .		2
58	Cascade DC-DC converter modeling developed to supercapacitor energy management system. , 2017, , .		2
59	Development of a small-signal model for a two-phase three-wire active power filter. , 2017, , .		2
60	Analysis and design of proportional-resonant controllers based on pole placement approach. , 2018, , .		2
61	Multivariable Control of a Grid Forming System Based on Back-To-Back Topology. , 2019, , .		2
62	Enhancing the Performance of Pre-Charging Strategy of a Modular Multilevel Static Synchronous Compensator. Journal of Control, Automation and Electrical Systems, 2020, 31, 1426-1436.	1.2	2
63	A study on single-phase delta UPS topological alternatives. , 2009, , .		1
64	Design criterion for an interfacing converter with reactive power compensation capability applied to a DC lighting system. , 2013, , .		1
65	Multi-physical modeling: An integrated way of understanding the dynamics of electric grids. , 2014, , .		1
66	A comparison of two-phase three-wire shunt compensation strategies. , 2015, , .		1
67	Improvement of DC and AC side performance of renewable source inverters under fault conditions. , 2015, , .		1
68	DC capacitor energization and voltage regulation of a single-phase hybrid filter. , 2017, , .		1
69	Grid connected voltage-source converter pre-energization strategy. , 2017, , .		1
70	Analysis of AC dispatchable microgrid during grid-connected and isolated modes transitions. , 2017, , .		1
71	Sliding mode control of a grid-emulator converter applied to a phil. , 2017, , .		1
72	Analysis of an adaptive voltage control of DC microgrids using CHIL real time simulation. , 2017, , .		1

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73	Modeling and digital simulation of a back-to-back converter to integrate a variable speed generator using the openmodelica platform. , 2018, , .		1
74	State feedback control of a back-to-back converter for microgrids applications. , 2018, , .		1
75	Unified Robust Control Design for BTB-VSC Subject to Uncertainties in Grid Equivalent Circuit. , 2019, , .		1
76	Analysis Of Mppt Techniques Applied To The Dcm Multiphase Boost Converter For The Mitigation Of Partial Shading In Pv Arrays. Eletr�nica De Pot�ncia, 2013, 18, 1138-1148.	0.1	1
77	Electronic ballast for HPS and HPMV lamps testing in dimming mode. Eletr�nica De Pot�ncia, 2012, 17, 632-640.	0.1	1
78	Underwater Wireless Power Transfer With High Tolerance to Misalignments. , 2021, , .		1
79	Modelagem do elo de corrente cont�nua no dom�nio da frequ�ncia em sistemas ass�ncronos desequilibrados. Controle and Automacao, 2009, 20, 573-588.	0.2	0
80	A novel optimized pulse pattern for modular multilevel converters in high power applications. , 2017, , .		0
81	A Single-phase Distributed Generation System with Load Power Compensation Capability using Linear Quadratic Regulator. , 2018, , .		0
82	Zero-sequence network voltage compensation by a three-phase four-wire grid-connected converter. , 2018, , .		0
83	Iterative Time-Frequency Harmonic Analysis: Problems and Solutions. , 2019, , .		0
84	A New Zero-Sequence Voltage Compensation Algorithm for A Dstatcom Based on Consumer Unbalance. , 2019, , .		0
85	Model Predictive Controller for Two-Phase Three-Wire Grid-Connected Converters. , 2019, , .		0
86	Design of Resonant Controllers for Compensation of Third Harmonic Ripple in the DC Capacitors Voltages of NPC Converters. , 2019, , .		0
87	Design Method to Reduce the DC Link Voltage of a Three-Wire Three-Phase Hybrid Active Power Filter. , 2019, , .		0
88	Performance of a Multi-Grounded Distribution Network with a Four-Wire Three-Phase Power Conditioner. , 2019, , .		0
89	Comparative Performance of Three Phasor-Extraction Algorithms for Co-simulation of Electrical Power Systems. Journal of Control, Automation and Electrical Systems, 0, 1.	1.2	0
90	STATCOM and DSTATCOM with modular multilevel converters. , 2021, , 209-248.		0

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91	Control And Harmonic Current Reduction Of A Photovoltaic System Connected To The Grid Without Passive Filters. Eletr�nica De Pot�ncia, 2013, 18, 1149-1160.	0.1	0
92	Conex�o de Ve�culos El�tricos � Rede de Energia El�trica para Recarga de Baterias: Uma Vis�o Geral. Eletr�nica De Pot�ncia, 2024, 19, 194-207.	0.1	0
93	Projeto e Implementa�o de um Controlador Digital Preditivo para Regular as Correntes de um Motor Bldc. Eletr�nica De Pot�ncia, 2024, 20, 215-224.	0.1	0
94	Estrat�gias de Energiza�o e Desenergiza�o de um Compensador Est�tico S�ncrono para Distribu�o. Eletr�nica De Pot�ncia, 2024, 23, 29-38.	0.1	0
95	Voltage regulation of a remote bus of a distribution Network by static synchronous compensator. , 2019, , .		0
96	A Smooth Pre-charging Strategy for an Offshore HVDC System Based on Modular Multilevel Converters. , 2021, , .		0
97	Flexible Operation of Grid-Connected Electric Vehicle Powertrain Converters: Power Conditioning and Consumed Energy Management in Household Networks. Journal of Control, Automation and Electrical Systems, 0, , .	1.2	0