Marcelo Godoy Simes

List of Publications by Citations

168 papers	5,326 citations	36 h-index	70 g-index
186 ext. papers	6,702 ext. citations	4.4 avg, IF	5.93 L-index

#	Paper	IF	Citations
168	. *IEEE Transactions on Industrial Electronics*, **2004**, 51, 1103-1112	8.9	331
167	Fuzzy logic based intelligent control of a variable speed cage machine wind generation system. *IEEE Transactions on Power Electronics*, **1997**, 12, 87-95	7.2	313
166	LCL Filter Design and Performance Analysis for Grid-Interconnected Systems. *IEEE Transactions on Industry Applications*, **2014**, 50, 1225-1232	4.3	290
165	Distributed Intelligent Energy Management System for a Single-Phase High-Frequency AC Microgrid. *IEEE Transactions on Industrial Electronics*, **2007**, 54, 97-109	8.9	268
164	Three-Port Bidirectional Converter for Hybrid Fuel Cell Systems. *IEEE Transactions on Power Electronics*, **2007**, 22, 480-487	7.2	238
163	The New Frontier of Smart Grids. *IEEE Industrial Electronics Magazine*, **2011**, 5, 49-63	6.2	229
162	A comprehensive review for industrial applicability of artificial neural networks. *IEEE Transactions on Industrial Electronics*, **2003**, 50, 585-601	8.9	228
161	Benefits of Power Electronic Interfaces for Distributed Energy Systems. *IEEE Transactions on Energy Conversion*, **2010**, 25, 901-908	5.4	189
160	Design and performance evaluation of a fuzzy-logic-based variable-speed wind generation system. *IEEE Transactions on Industry Applications*, **1997**, 33, 956-965	4.3	185
159	An Energy Management System for Building Structures Using a Multi-Agent Decision-Making Control Methodology. *IEEE Transactions on Industry Applications*, **2013**, 49, 322-330	4.3	147
158	. *IEEE Transactions on Industry Applications*, **1995**, 31, 620-629	4.3	127
157	Online energy management strategy of fuel cell hybrid electric vehicles based on data fusion approach. *Journal of Power Sources*, **2017**, 366, 278-291	8.9	117
156	. *IEEE Transactions on Energy Conversion*, **2005**, 20, 211-218	5.4	116
155	A Multiagent Fuzzy-Logic-Based Energy Management of Hybrid Systems. *IEEE Transactions on Industry Applications*, **2009**, 45, 2123-2129	4.3	111
154	Power control flexibilities for grid-connected multi-functional photovoltaic inverters. *IET Renewable Power Generation*, **2016**, 10, 504-513	2.9	104
153	**2005**,		95
152	Energy cost analysis of a solar-hydrogen hybrid energy system for stand-alone applications. *International Journal of Hydrogen Energy*, **2008**, 33, 2871-2879	6.7	86

151	. *IEEE Transactions on Industry Applications*, **2003**, 39, 1136-1142	4.3	80
150	. *IEEE Transactions on Industrial Electronics*, **2002**, 49, 1154-1164	8.9	77
149	PEM Fuel Cell Stack Modeling for Real-Time Emulation in Hardware-in-the-Loop Applications. *IEEE Transactions on Energy Conversion*, **2011**, 26, 184-194	5.4	75
148	. *IEEE Transactions on Industry Applications*, **2012**, 48, 1154-1162	4.3	72
147	. *IEEE Transactions on Vehicular Technology*, **2012**, 61, 3430-3440	6.8	64
146	Experimental Evaluation of Active Filtering in a Single-Phase High-Frequency AC Microgrid. *IEEE Transactions on Energy Conversion*, **2009**, 24, 673-682	5.4	64
145	Neural optimal control of PEM fuel cells with parametric CMAC networks. *IEEE Transactions on Industry Applications*, **2005**, 41, 237-245	4.3	61
144	A three-port bi-directional converter for hybrid fuel cell systems		58
143	. *IEEE Transactions on Industrial Informatics*, **2016**, 12, 532-543	11.9	56
142	. *IEEE Transactions on Smart Grid*, **2018**, 9, 2964-2975	10.7	52
141	A Bayesian network fault diagnostic system for proton exchange membrane fuel cells. *Journal of Power Sources*, **2007**, 165, 267-278	8.9	52
140	Centralized Control of Distributed Single-Phase Inverters Arbitrarily Connected to Three-Phase Four-Wire Microgrids. *IEEE Transactions on Smart Grid*, **2017**, 8, 437-446	10.7	51
139	Experimental evaluation of four-phase floating interleaved boost converter design and control for fuel cell applications. *IET Power Electronics*, **2013**, 6, 215-226	2.2	51
138	. *IEEE Transactions on Industry Applications*, **2017**, 53, 2495-2505	4.3	49
137	PV-Microgrid Operational Cost Minimization by Neural Forecasting and Heuristic Optimization **2008**,		46
136	On-line fault diagnostic system for proton exchange membrane fuel cells. *Journal of Power Sources*, **2008**, 175, 419-429	8.9	45
135	. *IEEE Transactions on Industry Applications*, **2017**, 53, 1538-1551	4.3	44
134	Design of a Flux-Switching Electrical Generator for Wind Turbine Systems. *IEEE Transactions on Industry Applications*, **2012**, 48, 1808-1816	4.3	42

133	Parametric CMAC networks: fundamentals and applications of a fast convergence neural structure. *IEEE Transactions on Industry Applications*, **2003**, 39, 1551-1557	4.3	40
132	Evaluating the Long-Term Impact of a Continuously Increasing Harmonic Demand on Feeder-Level Voltage Distortion. *IEEE Transactions on Industry Applications*, **2014**, 50, 2142-2149	4.3	35
131	Utilizing a Smart Grid Monitoring System to Improve Voltage Quality of Customers. *IEEE Transactions on Smart Grid*, **2012**, 3, 738-743	10.7	32
130	Smart Grid Initiative. *IEEE Industry Applications Magazine*, **2011**, 17, 27-35	0.6	32
129	Enhanced Instantaneous Power Theory Decomposition for Power Quality Smart Converter Applications. *IEEE Transactions on Power Electronics*, **2018**, 33, 9344-9359	7.2	30
128	Direct Connection of Supercapacitor Battery Hybrid Storage System to the Grid-Tied Photovoltaic System. *IEEE Transactions on Sustainable Energy*, **2019**, 10, 1370-1379	8.2	29
127	Smart-grid technologies and progress in Europe and the USA **2011**,		27
126	Grid-Connected Symmetrical Cascaded Multilevel Converter for Power Quality Improvement. *IEEE Transactions on Industry Applications*, **2018**, 54, 2792-2805	4.3	25
125	Interactive smart battery storage for a PV and wind hybrid energy management control based on conservative power theory. *International Journal of Control*, **2016**, 89, 850-870	1.5	25
124	Programmable PFC based hybrid multipulse power rectifier for ultra clean power application. *IEEE Transactions on Power Electronics*, **2006**, 21, 959-966	7.2	25
123	PQ, DQ and CPT control methods for shunt active compensators A comparative study **2014**,		23
122	Passive Filter Aided by Shunt Compensators Based on the Conservative Power Theory. *IEEE Transactions on Industry Applications*, **2016**, 52, 3340-3347	4.3	23
121	Dynamic simulation and analysis of parallel self-excited induction generators for islanded wind farm systems. *IEEE Transactions on Industry Applications*, **2005**, 41, 1099-1106	4.3	22
120	. *IEEE Transactions on Industry Applications*, **2016**, 52, 4375-4384	4.3	21
119	Simplified Small-Signal Model for Output Voltage Control of Asymmetric Cascaded H-Bridge Multilevel Inverter. *IEEE Transactions on Power Electronics*, **2018**, 33, 3509-3519	7.2	19
118	Neural network-based estimation of power electronic waveforms. *IEEE Transactions on Power Electronics*, **1996**, 11, 383-389	7.2	19
117	LCL filter design and performance analysis for small wind turbine systems **2012**,		17
116	Designing smart inverter with unified controller and smooth transition between grid-connected and islanding modes for microgrid application **2015**,		16

115			16
114	. *IEEE Transactions on Smart Grid*, **2014**, 5, 2967-2979	10.7	15
113	Development of a four phase floating interleaved boost converter for photovoltaic systems **2014**,		15
112	A conceptual scheme for cyber-physical systems based energy management in building structures **2010**,		15
111	**2009**,		15
110	Load Disaggregation Using Microscopic Power Features and Pattern Recognition. *Energies*, **2019**, 12, 2641	3.1	14
109	Development of a Quasi 2-D Modeling of Tubular Solid-Oxide Fuel Cell for Real-Time Control. *IEEE Transactions on Energy Conversion*, **2014**, 29, 9-19	5.4	14
108	Online energy management strategy of fuel cell hybrid electric vehicles based on time series prediction **2017**,		14
107	An Energy Management System for Building Structures Using a Multi-Agent Decision-Making Control Methodology **2010**,		14
106	Performance Evaluation of a Novel Hybrid Multipulse Rectifier for Utility Interface of Power Electronic Converters. *IEEE Transactions on Industrial Electronics*, **2007**, 54, 3030-3041	8.9	14
105	Full expandable model of parallel self-excited induction generators. *IET Electric Power Applications*, **2005**, 152, 96		14
104	A Bidirectional NPC-based Level 3 EV Charging System with Added Active Filter Functionality in Smart Grid Applications **2018**,		14
103	Application of the Conservative Power Theory Current Decomposition in a Load Power-Sharing Strategy Among Distributed Energy Resources. *IEEE Transactions on Industry Applications*, **2018**, 54, 3771-3781	4.3	13
102	Real-time control of hybrid active power filter using conservative power theory in industrial power system. *IET Power Electronics*, **2017**, 10, 196-207	2.2	13
101	Field-oriented control strategy for double-stator single-rotor and double-rotor single-stator permanent magnet machine: Design and operation. *Computers and Electrical Engineering*, **2021**, 90, 106953	4.3	13
100	Fuzzy-Based Energy Management Control: Design of a Battery Auxiliary Power Unit for Remote Applications. *IEEE Industry Applications Magazine*, **2014**, 20, 41-49	0.6	12
99	Fuzzy Modeling Approaches for the Prediction of Machine Utilization in Hard Rock Tunnel Boring Machines. *Conference Record - IAS Annual Meeting (IEEE Industry Applications Society)*, **2006**,		11
98	Bidirectional floating interleaved buck-boost DC-DC converter applied to residential PV power systems **2015**,		10

97	Cooperative operation based master-slave in islanded microgrid with CPT current decomposition **2015**,		10
96	Short transient recovery of low voltage-grid-tied DC distributed generation **2015**,		10
95	Advanced hybrid dual loop control for multi-phases interleaved floating DC-DC converter for fuel cell applications **2012**,		10
94	Application of a Modified Single-Phase P-Q Theory in the Control of Shunt and Series Active Filters in a 400 Hz Microgrid		10
93	Compressive System Identification for Multiple Line Outage Detection in Smart Grids. *IEEE Transactions on Industry Applications*, **2019**, 55, 4462-4473	4.3	9
92	Small Wind Energy Systems. *Electric Power Components and Systems*, **2015**, 43, 1388-1405	1	9
91	Feasibility of water-cooled photovoltaic panels under the efficiency and durability aspects. *Solar Energy*, **2020**, 207, 103-109	6.8	9
90	Fuzzy logic controller development of a hybrid fuel cell-battery auxiliary power unit for remote applications **2010**,		9
89	Distributed Energy Management of PV-Storage Systems for Voltage Rise Mitigation. *Technology and Economics of Smart Grids and Sustainable Energy*, **2017**, 2, 1	2.1	8
88	Application of compressive sensing for distributed and structured power line outage detection in smart grids **2015**,		8
87	Coordinated operation in a multi-inverter based microgrid for both grid-connected and islanded modes using conservative power theory **2015**,		8
86	Economic analysis, optimal sizing and management of energy storage for PV grid integration **2016**,		8
85	Novel expert system for defining power quality compensators. *Expert Systems With Applications*, **2015**, 42, 3562-3570	7.8	8
84	Advanced Active Filtering in a Single Phase High Frequency AC Microgrid		8
83	Neural-network-based prediction of mooring forces in floating production storage and offloading systems. *IEEE Transactions on Industry Applications*, **2002**, 38, 457-466	4.3	8
82	A NILM Dataset for Cognitive Meters Based on Conservative Power Theory and Pattern Recognition Techniques. *Journal of Control, Automation and Electrical Systems*, **2018**, 29, 742-755	1.5	8
81	Three-phase battery storage system with transformerless cascaded multilevel inverter for distribution grid applications. *IET Renewable Power Generation*, **2017**, 11, 742-749	2.9	7
80	Synergistic operation between battery energy storage and photovoltaic generator systems to assist management of microgrids. *IET Generation, Transmission and Distribution*, **2018**, 12, 2944-2951	2.5	7

79	A Real-Time Sharing Reference Voltage for Hybrid Generation Power System **2010**,		7
78	**2009**,		7
77	A Multi-Agent Fuzzy Logic Based Energy Management of Hybrid Systems **2008**,		7
76	Compressive Informative Sparse Representation-Based Power Quality Events Classification. *IEEE Transactions on Industrial Informatics*, **2020**, 16, 909-921	11.9	7
75	Scalable Single-Phase Multi-Functional Inverter for Integration of Rooftop Solar-PV to Low-Voltage Ideal and Weak Utility Grid. *Electronics (Switzerland)*, **2019**, 8, 302	2.6	6
74	Multi agent based energy management control for commercial buildings **2011**,		6
73	A novel competitive learning neural network based acoustic transmission system for oil-well monitoring. *IEEE Transactions on Industry Applications*, **2000**, 36, 484-491	4.3	6
72	Restoration strategy in a self-healing distribution network with DG and flexible loads **2016**,		6
71	Survey on time-domain power theories and their applications for renewable energy integration in smart-grids. *IET Smart Grid*, **2019**, 2, 491-503	2.7	6
70	Bidirectional direct current-direct current converter for fuel cell and renewable energy hybrid systems. *Journal of Renewable and Sustainable Energy*, **2015**, 7, 013119	2.5	5
69	5-level Cascaded H-Bridge Multilevel microgrid Inverter applicable to multiple DG resources with power quality enhancement capability **2015**,		5
68	Evaluating the long-term impact of a continuously increasing harmonic load demand on feeder level voltage distortion **2012**,		5
67	Transient performance analysis of a small-scale PV-PHS power plant fed by a SVPWM drive applied for a distribution system **2013**,		5
66	Modeling and control of 4-phase floating interleaving boost converter **2011**,		5
65	Grid modernization efforts in the USA and Brazil - some common lessons based on the Smart Grid Initiative **2010**,		5
64	Reducing distribution transformer losses through the use of Smart Grid monitoring **2009**,		5
63	Fuzzy ARTMAP based forecast of renewable generation for a high frequency AC microgrid **2005**,		5
62	A novel programmable PFC based hybrid rectifier for ultra clean power application		5

61	Neural dynamic programming based online controller with a novel trim approach. *IET Control Theory and Applications*, **2005**, 152, 95-104		5
60	Optimal Power Reserve of a Wind Turbine System Participating in Primary Frequency Control. *Applied Sciences (Switzerland)*, **2018**, 8, 2022	2.6	5
59	Selective Sharing of Load Current Components Among Parallel Power Electronic Interfaces in Three-phase Four-wire Stand-alone Microgrid. *Electric Power Components and Systems*, **2017**, 45, 864-880	1	4
58	Understanding the Staircase Modulation Strategy and Its Application in Both Isolated and Grid-Connected Asymmetric Cascaded H-Bridge Multilevel Inverters. *IEEE Transactions on Industry Applications*, **2019**, 55, 5371-5382	4.3	4
57	Three-phase smart inverter for flexible power conditioning in low voltage distribution systems **2017**,		4
56	Power quality achievement using grid connected converter of wind turbine system **2015**,		4
55	Smart grid topology identification using sparse recovery **2015**,		4
54	Advances in information technology for Smart Grids **2013**,		4
53	Simulation and analysis of DQ frame and P+Resonant controls for voltage source inverter to distributed generation **2009**,		4
52	Bayesian Network Supervision on Fault Tolerant Fuel Cells. *Conference Record - IAS Annual Meeting (IEEE Industry Applications Society)*, **2006**,		4
51	State space modeling of parallel self-excited induction generators for wind farm simulation		4
50	Programmable PFC Based Hybrid Multipulse Power Rectifier for Utility Interface of Power Electronic Converters		4
49	Shading position effects on photovoltaic panel output power. *International Transactions on Electrical Energy Systems*, **2020**, 30, e12163	2.2	4
48	A Robust Self-Attentive Capsule Network for Fault Diagnosis of Series-Compensated Transmission Line. *IEEE Transactions on Power Delivery*, **2021**, 1-1	4.3	4
47	Design Procedure for a Digital Proportional-Resonant Current Controller in a Grid Connected Inverter **2018**,		4
46	Economic Planning and Comparative Analysis of Market-driven Multi-microgrid system for Peer-to-Peer energy trading. *IEEE Transactions on Industry Applications*, **2022**, 1-1	4.3	4
45	Experimental evaluation of an interleaved boost topology optimized for peak power tracking control **2014**,		3
44	Staircase modulation based battery storage system with Asymmetric Cascaded H-Bridge Multivel Inverter **2015**,		3

43	Considerations on the modeling and control scheme of grid connected inverter with voltage support capability **2013**,		3
42	Improving energy efficiency of cyber physical systems using multi-agent based control **2012**,		3
41	Benefits of utilizing a Smart Grid monitoring system to improve feeder voltage **2009**,		3
40	Optimal Design Analysis of a Stand-Alone Photovoltaic Hybrid System **2008**,		3
39	Future Renewable Energy Communities Based Flexible Power Systems. *Applied Sciences (Switzerland)*, **2022**, 12, 121	2.6	3
38	Exploiting Compressive System Identification for Multiple Line Outage Detection in Smart Grids **2018**,		3
37	Centralized Power Reserve Algorithm of De-loaded Wind Farm for Primary Frequency Regulation **2018**,		3
36	Applications of Cellular Neural Networks for Shape from Shading Problem. *Lecture Notes in Computer Science*, **1999**, 51-63	0.9	3
35	Frequency Support of Smart Grid Using Fuzzy Logic-Based Controller for Wind Energy Systems. *Energies*, **2019**, 12, 1550	3.1	2
34	Power quality enhancem ent by means of shunt compensators based on the conservative power theory **2015**,		2
33	A multi task microgrid inverter based instantaneous Power Theory in islanded and grid-connected modes **2015**,		2
32	Measurement-based performance analysis of wind energy systems. *IEEE Instrumentation and Measurement Magazine*, **2014**, 17, 15-20	1.4	2
31	Multifunctional control strategy for asymmetrical cascaded H-Bridge Inverter in microgrid applications **2015**,		2
30	Selective operation of three-level NPC inverter based on synchronous reference frame method supplying nonlinear loads in microgrid system **2015**,		2
29	Improving Thermal Comfort in Residential Buildings Using Artificial Immune System **2013**,		2
28	dSPACE based implementation of a grid connected smart inverter system **2010**,		2
27	Dynamic Interaction of an Intergrated Doubly-Fed Induction generator and a Fuel Cell connected to Grid		2
26	Cost Considerations on Fuel Cell Renewable Energy Systems. *Conference Record - IAS Annual Meeting (IEEE Industry Applications Society)*, **2006**,		2

25	Optical sensor for transformer monitoring		2
24	Mobile telephony RF mapping using fuzzy-CMAC neural networks		2
23	Current Balancing Algorithm for Three-Phase Multilevel Current Source Inverters. *Energies*, **2020**, 13, 860	3.1	2
22	Highly Accurate Digital Current Controllers for Single-Phase LCL-Filtered Grid-Connected Inverters. *Electricity*, **2020**, 1, 12-36	1	2
21	Application of the current decomposition of the Conservative Power Theory in Distributed Energy Resources **2016**,		2
20	Modeling and tracking Transmission Line Dynamic Behavior in Smart Grids using structured sparsity **2016**,		2
19	Enhanced Dual-Spectrum Line Interpolated FFT with Four-Term Minimal Sidelobe Cosine Window for Real-Time Harmonic Estimation in Synchrophasor Smart-Grid Technology. *Electronics (Switzerland)*, **2019**, 8, 191	2.6	2
18	Multilevel Current Source Converter-Based STATCOM Suitable for Medium-Voltage Applications. *IEEE Transactions on Power Delivery*, **2021**, 36, 1222-1232	4.3	2
17	Compressive Sensing for Power System Data Analysis **2018**, 159-178		2
16	Solar Heat Underground Storage Based Air Conditioning Vis-Ã-Vis Conventional HVAC Experimental Validation. *Journal of Solar Energy Engineering, Transactions of the ASME*, **2018**, 140,	2.3	1
15	Advanced Three-Phase Instantaneous Power Theory Feature Extraction for Microgrid Islanding and Synchronized Measurements **2019**,		1
14	Aspects of the integration of alternative sources of energy for application in distributed generation systems **2011**,		1
13	Locating the origin of feeder level harmonics utilizing remote THD measurements **2011**,		1
12	A Five-Phase Brushless Dc-Machine Direct Drive System. *EPE Journal (European Power Electronics and Drives Journal)*, **2004**, 14, 15-24	0.4	1
11	A high torque low-speed multi-phase brushless machine a perspective application for electric vehicles		1
10	An Isolated High Voltage Boost Current-Fed DC–DC Converter Based on 1:1 Transformer Multiplier Cells and ZVS Operation. *Electronics (Switzerland)*, **2020**, 9, 102	2.6	1
9	Distributed Generation Systems: An Approach in Instrumentation and Monitoring. *Electric Power Components and Systems*, **2018**, 46, 2189-2202	1	1
8	A Low Current-Ripple Coupled-Inductor Step-Up DC-DC Converter for Voltage-Multiplier Topology Solar PV Applications **2018**,		1

7	Small Hydroelectric Systems. *Green Energy and Technology*, **2013**, 151-184	0.6	0
6	Power management algorithm for a conservative power theory battery storage based multi-functional three phase grid connected PV inverter. *International Transactions on Electrical Energy Systems*, **2020**, 30, e12605	2.2	0
5	Analysis of Stationary- and Synchronous-Reference Frames for Three-Phase Three-Wire Grid-Connected Converter AC Current Regulators. *Energies*, **2021**, 14, 8348	3.1	0
4	Power Bipolar Transistors **2011**, 29-41		
3	ABET 2000 challenges in curricular compression: fluids and circuits - a pilot 2+1+1 approach. *IEEE Transactions on Education*, **2005**, 48, 503-512	2.1	
2	Power Bipolar Transistors **2007**, 27-39		
1	Power Electronics for Smart Distribution Grids. *Green Energy and Technology*, **2013**, 493-523	0.6	