Tommaso Caldognetto

List of Publications by Year
in descending order

71 papers	1,026 citations	471509 17 h-index	477307 29 g-index
71 all docs	71 docs citations	71 times ranked	995 citing authors

#	Article	IF	Citations
1	MIMO Control of a High-Step-Up Isolated Bidirectional DCâ€“DC Converter. IEEE Transactions on Industrial Electronics, 2022, 69, 4687-4696.	7.9	7
2	Generalized Control of the Power Flow in Local Area Energy Networks. Energies, 2022, 15, 1416.	3.1	3
3	Model Predictive Control for Efficient Management of Energy Resources in Smart Buildings. Energies, 2021, 14, 5592.	3.1	10
4	A Low Complexity Algorithm for Efficiency Optimization of Dual Active Bridge Converters. IEEE Open Journal of Power Electronics, 2021, 2, 18-32.	5.7	12
5	A Per-Phase Power Controller allowing Smooth Transitions to Islanded Operation. , 2021, , .		1
6	A Per-Phase Power Controller for Smooth Transitions to Islanded Operation. IEEE Open Journal of Power Electronics, 2021, 2, 636-646.	5.7	6
7	Suppression of Second-Order Harmonic Current for Droop-Controlled Distributed Energy Resource Converters in DC Microgrids. IEEE Transactions on Industrial Electronics, 2020, 67, 358-368.	7.9	39
8	A selective harmonic compensation and power control approach exploiting distributed electronic converters in microgrids. International Journal of Electrical Power and Energy Systems, 2020, 115, 105452.	5.5	22
9	Review and Comparison of Grid-Tied Inverter Controllers in Microgrids. IEEE Transactions on Power Electronics, 2020, 35, 7624-7639.	7.9	81
10	Implementation and Experimental Evaluation of an Efficiency-Improved Modulation Technique for IBCI DC-DC Converters. , 2020, , .		6
11	Real-Time Validation of Power Flow Control Method for Enhanced Operation of Microgrids. Energies, 2020, 13, 5959.	3.1	11
12	Leveraging Demand Flexibility by Exploiting Prosumer Response to Price Signals in Microgrids. Energies, 2020, 13, 3078.	3.1	7
13	Triple-Phase Shift Modulation and Tuning Technique to Improve the Efficiency of the Dual Active Bridge Converter. , 2020, , .		0
14	Analysis of an Online Stability Monitoring Approach for DC Microgrid Power Converters. IEEE Transactions on Power Electronics, 2019, 34, 4794-4806.	7.9	21
15	Power-Based Droop Control in DC Microgrids Enabling Seamless Disconnection From Upstream Grids. IEEE Transactions on Power Electronics, 2019, 34, 2039-2051.	7.9	47
16	Analysis and Experimental Characterization of a Large-Bandwidth Triple-Loop Controller for Grid-Tied Inverters. IEEE Transactions on Power Electronics, 2019, 34, 1936-1949.	7.9	39
17	Flexible Control of Interlinking Converters for DC Microgrids Coupled to Smart AC Power Systems. IEEE Transactions on Industrial Electronics, 2019, 66, 3477-3485.	7.9	34
18	A General Approach to Select Location and Ratings of Energy Storage Systems in Local Area Energy Networks. IEEE Transactions on Industry Applications, 2019, 55, 6203-6210.	4.9	10

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19	A Master/Slave Approach to Power Flow and Overvoltage Control in Low-Voltage Microgrids. Energies, 2019, 12, 2760.	3.1	7
20	Using High-Bandwidth Voltage Amplifier to Emulate Grid-Following Inverter for AC Microgrid Dynamics Studies. Energies, 2019, 12, 379.	3.1	7
21	Current-Controlled Interlinking Converter with Grid-Supporting Functionalities. , 2019, , .		0
22	Stability Analysis and Auto-Tuning of Interlinking Converters Connected to Weak Grids. IEEE Transactions on Power Electronics, 2019, 34, 9435-9446.	7.9	31
23	A Model Predictive Approach for Energy Management in Smart Buildings. , 2019, , .		1
24	Triple-Phase Shift Modulation for Dual Active Bridge based on Simplified Switching Loss Model. , 2019, , .		2
25	Digital Current Control for a Bidirectional Interleaved Boost Converter with Coupled Inductors. , 2019, , .		3
26	Model Predictive Control of Electrical Energy Storage Systems for Microgrids-Integrated Smart Buildings. , 2019, , .		2
27	Analysis and Performance Evaluation of the DAB and IBCI DC-DC Converter Topologies. , 2019, , .		2
28	On Microgrid Evolution to Local Area Energy Network (E-LAN). IEEE Transactions on Smart Grid, 2019, 10, 1567-1576.	9.0	16
29	Optimal control of Local Area Energy Networks (E-LAN). Sustainable Energy, Grids and Networks, 2018, 14, 12-24.	3.9	4
30	Analysis of Current Control Interaction of Multiple Parallel Grid-Connected Inverters. IEEE Transactions on Sustainable Energy, 2018, 9, 1740-1749.	8.8	33
31	A General Approach to Select Location and Ratings of Energy Storage Systems in Local Area Energy Networks. , 2018, , .		1
32	Plug and Play DC-DC Converters for Smart DC Nanogrids with Advanced Control Ancillary Services. , 2018, , .		13
33	Self-Tuning of Triple-Loop Controlled Grid-Connected Inverters. , 2018, , .		2
34	Seamless Mode Transitions for Triple-Loop Controlled Interlinking Converters. , 2018, , .		2
35	Coordinated control of three- and single-phase inverters coexisting in low-voltage microgrids. Applied Energy, 2018, 228, 2050-2060.	10.1	23
36	Centralized Control of Distributed Single-Phase Inverters Arbitrarily Connected to Three-Phase Four-Wire Microgrids. IEEE Transactions on Smart Grid, 2017, 8, 437-446.	9.0	80

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37	Power Electronics Based Active Load for Unintentional Islanding Testbenches. IEEE Transactions on Industry Applications, 2017, 53, 3831-3839.	4.9	22
38	Master/Slave Power-Based Control of Low-Voltage Microgrids. , 2017, , 101-135.		4
39	On-line stability monitoring for power converters in DC microgrids. , 2017, , .		9
40	Fully-dispatchable microgrid: Architecture, implementation and experimental validation. , 2017, , .		4
41	Power-based droop control in DC microgrids enabling seamless disconnection from AC grids. , 2017, , .		13
42	Power sharing analysis of power-based droop control for DC microgrids considering cable impedances. , 2017, , .		3
43	Power-based droop control suppressing the effect of bus voltage harmonics for DC microgrids. , 2017, , .		5
44	Impedance synthesis by inverter control for active loads in anti-islanding testbenches. , 2016, , .		1
45	Implementation of an active RLC load for unintentional islanding test. , 2016, , .		3
46	Coordinated control of distributed generators in meshed low-voltage microgrids: Power flow control and voltage regulation. , 2016, , .		5
47	A master/slave control of distributed energy resources in low-voltage microgrids. , 2016, , .		11
48	Integration and control of heterogeneous power sources in meshed distribution grids. , 2016, , .		1
49	Integrated control of meshed power grids with multiple feeding points and distributed energy sources. , 2016, , .		0
50	Oversampled dead-beat current controller for voltage source converters. , 2015, , .		7
51	Cooperative compensation of unwanted current terms in low-voltage microgrids by distributed power-based control. , 2015, , .		1
52	Dead-Beat Current Controller for Voltage Source Converters with Improved Large Signal Response. IEEE Transactions on Industry Applications, 2015, , 1-1.	4.9	24
53	Online wideband identification of single-phase AC power grid impedances using an existing grid-tied power electronic inverter. , 2015, , .		9
54	Experimental verification of an active microgrid with distributed power-based control. , 2015, , .		0

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55	Rapid Prototyping of Digital Controllers for Microgrid Inverters. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2015, 3, 440-450.	5.4	23
56	Lightweight energy management of islanded operated microgrids for prosumer communities. , 2015, , .		6
57	Power-Based Control of Low-Voltage Microgrids. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2015, 3, 1056-1066.	5.4	60
58	A Nonlinear Wide-Bandwidth Digital Current Controller for DCâ€“DC and DCâ€“AC Converters. IEEE Transactions on Industrial Electronics, 2015, 62, 7687-7695.	7.9	14
59	A dynamic overvoltage limiting technique for low-voltage microgrids. , 2015, , .		1
60	Comparison of oversampled current controllers for microgrid utility interface converters. , 2015, , .		3
61	Power-based control of low-voltage microgrids. , 2014, , .		2
62	Architecture and control of fully-dispatchable microgrids. , 2014, , .		0
63	A non-linear wide bandwidth digital current controller for DC-DC and DC-AC converters. , 2014, , .		5
64	Improving Microgrid Performance by Cooperative Control of Distributed Energy Sources. IEEE Transactions on Industry Applications, 2014, 50, 3921-3930.	4.9	38
65	Microgrids Operation Based on Masterâ€“Slave Cooperative Control. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2014, 2, 1081-1088.	5.4	117
66	Control of utility interfaces in low voltage microgrids. , 2014, , .		10
67	Digital Controller Development Methodology Based on Real-Time Simulations with LabVIEW FPGAc Hardware-Software Toolset. Electronics, 2014, 17, .	0.3	6
68	Improving microgrid performance by cooperative control of distributed energy sources. , 2013, , .		6
69	Microgrids operation based on master-slave cooperative control. , 2013, , .		14
70	Selective compensation of reactive, unbalance, and distortion power in smart grids by synergistic control of distributed switching power interfaces. , 2013, , .		13
71	Rapid prototyping of digital controllers for microgrid inverters. , 2013, , .		1