

Tommaso Caldognetto

List of Publications by Year in descending order

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71
papers

1,026
citations

471509

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h-index

477307

29
g-index

71
all docs

71
docs citations

71
times ranked

995
citing authors

#	ARTICLE	IF	CITATIONS
1	Microgrids Operation Based on Master-Slave Cooperative Control. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2014, 2, 1081-1088.	5.4	117
2	Review and Comparison of Grid-Tied Inverter Controllers in Microgrids. IEEE Transactions on Power Electronics, 2020, 35, 7624-7639.	7.9	81
3	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
4	Power-Based Control of Low-Voltage Microgrids. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2015, 3, 1056-1066.	5.4	60
5	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
6	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
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	Improving Microgrid Performance by Cooperative Control of Distributed Energy Sources. IEEE Transactions on Industry Applications, 2014, 50, 3921-3930.	4.9	38
9	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
10	Analysis of Current Control Interaction of Multiple Parallel Grid-Connected Inverters. IEEE Transactions on Sustainable Energy, 2018, 9, 1740-1749.	8.8	33
11	Stability Analysis and Auto-Tuning of Interlinking Converters Connected to Weak Grids. IEEE Transactions on Power Electronics, 2019, 34, 9435-9446.	7.9	31
12	Dead-Beat Current Controller for Voltage Source Converters with Improved Large Signal Response. IEEE Transactions on Industry Applications, 2015, , 1-1.	4.9	24
13	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
14	Coordinated control of three- and single-phase inverters coexisting in low-voltage microgrids. Applied Energy, 2018, 228, 2050-2060.	10.1	23
15	Power Electronics Based Active Load for Unintentional Islanding Testbenches. IEEE Transactions on Industry Applications, 2017, 53, 3831-3839.	4.9	22
16	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
17	Analysis of an Online Stability Monitoring Approach for DC Microgrid Power Converters. IEEE Transactions on Power Electronics, 2019, 34, 4794-4806.	7.9	21
18	On Microgrid Evolution to Local Area Energy Network (E-LAN). IEEE Transactions on Smart Grid, 2019, 10, 1567-1576.	9.0	16

#	ARTICLE	IF	CITATIONS
19	Microgrids operation based on master-slave cooperative control. , 2013, , .		14
20	A Nonlinear Wide-Bandwidth Digital Current Controller for DC-DC and DC-AC Converters. IEEE Transactions on Industrial Electronics, 2015, 62, 7687-7695.	7.9	14
21	Selective compensation of reactive, unbalance, and distortion power in smart grids by synergistic control of distributed switching power interfaces. , 2013, , .		13
22	Power-based droop control in DC microgrids enabling seamless disconnection from AC grids. , 2017, , .		13
23	Plug and Play DC-DC Converters for Smart DC Nanogrids with Advanced Control Ancillary Services. , 2018, , .		13
24	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
25	A master/slave control of distributed energy resources in low-voltage microgrids. , 2016, , .		11
26	Real-Time Validation of Power Flow Control Method for Enhanced Operation of Microgrids. Energies, 2020, 13, 5959.	3.1	11
27	Control of utility interfaces in low voltage microgrids. , 2014, , .		10
28	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
29	Model Predictive Control for Efficient Management of Energy Resources in Smart Buildings. Energies, 2021, 14, 5592.	3.1	10
30	Online wideband identification of single-phase AC power grid impedances using an existing grid-tied power electronic inverter. , 2015, , .		9
31	On-line stability monitoring for power converters in DC microgrids. , 2017, , .		9
32	Oversampled dead-beat current controller for voltage source converters. , 2015, , .		7
33	A Master/Slave Approach to Power Flow and Overvoltage Control in Low-Voltage Microgrids. Energies, 2019, 12, 2760.	3.1	7
34	Using High-Bandwidth Voltage Amplifier to Emulate Grid-Following Inverter for AC Microgrid Dynamics Studies. Energies, 2019, 12, 379.	3.1	7
35	Leveraging Demand Flexibility by Exploiting Prosumer Response to Price Signals in Microgrids. Energies, 2020, 13, 3078.	3.1	7
36	MIMO Control of a High-Step-Up Isolated Bidirectional DC-DC Converter. IEEE Transactions on Industrial Electronics, 2022, 69, 4687-4696.	7.9	7

#	ARTICLE	IF	CITATIONS
37	Improving microgrid performance by cooperative control of distributed energy sources. , 2013, , .		6
38	Lightweight energy management of islanded operated microgrids for prosumer communities. , 2015, , .		6
39	Implementation and Experimental Evaluation of an Efficiency-Improved Modulation Technique for IBCI DC-DC Converters. , 2020, , .		6
40	Digital Controller Development Methodology Based on Real-Time Simulations with LabVIEW FPGA Hardware-Software Toolset. Electronics, 2014, 17, .	0.3	6
41	A Per-Phase Power Controller for Smooth Transitions to Islanded Operation. IEEE Open Journal of Power Electronics, 2021, 2, 636-646.	5.7	6
42	A non-linear wide bandwidth digital current controller for DC-DC and DC-AC converters. , 2014, , .		5
43	Coordinated control of distributed generators in meshed low-voltage microgrids: Power flow control and voltage regulation. , 2016, , .		5
44	Power-based droop control suppressing the effect of bus voltage harmonics for DC microgrids. , 2017, , .		5
45	Master/Slave Power-Based Control of Low-Voltage Microgrids. , 2017, , 101-135.		4
46	Fully-dispatchable microgrid: Architecture, implementation and experimental validation. , 2017, , .		4
47	Optimal control of Local Area Energy Networks (E-LAN). Sustainable Energy, Grids and Networks, 2018, 14, 12-24.	3.9	4
48	Comparison of oversampled current controllers for microgrid utility interface converters. , 2015, , .		3
49	Implementation of an active RLC load for unintentional islanding test. , 2016, , .		3
50	Power sharing analysis of power-based droop control for DC microgrids considering cable impedances. , 2017, , .		3
51	Digital Current Control for a Bidirectional Interleaved Boost Converter with Coupled Inductors. , 2019, , .		3
52	Generalized Control of the Power Flow in Local Area Energy Networks. Energies, 2022, 15, 1416.	3.1	3
53	Power-based control of low-voltage microgrids. , 2014, , .		2
54	Self-Tuning of Triple-Loop Controlled Grid-Connected Inverters. , 2018, , .		2

#	ARTICLE	IF	CITATIONS
55	Seamless Mode Transitions for Triple-Loop Controlled Interlinking Converters. , 2018, , .		2
56	Triple-Phase Shift Modulation for Dual Active Bridge based on Simplified Switching Loss Model. , 2019, , .		2
57	Model Predictive Control of Electrical Energy Storage Systems for Microgrids-Integrated Smart Buildings. , 2019, , .		2
58	Analysis and Performance Evaluation of the DAB and IBCI DC-DC Converter Topologies. , 2019, , .		2
59	Rapid prototyping of digital controllers for microgrid inverters. , 2013, , .		1
60	Cooperative compensation of unwanted current terms in low-voltage microgrids by distributed power-based control. , 2015, , .		1
61	A dynamic overvoltage limiting technique for low-voltage microgrids. , 2015, , .		1
62	Impedance synthesis by inverter control for active loads in anti-islanding testbenches. , 2016, , .		1
63	Integration and control of heterogeneous power sources in meshed distribution grids. , 2016, , .		1
64	A General Approach to Select Location and Ratings of Energy Storage Systems in Local Area Energy Networks. , 2018, , .		1
65	A Model Predictive Approach for Energy Management in Smart Buildings. , 2019, , .		1
66	A Per-Phase Power Controller allowing Smooth Transitions to Islanded Operation. , 2021, , .		1
67	Architecture and control of fully-dispatchable microgrids. , 2014, , .		0
68	Experimental verification of an active microgrid with distributed power-based control. , 2015, , .		0
69	Integrated control of meshed power grids with multiple feeding points and distributed energy sources. , 2016, , .		0
70	Current-Controlled Interlinking Converter with Grid-Supporting Functionalities. , 2019, , .		0
71	Triple-Phase Shift Modulation and Tuning Technique to Improve the Efficiency of the Dual Active Bridge Converter. , 2020, , .		0