Ioan Serban

List of Publications by Year
in descending order

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55 papers	1,082 citations	933447 10 h-index	940533 16 g-index
55 all docs	55 docs citations	55 times ranked	1172 citing authors

#	Article	IF	Citations
1	Improved control method for single-phase inverters with a minimalist power decoupling circuit. , 2021, , .		2
2	Communication Requirements in Microgrids: A Practical Survey. IEEE Access, 2020, 8, 47694-47712.	4.2	88
3	Optimising residential electric vehicle charging under renewable energy: Multiâ€agent learning in software simulation and hardwareâ€inâ€theâ€loop evaluation. International Journal of Energy Research, 2019, 43, 3853-3868.	4.5	8
4	Seamless Integration of an Autonomous Induction Generator System into an Inverter-Based Microgrid. Energies, 2019, 12, 638.	3.1	1
5	Internal Model Repetitive Control for an Active Power Filter. , 2019, , .		0
6	A control strategy for microgrids: Seamless transfer based on a leading inverter with supercapacitor energy storage system. Applied Energy, 2018, 221, 490-507.	10.1	39
7	Active Load Control for Dynamic Frequency Support and Harmonic Compensation in Autonomous Microgrids. Journal of Energy Engineering - ASCE, 2018, 144, 04018002.	1.9	1
8	Dynamic Performance Analysis of a Photovoltaic Power Plant with Integrated Storage for Microgrids Dynamic Support. Journal of Energy Engineering - ASCE, 2018, 144, 04017077.	1.9	1
9	A Smart Residential Microgrid Based on Renewable Energy Sources with Integrated Electric Vehicle Charging Station. , 2018, , .		7
10	Flexible solution for grid-connected operation of microgrids, based on a leading inverter with supercapacitor energy storage. , 2018, , .		0
11	Harmonic compensation with active loads designed for power quality improvement in microgrids. , 2018, , .		2
12	Self-Excited Induction Generator Based Microgrid with Supercapacitor Energy Storage to Support the Start-up of Dynamic Loads. Advances in Electrical and Computer Engineering, 2018, 18, 51-60.	0.9	3
13	Development of the Web Platform for Management of Smart Charging Stations for Electric Vehicles. , 2018, , .		3
14	Microgrid control based on a grid-forming inverter operating as virtual synchronous generator with enhanced dynamic response capability. International Journal of Electrical Power and Energy Systems, 2017, 89, 94-105.	5.5	76
15	Improving the stability of SEIG based microgrids with predominance of dynamic loads by using supercapacitor-based storage. , 2017, , .		0
16	A control method to provide dynamic support capability for small wind turbines connected in islanded microgrids. , 2017, , .		0
17	Improving the dynamic response of PV systems in microgrids by using supercapacitors. , 2017, , .		1
18	Improving the Stability of SEIG based microgrids during overloads by using supercapacitor-based storage and load-shedding. , 2017, , .		3

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19	Modified MPPT control for small wind turbines to provide dynamic frequency support in islanded microgrids. , 2017, , .		4
20	Control strategy aiming at increasing the dynamic response capability of autonomous microgrids. , 2017, , .		0
21	A PHIL system designed for testing the dynamic response of microgrid units. , 2017, , .		6
22	Performance analysis of a SiC-based single-phase H-bridge inverter with active power decoupling. , 2016, , .		5
23	Control of PV inverter with energy storage capacity to improve microgrid dynamic response. , 2016, , .		3
24	Supporting the dynamic frequency response in microgrids by means of active loads. , 2016, , .		6
25	Control of micro hydro based microgrid for dynamic transfer between islanded and grid-connected operation. , 2016, , .		0
26	Induction motors most efficient operation points in pumped storage systems. , 2015, , .		0
27	Power Decoupling Method for Single-Phase H-Bridge Inverters With No Additional Power Electronics. IEEE Transactions on Industrial Electronics, 2015, 62, 4805-4813.	7.9	143
28	Single-phase voltage source converter with active power decoupling operating in both grid-connected and island modes. , 2015, , .		7
29	Frequency restoration in microgrids by means of distributed control with minimum communication requirements. , 2014, , .		4
30	Design and experimental investigations of a smart battery energy storage system for frequency control in microgrids. Journal of Renewable and Sustainable Energy, 2014, 6, .	2.0	7
31	Control Strategy of Three-Phase Battery Energy Storage Systems for Frequency Support in Microgrids and with Uninterrupted Supply of Local Loads. IEEE Transactions on Power Electronics, 2014, 29, 5010-5020.	7.9	219
32	Battery energy storage system for frequency support in microgrids and with enhanced control features for uninterruptible supply of local loads. International Journal of Electrical Power and Energy Systems, 2014, 54, 432-441.	5.5	90
33	Energy storage systems impact on the shortâ€term frequency stability of distributed autonomous microgrids, an analysis using aggregate models. IET Renewable Power Generation, 2013, 7, 531-539.	3.1	66
34	A novel transistor-less power decoupling solution for single-phase inverters. , 2013, , .		21
35	About the main frequency control issues in microgrids with renewable energy sources. , 2013, , .		5
36	An enhanced three-phase battery energy storage system for frequency control in microgrids. , 2012, , .		5

#	Article	IF	Citations
37	Analysis and optimization of the battery energy storage systems for frequency control in autonomous microgrids, by means of hardware-in-the-loop simulations. , 2012, , .		13
38	A sensorless control method for variable-speed small wind turbines. Renewable Energy, 2012, 43, 256-266.	8.9	36
39	Sensorless control for small wind turbines with permanent magnet synchronous generator. , 2011, , .		3
40	A reduced model of permanent magnet synchronous generators for wind energy conversion systems. , 2011, , .		0
41	Robust frequency control for a wind/hydro autonomous microgrid. , 2011, , .		6
42	Aggregate load-frequency control of a wind-hydro autonomous microgrid. Renewable Energy, 2011, 36, 3345-3354.	8.9	60
43	A voltage-independent active load for frequency control in microgrids with renewable energy sources. , 2011, , .		9
44	Active power decoupling circuit for a single-phase battery energy storage system dedicated to autonomous microgrids. , 2010, , .		17
45	A look at the role and main topologies of battery energy storage systems for integration in autonomous microgrids. , 2010, , .		18
46	Modeling of an autonomous microgrid for renewable energy sources integration. , 2009, , .		15
47	Analysis of frequency stability in a residential autonomous microgrid based on a wind turbine and a Microhydro power plant. , 2009, , .		9
48	A new control method for power quality improvement in island microgrids. , 2008, , .		10
49	Single-phase operation of an autonomous three-phase induction generator using a VSI-DL control system. , 2008, , .		11
50	A solution for frequency control in islanded three-phase micro-grids supplied by Renewable Energy Sources. , 2008, , .		8
51	Frequency control and unbalances compensation in stand-alone fixed-speed wind turbine systems. , 2008, , .		7
52	Frequency Control and Unbalances Compensation in Autonomous Micro-Grids Supplied by RES. , 2007, , .		6
53	Electronic Load Controller for Stand-Alone Generating Units with Renewable Energy Sources. Industrial Electronics Society (IECON), Annual Conference of IEEE, 2006, , .	0.0	16
54	Controlling variable load stand-alone hydrogenerators. , 2005, , .		7

#	Article	IF	Citations
55	Controlling a stand-alone power system. , 0, , .		5