Roberto Villafafila-Robles

List of Publications by Year
in descending order

42 papers	2,367 citations	567144 15 h-index	477173 29 g-index
43 all docs	43 docs citations	43 times ranked	3121 citing authors

#	Article	IF	Citations
1	Composed Index for the Evaluation of Energy Security in Power Systems within the Frame of Energy Transitionsâ€"The Case of Latin America and the Caribbean. Energies, 2021, 14, 2467.	1.6	8
2	Conversion of a Network Section with Loads, Storage Systems and Renewable Generation Sources into a Smart Microgrid. Applied Sciences (Switzerland), 2021, 11, 5012.	1.3	7
3	A Novel Hybrid Home Energy Management System Considering Electricity Cost and Greenhouse Gas Emissions Minimization. IEEE Transactions on Industry Applications, 2021, 57, 2782-2790.	3.3	15
4	Artificial intelligence techniques for enabling Big Data services in distribution networks: A review. Renewable and Sustainable Energy Reviews, 2021, 150, 111459.	8.2	62
5	Composed Index for the Evaluation of the Energy Security of Power Systems: Application to the Case of Argentina. Energies, 2020, 13, 3998.	1.6	10
6	A Novel Home Energy Management System Environmental-based with LCA Minimization. , 2020, , .		0
7	Transition to a greener Power Sector: Four different scopes on energy security. Renewable Energy Focus, 2020, 33, 23-36.	2.2	14
8	Centralised and Distributed Optimization for Aggregated Flexibility Services Provision. IEEE Transactions on Smart Grid, 2020, 11, 3257-3269.	6.2	42
9	Evaluation of the Effects of Smart Charging Strategies and Frequency Restoration Reserves Market Participation of an Electric Vehicle. Energies, 2020, 13, 3112.	1.6	11
10	Novel fault location algorithm for meshed distribution networks with DERs. Electric Power Systems Research, 2020, 181, 106182.	2.1	20
11	Impedance Measurement and Detection Frequency Bandwidth, a Valid Island Detection Proposal for Voltage Controlled Inverters. Applied Sciences (Switzerland), 2019, 9, 1146.	1.3	8
12	The Potential Role of Flexibility During Peak Hours on Greenhouse Gas Emissions: A Life Cycle Assessment of Five Targeted National Electricity Grid Mixes. Energies, 2019, 12, 4443.	1.6	13
13	Optimization problem for meeting distribution system operator requests in local flexibility markets with distributed energy resources. Applied Energy, 2018, 210, 881-895.	5.1	156
14	Local Flexibility Market Design for Aggregators Providing Multiple Flexibility Services at Distribution Network Level. Energies, 2018, 11, 822.	1.6	171
15	Experimental validation of a single phase Intelligent Power Router. Sustainable Energy, Grids and Networks, 2015, 4, 1-15.	2.3	19
16	Probabilistic Agent-Based Model of Electric Vehicle Charging Demand to Analyse the Impact on Distribution Networks. Energies, 2015, 8, 4160-4187.	1.6	69
17	Optimization of Surge Arrester Locations in Overhead Distribution Networks. IEEE Transactions on Power Delivery, 2015, 30, 674-683.	2.9	15
18	Impact Evaluation of Plug-in Electric Vehicles on Power System. Power Systems, 2015, , 149-178.	0.3	2

#	Article	IF	Citations
19	Active power estimation of photovoltaic generators for distribution network planning based on correlation models. Energy, 2014, 64, 758-770.	4.5	10
20	Distribution system reconfiguration using genetic algorithm based on connected graphs. Electric Power Systems Research, 2013, 104, 216-225.	2.1	44
21	Modeling of Second Generation HTS Cables for Grid Fault Analysis Applied to Power System Simulation. IEEE Transactions on Applied Superconductivity, 2013, 23, 5401204-5401204.	1.1	6
22	Pareto Optimal Reconfiguration of Power Distribution Systems Using a Genetic Algorithm Based on NSGA-II. Energies, 2013, 6, 1439-1455.	1.6	91
23	Development of a laboratory platform for testing new solutions to integrate renewable energy sources in power systems. , 2013, , .		2
24	Assessment of impact of charging infrastructure for electric vehicles on distribution networks. , 2013, , .		3
25	Modeling, Control and Experimental Validation of a Flywheel-Based Energy Storage Device. EPE Journal (European Power Electronics and Drives Journal), 2013, 23, 41-51.	0.7	3
26	Probabilistic Method to Assess the Impact of Charging of Electric Vehicles on Distribution Grids. Energies, 2012, 5, 1503-1531.	1.6	28
27	Dynamic Model of an HTS Cable for Power Grid Simulation. Physics Procedia, 2012, 36, 1272-1278.	1.2	4
28	Modeling and validation of a flywheel energy storage lab-setup. , 2012, , .		15
29	A review of energy storage technologies for wind power applications. Renewable and Sustainable Energy Reviews, 2012, 16, 2154-2171.	8.2	1,252
30	Electric vehicles in power systems with distributed generation: Vehicle to Microgrid (V2M) project. , 2011, , .		10
31	Life-cycle assessment of a photovoltaic system in Catalonia (Spain). Renewable and Sustainable Energy Reviews, 2011, 15, 3888-3896.	8.2	102
32	Promotion of renewable energy in Latin America for the security of electric supply. , 2011, , .		0
33	Protection system remote laboratory. , 2011, , .		3
34	Probabilistic analysis in normal operation of distribution system with distributed generation. , 2011, , .		1
35	Methodology for the assessment of the impact of existing high voltage lines in urban areas. Energy Policy, 2010, 38, 6036-6044.	4.2	21
36	Short-term voltage stability of fixed-speed wind turbines: Comparison of single and double cage. , 2010, , .		5

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37	A Remote Laboratory Platform for Electrical Drive Control Using Programmable Logic Controllers. IEEE Transactions on Education, 2009, 52, 425-435.	2.0	28
38	Electrical vehicles: State of art and issues for their connection to the network. , 2009, , .		23
39	Response of Fixed Speed Wind Turbines to System Frequency Disturbances. IEEE Transactions on Power Systems, 2009, 24, 181-192.	4.6	65
40	Modeling the stochastic dependencies in a probabilistic load flow including wind generation. , 2009, , .		4
41	Power quality education using a remote monitoring laboratory. , 2007, , .		5
42	Reliability of Electricity Supply: Appliances and Equipment. , 0, , 403-444.		0