

Roberto Villafafila-Robles

List of Publications by Year in descending order

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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	A review of energy storage technologies for wind power applications. Renewable and Sustainable Energy Reviews, 2012, 16, 2154-2171.	8.2	1,252
2	Local Flexibility Market Design for Aggregators Providing Multiple Flexibility Services at Distribution Network Level. Energies, 2018, 11, 822.	1.6	171
3	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
4	Life-cycle assessment of a photovoltaic system in Catalonia (Spain). Renewable and Sustainable Energy Reviews, 2011, 15, 3888-3896.	8.2	102
5	Pareto Optimal Reconfiguration of Power Distribution Systems Using a Genetic Algorithm Based on NSGA-II. Energies, 2013, 6, 1439-1455.	1.6	91
6	Probabilistic Agent-Based Model of Electric Vehicle Charging Demand to Analyse the Impact on Distribution Networks. Energies, 2015, 8, 4160-4187.	1.6	69
7	Response of Fixed Speed Wind Turbines to System Frequency Disturbances. IEEE Transactions on Power Systems, 2009, 24, 181-192.	4.6	65
8	Artificial intelligence techniques for enabling Big Data services in distribution networks: A review. Renewable and Sustainable Energy Reviews, 2021, 150, 111459.	8.2	62
9	Distribution system reconfiguration using genetic algorithm based on connected graphs. Electric Power Systems Research, 2013, 104, 216-225.	2.1	44
10	Centralised and Distributed Optimization for Aggregated Flexibility Services Provision. IEEE Transactions on Smart Grid, 2020, 11, 3257-3269.	6.2	42
11	A Remote Laboratory Platform for Electrical Drive Control Using Programmable Logic Controllers. IEEE Transactions on Education, 2009, 52, 425-435.	2.0	28
12	Probabilistic Method to Assess the Impact of Charging of Electric Vehicles on Distribution Grids. Energies, 2012, 5, 1503-1531.	1.6	28
13	Electrical vehicles: State of art and issues for their connection to the network. , 2009, , .		23
14	Methodology for the assessment of the impact of existing high voltage lines in urban areas. Energy Policy, 2010, 38, 6036-6044.	4.2	21
15	Novel fault location algorithm for meshed distribution networks with DERs. Electric Power Systems Research, 2020, 181, 106182.	2.1	20
16	Experimental validation of a single phase Intelligent Power Router. Sustainable Energy, Grids and Networks, 2015, 4, 1-15.	2.3	19
17	Modeling and validation of a flywheel energy storage lab-setup. , 2012, , .		15
18	Optimization of Surge Arrester Locations in Overhead Distribution Networks. IEEE Transactions on Power Delivery, 2015, 30, 674-683.	2.9	15

#	ARTICLE	IF	CITATIONS
19	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
20	Transition to a greener Power Sector: Four different scopes on energy security. Renewable Energy Focus, 2020, 33, 23-36.	2.2	14
21	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
22	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
23	Electric vehicles in power systems with distributed generation: Vehicle to Microgrid (V2M) project. , 2011, , .		10
24	Active power estimation of photovoltaic generators for distribution network planning based on correlation models. Energy, 2014, 64, 758-770.	4.5	10
25	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
26	Impedance Measurement and Detection Frequency Bandwidth, a Valid Island Detection Proposal for Voltage Controlled Inverters. Applied Sciences (Switzerland), 2019, 9, 1146.	1.3	8
27	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
28	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
29	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
30	Power quality education using a remote monitoring laboratory. , 2007, , .		5
31	Short-term voltage stability of fixed-speed wind turbines: Comparison of single and double cage. , 2010, , .		5
32	Modeling the stochastic dependencies in a probabilistic load flow including wind generation. , 2009, , .		4
33	Dynamic Model of an HTS Cable for Power Grid Simulation. Physics Procedia, 2012, 36, 1272-1278.	1.2	4
34	Protection system remote laboratory. , 2011, , .		3
35	Assessment of impact of charging infrastructure for electric vehicles on distribution networks. , 2013, , .		3
36	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

#	ARTICLE	IF	CITATIONS
37	Development of a laboratory platform for testing new solutions to integrate renewable energy sources in power systems. , 2013, , .		2
38	Impact Evaluation of Plug-in Electric Vehicles on Power System. Power Systems, 2015, , 149-178.	0.3	2
39	Probabilistic analysis in normal operation of distribution system with distributed generation. , 2011, , .		1
40	Promotion of renewable energy in Latin America for the security of electric supply. , 2011, , .		0
41	A Novel Home Energy Management System Environmental-based with LCA Minimization. , 2020, , .		0
42	Reliability of Electricity Supply: Appliances and Equipment. , 0, , 403-444.		0