Angel Molina-Garcia

List of Publications by Year
in descending order

99	2,297	331538 21	243529 44
papers	citations	h-index	g-index

105	105	105	1977
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Fuzzy GIS-based MCDM solution for the optimal offshore wind site selection: The Gulf of Maine case. Renewable Energy, 2022, 183, 130-147.	4.3	41
2	Coordinated ancillary services, market participation and communication of multi-microgrids: A review. Applied Energy, 2022, 308, 118332.	5.1	44
3	Online Wind-Atlas Databases and GIS Tool Integration for Wind Resource Assessment: A Spanish Case Study. Energies, 2022, 15, 852.	1.6	2
4	Hybrid frequency control strategies based on hydroâ€power, wind, and energy storage systems: Application to 100% renewable scenarios. IET Renewable Power Generation, 2022, 16, 1107-1120.	1.7	6
5	Sensitive Parameter Analysis for Solar Irradiance Short-Term Forecasting: Application to LoRa-Based Monitoring Technology. Sensors, 2022, 22, 1499.	2.1	4
6	Democratization of PV Micro-Generation System Monitoring Based on Narrowband-IoT. Sensors, 2022, 22, 4966.	2.1	7
7	Urban Wind: An Alternative for Sustainable Cities. Energies, 2022, 15, 4759.	1.6	5
8	Frequency control studies: A review of power system, conventional and renewable generation unit modeling. Electric Power Systems Research, 2022, 211, 108191.	2.1	13
9	MCDM-based multidimensional approach for selection of optimal groundwater pumping systems: Design and case example. Renewable Energy, 2021, 163, 213-224.	4.3	27
10	Electric Vehicle and Renewable Energy Sources: Motor Fusion in the Energy Transition from a Multi-Indicator Perspective. Sustainability, 2021, 13, 3430.	1.6	14
11	Organic Rankine Cycle Optimization Performance Analysis Based on Super-Heater Pressure: Comparison of Working Fluids. Energies, 2021, 14, 2548.	1.6	6
12	A Review of Low-Voltage Renewable Microgrids: Generation Forecasting and Demand-Side Management Strategies. Electronics (Switzerland), 2021, 10, 2093.	1.8	15
13	Multi-criteria analysis techniques to enhance sustainability of water pumping irrigation. Energy Reports, 2021, 7, 4623-4632.	2.5	4
14	Energy, economic and environmental GISâ€“based analysis of shallow geothermal potential in urban areasâ€”A Spanish case example. Sustainable Cities and Society, 2021, 75, 103267.	5.1	14
15	Fault Evolution Monitoring of an In-Service Wind Turbine DFIG Using Windowed Scalogram Difference. IEEE Access, 2021, 9, 90118-90125.	2.6	3
16	A Multi-Factorial Review of Repowering Wind Generation Strategies. Energies, 2021, 14, 6280.	1.6	5
17	Hybrid Windâ€“PV Frequency Control Strategy under Variable Weather Conditions in Isolated Power Systems. Sustainability, 2020, 12, 7750.	1.6	6
18	Analysis and Comparison of Energy Efficiency Code Requirements for Buildings: A Moroccoâ€“Spain Case Study. Energies, 2020, 13, 5979.	1.6	21

#	Article	IF	Citations
19	Assessment of Groundwater Pumping Alternatives for Irrigation Purposes based on the SIMUS Method. , 2020, , .		2
20	An Adaptive Control Scheme for Variable Speed Wind Turbines Providing Frequency Regulation in Isolated Power Systems with Thermal Generation. Energies, 2020, 13, 3369.	1.6	13
21	Requirements for Validation of Dynamic Wind Turbine Models: An International Grid Code Review. Electronics (Switzerland), 2020, 9, 1707.	1.8	7
22	A Characterization of Metrics for Comparing Satellite-Based and Ground-Measured Global Horizontal Irradiance Data: A Principal Component Analysis Application. Sustainability, 2020, 12, 2454.	1.6	6
23	Frequency control analysis based on unit commitment schemes with high wind power integration: A Spanish isolated power system case study. International Journal of Electrical Power and Energy Systems, 2020, 121, 106044.	3.3	40
24	Extensive frequency response and inertia analysis under high renewable energy source integration scenarios: application to the European interconnected power system. IET Renewable Power Generation, 2020, 14, 2885-2896.	1.7	11
25	Shallow Geothermal Potential Impact on the Energy Transition. A Case Study Region of Murcia, Spain. , 2020, , .		3
26	Power systems with high renewable energy sources: A review of inertia and frequency control strategies over time. Renewable and Sustainable Energy Reviews, 2019, 115, 109369.	8.2	278
27	Multidimensional analysis of groundwater pumping for irrigation purposes: Economic, energy and environmental characterization for PV power plant integration. Renewable Energy, 2019, 138, 174-186.	4.3	19
28	Impact of Combined Demand-Response and Wind Power Plant Participation in Frequency Control for Multi-Area Power Systems. Energies, 2019, 12, 1687.	1.6	15
29	Net-Metering and Self-Consumption Analysis for Direct PV Groundwater Pumping in Agriculture: A Spanish Case Study. Applied Sciences (Switzerland), 2019, 9, 1646.	1.3	4
30	Compliance of a Generic Type 3 WT Model with the Spanish Grid Code. Energies, 2019, 12, 1631.	1.6	13
31	An Alternative Internet-of-Things Solution Based
on LoRa for PV Power Plants: Data Monitoring
and Management. Energies, 2019, 12, 881.	1.6	47
32	Vertical Wind Profile Characterization and Identification of Patterns Based on a Shape Clustering Algorithm. IEEE Access, 2019, 7, 30890-30904.	2.6	12
33	Submission of a WECC DFIG Wind Turbine Model to Spanish Operation Procedure 12.3. Energies, 2019, 12, 3749.	1.6	12
34	Frequency Response and Inertia Analysis in Power Systems with High Wind Energy Integration. , 2019, , .		2
35	Offshore Wind Power Integration into Future Power Systems: Overview and Trends. Journal of Marine Science and Engineering, 2019, 7, 399.	1.2	57
36	Comparison of different tools for power flow analysis with high wind power integration. , 2019, , .		1

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37	Analysis of power system inertia estimation in high wind power plant integration scenarios. IET Renewable Power Generation, 2019, 13, 2807-2816.	1.7	49
38	Categorization and Analysis of Relevant Factors for Optimal Locations in Onshore and Offshore Wind Power Plants: A Taxonomic Review. Journal of Marine Science and Engineering, 2019, 7, 391.	1.2	17
39	Identification of linearised RMSâ€voltage dip patterns based on clustering in renewable plants. IET Generation, Transmission and Distribution, 2018, 12, 1256-1262.	1.4	8
40	Fast Power Reserve Emulation Strategy for VSWT Supporting Frequency Control in Multi-Area Power Systems. Energies, 2018, 11, 2775.	1.6	14
41	PV Module Monitoring System Based on Low-Cost Solutions: Wireless Raspberry Application and Assessment. Energies, 2018, 11, 3051.	1.6	44
42	An Adaptive Frequency Strategy for Variable Speed Wind Turbines: Application to High Wind Integration Into Power Systems. Energies, 2018, 11, 1436.	1.6	19
43	Reactive Power Flow Control for PV Inverters Voltage Support in LV Distribution Networks. IEEE Transactions on Smart Grid, 2017, 8, 447-456.	6.2	122
44	Comparison of a standard type 3B WT model with a commercial build-in model. , 2017, , .		4
45	Implementation and Assessment of a Decentralized Load Frequency Control: Application to Power Systems with High Wind Energy Penetration. Energies, 2017, 10, 151.	1.6	8
46	Generic Type 3 Wind Turbine Model Based on IEC 61400-27-1: Parameter Analysis and Transient Response under Voltage Dips. Energies, 2017, 10, 1441.	1.6	19
47	Approach to fitting parameters and clustering for characterising measured voltage dips based on twoâ€dimensional polarisation ellipses. IET Renewable Power Generation, 2017, 11, 1335-1343.	1.7	10
48	Energy Efficiency Applied to Irrigation Strategies for a Sustainable Agriculture in the Mediterranean Area. , 2017, , .		0
49	An Approach to Multidimensional Analysis for PV Solar Energy Integration into Groundwater Pumping Solutions. , 2017, , .		0
50	Probability Density Function Characterization for Aggregated Large-Scale Wind Power Based on Weibull Mixtures. Energies, 2016, 9, 91.	1.6	21
51	GIS based solar resource analysis for irrigation purposes: Rural areas comparison under groundwater scarcity conditions. Solar Energy Materials and Solar Cells, 2016, 156, 128-139.	3.0	16
52	Statistical and Clustering Analysis for Disturbances: A Case Study of Voltage Dips in Wind Farms. IEEE Transactions on Power Delivery, 2016, 31, 2530-2537.	2.9	10
53	A Decentralized Wireless Solution to Monitor and Diagnose PV Solar Module Performance Based on Symmetrized-Shifted Gompertz Functions. Sensors, 2015, 15, 18459-18479.	2.1	17
54	An Analysis of Decentralized Demand Response as Frequency Control Support under CriticalWind Power Oscillations. Energies, 2015, 8, 12881-12897.	1.6	6

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55	A New Solar Module Modeling for PV Applications Based on a Symmetrized and Shifted Gompertz Model. IEEE Transactions on Energy Conversion, 2015, 30, 51-59.	3.7	21
56	Wind Power Curtailment Analysis under generation flexibility requirements: The Spanish case study. , 2015, , .		13
57	Simulation of DFIG wind turbines for transient studies: An alternative approach based on symbolicâ€“numeric computations. Journal of the Franklin Institute, 2015, 352, 1417-1439.	1.9	6
58	Power quality surveys of photovoltaic power plants: characterisation and analysis of gridâ€code requirements. IET Renewable Power Generation, 2015, 9, 466-473.	1.7	57
59	Ad â€•hoc analytical solution based on local linearisations for doublyâ€fed induction generator wind turbine electromechanical simulations. IET Renewable Power Generation, 2014, 8, 537-550.	1.7	2
60	Impact of wind power curtailments on the Spanish Power System operation. , 2014, , .		17
61	Behavioral modeling of grid-connected photovoltaic inverters:ÂDevelopment and assessment. Renewable Energy, 2014, 68, 686-696.	4.3	20
62	Load influence on the response of AC-Contactors under power quality disturbances. International Journal of Electrical Power and Energy Systems, 2014, 63, 846-854.	3.3	17
63	Demand-Side Contribution to Primary Frequency Control With Wind Farm Auxiliary Control. IEEE Transactions on Power Systems, 2014, 29, 2391-2399.	4.6	59
64	INTEGRACIÃ“N DE RECURSOS RENOVABLES Y REQUERIMIENTOS DE CONEXIÃ“N EN EL SISTEMA ELÃ‰CTRICO ESPAÃ‘OL: ANÃLISIS DE DATOS EN INSTALACIONES FOTOVOLTAICAS. Dyna (Spain), 2014, 89, 649-655.	0.1	0
65	A New Three-Phase DPLL Frequency Estimator Based on Nonlinear Weighted Mean for Power System Disturbances. IEEE Transactions on Power Delivery, 2013, 28, 179-187.	2.9	12
66	Validation of a DFIG wind turbine model submitted to two-phase voltage dips following the Spanish grid code. Renewable Energy, 2013, 57, 27-34.	4.3	26
67	Analysis of positive ramp limitation control strategies for reducing wind power fluctuations. IET Renewable Power Generation, 2013, 7, 593-602.	1.7	15
68	Validation of a Mechanical Model for Fault Ride-Through: Application to a Gamesa G52 Commercial Wind Turbine. IEEE Transactions on Energy Conversion, 2013, 28, 707-715.	3.7	16
69	Power quality survey of a photovoltaic power plant. , 2013, , .		4
70	Participation of wind power plants in the Spanish power system during events. , 2012, , .		13
71	Comparison of instantaneous frequency estimation algorithms under power system disturbances. , 2012, , .		6
72	Evaluation of frequency response of variable speed wind farms for reducing stability problems in weak grids. , 2012, , .		8

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73	Assessment of DFIG simplified model parameters using field test data. , 2012, , .		10
74	Development and Assessment of a Wireless Sensor and Actuator Network for Heating and Cooling Loads. IEEE Transactions on Smart Grid, 2012, 3, 1192-1202.	6.2	14
75	Validation of a double fed induction generator wind turbine model and wind farm verification following the Spanish grid code. Wind Energy, 2012, 15, 645-659.	1.9	19
76	Influence of voltage dips on industrial equipment: Analysis and assessment. International Journal of Electrical Power and Energy Systems, 2012, 41, 87-95.	3.3	74
77	SISTEMAS DE EVALUACIÃ“N DEL RECURSO EÃ“LICO: INTEGRACIÃ“N DE NUEVAS SOLUCIONES BASADAS EN TECNOLOGÃA LÃSER. Dyna (Spain), 2012, 87, 540-548.	0.1	0
78	Probabilistic Characterization of Thermostatically Controlled Loads to Model the Impact of Demand Response Programs. IEEE Transactions on Power Systems, 2011, 26, 241-251.	4.6	89
79	Decentralized Demand-Side Contribution to Primary Frequency Control. IEEE Transactions on Power Systems, 2011, 26, 411-419.	4.6	408
80	Modeling Aluminum Smelter Plants Using Sliced Inverse Regression With a View Towards Load Flexibility. IEEE Transactions on Power Systems, 2011, 26, 282-293.	4.6	16
81	Comparison of central vs distributed inverters: application to photovoltaic systems. , 2011, , .		11
82	Application of Wireless Sensor Network to Fluorescent Lighting Installations: A Novel Energy Efficient System. , 2011, , .		0
83	Analysis of the AC-contactor electrical behavior under voltage dips. , 2010, , .		5
84	Experiences in Teaching Electric Drives Based on Basic Modelling Simulations and Industrial A.C. Drive Measurements. International Journal of Electrical Engineering and Education, 2010, 47, 416-429.	0.4	0
85	Behavioral modeling and simulation of single-phase grid-connected photovoltaic inverters. , 2010, , .		0
86	Characterization and Visualization of Voltage Dips in Wind Power Installations. IEEE Transactions on Power Delivery, 2009, 24, 2071-2078.	2.9	26
87	Wind turbine modelling for transient analysis: Application to the Spanish Grid Code. , 2009, , .		1
88	Estimation of voltage dips at the terminals of double fed induction generators. , 2009, , .		0
89	An Arbitrary Load Torque Generator for Studying Electric Drives in a Laboratory Environment. International Journal of Electrical Engineering and Education, 2008, 45, 210-228.	0.4	5
90	Application of Controller Area Networks to Direct Load Control in Residential Areas. , 2007, , .		6

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91	Application of Wireless Sensor Network to Direct Load Control in Residential Areas. , 2007, , .		10
92	Characterization of Measured Voltage Dips in Wind Farms in the Light of the New Grid Codes. , 2007, , .		4
93	A measurement approach for obtaining static load model parameters in real time at the distribution level. European Transactions on Electrical Power, 2007, 17, 173-190.	1.0	2
94	Field tests of wind turbines submitted to real voltage dips under the new Spanish grid code requirements. Wind Energy, 2007, 10, 483-495.	1.9	20
95	An Integrated Tool for Assessing the Demand Profile Flexibility. IEEE Transactions on Power Systems, 2004, 19, 668-675.	4.6	27
96	Assessment and Simulation of the Responsive Demand Potential in End-User Facilities: Application to a University Customer. IEEE Transactions on Power Systems, 2004, 19, 1223-1231.	4.6	64
97	Wind Power Variability and Singular Events. , 0, , .		5
98	Simulation of variable speed wind turbines based on open-source solutions: Application to bachelor and master degrees. International Journal of Electrical Engineering and Education, 0, , 002072092098097.	0.4	2
99	A Review of Virtual Inertia Techniques for Renewable Energy-Based Generators. , 0, , .		2