Francisco M Gonzalez Longatt

List of Publications by Year
in descending order

143 papers	2,415 citations	394286 19 h-index	302012 39 g-index
146 all docs	146 docs citations	146 times ranked	1925 citing authors

#	Article	IF	Citations
1	Wake effect in wind farm performance: Steady-state and dynamic behavior. Renewable Energy, 2012, 39, 329-338.	4.3	242
2	Two-Step Spectral Clustering Controlled Islanding Algorithm. IEEE Transactions on Power Systems, 2013, 28, 75-84.	4.6	239
3	A review and recent developments in the optimal wind-turbine micro-siting problem. Renewable and Sustainable Energy Reviews, 2014, 30, 133-144.	8.2	166
4	Optimal Electric Network Design for a Large Offshore Wind Farm Based on a Modified Genetic Algorithm Approach. IEEE Systems Journal, 2012, 6, 164-172.	2.9	122
5	Estimation of generator inertia available during a disturbance. , 2012, , .		79
6	Effects of the Synthetic Inertia from wind power on the total system inertia after a frequency disturbance. , 2013, , .		59
7	Synthetic inertia control based on fuzzy adaptive differential evolution. International Journal of Electrical Power and Energy Systems, 2019, 105, 803-813.	3.3	56
8	Effects of the synthetic inertia from wind power on the total system inertia: simulation study. , 2012, , .		49
9	Deep Reinforcement Learning-Based Controller for SOC Management of Multi-Electrical Energy Storage System. IEEE Transactions on Smart Grid, 2020, 11, 5039-5050.	6.2	48
10	Interleaved high gain DC-DC converter for integrating solar PV source to DC bus. Solar Energy, 2019, 188, 924-934.	2.9	41
11	Innovative primary frequency control in lowâ€inertia power systems based on wideâ€area RoCoF sharing. IET Energy Systems Integration, 2020, 2, 151-160.	1.1	36
12	Steady-state assessments of PMSGs in wind generating units. International Journal of Electrical Power and Energy Systems, 2017, 90, 87-93.	3.3	34
13	Controller to enable the enhanced frequency response services from a multiâ€electrical energy storage system. IET Generation, Transmission and Distribution, 2019, 13, 258-265.	1.4	34
14	Impact of emulated inertia from wind power on under-frequency protection schemes of future power systems. Journal of Modern Power Systems and Clean Energy, 2016, 4, 211-218.	3.3	31
15	Impact of synthetic inertia from wind power on the protection/control schemes of future power systems: simulation study. , 2012, , .		30
16	Investigation on grid-scale BESS providing inertial response support. , 2016, , .		30
17	A novel approach to frequency support in a wind integrated power system. Renewable Energy, 2017, 108, 194-206.	4.3	30
18	Evaluation of inertial response controllers for full-rated power converter wind turbine (Type 4). , 2016, , .		28

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19	Spatial interpolation and orographic correction to estimate wind energy resource in Venezuela. Renewable and Sustainable Energy Reviews, 2015, 48, 1-16.	8.2	26
20	Frequency Stability Issues and Research Opportunities in Converter Dominated Power System. Energies, 2021, 14, 4184.	1.6	26
21	A simplified model for dynamic behavior of permanent magnet synchronous generator for direct drive wind turbines. , 2011, , .		24
22	A network control system for hydro plants to counteract the non-synchronous generation integration. International Journal of Electrical Power and Energy Systems, 2019, 105, 404-419.	3.3	22
23	Solution of ac/dc power flow on a multiterminal HVDC system: Illustrative case supergrid phase I. , 2012, , .		21
24	Activation schemes of synthetic inertia controller on full converter wind turbine (type 4). , 2015, , .		21
25	Status of Micro/Mini-Grid Systems in a Himalayan Nation: A Comprehensive Review. IEEE Access, 2020, 8, 120983-120998.	2.6	21
26	Effects of the synthetic inertia from wind power on the total system inertia after a frequency disturbance. , 2012, , .		20
27	Wind-resource atlas of Venezuela based on on-site anemometry observation. Renewable and Sustainable Energy Reviews, 2014, 39, 898-911.	8.2	20
28	Design and Implementation of a Low-Cost Phasor Measurement Unit: A Comprehensive Review. , 2018, , .		20
29	Preventive Security-Constrained DCOPF Formulation Using Power Transmission Distribution Factors and Line Outage Distribution Factors. Energies, 2018, 11, 1497.	1.6	20
30	Two-Level Optimisation and Control Strategy for Unbalanced Active Distribution Systems Management. IEEE Access, 2020, 8, 197992-198009.	2.6	20
31	Load prioritization technique to guarantee the continuous electric supply for essential loads in rural microgrids. International Journal of Electrical Power and Energy Systems, 2022, 134, 107398.	3.3	20
32	Analysis of the Converter Synchronizing Method for the Contribution of Battery Energy Storage Systems to Inertia Emulation. Energies, 2020, 13, 1478.	1.6	19
33	Enabling inertial response in utility-scale battery energy storage system. , 2016, , .		18
34	Optimised TSOâ€“DSO interaction in unbalanced networks through frequencyâ€responsive EV clusters in virtual power plants. IET Generation, Transmission and Distribution, 2020, 14, 4908-4917.	1.4	18
35	Impact of inertia emulation control of grid-scale BESS on power system frequency response. , 2016, , .		17
36	Distributed synthetic inertia control in power systems. , 2017, , .		17

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37	High-gain-high-power (HGHP) DC-DC converter for DC microgrid applications: Design and testing. International Transactions on Electrical Energy Systems, 2018, 28, e2487.	1.2	17
38	Robust PI controller design for frequency stabilisation in a hybrid microgrid system considering parameter uncertainties and communication time delay. IET Generation, Transmission and Distribution, 2019, 13, 3048-3056.	1.4	17
39	Optimal Microgridâ€“Interactive Reactive Power Management for Dayâ€“Ahead Operation. Energies, 2021, 14, 1275.	1.6	17
40	On the perspective of grid architecture model with high TSOâ€ĐSO interaction. IET Energy Systems Integration, 2021, 3, 1-12.	1.1	17
41	Optimal Frequency Support of Variable-Speed Hydropower Plants at Telemark and Vestfold, Norway: Future Scenarios of Nordic Power System. Energies, 2020, 13, 3377.	1.6	16
42	Nadir Frequency Estimation in Low-Inertia Power Systems. , 2020, , .		16
43	A Bayesian Model to Forecast the Time Series Kinetic Energy Data for a Power System. Energies, 2021, 14, 3299.	1.6	15
44	Power System Oscillations with Different Prevalence of Grid-Following and Grid-Forming Converters. Energies, 2022, 15, 4273.	1.6	15
45	Effects of dc voltage control strategies of voltage response on multi-terminal HVDC following a disturbance. , 2012, , .		14
46	Intelligent Energy Management System for PV-Battery-based Microgrids in Future DC Homes. International Journal of Emerging Electric Power Systems, 2016, 17, 339-350.	0.6	14
47	Optimal Under-Frequency Load Shedding Setting at Altai-Uliastai Regional Power System, Mongolia. Energies, 2020, 13, 5390.	1.6	14
48	Data-Driven Trajectory Prediction of Grid Power Frequency Based on Neural Models. Electronics (Switzerland), 2021, 10, 151.	1.8	14
49	Unscented Kalman Filter for frequency and amplitude estimation. , 2011, , .		13
50	A Transmission System Friendly Micro-grid: Optimising Active Power Losses. , 2019, , .		13
51	FAPI Controller for Frequency Support in Low-Inertia Power Systems. IEEE Open Access Journal of Power and Energy, 2020, 7, 276-286.	2.5	13
52	Design of Load Frequency Control for a Microgrid Using D-partition Method. International Journal of Emerging Electric Power Systems, 2020, 21, .	0.6	13
53	Identification of Gaussian mixture model using Mean Variance Mapping Optimization: Venezuelan case. , 2012, , .		12
54	Activation schemes of synthetic inertia controller for full converter wind turbine generators. , 2015, , .		12

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55	Transient Stability Performance of Power Systems with High Share of Wind Generators Equipped with Power-Angle Modulation Controllers or Fast Local Voltage Controllers. Energies, 2020, 13, 4205.	1.6	12
56	DC microgrid in residential buildings. , 2018, , 367-388.		12
57	Effects of DC Voltage control strategy on voltage response on multi-terminal HVDC following loss of a converter station. , 2013, , .		11
58	Evaluation of a LoRa Mesh Network for Smart Metering in Rural Locations. Electronics (Switzerland), 2021, 10, 751.	1.8	10
59	Optimal Reactive Power Control of Smart Inverters: Vestfold and Telemark Regional Network. , 2021, , .		10
60	Parametric Sensitivity Analysis of Rotor Angle Stability Indicators. Energies, 2021, 14, 5023.	1.6	10
61	Investigation of Inertia Response and Rate of Change of Frequency in Low Rotational Inertial Scenario of Synchronous Dominated System. Electronics (Switzerland), 2021, 10, 2288.	1.8	10
62	Reliability Assessment in Transmission Considering Intermittent Energy Resources. , 2019, , .		9
63	Comparative Performance of Multi-Period ACOPF and Multi-Period DCOPF under High Integration of Wind Power. Energies, 2021, 14, 4540.	1.6	9
64	Mean Variance Mapping Optimization for the identification of Gaussian Mixture Model: Test case. , 2012, , .		8
65	Smart multi-terminal DC Î¼-grids for autonomous zero-net energy buildings: Implicit concepts. , 2015, , .		8
66	Power Converters Dominated Power Systems. Power Systems, 2021, , 1-35.	0.3	8
67	Multiâ€objective optimal provision of fast frequency response from EV clusters. IET Generation, Transmission and Distribution, 2020, 14, 5580-5587.	1.4	8
68	TSO-DSO Performance Considering Volt-Var Control at Smart-Inverters: Case of Vestfold and Telemark in Norway. , 2020, , .		8
69	Locational Marginal Price Forecasting Using SVR-Based Multi-Output Regression in Electricity Markets. Energies, 2022, 15, 293.	1.6	8
70	Modeling and simulation of PEM fuel cell with bond graph and 20sim. , 2008, , .		7
71	Procedure for estimation of equivalent model parameters for a wind farm using post-disturbance on-line measurement data. , 2011, , .		7
72	Optimal offshore wind farms' collector design based on the multiple travelling salesman problem and genetic algorithm. , 2013, , .		7

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73	Smart DC Grid for Autonomous Zero Net Electric Energy of Cluster of Buildings. IFAC-PapersOnLine, 2015, 48, 108-113.	0.5	7
74	Evaluation of the synthetic inertia control using active damping method. , 2017, , .		7
75	Optimization of Frequency Controller Parameters of a BESS by considering Rate of Change Constraints. , 2019, , .		7
76	Impact of Spanish Offshore Wind Generation in the Iberian Electricity Market: Potential Savings and Policy Implications. Energies, 2021, 14, 4481.	1.6	7
77	Assessment of Daily Cost of Reactive Power Procurement by Smart Inverters. Energies, 2021, 14, 4834.	1.6	7
78	Wind Resource Potential in Los Taques-Venezuela. IEEE Latin America Transactions, 2015, 13, 1429-1437.	1.2	6
79	Flexible Automatic Generation Control system for embedded HVDC links. , 2015, , .		6
80	Optimal power flow in MTDC systems based on a DC-independent system operator objective. , 2015, , .		6
81	Stochastic security-constrained generation expansion planning methodology based on a generalized line outage distribution factors. , 2017, , .		6
82	Effects of Fast Acting Power Controller of BESS in the System Frequency Response of a Multi-Machine System: Probabilistic Approach. , 2018, , .		6
83	Transmission system-friendly microgrids: an option to provide ancillary services. , 2019, , 291-321.		6
84	Generic Model of PEM Fuel Cells and Performance Analysis in Frequency Containment Period in Systems with Decreased Inertia. , 2019, , .		6
85	On the Optimization of Damping Enhancement in a Power System with a Hybrid HVDC Link. , 2019, , .		6
86	Coherency Groups Analysis based on Self Organizing Maps. , 2019, , .		6
87	A Coordinated Control of Offshore Wind Power and BESS to Provide Power System Flexibility. Energies, 2021, 14, 4650.	1.6	6
88	On Short Circuit of Grid-Forming Converters Controllers: A glance of the Dynamic Behaviour. , 2021, , .		6
89	Induction generator model parameter estimation using improved particle swarm optimization and on-line response to a change in frequency. , 2011, , .		5
90	Effect of the shaft stiffness on the inertial response of the fixed speed wind turbines and its contribution to the system inertia. , 2011, , .		5

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91	Evaluation of power flow variability on the Paraguaná transmission system due to integration of the first venezuelan wind farm. , 2012, , .		5
92	Evaluation of reactive power compensations for the phase I of Paraguaná wind based on system voltages. , 2013, , .		5
93	Indices to Assess the Integration of Renewable Energy Resources on Transmission Systems. Conference Papers in Energy, 2013, 2013, 1-8.	0.5	5
94	Inertial frequency response provided by battery energy storage systems: Probabilistic assessment. , 2017, , .		5
95	Implementation of primary frequency regulation on fully rated wind turbine generators. , 2017, , .		5
96	Implementation of Simplified Models of Local Controller for Multi-terminal HVDC Systems in DIgSILENT PowerFactory. Power Systems, 2014, , 447-472.	0.3	5
97	Coherency Estimation in Power Systems: A Koopman Operator Approach. Springer Optimization and Its Applications, 2019, , 201-225.	0.6	5
98	Design and Implementation of Low-Cost Phasor Measurement Unit: PhasorsCatcher. Energies, 2022, 15, 3172.	1.6	5
99	Phasor estimation considering DC component using UKF. , 2011, , .		4
100	Application of Swarm Mean-Variance Mapping Optimization on location and tuning damping controllers. , 2015, , .		4
101	Optimal power flow in Multi-terminal HVDC networks for DC-System Operator: Constant current operation. , 2015, , .		4
102	Introduction to Smart Grid Functionalities. Green Energy and Technology, 2018, , 1-18.	0.4	4
103	Impact of non-synchronous generation on transmission oscillations paths. , 2018, , .		4
104	Stochastic Unit Commitment in Microgrids based on Model Predictive Control. , 2018, , .		4
105	On the topology for a smart direct current microgrid for a cluster of zero-net energy buildings. , 2019, , 455-481.		4
106	Dynamic Data-Driven SoC Control of BESS for Provision of Fast Frequency Response Services. , 2019, , .		4
107	Online Dynamic Assessment of System Stability using Unscented Kalman Filter. , 2020, , .		4
108	Grid Code-Dependent Frequency Control Optimization in Multi-Terminal DC Networks. Energies, 2020, 13, 6485.	1.6	4

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109	Power-Angle Modulation Controller to Support Transient Stability of Power Systems Dominated by Power Electronic Interfaced Wind Generation. Energies, 2020, 13, 3178.	1.6	4
110	Estimation of load model parameters from instantaneous voltage and current. , 2011, , .		3
111	Probabilistic assessment of operational risk considering different wind turbine technologies. , 2012, , .		3
112	Impact of DC control strategies on dynamic behaviour of multi-terminal voltage-source converter-based HVDC after sudden disconnection of a converter station. , 2013, , .		3
113	Systemic impact caused by the integration of La Guajira wind farm. , 2013, , .		3
114	Two-step spectral clustering controlled islanding algorithm. , 2013, , .		3
115	Closure to Discussion on â€œTwo-Step Spectral Clustering Controlled Islanding Algorithmâ€• IEEE Transactions on Power Systems, 2014, 29, 413-414.	4.6	3
116	Simulation platform for autonomous smart multi-terminal DC micro-grid. , 2016, , .		3
117	Optimal structure of a Smart DC micro-grid for a cluster of zero net energy buildings. , 2016, , .		3
118	Probabilistic Load-Flow Using Analysis Using DPL Scripting Language. Green Energy and Technology, 2018, , 93-124.	0.4	3
119	Security Assessment of System Frequency Response. , 2019, , .		3
120	Analysis of PV Systems and Charging Stations Integration into the Public Lighting Infrastructure. , 2019, , .		3
121	Impact of the Photovoltaic Integration onÂthe Hydrothermal Dispatch on Power Systems. Engergy Systems in Electrical Engineering, 2021, , 397-434.	0.5	3
122	Parametric sensitivity analysis of rotor angle stability indicators: Simulation case. Energy Reports, 2022, 8, 727-735.	2.5	3
123	Frequency Support provided by Inverted Based-Generation using Grid-Forming Controllers: A Comparison during Islanded Operation. , 2021, , .		3
124	Cost Functions for Generation Dispatching in Microgrids for Non-Interconnected Zones in Colombia. Energies, 2022, 15, 2418.	1.6	3
125	Setting and Testing of the Out-of-Step Protection at Mongolian Transmission System. Energies, 2021, 14, 8170.	1.6	3
126	Online estimation of Equivalent Model for cluster of induction generators: A MVMO-based approach. , 2015, , .		2

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127	Peer-to-Peer (P2P) MATLABâ€“PowerFactory Communication: Optimal Placement and Setting of Power System Stabilizer. Green Energy and Technology, 2018, , 301-318.	0.4	2
128	Multi-Objective Optimization for Enhancing System Coordination Restoration by Placement of Fault Current Limiters on an Active Distribution System with System Reliability Considerations. , 2018, , .		2
129	Reactive Power Control of Grid Interactive Battery Energy Storage System for WADC. , 2019, , .		2
130	Single Value Decomposition to Estimate Critical Clearing Time of a Power System Using Measurements. IEEE Access, 2021, 9, 125999-126010.	2.6	2
131	Methodology of Adaptive Instantaneous Overcurrent Protection Setting. Electronics (Switzerland), 2021, 10, 2754.	1.8	2
132	A Type-2 Fuzzy Controller to Enable the EFR Service from a Battery Energy Storage System. Energies, 2022, 15, 2389.	1.6	2
133	Measurement of the Speed of Induction Motors Based on Vibration with a Smartphone. Applied Sciences (Switzerland), 2022, 12, 3371.	1.3	2
134	Modeling of faults in operational amplifier circuits using bond graph. , 2008, , .		1
135	Performance assessment of evolutionary algorithms in power system optimization problems. , 2015, , .		1
136	Protection and energy management of zero net electric energy clusters of buildings. , 2015, , .		1
137	Effects of Fast Acting Power Controller of BESS in the System Frequency Response of a Multi-Machine System: Probabilistic Approach. , 2018, , .		1
138	Multi-Core Platform of Admittance Matrix Formation of Power Systems: Computational Time Assessment. , 2020, , .		1
139	Non-synchronous Generation Impact on Frequency Response â€“ A case from Albania. , 2020, , .		1
140	Dynamic analysis of wind power integration into the Northern Interconnected Power System of Chile. , 2015, , .		0
141	Assessing the Renewable Energy Sources Integration Through a Series of Technical Performance Indices Using DIgSILENT PowerFactory DPL. Power Systems, 2014, , 135-156.	0.3	0
142	Probabilistic Power Flow Analysis. , 2020, , 179-208.		0
143	Comparative Performance of Inverted-Based Generation using Synchonverter during Transient Stability Conditions. , 2022, , .		0