

Olimpo Anaya-Lara

List of Publications by Year in descending order

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Version: 2024-02-01

103
papers

3,123
citations

236833

25
h-index

168321

53
g-index

109
all docs

109
docs citations

109
times ranked

2776
citing authors

#	ARTICLE	IF	CITATIONS
1	Control of DFIG-Based Wind Generation for Power Network Support. IEEE Transactions on Power Systems, 2005, 20, 1958-1966.	4.6	352
2	A Power System Stabilizer for DFIG-Based Wind Generation. IEEE Transactions on Power Systems, 2006, 21, 763-772.	4.6	241
3	Small-Signal Stability Analysis of Multi-Terminal VSC-Based DC Transmission Systems. IEEE Transactions on Power Systems, 2012, 27, 1818-1830.	4.6	236
4	Modeling and analysis of custom power systems by PSCAD/EMTDC. IEEE Transactions on Power Delivery, 2002, 17, 266-272.	2.9	226
5	Modular multilevel inverter: pulse width modulation and capacitor balancing technique. IET Power Electronics, 2010, 3, 702.	1.5	201
6	Impacts of High Penetration of DFIG Wind Turbines on Rotor Angle Stability of Power Systems. IEEE Transactions on Sustainable Energy, 2015, 6, 759-766.	5.9	196
7	Enhancing PV modules efficiency and power output using multi-concept cooling technique. Energy Reports, 2018, 4, 357-369.	2.5	144
8	A review on frequency support provision by wind power plants: Current and future challenges. Renewable and Sustainable Energy Reviews, 2018, 81, 2071-2087.	8.2	131
9	Electrical collector system options for large offshore wind farms. IET Renewable Power Generation, 2007, 1, 107.	1.7	114
10	Fault Ride-Through Improvement of DFIG-WT by Integrating a Two-Degrees-of-Freedom Internal Model Control. IEEE Transactions on Industrial Electronics, 2013, 60, 1133-1145.	5.2	75
11	Influence of rotor structural dynamics representations on the electrical transient performance of FSIG and DFIG wind turbines. Wind Energy, 2007, 10, 293-301.	1.9	72
12	Wind Power Integration: Connection and System Operational Aspects. , 2014, , .		51
13	Influence of Windfarms on Power System Dynamic and Transient Stability. Wind Engineering, 2006, 30, 107-127.	1.1	49
14	Reactive power control of DFIG wind turbines for power oscillation damping under a wide range of operating conditions. IET Generation, Transmission and Distribution, 2016, 10, 3777-3785.	1.4	49
15	Influence of Tower Shadow and Wind Turbulence on the Performance of Power System Stabilizers for DFIG-Based Wind Farms. IEEE Transactions on Energy Conversion, 2008, 23, 519-528.	3.7	43
16	Adaptive Zone Identification for Voltage Level Control in Distribution Networks With DG. IEEE Transactions on Smart Grid, 2012, 3, 1594-1602.	6.2	43
17	Modelling and control of synchronous generators for wide-range variable-speed wind turbines. Wind Energy, 2007, 10, 231-246.	1.9	40
18	Wind farm control – Part I: A review on control system concepts and structures. IET Renewable Power Generation, 2021, 15, 2085-2108.	1.7	40

#	ARTICLE	IF	CITATIONS
19	Aggregated Wind Turbine Models for Power System Dynamic Studies. <i>Wind Engineering</i> , 2006, 30, 171-185.	1.1	36
20	Analytical efficiency evaluation of two and three level VSC-HVDC transmission links. <i>International Journal of Electrical Power and Energy Systems</i> , 2013, 44, 1-6.	3.3	34
21	Rotor flux magnitude and angle control strategy for doubly fed induction generators. <i>Wind Energy</i> , 2006, 9, 479-495.	1.9	33
22	Fast Selective Harmonic Mitigation in Multifunctional Inverters Using Internal Model Controllers and Synchronous Reference Frames. <i>IEEE Transactions on Industrial Electronics</i> , 2017, 64, 6338-6349.	5.2	31
23	Frequency support using doubly fed induction and reluctance wind turbine generators. <i>International Journal of Electrical Power and Energy Systems</i> , 2018, 101, 403-414.	3.3	31
24	Reducing unnecessary disconnection of renewable generation from the power system. <i>IET Renewable Power Generation</i> , 2007, 1, 41.	1.7	30
25	Cost and losses associated with offshore wind farm collection networks which centralise the turbine power electronic converters. <i>IET Renewable Power Generation</i> , 2013, 7, 390-400.	1.7	28
26	Multi-task control for VSC-HVDC power and frequency control. <i>International Journal of Electrical Power and Energy Systems</i> , 2013, 53, 684-690.	3.3	26
27	Frequency support from photovoltaic power plants using offline maximum power point tracking and variable droop control. <i>IET Renewable Power Generation</i> , 2019, 13, 2278-2286.	1.7	23
28	Optioneering analysis for connecting Dogger Bank offshore wind farms to the GB electricity network. <i>Renewable Energy</i> , 2016, 91, 120-129.	4.3	22
29	Enhancing frequency stability by integrating non-conventional power sources through multi-terminal HVDC grid. <i>International Journal of Electrical Power and Energy Systems</i> , 2018, 95, 128-136.	3.3	22
30	Novel concept of renewables association with synchronous generation for enhancing the provision of ancillary services. <i>Applied Energy</i> , 2018, 229, 1035-1047.	5.1	22
31	Capacity estimation of a minihydro plant based on time series forecasting. <i>Renewable Energy</i> , 2009, 34, 1204-1209.	4.3	21
32	Provision of a synchronising power characteristic on DFIG-based wind farms. <i>IET Generation, Transmission and Distribution</i> , 2007, 1, 162.	1.4	20
33	Assessment of Multi-Use Offshore Platforms: Structure Classification and Design Challenges. <i>Sustainability</i> , 2020, 12, 1860.	1.6	19
34	Optimal DFIG crowbar resistor design under different controllers during grid faults. , 2008, , .		18
35	Time domain harmonic state estimation in unbalanced power networks based on optimal number of meters and the principle of half-wave symmetry. <i>IET Generation, Transmission and Distribution</i> , 2017, 11, 3871-3880.	1.4	17
36	Control-based fault current limiter for modular multilevel voltage-source converters. <i>International Journal of Electrical Power and Energy Systems</i> , 2020, 118, 105750.	3.3	17

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37	Distance protection algorithm for multiterminal HVDC systems using the Hilbert-Huang transform. IET Generation, Transmission and Distribution, 2020, 14, 3022-3032.	1.4	17
38	Bottom-Up Electrification Introducing New Smart Grids Architecture-Concept Based on Feasibility Studies Conducted in Rwanda. Energies, 2019, 12, 2439.	1.6	15
39	THD Reduction in Wind Energy System Using Type-4 Wind Turbine/PMSG Applying the Active Front-End Converter Parallel Operation. Energies, 2018, 11, 2458.	1.6	14
40	Performance of Doubly Fed Induction Generator (DFIG) during Network Faults. Wind Engineering, 2005, 29, 49-66.	1.1	13
41	DSPWM multilevel technique of 27-levels based on FPGA for the cascaded DC/AC power converter operation. International Transactions on Electrical Energy Systems, 2018, 28, e2479.	1.2	11
42	Effective Assessment of Electric Power Losses in Three-Core XLPE Cables. IEEE Transactions on Power Systems, 2013, 28, 4488-4495.	4.6	10
43	Investigation on Fault-ride through Methods for VSC-HVDC Connected Offshore Wind Farms. Energy Procedia, 2016, 94, 29-36.	1.8	10
44	A Methodology for Transient State Estimation Based on Numerical Derivatives, Optimal Monitoring, and Filtered Measurements. IEEE Transactions on Power Delivery, 2018, 33, 1527-1535.	2.9	10
45	Enhanced harmonic state estimation in unbalanced three-phase electrical grids based on the Kalman filter and physical scale-down implementation. International Journal of Electrical Power and Energy Systems, 2020, 123, 106243.	3.3	10
46	Time-Domain Voltage Sag State Estimation Based on the Unscented Kalman Filter for Power Systems with Nonlinear Components. Energies, 2018, 11, 1411.	1.6	9
47	Sizing and Coordination Strategies of Battery Energy Storage System Co-Located with Wind Farm: The UK Perspective. Energies, 2021, 14, 1439.	1.6	9
48	A state-space model and control of a full-range PMSG wind turbine for real-time simulations. Electrical Engineering, 2018, 100, 2177-2191.	1.2	8
49	Integration of Offshore Wind with O&G Platforms with an Energy Storage System. , 2019, , .		8
50	Provision of ancillary services by renewable hybrid generation in low frequency AC systems to the grid. International Journal of Electrical Power and Energy Systems, 2019, 105, 775-784.	3.3	8
51	Power factor control for inverter-interfaced microgeneration. , 2008, , .		7
52	Study of the impact of wind generation on voltage stability in transmission networks. , 2011, , .		7
53	Connection scheme for north sea offshore wind integration to UK and Norway: Power balancing and transient stability analysis. , 2011, , .		7
54	Individual Pitch Control of Horizontal Axis Wind Turbines. Journal of Offshore Mechanics and Arctic Engineering, 2012, 134, .	0.6	7

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55	Coordinated Control for Wind Turbine and VSC-HVDC Transmission to Enhance FRT Capability. Energy Procedia, 2013, 35, 69-80.	1.8	7
56	DC Voltage Control for Fault Management in HVDC System. Energy Procedia, 2015, 80, 237-244.	1.8	7
57	Dynamic Wind Power Plant Control for System Integration Using the Generator Response Following Concept. Energies, 2020, 13, 1804.	1.6	7
58	Reactive power compensation through active back to back converter in type-4 wind turbine. , 2016, , .		6
59	Generator response following as a primary frequency response control strategy for VSC-HVDC connected offshore wind farms. Energy Procedia, 2017, 137, 108-118.	1.8	6
60	A Simulation-Based Evaluation of the Benefits and Barriers to Interconnected Solar Home Systems in East Africa. , 2018, , .		6
61	Novel Control Approach for a Hybrid Grid-Forming HVDC Offshore Transmission System. Energies, 2020, 13, 1681.	1.6	6
62	Power oscillation damping capabilities of doubly fed wind generators. , 2014, , .		5
63	Time-domain harmonic state estimation of nonlinear load power systems with under-determined condition based on the extended Kalman filter. International Transactions on Electrical Energy Systems, 2017, 27, e2242.	1.2	5
64	Using smart power management control to maximize energy utilization and reliability within a microgrid of interconnected solar home systems. , 2017, , .		5
65	Coordinating Control of an Offshore LVDC Microgrid Based Renewable Energy Resources for Voltage Regulation and Circulating Current Minimization. Energies, 2021, 14, 3384.	1.6	5
66	Gain Scheduled and Robust H ∞ Control above Rated Wind Speed for Wind Turbines. Energy Procedia, 2012, 24, 186-193.	1.8	4
67	Fulfilment of Grid Code Obligations by Large Offshore Wind Farms Clusters Connected via HVDC Corridors. Energy Procedia, 2016, 94, 20-28.	1.8	4
68	THD Reduction in Distributed Renewables Energy Access through Wind Energy Conversion System Integration under Wind Speed Conditions in Tamaulipas, Mexico. Energies, 2019, 12, 3550.	1.6	4
69	Assessing the Impact of DFIG Synthetic Inertia Provision on Power System Small-Signal Stability. Energies, 2019, 12, 3440.	1.6	4
70	Comparison of electrical collection topologies for multi-rotor wind turbines. Wind Energy Science, 2020, 5, 1237-1252.	1.2	4
71	Power System Stability of Offshore Wind with an Energy Storage to Electrify O&G Platform. , 2020, , .		4
72	Fast steady-state solution of the induction machine following disturbance conditions. , 2008, , .		3

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73	Review of harmonics in offshore wind farms. , 2013, , .		3
74	Wind generator protection with ESSs considering grid connected and island mode operations. International Journal of Electrical Power and Energy Systems, 2021, 126, 106594.	3.3	3
75	A new adaptive instantaneous average current sharing technique for circulating current minimization among parallel converters in a LV DC-microgrid. International Journal of Electrical Power and Energy Systems, 2022, 136, 107562.	3.3	3
76	Hybrid Renewable Energy Systems Sizing for Offshore Multi-Purpose Platforms. , 2019, , .		3
77	DGIS: Interactive simulator for distributed generation systems. Computer Applications in Engineering Education, 2012, 20, 594-603.	2.2	2
78	North Sea Offshore Modelling Schemes with VSC-HVDC Technology: Control and Dynamic Performance Assessment. Energy Procedia, 2013, 35, 91-101.	1.8	2
79	Dynamic Series Compensation for the Reinforcement of Network Connections with High Wind Penetration. Energy Procedia, 2014, 53, 86-94.	1.8	2
80	Estimation of frequency support market indices using Monte Carlo simulation for wind power generation. , 2017, , .		2
81	Turbine layout optimisation for large-scale offshore wind farms – A grid-based method. IET Renewable Power Generation, 2021, 15, 3806-3822.	1.7	2
82	Transient Stability Analysis of Offshore Wind With O&G Platforms and an Energy Storage System. , 2020, , .		2
83	A field trial of off-grid SHS Interconnection in Rwanda's Northern Province. Energy for Sustainable Development, 2022, 66, 69-78.	2.0	2
84	Flexible control of converter-interfaced microgeneration. , 2008, , .		1
85	A study on stability enhancement of distributed generators. , 2008, , .		1
86	An interactive visual environment based on advanced numerical and computer techniques for power systems applications. , 2009, , .		1
87	Decentralised Control Design for Load Mitigation in Horizontal Axis Wind Turbines (HAWTS). , 2011, , .		1
88	A methodology for the efficient computer representation of dynamic power systems: Application to wind parks. Wind Energy, 2013, 16, 109-121.	1.9	1
89	Harmonics and power loss reduction in multi-technology offshore wind farms using simplex method. , 2013, , .		1
90	Noise mitigation in voltage and current waveforms in harmonic distortion estimation. , 2017, , .		1

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91	Techno-Economic Analysis of Energy Storage System for Wind Farms: The UK Perspective. , 2018, , .		1
92	Power Losses in Electrical Topologies for a Multi-Rotor Wind Turbine System. Journal of Physics: Conference Series, 2019, 1356, 012032.	0.3	1
93	Short-Circuit Analytical Model for Modular Multilevel Converters Considering DC Cable Capacitance. IEEE Access, 2020, 8, 202774-202784.	2.6	1
94	Transient Stability Analysis of Battery with Fuel Cell Driven to Electric Powertrain. , 2020, , .		1
95	Voltage control ancillary services for low voltage distributed generation. International Journal of Smart Grid and Clean Energy, 2018, 7, 98-108.	0.4	1
96	Integrated Modelling Platform for Dynamic Performance Assessment of Floating Wind Turbines. Energy Procedia, 2015, 80, 376-391.	1.8	0
97	Shutdown of an offshore wind power plant without using a brake to meet the required ramp rate in various storm-driven conditions. Energy, 2015, 82, 1011-1020.	4.5	0
98	Harmonic and transient state assessment in the time-domain. , 2016, , .		0
99	Distribution voltage control utilising the reactive power capabilities of wind generators. Journal of Engineering, 2017, 2017, 2350-2355.	0.6	0
100	Impact of domestic frequency responsive demand on the Shetland Islands network frequency stability. CIRED - Open Access Proceedings Journal, 2017, 2017, 1800-1803.	0.1	0
101	Maximising wind generation through optimised operation of onâ€load tap changing transformers in active distribution networks. Journal of Engineering, 2017, 2017, 2339-2344.	0.6	0
102	Mathematical Modelling of Reduced Order Induction Machines for VFT Applications. , 2018, , .		0
103	Modeling, Analysis of Current Trajectories of a Nine Phase Induction Machine for Regenerative Capabilities. , 2019, , .		0