

Zhixin Miao

List of Publications by Year in descending order

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91
papers

3,045
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218677

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91
times ranked

2166
citing authors

#	ARTICLE	IF	CITATIONS
1	Impedance-Model-Based SSR Analysis for Type 3 Wind Generator and Series-Compensated Network. IEEE Transactions on Energy Conversion, 2012, 27, 984-991.	5.2	268
2	Mitigating SSR Using DFIG-Based Wind Generation. IEEE Transactions on Sustainable Energy, 2012, 3, 349-358.	8.8	220
3	Modal Analysis of a DFIG-Based Wind Farm Interfaced With a Series Compensated Network. IEEE Transactions on Energy Conversion, 2011, 26, 1010-1020.	5.2	202
4	Control of DFIG-Based Wind Generation to Improve Interarea Oscillation Damping. IEEE Transactions on Energy Conversion, 2009, 24, 415-422.	5.2	191
5	An SOC-Based Battery Management System for Microgrids. IEEE Transactions on Smart Grid, 2014, 5, 966-973.	9.0	132
6	Wind in Weak Grids: Low-Frequency Oscillations, Subsynchronous Oscillations, and Torsional Interactions. IEEE Transactions on Power Systems, 2020, 35, 109-118.	6.5	129
7	Wind Farms With HVdc Delivery in Inertial Response and Primary Frequency Control. IEEE Transactions on Energy Conversion, 2010, 25, 1171-1178.	5.2	119
8	Investigation of Microgrids With Both Inverter Interfaced and Direct AC-Connected Distributed Energy Resources. IEEE Transactions on Power Delivery, 2011, 26, 1634-1642.	4.3	110
9	Nyquist-Stability-Criterion-Based SSR Explanation for Type-3 Wind Generators. IEEE Transactions on Energy Conversion, 2012, 27, 807-809.	5.2	107
10	DC Impedance-Model-Based Resonance Analysis of a VSC-HVDC System. IEEE Transactions on Power Delivery, 2015, 30, 1221-1230.	4.3	102
11	Impedance Model-Based SSR Analysis for TCSC Compensated Type-3 Wind Energy Delivery Systems. IEEE Transactions on Sustainable Energy, 2015, 6, 179-187.	8.8	92
12	Admittance-Based Stability Analysis: Bode Plots, Nyquist Diagrams or Eigenvalue Analysis?. IEEE Transactions on Power Systems, 2020, 35, 3312-3315.	6.5	83
13	Application of Dynamic State and Parameter Estimation Techniques on Real-World Data. IEEE Transactions on Smart Grid, 2013, 4, 1133-1141.	9.0	80
14	Wind in Weak Grids: 4ÂHz or 30ÂHz Oscillations?. IEEE Transactions on Power Systems, 2018, 33, 5803-5804.	6.5	77
15	An Explanation of Oscillations Due to Wind Power Plants Weak Grid Interconnection. IEEE Transactions on Sustainable Energy, 2018, 9, 488-490.	8.8	76
16	Consensus Control for Energy Storage Systems. IEEE Transactions on Smart Grid, 2018, 9, 3009-3017.	9.0	65
17	Stability Control for Wind in Weak Grids. IEEE Transactions on Sustainable Energy, 2019, 10, 2094-2103.	8.8	61
18	Wind Farms With HVDC Delivery in Load Frequency Control. IEEE Transactions on Power Systems, 2009, 24, 1894-1895.	6.5	60

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19	Replicating Real-World Wind Farm SSR Events. IEEE Transactions on Power Delivery, 2020, 35, 339-348.	4.3	57
20	Dynamic Phasor-Based Modeling of Unbalanced Radial Distribution Systems. IEEE Transactions on Power Systems, 2015, 30, 3102-3109.	6.5	46
21	Stochastic optimization for power system configuration with renewable energy in remote areas. Annals of Operations Research, 2013, 210, 411-432.	4.1	45
22	Identification of synchronous generator model with frequency control using unscented Kalman filter. Electric Power Systems Research, 2015, 126, 45-55.	3.6	42
23	Minimizing DC system loss in multi-terminal HVDC systems through adaptive droop control. Electric Power Systems Research, 2015, 126, 78-86.	3.6	40
24	A tutorial on data-driven eigenvalue identification: Prony analysis, matrix pencil, and eigensystem realization algorithm. International Transactions on Electrical Energy Systems, 2020, 30, e12283.	1.9	40
25	Small-Signal Stability Analysis of Type-4 Wind in Series-Compensated Networks. IEEE Transactions on Energy Conversion, 2020, 35, 529-538.	5.2	38
26	Consensus ADMM and Proximal ADMM for economic dispatch and AC OPF with SOCP relaxation. , 2016, , .		35
27	Control of a Three-Phase Hybrid Converter for a PV Charging Station. IEEE Transactions on Energy Conversion, 2018, 33, 1002-1014.	5.2	34
28	A novel control scheme for DFIG-based wind energy systems under unbalanced grid conditions. Electric Power Systems Research, 2011, 81, 254-262.	3.6	26
29	Fast Power Routing Through HVDC. IEEE Transactions on Power Delivery, 2012, 27, 1432-1441.	4.3	26
30	Least squares based estimation of synchronous generator states and parameters with phasor measurement units. , 2012, , .		24
31	Least Squares Estimation Based SDP Cuts for SOCP Relaxation of AC OPF. IEEE Transactions on Automatic Control, 2018, 63, 241-248.	5.7	24
32	Impedance-model-based MIMO analysis of power synchronization control. Electric Power Systems Research, 2018, 154, 341-351.	3.6	21
33	Time-Domain Measurement-Based DQ -Frame Admittance Model Identification for Inverter-Based Resources. IEEE Transactions on Power Systems, 2021, 36, 2211-2221.	6.5	21
34	Reduced-Order Analytical Models of Grid-Connected Solar Photovoltaic Systems for Low-Frequency Oscillation Analysis. IEEE Transactions on Sustainable Energy, 2021, 12, 1662-1671.	8.8	21
35	Data-Driven Dynamic Modeling in Power Systems: A Fresh Look on Inverter-Based Resource Modeling. IEEE Power and Energy Magazine, 2022, 20, 64-76.	1.6	21
36	Real-time digital simulation-based modeling of a single-phase single-stage PV system. Electric Power Systems Research, 2015, 123, 85-91.	3.6	19

#	ARTICLE	IF	CITATIONS
37	Fast model predictive control algorithms for fast-switching modular multilevel converters. Electric Power Systems Research, 2015, 129, 105-113.	3.6	19
38	Multi-agent control of community and utility using Lagrangian relaxation based dual decomposition. Electric Power Systems Research, 2014, 110, 45-54.	3.6	18
39	Distributed DC Optimal Power Flow for radial networks through partial Primal Dual algorithm. , 2015, , .		12
40	Subcycle Overvoltage Dynamics in Solar PVs. IEEE Transactions on Power Delivery, 2021, 36, 1847-1858.	4.3	12
41	Identifying DQ-Domain Admittance Models of a 2.3-MVA Commercial Grid-Following Inverter via Frequency-Domain and Time-Domain Data. IEEE Transactions on Energy Conversion, 2021, 36, 2463-2472.	5.2	12
42	Impact of unbalanced grid conditions on PV systems. , 2010, , .		11
43	Achieving Economic Operation and Secondary Frequency Regulation Simultaneously Through Feedback Control. IEEE Transactions on Power Systems, 2016, 31, 3324-3325.	6.5	11
44	Achieving Economic Operation and Secondary Frequency Regulation Simultaneously Through Local Feedback Control. IEEE Transactions on Power Systems, 2017, 32, 85-93.	6.5	11
45	Impact of Unbalance on Electrical and Torsional Resonances in Power Electronic Interfaced Wind Energy Systems. IEEE Transactions on Power Systems, 2013, 28, 3105-3113.	6.5	10
46	A one-step model predictive control for modular multilevel converters. , 2014, , .		10
47	Cyber attacks, detection and protection in smart grid state estimation. , 2016, , .		10
48	A Novel Multi-Agent Decision Making Architecture Based on Dual's Dual Problem Formulation. IEEE Transactions on Smart Grid, 2018, 9, 1150-1160.	9.0	10
49	Real-time simulation and hardware-in-the-loop tests of a battery system. , 2015, , .		9
50	Coordinated control of a solar and battery system in a microgrid. , 2012, , .		8
51	Modeling and simulation of multi-terminal HVDC for wind power delivery. , 2012, , .		7
52	Unbalance and harmonic mitigation using battery inverters. , 2015, , .		7
53	Blackstart of an induction motor in an autonomous microgrid. , 2015, , .		7
54	A sparse convex AC OPF solver and convex iteration implementation based on 3-node cycles. Electric Power Systems Research, 2020, 180, 106169.	3.6	7

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55	Analytical model building for Type-3 wind farm subsynchronous oscillation analysis. <i>Electric Power Systems Research</i> , 2021, 201, 107566.	3.6	7
56	Realizing space vector modulation in MATLAB/Simulink and PSCAD. , 2013, , .		6
57	Real-Time Simulation of Electric Vehicle Battery Charging Systems. , 2018, , .		6
58	Stability analysis of two types of grid-forming converters for weak grids. <i>International Transactions on Electrical Energy Systems</i> , 2021, 31, e13136.	1.9	6
59	Reactive power modulation for inter-area oscillation damping of DFIG-based wind generation. , 2010, , .		5
60	Integrated control and switching strategy for a grid-connected modular multilevel converter. , 2015, , .		5
61	ADMM for nonconvex AC optimal power flow. , 2017, , .		5
62	Hardware Demonstration of Weak Grid Oscillations in Grid-Following Converters. , 2021, , .		5
63	AC or DC power modulation for DFIG wind generation with HVDC delivery to improve interarea oscillation damping. , 2011, , .		4
64	Control of a back-to-back VSC system from grid-connection to islanded mode in microgrids. , 2011, , .		4
65	Deriving ARX models for synchronous generators. , 2016, , .		4
66	Benders Decomposition for stochastic programming-based PV/Battery/HVAC planning. , 2016, , .		4
67	Performance of Branch-Current Based Distribution System State Estimation. , 2018, , .		4
68	Wind farms in weak grids stability enhancement: SynCon or STATCOM?. <i>Electric Power Systems Research</i> , 2022, 202, 107623.	3.6	4
69	Modeling and small signal analysis of a PMSG-based wind generator With sensorless maximum power extraction. , 2012, , .		3
70	Nonlinear least-square estimation (LSE)-based parameter identification of a synchronous generator. , 2017, , .		3
71	New auxiliary variable-based ADMM for nonconvex AC OPF. <i>Electric Power Systems Research</i> , 2019, 174, 105867.	3.6	3
72	Comparison of Synchronous Condenser and STATCOM for Wind Farms in Weak Grids. , 2021, , .		3

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73	Root Cause Analysis of AC Overcurrent in July 2020 San Fernando Disturbance. IEEE Transactions on Power Systems, 2021, 36, 4892-4895.	6.5	3
74	Common mode voltage reduction schemes for voltage source converters in an autonomous microgrid. , 2015, , .		2
75	Design robust cascade control structure for voltage source converters. , 2017, , .		2
76	Battery identification based on real-world data. , 2017, , .		2
77	MIP-Based Fault Location Identification Using MicroPMUs. , 2018, , .		2
78	Stability Analysis of VSC Systems Using 3 \tilde{A} –3 Admittance Measurements. , 2021, , .		2
79	Practical Start-Up Process of Multiple Grid-Tied Voltage-Sourced Inverters in Laboratory. , 2021, , .		2
80	Power Grid Partitioning: Static and Dynamic Approaches. , 2018, , .		1
81	Operation of Parallel Grid-Supporting PVs. , 2019, , .		1
82	Modeling and Control of Grid-following Single-Phase Voltage-Sourced Converter. , 2021, , .		1
83	Mixed integer programming formulation for fault identification based on MicroPMUs. International Transactions on Electrical Energy Systems, 2021, 31, e12949.	1.9	1
84	Modeling of Z-source converter for renewable energy integration. , 2013, , .		0
85	Capacitor siting using benders decomposition. , 2015, , .		0
86	Labs for EGN 3375 Electromechanical Energy Systems at University of South Florida. , 2018, , .		0
87	Linear Time-Periodic Modeling of Single-Phase Elementary Phase-Locked-Loop. , 2021, , .		0
88	CHIL Testbed of Consensus Control-Based Battery Energy Storage Systems. , 2021, , .		0
89	Stability enhancement module for <sc>grid-following</sc> converters: Hardware implementation and validation. International Transactions on Electrical Energy Systems, 2021, 31, e13115.	1.9	0
90	Measured Admittance Model for Dynamic Simulation of Inverter-Based Resources Using Numerical Laplace Transform. , 2021, , .		0

#	ARTICLE	IF	CITATIONS
91	The cause of sub-cycle overvoltage: Capacitive characteristics of solar PVs. Electric Power Systems Research, 2022, 209, 108039.	3.6	0