

Jie Zhang

List of Publications by Year in descending order

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118
papers

4,052
citations

109321

35
h-index

133252

59
g-index

121
all docs

121
docs citations

121
times ranked

3023
citing authors

#	ARTICLE	IF	CITATIONS
1	Unrestricted wind farm layout optimization (UWFLO): Investigating key factors influencing the maximum power generation. Renewable Energy, 2012, 38, 16-30.	8.9	278
2	A data-driven multi-model methodology with deep feature selection for short-term wind forecasting. Applied Energy, 2017, 190, 1245-1257.	10.1	253
3	Optimizing the arrangement and the selection of turbines for wind farms subject to varying wind conditions. Renewable Energy, 2013, 52, 273-282.	8.9	186
4	A suite of metrics for assessing the performance of solar power forecasting. Solar Energy, 2015, 111, 157-175.	6.1	168
5	Design a J-type air-based battery thermal management system through surrogate-based optimization. Applied Energy, 2019, 252, 113426.	10.1	164
6	Wind Power Ramp Event Forecasting Using a Stochastic Scenario Generation Method. IEEE Transactions on Sustainable Energy, 2015, 6, 422-433.	8.8	134
7	An adaptive hybrid surrogate model. Structural and Multidisciplinary Optimization, 2012, 46, 223-238.	3.5	112
8	A mixed-discrete Particle Swarm Optimization algorithm with explicit diversity-preservation. Structural and Multidisciplinary Optimization, 2013, 47, 367-388.	3.5	94
9	Comparison of numerical weather prediction based deterministic and probabilistic wind resource assessment methods. Applied Energy, 2015, 156, 528-541.	10.1	88
10	Reinforced Deterministic and Probabilistic Load Forecasting via \$Q\$-Learning Dynamic Model Selection. IEEE Transactions on Smart Grid, 2020, 11, 1377-1386.	9.0	87
11	A Multivariate and Multimodal Wind Distribution model. Renewable Energy, 2013, 51, 436-447.	8.9	81
12	An Optimized Swinging Door Algorithm for Identifying Wind Ramping Events. IEEE Transactions on Sustainable Energy, 2016, 7, 150-162.	8.8	80
13	Self-adapting J-type air-based battery thermal management system via model predictive control. Applied Energy, 2020, 263, 114640.	10.1	73
14	SolarNet: A sky image-based deep convolutional neural network for intra-hour solar forecasting. Solar Energy, 2020, 204, 71-78.	6.1	71
15	Conditional aggregated probabilistic wind power forecasting based on spatio-temporal correlation. Applied Energy, 2019, 256, 113842.	10.1	70
16	Wind-Friendly Flexible Ramping Product Design in Multi-Timescale Power System Operations. IEEE Transactions on Sustainable Energy, 2017, 8, 1064-1075.	8.8	69
17	Unsupervised Clustering-Based Short-Term Solar Forecasting. IEEE Transactions on Sustainable Energy, 2019, 10, 2174-2185.	8.8	69
18	A Data-Driven Methodology for Probabilistic Wind Power Ramp Forecasting. IEEE Transactions on Smart Grid, 2019, 10, 1326-1338.	9.0	68

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19	Sensitivity Analysis of Renewable Energy Integration on Stochastic Energy Management of Automated Reconfigurable Hybrid AC-DC Microgrid Considering DLR Security Constraint. IEEE Transactions on Industrial Informatics, 2020, 16, 120-131.	11.3	64
20	Probabilistic solar power forecasting based on weather scenario generation. Applied Energy, 2020, 266, 114823.	10.1	64
21	Ramp forecasting performance from improved short-term wind power forecasting over multiple spatial and temporal scales. Energy, 2017, 122, 528-541.	8.8	61
22	Characterizing and analyzing ramping events in wind power, solar power, load, and netload. Renewable Energy, 2017, 111, 227-244.	8.9	61
23	Baseline and target values for regional and point PV power forecasts: Toward improved solar forecasting. Solar Energy, 2015, 122, 804-819.	6.1	60
24	A review on the integration of probabilistic solar forecasting in power systems. Solar Energy, 2020, 210, 68-86.	6.1	60
25	Deep Learning-Based Real-Time Building Occupancy Detection Using AMI Data. IEEE Transactions on Smart Grid, 2020, 11, 4490-4501.	9.0	59
26	Stochastic Multi-Timescale Power System Operations With Variable Wind Generation. IEEE Transactions on Power Systems, 2017, 32, 3325-3337.	6.5	56
27	Surrogate based multidisciplinary design optimization of lithium-ion battery thermal management system in electric vehicles. Structural and Multidisciplinary Optimization, 2017, 56, 1555-1570.	3.5	54
28	An Advanced and Robust Ensemble Surrogate Model: Extended Adaptive Hybrid Functions. Journal of Mechanical Design, Transactions of the ASME, 2018, 140, .	2.9	54
29	A Copula-Based Conditional Probabilistic Forecast Model for Wind Power Ramps. IEEE Transactions on Smart Grid, 2019, 10, 3870-3882.	9.0	53
30	Stochastic Modeling and Integration of Plug-In Hybrid Electric Vehicles in Reconfigurable Microgrids With Deep Learning-Based Forecasting. IEEE Transactions on Intelligent Transportation Systems, 2021, 22, 4394-4403.	8.0	51
31	Statistical Representation of Wind Power Ramps Using a Generalized Gaussian Mixture Model. IEEE Transactions on Sustainable Energy, 2018, 9, 261-272.	8.8	45
32	Estimating ramping requirements with solar-friendly flexible ramping product in multi-timescale power system operations. Applied Energy, 2018, 225, 27-41.	10.1	45
33	Peer-to-peer energy sharing with battery storage: Energy pawn in the smart grid. Applied Energy, 2021, 297, 117129.	10.1	42
34	A two-step short-term probabilistic wind forecasting methodology based on predictive distribution optimization. Applied Energy, 2019, 238, 1497-1505.	10.1	40
35	Convolutional neural networks for intra-hour solar forecasting based on sky image sequences. Applied Energy, 2022, 310, 118438.	10.1	39
36	A Response Surface-Based Cost Model for Wind Farm Design. Energy Policy, 2012, 42, 538-550.	8.8	37

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37	A Community Sharing Market With PV and Energy Storage: An Adaptive Bidding-Based Double-Side Auction Mechanism. IEEE Transactions on Smart Grid, 2021, 12, 2450-2461.	9.0	37
38	Multidisciplinary design optimization of tunnel boring machine considering both structure and control parameters under complex geological conditions. Structural and Multidisciplinary Optimization, 2016, 54, 1073-1092.	3.5	36
39	Blockchain-Based Stochastic Energy Management of Interconnected Microgrids Considering Incentive Price. IEEE Transactions on Control of Network Systems, 2021, 8, 1201-1211.	3.7	32
40	Optimizing the Unrestricted Placement of Turbines of Differing Rotor Diameters in a Wind Farm for Maximum Power Generation. , 2010, , .		31
41	Machine learning based multi-physical-model blending for enhancing renewable energy forecast - improvement via situation dependent error correction. , 2015, , .		31
42	A taxonomical review on recent artificial intelligence applications to PV integration into power grids. International Journal of Electrical Power and Energy Systems, 2021, 132, 107176.	5.5	31
43	Modeling and optimization of an enhanced battery thermal management system in electric vehicles. Frontiers of Mechanical Engineering, 2019, 14, 65-75.	4.3	30
44	A Methodology for Quantifying Reliability Benefits From Improved Solar Power Forecasting in Multi-Timescale Power System Operations. IEEE Transactions on Smart Grid, 2018, 9, 6897-6908.	9.0	29
45	OpenSolar: Promoting the openness and accessibility of diverse public solar datasets. Solar Energy, 2019, 188, 1369-1379.	6.1	27
46	Adaptive Hybrid Surrogate Modeling for Complex Systems. AIAA Journal, 2013, 51, 643-656.	2.6	25
47	Multidisciplinary and Multifidelity Design Optimization of Electric Vehicle Battery Thermal Management System. Journal of Mechanical Design, Transactions of the ASME, 2018, 140, .	2.9	25
48	Hourly-Similarity Based Solar Forecasting Using Multi-Model Machine Learning Blending. , 2018, , .		23
49	Multivariate and Multimodal Wind Distribution Model Based on Kernel Density Estimation. , 2011, , .		22
50	Characterizing and mitigating the wind resource-based uncertainty in farm performance. Journal of Turbulence, 2012, 13, N13.	1.4	22
51	Probability Density Function Characterization for Aggregated Large-Scale Wind Power Based on Weibull Mixtures. Energies, 2016, 9, 91.	3.1	21
52	Surrogate-Based Analysis and Optimization for the Design of Heat Sinks With Jet Impingement. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2014, 4, 429-437.	2.5	20
53	A hybrid measure-correlate-predict method for long-term wind condition assessment. Energy Conversion and Management, 2014, 87, 697-710.	9.2	20
54	Ramp Forecasting Performance From Improved Short-Term Wind Power Forecasting. , 2014, , .		20

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55	Resilient Distribution Networks Considering Mobile Marine Microgrids: A Synergistic Network Approach. IEEE Transactions on Industrial Informatics, 2021, 17, 5742-5750.	11.3	20
56	Optimal Scheduling of Preventive Maintenance for Offshore Wind Farms. , 2012, , .		19
57	Defect Prediction of Relay Protection Systems Based on LSSVM-BNDT. IEEE Transactions on Industrial Informatics, 2021, 17, 710-719.	11.3	19
58	Response Surface Based Cost Model for Onshore Wind Farms Using Extended Radial Basis Functions. , 2010, , .		18
59	Joint Probability Distribution and Correlation Analysis of Wind and Solar Power Forecast Errors in the Western Interconnection. Journal of Energy Engineering - ASCE, 2015, 141, .	1.9	18
60	Characterizing forecastability of wind sites in the United States. Renewable Energy, 2019, 133, 1352-1365.	8.9	18
61	Assessment of aggregation strategies for machine-learning based short-term load forecasting. Electric Power Systems Research, 2020, 184, 106304.	3.6	18
62	A hybrid approach for transmission grid resilience assessment using reliability metrics and power system local network topology. Sustainable and Resilient Infrastructure, 2021, 6, 26-41.	2.8	18
63	Investigating the Correlation Between Wind and Solar Power Forecast Errors in the Western Interconnection. , 2013, , .		16
64	Modeling the Influence of Land-Shape on the Energy Production Potential of a Wind Farm Site. Journal of Energy Resources Technology, Transactions of the ASME, 2014, 136, .	2.3	15
65	Impact of Different Wake Models On the Estimation of Wind Farm Power Generation. , 2012, , .		14
66	A clustering-based scenario generation framework for power market simulation with wind integration. Journal of Renewable and Sustainable Energy, 2020, 12, 036301.	2.0	14
67	Short-term global horizontal irradiance forecasting based on sky imaging and pattern recognition. , 2017, , .		12
68	Distributed Solar Energy Sharing within Connected Communities: A Coalition Game Approach. , 2019, , .		11
69	Deep learning-based probabilistic anomaly detection for solar forecasting under cyberattacks. International Journal of Electrical Power and Energy Systems, 2022, 137, 107752.	5.5	11
70	Sizing ramping reserve using probabilistic solar forecasts: A data-driven method. Applied Energy, 2022, 313, 118812.	10.1	11
71	Exploring Key Factors Influencing Optimal Farm Design Using Mixed-Discrete Particle Swarm Optimization. , 2010, , .		10
72	Characterizing Uncertainty Attributable to Surrogate Models. Journal of Mechanical Design, Transactions of the ASME, 2014, 136, .	2.9	10

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73	A comprehensive measure of the energy resource: Wind power potential (WPP). Energy Conversion and Management, 2014, 86, 388-398.	9.2	10
74	Artificial Neural Networks for Asymmetric Selective Harmonic Current Mitigation-PWM in Active Power Filters to Meet Power Quality Standards. IEEE Transactions on Industry Applications, 2024, , 1-1.	4.9	10
75	Economic Evaluation of Wind Farms Based on Cost of Energy Optimization. , 2010, , .		9
76	Solar Power Ramp Events Detection Using an Optimized Swinging Door Algorithm. , 2015, , .		9
77	Wind power ramping product for increasing power system flexibility. , 2016, , .		9
78	An Occupancy-Informed Customized Price Design for Consumers: A Stackelberg Game Approach. IEEE Transactions on Smart Grid, 2022, 13, 1988-1999.	9.0	9
79	Market Suitability and Performance Tradeoffs Offered by Commercial Wind Turbines across Differing Wind Regimes. Energies, 2016, 9, 352.	3.1	8
80	Electric Vehicle Battery Thermal and Cabin Climate Management Based on Model Predictive Control. Journal of Mechanical Design, Transactions of the ASME, 2021, 143, .	2.9	8
81	Avoiding Premature Convergence in a Mixed-Discrete Particle Swarm Optimization (MDPSO) Algorithm. , 2012, , .		7
82	Adaptive optimal design of active thermoelectric windows using surrogate modeling. Optimization and Engineering, 2014, 15, 469-483.	2.4	7
83	A data-driven method to characterize turbulence-caused uncertainty in wind power generation. Energy, 2016, 112, 1139-1152.	8.8	7
84	Characterizing Time Series Data Diversity for Wind Forecasting. , 2017, , .		7
85	Developing a Flexible Platform for Optimal Engineering Design of Commercial Wind Farms. , 2011, , .		7
86	Characterizing the Influence of Land Area and Nameplate Capacity on the Optimal Wind Farm Performance. , 2012, , .		7
87	Assessing Long-Term Wind Conditions by Combining Different Measure-Correlate-Predict Algorithms. , 2013, , .		6
88	A Novel Approach to Simultaneous Selection of Surrogate Models, Constitutive Kernels, and Hyper-parameter Values. , 2014, , .		6
89	Deep Learning-Based Real-Time Switching of Hybrid AC/DC Transmission Networks. IEEE Transactions on Smart Grid, 2021, 12, 2331-2342.	9.0	6
90	Surrogate Modeling of Complex Systems Using Adaptive Hybrid Functions. , 2011, , .		5

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91	Uncertainty Quantification in Surrogate Models Based on Pattern Classification of Cross-validation Errors. , 2012, , .		4
92	Quantifying Regional Error in Surrogates by Modeling its Relationship with Sample Density. , 2013, , .		4
93	Surrogate Based Multi-Objective Optimization of J-Type Battery Thermal Management System. , 2018, , .		4
94	SolarNet: A Deep Convolutional Neural Network for Solar Forecasting via Sky Images. , 2020, , .		4
95	Using Gated Recurrent Units for Selective Harmonic Current Mitigation-PWM in Grid-Tied Cascaded H-Bridge Converters. IEEE Transactions on Industry Applications, 2020, , 1-1.	4.9	4
96	A Comprehensive Measure of the Energy Resource Potential of a Wind Farm Site. , 2011, , .		4
97	Comparison of Surrogate Models Used for Adaptive Optimal Control of Active Thermoelectric Windows. , 2010, , .		4
98	Dynamic Feasibility Assessment of Ship-to-Grid Interconnection by DC-Link. , 2022, , .		4
99	Domain Segmentation based on Uncertainty in the Surrogate (DSUS). , 2012, , .		3
100	Wind Power and Ramp Forecasting for Grid Integration. , 2018, , 299-315.		3
101	Assessing the Resilience of the Texas Power Grid Network. , 2019, , .		3
102	Data-Driven Anomaly Detection in Modern Power Systems. , 2020, , 131-143.		3
103	Optimal Planning of Co-Located Wind Energy and Hydrogen Plants: A Techno-Economic Analysis. Journal of Physics: Conference Series, 2022, 2265, 042063.	0.4	3
104	A New Robust Surrogate Model: Reliability Based Hybrid Functions. , 2011, , .		2
105	A Copula Enhanced Convolution for Uncertainty Aggregation. , 2020, , .		2
106	Machine learning technique for low-frequency modulation techniques in power converters. , 2021, , 149-167.		2
107	Decomposition of overlapping peaks in X-ray fluorescence using improved crow searching algorithm based on opposite learning. Journal of Chemometrics, 2021, 35, e3377.	1.3	2
108	Customized Prices Design for Agent-based Local Energy Market with PV and Energy Storage. , 2021, , .		2

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109	Non-intrusive Load Monitoring in MVDC Shipboard Power Systems using Wavelet-Convolutional Neural Networks. , 2022, , .		2
110	Exploring the Best Performing Commercial Wind Turbines for Different Wind Regimes in a Target Market. , 2012, , .		1
111	Surrogate-based Design Optimization with Smart Sequential Sampling. , 2012, , .		1
112	Forecastability as a Design Criterion in Wind Resource Assessment. Computer Aided Chemical Engineering, 2014, 34, 663-668.	0.5	1
113	A Repeated Commuting Driving Cycle Dataset With Application to Short-Term Vehicle Velocity Forecasting. ASME Journal of Autonomous Vehicles and Systems, 2021, 1, .	0.7	1
114	Integrating Offshore Wind Farms with Unmanned Hydrogen and Battery Ships. , 2022, , .		1
115	Analyzing Effects of Turbulence on Power Generation Using Wind Plant Monitoring Data. , 2014, , .		0
116	Multi-Timescale Simulation of Non-Spinning Reserve in Wholesale Electricity Markets. , 2021, , .		0
117	Exploring the 'Cost - Capacity Factor' Tradeoffs Offered by the Best Performing Commercial Wind Turbines. , 2012, , .		0
118	Hierarchical Microenergy Hub Sizing and Placement in Integrated Electricity and Natural Gas Distribution Systems. IEEE Systems Journal, 2022, , 1-12.	4.6	0