

Haiwang Zhong

List of Publications by Year in descending order

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Version: 2024-02-01

102
papers

4,225
citations

117571

34
h-index

114418

63
g-index

106
all docs

106
docs citations

106
times ranked

4219
citing authors

#	ARTICLE	IF	CITATIONS
1	Near-real-time monitoring of global CO ₂ emissions reveals the effects of the COVID-19 pandemic. <i>Nature Communications</i> , 2020, 11, 5172.	5.8	420
2	Review and prospect of integrated demand response in the multi-energy system. <i>Applied Energy</i> , 2017, 202, 772-782.	5.1	385
3	Coupon Incentive-Based Demand Response: Theory and Case Study. <i>IEEE Transactions on Power Systems</i> , 2013, 28, 1266-1276.	4.6	287
4	A Linearized OPF Model With Reactive Power and Voltage Magnitude: A Pathway to Improve the MW-Only DC OPF. <i>IEEE Transactions on Power Systems</i> , 2018, 33, 1734-1745.	4.6	211
5	Exploring the trade-offs between electric heating policy and carbon mitigation in China. <i>Nature Communications</i> , 2020, 11, 6054.	5.8	198
6	Optimal bidding strategy for microgrids in joint energy and ancillary service markets considering flexible ramping products. <i>Applied Energy</i> , 2017, 205, 294-303.	5.1	134
7	Exploring Key Weather Factors From Analytical Modeling Toward Improved Solar Power Forecasting. <i>IEEE Transactions on Smart Grid</i> , 2019, 10, 1417-1427.	6.2	122
8	A General Formulation of Linear Power Flow Models: Basic Theory and Error Analysis. <i>IEEE Transactions on Power Systems</i> , 2019, 34, 1315-1324.	4.6	121
9	A Cross-Domain Approach to Analyzing the Short-Run Impact of COVID-19 on the US Electricity Sector. <i>Joule</i> , 2020, 4, 2322-2337.	11.7	121
10	Incentivizing distributed energy resource aggregation in energy and capacity markets: An energy sharing scheme and mechanism design. <i>Applied Energy</i> , 2019, 252, 113471.	5.1	120
11	Carbon Monitor, a near-real-time daily dataset of global CO ₂ emission from fossil fuel and cement production. <i>Scientific Data</i> , 2020, 7, 392.	2.4	115
12	Decentralized Multi-Area Economic Dispatch via Dynamic Multiplier-Based Lagrangian Relaxation. <i>IEEE Transactions on Power Systems</i> , 2015, 30, 3225-3233.	4.6	96
13	Optimal power flow based on successive linear approximation of power flow equations. <i>IET Generation, Transmission and Distribution</i> , 2016, 10, 3654-3662.	1.4	86
14	Optimal joint dispatch of energy and reserve for CCHP-based microgrids. <i>IET Generation, Transmission and Distribution</i> , 2017, 11, 785-794.	1.4	86
15	Optimal Reactive Power Dispatch With Accurately Modeled Discrete Control Devices: A Successive Linear Approximation Approach. <i>IEEE Transactions on Power Systems</i> , 2017, 32, 2435-2444.	4.6	67
16	Incentive Mechanism for Clearing Energy and Reserve Markets in Multi-Area Power Systems. <i>IEEE Transactions on Sustainable Energy</i> , 2020, 11, 2470-2482.	5.9	64
17	Dynamic Economic Dispatch Considering Transmission Losses Using Quadratically Constrained Quadratic Program Method. <i>IEEE Transactions on Power Systems</i> , 2013, 28, 2232-2241.	4.6	60
18	Estimating the Robust P-Q Capability of a Technical Virtual Power Plant Under Uncertainties. <i>IEEE Transactions on Power Systems</i> , 2020, 35, 4285-4296.	4.6	56

#	ARTICLE	IF	CITATIONS
19	Incentive mechanism for sharing distributed energy resources. Journal of Modern Power Systems and Clean Energy, 2019, 7, 837-850.	3.3	55
20	Optimal Transmission Switching With Short-Circuit Current Limitation Constraints. IEEE Transactions on Power Systems, 2016, 31, 1278-1288.	4.6	51
21	Energy-saving generation dispatch toward a sustainable electric power industry in China. Energy Policy, 2015, 83, 14-25.	4.2	50
22	LMP Revisited: A Linear Model for the Loss-Embedded LMP. IEEE Transactions on Power Systems, 2017, 32, 4080-4090.	4.6	50
23	Solving OPF using linear approximations: fundamental analysis and numerical demonstration. IET Generation, Transmission and Distribution, 2017, 11, 4115-4125.	1.4	48
24	Reliability Value of Distributed Solar+Storage Systems Amidst Rare Weather Events. IEEE Transactions on Smart Grid, 2019, 10, 4476-4486.	6.2	47
25	Enforcing Intra-Regional Constraints in Tie-Line Scheduling: A Projection-Based Framework. IEEE Transactions on Power Systems, 2019, 34, 4751-4761.	4.6	46
26	Tri-Level Expansion Planning for Transmission Networks and Distributed Energy Resources Considering Transmission Cost Allocation. IEEE Transactions on Sustainable Energy, 2018, 9, 1844-1856.	5.9	45
27	A novel network model for optimal power flow with reactive power and network losses. Electric Power Systems Research, 2017, 144, 63-71.	2.1	44
28	A decomposition method for network-constrained unit commitment with AC power flow constraints. Energy, 2015, 88, 595-603.	4.5	42
29	Distributed real-time demand response based on Lagrangian multiplier optimal selection approach. Applied Energy, 2017, 190, 949-959.	5.1	42
30	Modeling the impact of EVs in the Chinese power system: Pathways for implementing emissions reduction commitments in the power and transportation sectors. Energy Policy, 2021, 149, 111962.	4.2	42
31	Quantitative assessment of U.S. bulk power systems and market operations during the COVID-19 pandemic. Applied Energy, 2021, 286, 116354.	5.1	40
32	Economic Benefits of Integrating Solar-Powered Heat Pumps Into a CHP System. IEEE Transactions on Sustainable Energy, 2018, 9, 1702-1712.	5.9	37
33	Decentralized Intraday Generation Scheduling for Multiarea Power Systems via Dynamic Multiplier-Based Lagrangian Relaxation. IEEE Transactions on Power Systems, 2017, 32, 454-463.	4.6	35
34	Coordination of Generation Maintenance Scheduling in Electricity Markets. IEEE Transactions on Power Systems, 2016, 31, 4565-4574.	4.6	34
35	Neural-network-based Lagrange multiplier selection for distributed demand response in smart grid. Applied Energy, 2020, 264, 114636.	5.1	34
36	Integrated dispatch of generation and load: A pathway towards smart grids. Electric Power Systems Research, 2015, 120, 206-213.	2.1	33

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37	Optimal Planning Strategy for Distributed Energy Resources Considering Structural Transmission Cost Allocation. IEEE Transactions on Smart Grid, 2018, 9, 5236-5248.	6.2	30
38	An Efficient Decomposition Method for the Integrated Dispatch of Generation and Load. IEEE Transactions on Power Systems, 2015, 30, 2923-2933.	4.6	28
39	Month ahead average daily electricity price profile forecasting based on a hybrid nonlinear regression and SVM model: an ERCOT case study. Journal of Modern Power Systems and Clean Energy, 2018, 6, 281-291.	3.3	28
40	Security assessment approach based on the steady-state security distance. IET Generation, Transmission and Distribution, 2015, 9, 2419-2426.	1.4	26
41	Transmission network expansion planning with embedded constraints of short circuit currents and N-1 security. Journal of Modern Power Systems and Clean Energy, 2015, 3, 312-320.	3.3	24
42	A Structural Transmission Cost Allocation Scheme Based on Capacity Usage Identification. IEEE Transactions on Power Systems, 2016, 31, 2876-2884.	4.6	24
43	Fundamental Review of the OPF Problem: Challenges, Solutions, and State-of-the-Art Algorithms. Journal of Energy Engineering - ASCE, 2018, 144, .	1.0	22
44	Modeling Integrated Power and Transportation Systems: Impacts of Power-to-Gas on the Deep Decarbonization. IEEE Transactions on Industry Applications, 2022, 58, 2677-2693.	3.3	20
45	Coordination of generation maintenance scheduling and long-term SCUC with energy constraints and contingencies. IET Generation, Transmission and Distribution, 2016, 10, 325-333.	1.4	19
46	A Two-Level Approach to AC Optimal Transmission Switching with an Accelerating Technique. IEEE Transactions on Power Systems, 2016, , 1-1.	4.6	16
47	Non-Iterative Multi-Area Coordinated Dispatch via Condensed System Representation. IEEE Transactions on Power Systems, 2021, 36, 1594-1604.	4.6	16
48	Constructing Demand-Side Bidding Curves Based on a Decoupled Full-Cycle Process. IEEE Transactions on Smart Grid, 2021, 12, 502-511.	6.2	14
49	Inducing-objective-function-based method for long-term SCUC with energy constraints. International Journal of Electrical Power and Energy Systems, 2014, 63, 971-978.	3.3	13
50	Multi-stage coupon incentive-based demand response in two-settlement electricity markets. , 2015, , .		13
51	Optimal transmission switching based on auxiliary induce function. , 2014, , .		12
52	Robust bidding strategy for microgrids in joint energy, reserve and regulation markets. , 2017, , .		12
53	Estimating Demand Flexibility Using Siamese LSTM Neural Networks. IEEE Transactions on Power Systems, 2022, 37, 2360-2370.	4.6	12
54	Redundant and Nonbinding Transmission Constraints Identification Method Combining Physical and Economic Insights of Unit Commitment. IEEE Transactions on Power Systems, 2021, 36, 3487-3495.	4.6	12

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55	A Block-of-Use Electricity Retail Pricing Approach Based on the Customer Load Profile. IEEE Transactions on Smart Grid, 2020, 11, 1500-1509.	6.2	11
56	A Unit Commitment Algorithm With Relaxation-Based Neighborhood Search and Improved Relaxation Inducement. IEEE Transactions on Power Systems, 2020, 35, 3800-3809.	4.6	11
57	Constraint relaxation-based day-ahead market mechanism design to promote the renewable energy accommodation. Energy, 2020, 198, 117204.	4.5	10
58	Hierarchical collaborative expansion planning for transmission and distribution networks considering transmission cost allocation. Applied Energy, 2022, 307, 118147.	5.1	10
59	A conic programming approach to optimal transmission switching considering reactive power and voltage security. , 2015, , .		9
60	Inter-Provincial Electricity Spot Market Model for China. , 2020, , .		7
61	Coupon incentive-based demand response (CIDR) in smart grid. , 2012, , .		6
62	Real-time demand response potential evaluation: A smart meter driven method. , 2016, , .		6
63	Real-Time Distributed Economic Dispatch Adapted to General Convex Cost Functions: A Secant Approximation-Based Method. IEEE Transactions on Smart Grid, 2021, 12, 2089-2101.	6.2	6
64	Short-term electricity price forecasting based on graph convolution network and attention mechanism. IET Renewable Power Generation, 2022, 16, 2481-2492.	1.7	6
65	Coordinated optimization of unit commitment and DC transmission power scheduling using benders decomposition. , 2015, , .		5
66	Incentive Mechanism for Cooperative Energy Sharing. , 2018, , .		5
67	Bi-Level Electricity Market Design with Boundary Equivalence of Interior Security Constraints. , 2018, , .		5
68	Mapping between transmission constraint penalty factor and OPF solution in electricity markets: analysis and fast calculation. Energy, 2019, 168, 1181-1191.	4.5	5
69	Extensions of the locational marginal price theory in evolving power systems: A review. IET Generation, Transmission and Distribution, 2022, 16, 1277-1291.	1.4	5
70	A dynamic period partition method for time-of-use pricing with high-penetration renewable energy. , 2017, , .		4
71	Consensus-Based Distributed Economic Dispatch with Optimized Transition Matrix. , 2019, , .		4
72	Embed Neural Network in Optimization Model: An Application of Demand Response Aggregation Under Information Asymmetry. , 2019, , .		4

#	ARTICLE	IF	CITATIONS
73	Integrating Heterogeneous Demand Response into N-1 Security Assessment by Multi-Parametric Programming. , 2020, , .		4
74	Enlarging flexibility region of virtual power plant via dynamic line rating. IET Renewable Power Generation, 2022, 16, 751-760.	1.7	3
75	Generation maintenance scheduling considering shiftable loads. , 2014, , .		2
76	Optimal transmission conversion from alternating current to high voltage direct current transmission systems for limiting short circuit currents. Energy, 2017, 118, 545-555.	4.5	2
77	Optimal reactive power dispatch with accurately modeled discrete control devices: A successive linear approximation approach. , 2017, , .		2
78	Distributed Real-Time Demand Response. , 2019, , 167-193.		2
79	Sharing Economy in Energy Markets. , 2022, , .		2
80	Equivalent ramp rate function for thermal power systems. , 2015, , .		1
81	A matchmaking based day-ahead market design in China. , 2016, , .		1
82	Customer load profile-based pricing strategy of retailers with generation assets in retail markets. , 2017, , .		1
83	Misaka: Interactive Swarm Testbed for Smart Grid Distributed Algorithm Test and Evaluation. , 2020, , .		1
84	An Equivalent Model of Distribution Network Expansion for Integrated T & D Planning. , 2020, , .		1
85	Sharing Economy for Renewable Energy Aggregation. , 2022, , 107-142.		1
86	Open-Access Data and Toolbox for Tracking COVID-19 Impact on Power Systems. IEEE Transactions on Power Systems, 2023, 38, 1619-1631.	4.6	1
87	A three-stage optimization method for dynamic optimal power flow. , 2014, , .		0
88	Reformulation for Nash-Cournot equilibrium in pool-based electricity market supported by introducing the potential function. , 2015, , .		0
89	A homogenized-overload model applied for infeasible security-constrained unit commitment (SCUC) problem. , 2015, , .		0
90	A Fast Algorithm to Calculate LMP Difference Caused by Virtual Bidding in Day-ahead Electricity Market. , 2018, , .		0

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91	The Reserve Sharing Mechanism Among Interconnected Power Grids Based on Block Chain. , 2018, , .		0
92	Decentralized Multi-Area Look-Ahead Dispatch for Cross-Regional Renewable Accomodation. , 2018, , .		0
93	Integrated Demand Response in the Multi-Energy System. , 2019, , 121-142.		0
94	A Machine-Learning Based Method to Analyze the Correlation between Meteorological Data and Component Outages of Power System. , 2020, , .		0
95	Optimal high-level control of building HVAC system under variable price framework using partially linear model. IET Energy Systems Integration, 2021, 3, 213-222.	1.1	0
96	Mechanism Design for Sharing Economy. , 2022, , 27-52.		0
97	Sharing Non-wire Alternatives for Transmission Expansion Deferral. , 2022, , 227-269.		0
98	Information and Communication Technology for Sharing Economy. , 2022, , 271-318.		0
99	Sharing Economy in Energy Systems Integration. , 2022, , 143-193.		0
100	Sharing Demand Side Resources for Regional Market Bidding. , 2022, , 195-225.		0
101	Sharing Economy in Electricity Spot Markets. , 2022, , 53-77.		0
102	Open-Source Chinese Power System with High Spatial and Temporal Resolution. , 2022, , .		0