Wei Gu

List of Publications by Year
in descending order

132 papers	9,320 citations	81900 39 h-index	39675 94 g-index
132 all docs	132 docs citations	132 times ranked	11120 citing authors

#	Article	IF	Citations
1	The Modern-Era Retrospective Analysis for Research and Applications, Version 2 (MERRA-2). Journal of Climate, 2017, 30, 5419-5454.	3.2	4,520
2	Optimal operation for integrated energy system considering thermal inertia of district heating network and buildings. Applied Energy, 2017, 199, 234-246.	10.1	336
3	Optimal Planning for Electricity-Hydrogen Integrated Energy System Considering Power to Hydrogen and Heat and Seasonal Storage. IEEE Transactions on Sustainable Energy, 2020, 11, 2662-2676.	8.8	252
4	Decentralized Multi-Agent System-Based Cooperative Frequency Control for Autonomous Microgrids With Communication Constraints. IEEE Transactions on Sustainable Energy, 2014, 5, 446-456.	8.8	227
5	An Online Optimal Dispatch Schedule for CCHP Microgrids Based on Model Predictive Control. IEEE Transactions on Smart Grid, 2017, 8, 2332-2342.	9.0	217
6	Distributed MPC-Based Secondary Voltage Control Scheme for Autonomous Droop-Controlled Microgrids. IEEE Transactions on Sustainable Energy, 2017, 8, 792-804.	8.8	155
7	Optimal Distributed Control for Secondary Frequency and Voltage Regulation in an Islanded Microgrid. IEEE Transactions on Industrial Informatics, 2019, 15, 225-235.	11.3	144
8	Combined Economic Dispatch Considering the Time-Delay of District Heating Network and Multi-Regional Indoor Temperature Control. IEEE Transactions on Sustainable Energy, 2018, 9, 118-127.	8.8	122
9	A two-stage optimization and control for CCHP microgrid energy management. Applied Thermal Engineering, 2017, 125, 513-522.	6.0	120
10	Bi-Level Two-Stage Robust Optimal Scheduling for AC/DC Hybrid Multi-Microgrids. IEEE Transactions on Smart Grid, 2018, 9, 5455-5466.	9.0	114
11	A Multi-Time-Scale Economic Scheduling Strategy for Virtual Power Plant Based on Deferrable Loads Aggregation and Disaggregation. IEEE Transactions on Sustainable Energy, 2020, 11, 1332-1346.	8.8	108
12	Wireless Input-Voltage-Sharing Control Strategy for Input-Series Output-Parallel (ISOP) System Based on Positive Output-Voltage Gradient Method. IEEE Transactions on Industrial Electronics, 2014, 61, 6022-6030.	7.9	98
13	Robust Optimal Dispatch of AC/DC Hybrid Microgrids Considering Generation and Load Uncertainties and Energy Storage Loss. IEEE Transactions on Power Systems, 2018, 33, 5945-5957.	6.5	87
14	A Nonlinear State Estimator-Based Decentralized Secondary Voltage Control Scheme for Autonomous Microgrids. IEEE Transactions on Power Systems, 2017, 32, 4794-4804.	6.5	84
15	Residential CCHP microgrid with load aggregator: Operation mode, pricing strategy, and optimal dispatch. Applied Energy, 2017, 205, 173-186.	10.1	76
16	Multi-Time-Scale Rolling Optimal Dispatch for AC/DC Hybrid Microgrids With Day-Ahead Distributionally Robust Scheduling. IEEE Transactions on Sustainable Energy, 2019, 10, 1653-1663.	8.8	74
17	Thermal Inertial Aggregation Model for Integrated Energy Systems. IEEE Transactions on Power Systems, 2020, 35, 2374-2387.	6.5	71
18	A robust optimization method for energy management of CCHP microgrid. Journal of Modern Power Systems and Clean Energy, 2018, 6, 132-144.	5.4	68

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19	Optimal design and operation of multi-energy system with load aggregator considering nodal energy prices. Applied Energy, 2019, 239, 280-295.	10.1	68
20	Big-M Based MIQP Method for Economic Dispatch With Disjoint Prohibited Zones. IEEE Transactions on Power Systems, 2014, 29, 976-977.	6.5	63
21	Adaptive Decentralized Under-Frequency Load Shedding for Islanded Smart Distribution Networks. IEEE Transactions on Sustainable Energy, 2014, 5, 886-895.	8.8	62
22	Interval Power Flow Analysis Using Linear Relaxation and Optimality-Based Bounds Tightening (OBBT) Methods. IEEE Transactions on Power Systems, 2015, 30, 177-188.	6.5	62
23	General distributed secondary control for multiâ€microgrids with both PQâ€controlled and droopâ€controlled distributed generators. IET Generation, Transmission and Distribution, 2017, 11, 707-718.	2.5	60
24	High-Resolution Modeling and Decentralized Dispatch of Heat and Electricity Integrated Energy System. IEEE Transactions on Sustainable Energy, 2020, 11, 1451-1463.	8.8	58
25	Dynamic Optimal Energy Flow in the Heat and Electricity Integrated Energy System. IEEE Transactions on Sustainable Energy, 2021, 12, 179-190.	8.8	57
26	Stability Robustness for Secondary Voltage Control in Autonomous Microgrids With Consideration of Communication Delays. IEEE Transactions on Power Systems, 2018, 33, 4164-4178.	6.5	56
27	Coordinated dispatch of multi-energy system with district heating network: Modeling and solution strategy. Energy, 2018, 152, 358-370.	8.8	56
28	Partitional Decoupling Method for Fast Calculation of Energy Flow in a Large-Scale Heat and Electricity Integrated Energy System. IEEE Transactions on Sustainable Energy, 2021, 12, 501-513.	8.8	55
29	Real-Time Distributed Control of Battery Energy Storage Systems for Security Constrained DC-OPF. IEEE Transactions on Smart Grid, 2016, , 1-1.	9.0	54
30	Distributed Secondary Voltage Control in Islanded Microgrids With Consideration of Communication Network and Time Delays. IEEE Transactions on Smart Grid, 2020, 11, 3702-3715.	9.0	53
31	Cooperative Control to Enhance the Frequency Stability of Islanded Microgrids with DFIG-SMES. Energies, 2013, 6, 3951-3971.	3.1	51
32	A Novel Generation Rescheduling Algorithm to Improve Power System Reliability With High Renewable Energy Penetration. IEEE Transactions on Power Systems, 2018, 33, 3349-3357.	6.5	51
33	A Unified Control Scheme Based on a Disturbance Observer for Seamless Transition Operation of Inverter-Interfaced Distributed Generation. IEEE Transactions on Smart Grid, 2018, 9, 5444-5454.	9.0	51
34	Adaptive Robust Dispatch of Integrated Energy System Considering Uncertainties of Electricity and Outdoor Temperature. IEEE Transactions on Industrial Informatics, 2020, 16, 4691-4702.	11.3	51
35	Optimal Design for Distributed Secondary Voltage Control in Islanded Microgrids: Communication Topology and Controller. IEEE Transactions on Power Systems, 2019, 34, 968-981.	6.5	50
36	Decentralised secondary voltage and frequency control scheme for islanded microgrid based on adaptive state estimator. IET Generation, Transmission and Distribution, 2017, 11, 3683-3693.	2.5	47

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37	A Distributed EV Navigation Strategy Considering the Interaction Between Power System and Traffic Network. IEEE Transactions on Smart Grid, 2020, 11, 3545-3557.	9.0	45
38	Optimal PMU Placement Considering Load Loss and Relaying in Distribution Networks. IEEE Access, 2018, 6, 33645-33653.	4.2	43
39	Recourse-Cost Constrained Robust Optimization for Microgrid Dispatch With Correlated Uncertainties. IEEE Transactions on Industrial Electronics, 2021, 68, 2266-2278.	7.9	43
40	Economic Dispatch of Integrated Energy Systems With Robust Thermal Comfort Management. IEEE Transactions on Sustainable Energy, 2021, 12, 222-233.	8.8	41
41	Interval-Partitioned Uncertainty Constrained Robust Dispatch for AC/DC Hybrid Microgrids With Uncontrollable Renewable Generators. IEEE Transactions on Smart Grid, 2019, 10, 4603-4614.	9.0	40
42	A Two-Stage Game Model for Combined Heat and Power Trading Market. IEEE Transactions on Power Systems, 2019, 34, 506-517.	6.5	36
43	Non-cooperative game-based multilateral contract transactions in power-heating integrated systems. Applied Energy, 2020, 268, 114930.	10.1	36
44	Distributed Model Predictive Control Based Secondary Frequency Regulation for a Microgrid With Massive Distributed Resources. IEEE Transactions on Sustainable Energy, 2021, 12, 1078-1089.	8.8	34
45	Cost and low-carbon competitiveness of electrolytic hydrogen in China. Energy and Environmental Science, 2021, 14, 4868-4881.	30.8	34
46	Hybrid Timescale Dispatch Hierarchy for Combined Heat and Power System Considering the Thermal Inertia of Heat Sector. IEEE Access, 2018, 6, 63033-63044.	4.2	33
47	Hydraulic-Thermal Cooperative Optimization of Integrated Energy Systems: A Convex Optimization Approach. IEEE Transactions on Smart Grid, 2020, 11, 4818-4832.	9.0	33
48	Coordinated Optimal Power Flow for Integrated Active Distribution Network and Virtual Power Plants Using Decentralized Algorithm. IEEE Transactions on Power Systems, 2021, 36, 3541-3551.	6.5	33
49	Aggregate Operation Model for Numerous Small-Capacity Distributed Energy Resources Considering Uncertainty. IEEE Transactions on Smart Grid, 2021, 12, 4208-4224.	9.0	31
50	Extended-State-Observer-Based Distributed Robust Secondary Voltage and Frequency Control for an Autonomous Microgrid. IEEE Transactions on Sustainable Energy, 2020, 11, 195-205.	8.8	30
51	Synchronously Decentralized Adaptive Robust Planning Method for Multi-Stakeholder Integrated Energy Systems. IEEE Transactions on Sustainable Energy, 2020, 11, 1128-1139.	8.8	30
52	Operational Risk Evaluation of Active Distribution Networks Considering Cyber Contingencies. IEEE Transactions on Industrial Informatics, 2020, 16, 3849-3861.	11.3	30
53	Tri-Level Mixed-Integer Optimization for Two-Stage Microgrid Dispatch With Multi-Uncertainties. IEEE Transactions on Power Systems, 2020, 35, 3636-3647.	6.5	27
54	A Novel Discounted Min-Consensus Algorithm for Optimal Electrical Power Trading in Grid-Connected DC Microgrids. IEEE Transactions on Industrial Electronics, 2019, 66, 8474-8484.	7.9	26

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55	Distributionally Robust Chance-constrained Optimal Power-Gas Flow under Bidirectional Interactions Considering Uncertain Wind Power. IEEE Transactions on Smart Grid, 2020, , 1-1.	9.0	26
56	An Improved Hybrid Modulation Method for the Single-Phase H6 Inverter With Reactive Power Compensation. IEEE Transactions on Power Electronics, 2018, 33, 7674-7683.	7.9	25
57	Realâ€time cyberâ^'physical system coâ€simulation testbed for microgrids control. IET Cyber-Physical Systems: Theory and Applications, 2019, 4, 38-45.	3.3	25
58	Dynamic Security Control in Heat and Electricity Integrated Energy System With an Equivalent Heating Network Model. IEEE Transactions on Smart Grid, 2021, 12, 4788-4798.	9.0	25
59	Analysis and Design of Hybrid Harmonic Suppression Scheme for VSG Considering Nonlinear Loads and Distorted Grid. IEEE Transactions on Energy Conversion, 2021, 36, 3096-3107.	5.2	24
60	Absolute Value Constraint Based Method for Interval Optimization to SCED Model. IEEE Transactions on Power Systems, 2014, 29, 980-981.	6.5	23
61	Learning Automata-Based Methodology for Optimal Allocation of Renewable Distributed Generation Considering Network Reconfiguration. IEEE Access, 2017, 5, 14275-14288.	4.2	23
62	Cyber-attack Detection Strategy Based on Distribution System State Estimation. Journal of Modern Power Systems and Clean Energy, 2020, 8, 669-678.	5.4	23
63	A Historical-Correlation-Driven Robust Optimization Approach for Microgrid Dispatch. IEEE Transactions on Smart Grid, 2021, 12, 1135-1148.	9.0	23
64	Assessment of plum rainâ€™s impact on power system emissions in Yangtze-Huaihe River basin of China. Nature Communications, 2021, 12, 6156.	12.8	23
65	An Improved Two-Stage Deep Reinforcement Learning Approach for Regulation Service Disaggregation in a Virtual Power Plant. IEEE Transactions on Smart Grid, 2022, 13, 2844-2858.	9.0	23
66	Operational Flexibility Constrained Intraday Rolling Dispatch Strategy for CHP Microgrid. IEEE Access, 2019, 7, 96639-96649.	4.2	22
67	Improved affine arithmetic based optimisation model for interval power flow analysis. IET Generation, Transmission and Distribution, 2016, 10, 3910-3918.	2.5	21
68	Optimal Micro-PMU Placement Using Mutual Information Theory in Distribution Networks. Energies, 2018, 11, 1917.	3.1	21
69	Optimized dispatching of city-scale integrated energy system considering the flexibilities of city gas gate station and line packing. Applied Energy, 2021, 290, 116689.	10.1	21
70	Automatic Selection Method for Candidate Lines in Transmission Expansion Planning. IEEE Access, 2018, 6, 11605-11613.	4.2	20
71	Bilayer Distributed Optimization for Robust Microgrid Dispatch With Coupled Individual-Collective Profits. IEEE Transactions on Sustainable Energy, 2021, 12, 1525-1538.	8.8	19
72	Distributed synchronous detection for false data injection attack in cyber-physical microgrids. International Journal of Electrical Power and Energy Systems, 2022, 137, 107788.	5.5	18

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73	Economic dispatch with CHP and wind power using probabilistic sequence theory and hybrid heuristic algorithm. Journal of Renewable and Sustainable Energy, 2017, 9, .	2.0	17
74	Robust Energy Management in Active Distribution Systems Considering Temporal and Spatial Correlation. IEEE Access, 2019, 7, 153635-153649.	4.2	17
75	A Combination Interval Prediction Model Based on Biased Convex Cost Function and Auto-Encoder in Solar Power Prediction. IEEE Transactions on Sustainable Energy, 2021, 12, 1561-1570.	8.8	17
76	Demand Response and Economic Dispatch of Power Systems Considering Large-Scale Plug-in Hybrid Electric Vehicles/Electric Vehicles (PHEVs/EVs): A Review. Energies, 2013, 6, 4394-4417.	3.1	16
77	Interval State Estimation of Distribution Network With Power Flow Constraint. IEEE Access, 2018, 6, 40826-40835.	4.2	16
78	Design and Evaluation of Operational Scheduling Approaches for HCNG Penetrated Integrated Energy System. IEEE Access, 2019, 7, 87792-87807.	4.2	16
79	Single Phase Bidirectional H6 Rectifier/Inverter. IEEE Transactions on Power Electronics, 2019, 34, 10710-10719.	7.9	16
80	Optimal Communication Network Design of Microgrids Considering Cyber-Attacks and Time-Delays. IEEE Transactions on Smart Grid, 2022, 13, 3774-3785.	9.0	16
81	Power Quality Prediction, Early Warning, and Control for Points of Common Coupling with Wind Farms. Energies, 2015, 8, 9365-9382.	3.1	14
82	Data-Driven Aggregate Thermal Dynamic Model for Buildings: A Regression Approach. IEEE Transactions on Smart Grid, 2022, 13, 227-242.	9.0	14
83	An Affine Arithmetic-Based Power Flow Algorithm Considering the Regional Control of Unscheduled Power Fluctuation. Energies, 2017, 10, 1794.	3.1	13
84	Integrated approach for optimal island partition and power dispatch. Journal of Modern Power Systems and Clean Energy, 2018, 6, 449-462.	5.4	13
85	Dynamic energy flow analysis of the heat-electricity integrated energy systems with a novel decomposition-iteration algorithm. Applied Energy, 2022, 322, 119492.	10.1	12
86	Fully distributed control to coordinate charging efficiencies for energy storage systems. Journal of Modern Power Systems and Clean Energy, 2018, 6, 1015-1024.	5.4	11
87	AC/DC Hybrid Distribution System Expansion Planning Under Long-Term Uncertainty Considering Flexible Investment. IEEE Access, 2020, 8, 94956-94967.	4.2	11
88	Investment equilibrium of an integrated multiâ€“stakeholder electricityâ€“gasâ€“hydrogen system. Renewable and Sustainable Energy Reviews, 2021, 150, 111407.	16.4	11
89	Decomposition method for coordinated planning of distributed generation and distribution network. IET Generation, Transmission and Distribution, 2018, 12, 4482-4491.	2.5	10
90	Resilienceâ€directional robust power dispatching of microgrids under meteorological disasters. IET Renewable Power Generation, 2019, 13, 2084-2093.	3.1	10

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91	A Data-Driven Combined Algorithm for Abnormal Power Loss Detection in the Distribution Network. IEEE Access, 2020, 8, 24675-24686.	4.2	10
92	Decentralized Game-Based Robustly Planning Scheme for Distribution Network and Microgrids Considering Bilateral Energy Trading. IEEE Transactions on Sustainable Energy, 2022, 13, 803-817.	8.8	10
93	Day-ahead optimal dispatch with CHP and wind turbines based on room temperature control. , 2016, , .		9
94	Integrated energy system operation optimization with gas linepack and thermal inertia. IET Renewable Power Generation, 2021, 15, 3743-3760.	3.1	9
95	Distributed MPC-based secondary voltage control scheme for autonomous droop-controlled microgrids. , 2017, , .		8
96	An Improved Spatial Branch-and-Bound Algorithm for Non-Convex Optimal Electricity-Gas Flow. IEEE Transactions on Power Systems, 2022, 37, 1326-1339.	6.5	8
97	Superposition-principle based decoupling method for energy flow calculation in district heating networks. Applied Energy, 2021, 295, 117032.	10.1	8
98	Distributed chance-constrained based total energy supply capability evaluation method for integrated power and natural gas system. International Journal of Electrical Power and Energy Systems, 2022, 141, 108193.	5.5	8
99	Hybrid Modulated Model Predictive Control in a Modular Multilevel Converter for Multi-Terminal Direct Current Systems. Energies, 2018, 11, 1861.	3.1	7
100	CRSO approach for microgrid power dispatching. IET Generation, Transmission and Distribution, 2019, 13, 2208-2215.	2.5	7
101	Multistage Scheduling of Regional Power Grids Against Sequential Outage and Power Uncertainties. IEEE Transactions on Smart Grid, 2022, 13, 4624-4637.	9.0	6
102	A new method for optimal FTU placement in distribution network under consideration of power service reliability. Science China Technological Sciences, 2017, 60, 1885-1896.	4.0	5
103	Power electronic transformer with adaptive PLL technique for voltage-disturbance ride through. Journal of Modern Power Systems and Clean Energy, 2018, 6, 1090-1102.	5.4	5
104	Time/frequency domain modelling for gridâ€connected MMC subâ€synchronous/superâ€synchronous oscillation in PV MVDC power collection and integration system. IET Renewable Power Generation, 2019, 13, 57-66.	3.1	5
105	Non-Iterative Semi-Implicit Integration Method for Active Distribution Networks With a High Penetration of Distributed Generations. IEEE Transactions on Power Systems, 2021, 36, 438-450.	6.5	5
106	Intelligent PHEV charging and discharging strategy in smart grid. , 2012, , .		4
107	Finite Action-Set Learning Automata for Economic Dispatch Considering Electric Vehicles and Renewable Energy Sources. Energies, 2014, 7, 4629-4647.	3.1	4
108	Study on power system smallâ€disturbance uncertainty stability considering wind power. IEEJ Transactions on Electrical and Electronic Engineering, 2014, 9, 123-128.	1.4	4

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109	Potential of Model-Free Control for Demand-Side Management Considering Real-Time Pricing. Energies, 2019, 12, 2587.	3.1	4
110	Short-term Solar Power Interval Prediction with Interval Width Initilization Approach. , 2019, , .		4
111	Distributed event-triggered multi-timer synchronization scheme for secondary control in islanded microgrids. International Journal of Electrical Power and Energy Systems, 2022, 135, 107511.	5.5	4
112	A Novel Acceleration Strategy for N-l Contingency Screening in Distribution System. , 2020, , .		4
113	A novel dynamic simulation approach for Gas-Heat-Electric coupled system. Applied Energy, 2022, 315, 118999.	10.1	4
114	Distributed Cooperative Droop Control for Seamless Islanding of an Autonomous Microgrid. , 2018, , .		3
115	Distributed Secondary Control of Droop-Controlled Microgrid Using Averaged Feedback Reward Pinning. IEEE Access, 2019, 7, 183940-183947.	4.2	3
116	A Two-Stage Energy Management Strategy for CCHP Microgrid considering house characteristics. , 2015, , .		2
117	A transient thermodynamic model of district heating network for operational optimization of the energy integration system. , 2017, , .		2
118	An optimal grid current control strategy with grid voltage observer (GVO) for LCLâ€filtered gridâ€connected inverters. IEEJ Transactions on Electrical and Electronic Engineering, 2018, 13, 777-784.	1.4	2
119	A Data-Driven Scheduling Approach for Hydrogen Penetrated Energy System Using LSTM Network. Sustainability, 2019, 11, 6784.	3.2	2
120	A dataâ€driven timeâ€step determination approach for dynamic simulation of heatâ€electric coupled system. IET Renewable Power Generation, 0, , .	3.1	2
121	A Decentralized Robust planning Approach For Smart Buildings Considering Bilateral Transactions With Fair Market Clearing Strategy. , 2020, , .		1
122	A Novel Cross Iteration Method for Dynamic Energy Flow Calculation of the Hot-water Heating Network in the Integrated Energy System. , 2020, , .		1
123	An Analytical Model of Heating Networks for Dynamic Simulation in Integrated Energy Systems. , 2021, , .		1
124	Segmented transmission delay based decoupling for parallel simulation of a distribution network. IET Renewable Power Generation, 0, , .	3.1	1
125	A novel approach for large-disturbance stability control. , 2008, , .		0
126	Minimum Bending Distance based Evaluation Method for Subareal Independent Power Supply Capability of Smart Distribution Network. , 2018, , .		0

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127	Coordinated Planning of Multi-Energy System with District Heating Network. , 2018, , .		0
128	A Flexible Planning Model for Distribution Network and Renewable Energy Integration considering Source and Load Uncertainty. , 2020, , .		0
129	Dispatch of Integrated Energy Systems Considering Thermal Dynamics of Thermal Energy Storage. , 2020, , .		0
130	Bi-level Low-Carbon Optimal Dispatch Model for P2G Plant Within Power and Natural Gas Markets. , 2020, , .		0
131	Robust Microgrid Dispatch With Flexible Recourse States via Accelerated C & CG Algorithm. , 2020, , .		0
132	Low-carbon Optimal Scheduling of Regional Integrated Energy System Under Different Heating Modes. , 2021, , .		0