Qinran Hu

List of Publications by Year
in descending order

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89 papers	2,129 citations	257357 24 h-index	243529 44 g-index
91 all docs	91 docs citations	91 times ranked	1870 citing authors

#	Article	IF	Citations
1	Hardware Design of Smart Home Energy Management System With Dynamic Price Response. IEEE Transactions on Smart Grid, 2013, 4, 1878-1887.	6.2	208
2	Participation of an Energy Hub in Electricity and Heat Distribution Markets: An MPEC Approach. IEEE Transactions on Smart Grid, 2019, 10, 3641-3653.	6.2	178
3	Coupon-Based Demand Response Considering Wind Power Uncertainty: A Strategic Bidding Model for Load Serving Entities. IEEE Transactions on Power Systems, 2016, 31, 1025-1037.	4.6	151
4	Day-ahead coordinated operation of utility-scale electricity and natural gas networks considering demand response based virtual power plants. Applied Energy, 2016, 176, 183-195.	5.1	134
5	A Framework of Residential Demand Aggregation With Financial Incentives. IEEE Transactions on Smart Grid, 2018, 9, 497-505.	6.2	121
6	Dynamic demand control for system frequency regulation: Concept review, algorithm comparison, and future vision. Electric Power Systems Research, 2018, 154, 75-87.	2.1	99
7	Probabilistic Model of Payment Cost Minimization Considering Wind Power and Its Uncertainty. IEEE Transactions on Sustainable Energy, 2013, 4, 716-724.	5.9	80
8	Adaptive robust energy and reserve co-optimization of integrated electricity and heating system considering wind uncertainty. Applied Energy, 2020, 260, 114230.	5.1	70
9	A Smart Home Test Bed for Undergraduate Education to Bridge the Curriculum Gap From Traditional Power Systems to Modernized Smart Grids. IEEE Transactions on Education, 2015, 58, 32-38.	2.0	65
10	Day-ahead optimal scheduling method for grid-connected microgrid based on energy storage control strategy. Journal of Modern Power Systems and Clean Energy, 2016, 4, 648-658.	3.3	59
11	GPU-Based Fast Decoupled Power Flow With Preconditioned Iterative Solver and Inexact Newton Method. IEEE Transactions on Power Systems, 2017, 32, 2695-2703.	4.6	58
12	Promoting acceptance of direct load control programs in the United States: Financial incentive versus control option. Energy, 2018, 147, 1278-1287.	4.5	55
13	Grid-Forming Inverter Enabled Virtual Power Plants With Inertia Support Capability. IEEE Transactions on Smart Grid, 2022, 13, 4134-4143.	6.2	47
14	Data quality issues for synchrophasor applications Part II: problem formulation and potential solutions. Journal of Modern Power Systems and Clean Energy, 2016, 4, 353-361.	3.3	41
15	A Distributed Voltage Control Strategy for Multi-Microgrid Active Distribution Networks Considering Economy and Response Speed. IEEE Access, 2018, 6, 31259-31268.	2.6	36
16	Increasing operational flexibility of integrated energy systems by introducing power to hydrogen. IET Renewable Power Generation, 2020, 14, 372-380.	1.7	34
17	Optimal demand response strategy of commercial buildingâ€based virtual power plant using reinforcement learning. IET Generation, Transmission and Distribution, 2021, 15, 2309-2318.	1.4	34
18	Cost and low-carbon competitiveness of electrolytic hydrogen in China. Energy and Environmental Science, 2021, 14, 4868-4881.	15.6	34

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19	Residential HVAC Aggregation Based on Risk-averse Multi-armed Bandit Learning for Secondary Frequency Regulation. Journal of Modern Power Systems and Clean Energy, 2020, 8, 1160-1167.	3.3	32
20	An Interval Arithmetic-Based State Estimation Framework for Power Distribution Networks. IEEE Transactions on Industrial Electronics, 2019, 66, 8509-8520.	5.2	31
21	Extended-State-Observer-Based Distributed Robust Secondary Voltage and Frequency Control for an Autonomous Microgrid. IEEE Transactions on Sustainable Energy, 2020, 11, 195-205.	5.9	30
22	New Ancillary Service Market for ERCOT. IEEE Access, 2020, 8, 178391-178401.	2.6	28
23	Balancing Control Schemes for Modular Multilevel Converters Using Virtual Loop Mapping With Fault Tolerance Capabilities. IEEE Transactions on Industrial Electronics, 2016, 63, 38-48.	5.2	26
24	Strategic CBDR bidding considering FTR and wind power. IET Generation, Transmission and Distribution, 2016, 10, 2464-2474.	1.4	25
25	A Physical Probabilistic Network Model for Distribution Network Topology Recognition Using Smart Meter Data. IEEE Transactions on Smart Grid, 2019, 10, 6965-6973.	6.2	23
26	Assessment of plum rainâ€™s impact on power system emissions in Yangtze-Huaihe River basin of China. Nature Communications, 2021, 12, 6156.	5.8	23
27	Effective method to determine timeâ€delay stability margin and its application to power systems. IET Generation, Transmission and Distribution, 2017, 11, 1661-1670.	1.4	21
28	A user selection algorithm for aggregating electric vehicle demands based on a multiâ€armed bandit approach. IET Energy Systems Integration, 2021, 3, 295-305.	1.1	20
29	Application of battery-supercapacitor energy storage system for smoothing wind power output: An optimal coordinated control strategy. , 2016, , .		17
30	Estimating inter-area dominant oscillation mode in bulk power grid using multi-channel continuous wavelet transform. Journal of Modern Power Systems and Clean Energy, 2016, 4, 394-405.	3.3	16
31	An Optimal PR Control Strategy with Load Current Observer for a Three-Phase Voltage Source Inverter. Energies, 2015, 8, 7542-7562.	1.6	15
32	Synchrophasor measurementâ€based correlation approach for dominant mode identification in bulk power systems. IET Generation, Transmission and Distribution, 2016, 10, 2710-2719.	1.4	15
33	Dispatchable Generation of a Novel Compressed-Air Assisted Wind Turbine and Its Operation Mechanism. IEEE Transactions on Sustainable Energy, 2019, 10, 2201-2210.	5.9	15
34	Redesigning capacity market to include flexibility via ramp constraints in high-renewable penetrated system. International Journal of Electrical Power and Energy Systems, 2021, 128, 106677.	3.3	15
35	Economic operation of integrated energy systems considering combined production of hydrogen and medical oxygen. IET Renewable Power Generation, 2020, 14, 3309-3316.	1.7	15
36	Adaptive Master-Slave Control Strategy for Medium Voltage DC Distribution Systems Based on a Novel Nonlinear Droop Controller. IEEE Transactions on Smart Grid, 2021, 12, 4765-4777.	6.2	13

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37	Learning and Selecting the Right Customers for Reliability: A Multi-Armed Bandit Approach. , 2018, , .		12
38	A Dynamic Robust Restoration Framework for Unbalanced Power Distribution Networks. IEEE Transactions on Industrial Informatics, 2020, 16, 6301-6312.	7.2	12
39	Optimal Iterative Learning Control for Batch Processes in the Presence of Time-Varying Dynamics. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2022, 52, 680-692.	5.9	12
40	Quasi-Fixed-Frequency Hysteresis Current Tracking Control Strategy for Modular Multilevel Converters. Journal of Power Electronics, 2014, 14, 1147-1156.	0.9	12
41	A reliability-aware multi-armed bandit approach to learn and select users in demand response. Automatica, 2020, 119, 109015.	3.0	11
42	High-Order Frequency-Locked Loop: General Modeling and Design. IEEE Transactions on Industrial Electronics, 2021, 68, 12626-12635.	5.2	11
43	Topological partition based multi-energy flow calculation method for complex integrated energy systems. Energy, 2022, 244, 123152.	4.5	11
44	Control of gridâ€forming application for fuel cell/electrolyser system. IET Renewable Power Generation, 2020, 14, 3368-3374.	1.7	10
45	Robust mean-variance optimization model for grid-connected microgrids. , 2015, , .		9
46	Distributed temperature control via Geothermal Heat Pump systems in energy efficient buildings. , 2017, , .		9
47	A Multiarea State Estimation for Distribution Networks Under Mixed Measurement Environment. IEEE Transactions on Industrial Informatics, 2022, 18, 3620-3629.	7.2	9
48	An approach to assess the responsive residential demand to financial incentives. , 2015, , .		8
49	Heat-electricity joint bidding strategies for intelligent buildings in intelligent building cluster. International Journal of Electrical Power and Energy Systems, 2021, 129, 106891.	3.3	8
50	An interval arithmetic-based state estimation for unbalanced active distribution networks. , 2017, , .		7
51	A nonintrusive control strategy using voltage and reactive power for distribution systems based on PV and the nine-zone diagram. International Journal of Electrical Power and Energy Systems, 2019, 105, 89-97.	3.3	7
52	Electricity Price Prediction for Energy Storage System Arbitrage: A Decision-Focused Approach. IEEE Transactions on Smart Grid, 2022, 13, 2822-2832.	6.2	7
53	Risk Constrained Scheduling of Energy Storage for Load Serving Entities Considering Load and LMP Uncertainties. IFAC-PapersOnLine, 2016, 49, 318-323.	0.5	6
54	Optimal Allocation Method of Residential Air-Conditioners: Trade-Off Solutions Between Economic Costs and Aggregation Reliability. IEEE Open Access Journal of Power and Energy, 2022, 9, 131-142.	2.5	6

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55	A robust restoration decision-making strategy for unbalanced distribution networks considering the uncertainty of photovoltage generators. International Journal of Electrical Power and Energy Systems, 2022, 141, 108202.	3.3	6
56	A comprehensive user interactive simulation tool for smart home application. , 2014, , .		5
57	The impact of FTR on LSE's strategic bidding considering coupon based demand response. , 2015, , .		5
58	A new method for optimal FTU placement in distribution network under consideration of power service reliability. Science China Technological Sciences, 2017, 60, 1885-1896.	2.0	5
59	Aggregating residential demands with a multi-armed bandit approach. , 2019, , .		5
60	Heuristic optimal restoration based on constructive algorithms for future smart grids. , 2011, , .		4
61	Mitigate overestimation of voltage stability margin by coupled single-port circuit models. , 2016, , .		4
62	Hybrid one-cycle control scheme for fault-tolerant modular multilevel rectifiers. International Journal of Electronics, 2017, 104, 1483-1499.	0.9	4
63	A dynamic distributed energy storage control strategy for providing primary frequency regulation using multiâ€armed bandits method. IET Generation, Transmission and Distribution, 2022, 16, 669-679.	1.4	4
64	A Scenario-adaptive Online Learning Algorithm for Demand Response. , 2020, , .		4
65	Strategic interaction to reduce customer fatigue in load aggregation. Energy Reports, 2021, 7, 339-348.	2.5	4
66	Trade-Offs in Meter Deployment for Distribution Network State Estimation Considering Measurement Uncertainty. IEEE Access, 2019, 7, 66123-66136.	2.6	3
67	The coordinated operation of dual batteries energy storage system for cold areas. Energy Reports, 2021, 7, 84-91.	2.5	3
68	A realâ€time state estimation framework for integrated energy system considering measurement delay. IET Generation, Transmission and Distribution, 2022, 16, 2891-2902.	1.4	3
69	GPU-based fast decoupled power flow with preconditioned iterative solver and inexact newton method. , 2017, , .		2
70	A Modified Incentive-based Demand Response Model using Deep Reinforcement Learning. , 2020, , .		2
71	Expanding flexibility with P2H for integrated energy systems. , 2019, , .		2
72	An Overview of Virtual Power Plant Prospects from the Perspective of Optimal Scheduling, Market Bidding and Transient Analysis. , 2021, , .		2

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73	Modeling and Transient Stability Analysis of Mixed-GFM-GFL-Based Power System. , 2021, , .		2
74	Benefits of Using Electrolytic Hydrogen for Offshore Wind on China's Low-carbon Energy. , 2021, , .		2
75	Residential Energy Arbitrage Considering Demand Response and Accurate Battery Model with Degradation Cost. , 2022, , .		2
76	Gain tuning control strategy for DFIG-based wind farms. , 2017, , .		1
77	Economic-based residential flexible resource allocation in microgrid. Energy Reports, 2021, 7, 99-109.	2.5	1
78	Dynamic pricing of integrated energy service providers based on master-slave game. , 2021, , .		1
79	A State Space Discrete-Time Realization of the Three-phase Generalized Second-Order Integrator Frequency Locked Loop. , 2021, , .		1
80	A novel peer-to-peer control strategy for multi-terminal DC distribution systems. IEEE Transactions on Smart Grid, 2022, , 1-1.	6.2	1
81	System load margin evaluation using mixed-integer conic optimization. , 2015, , .		0
82	A Novel Application of Smart Grid Data: Human Circadian Rhythm Detection. , 2019, , .		0
83	Analysis and Control of Battery Energy Storage System Based on Hybrid Active Third-Harmonic Current Injection Converter. Energies, 2021, 14, 3140.	1.6	0
84	A Voltage Control of Energy Storage Mobile Shelter Under Multi Energy Access. , 2021, , .		0
85	Vision of Future Control Centers in Smart Grids. , 2017, , 421-433.		0
86	Bi-level Optimization Model of Day-ahead Demand Response Strategy for Load Aggregator. , 2021, , .		0
87	Temporal and Spatial Characteristics Analysis of Electrical Vehicle Charging Behaviour Based on SUMO. , 2021, , .		0
88	State Feedback Control Based Seamless Switch Control for Microgrid Inverter. Applied Sciences (Switzerland), 2021, 11, 12114.	1.3	0
89	GAN-based Residential Load Data Generation Model Considering Usersâ€™ Privacy. , 2022, , .		0