Zhaoyu Wang

List of Publications by Year
in descending order

110 papers	6,405 citations	81900 39 h-index	66911 78 g-index
110 all docs	110 docs citations	110 times ranked	3922 citing authors

#	Article	IF	Citations
1	Self-Healing Resilient Distribution Systems Based on Sectionalization Into Microgrids. IEEE Transactions on Power Systems, 2015, 30, 3139-3149.	6.5	481
2	Coordinated Energy Management of Networked Microgrids in Distribution Systems. IEEE Transactions on Smart Grid, 2015, 6, 45-53.	9.0	474
3	Decentralized Energy Management System for Networked Microgrids in Grid-Connected and Islanded Modes. IEEE Transactions on Smart Grid, 2016, 7, 1097-1105.	9.0	309
4	Networked Microgrids for Self-Healing Power Systems. IEEE Transactions on Smart Grid, 2016, 7, 310-319.	9.0	305
5	Robust Optimization Based Optimal DG Placement in Microgrids. IEEE Transactions on Smart Grid, 2014, 5, 2173-2182.	9.0	300
6	Resilience Enhancement Strategy for Distribution Systems Under Extreme Weather Events. IEEE Transactions on Smart Grid, 2018, 9, 1442-1451.	9.0	299
7	Load Modelingâ€"A Review. IEEE Transactions on Smart Grid, 2018, 9, 5986-5999.	9.0	289
8	A Survey on State Estimation Techniques and Challenges in Smart Distribution Systems. IEEE Transactions on Smart Grid, 2019, 10, 2312-2322.	9.0	274
9	Review on Implementation and Assessment of Conservation Voltage Reduction. IEEE Transactions on Power Systems, 2014, 29, 1306-1315.	6.5	229
10	Power Distribution System Outage Management With Co-Optimization of Repairs, Reconfiguration, and DG Dispatch. IEEE Transactions on Smart Grid, 2018, 9, 4109-4118.	9.0	206
11	Resilience Enhancement of Distribution Grids Against Extreme Weather Events. IEEE Transactions on Power Systems, 2018, 33, 4842-4853.	6.5	171
12	Robust Optimization for Transmission Expansion Planning: Minimax Cost vs. Minimax Regret. IEEE Transactions on Power Systems, 2014, 29, 3069-3077.	6.5	143
13	MPC-Based Voltage/Var Optimization for Distribution Circuits With Distributed Generators and Exponential Load Models. IEEE Transactions on Smart Grid, 2014, 5, 2412-2420.	9.0	142
14	Optimizing Service Restoration in Distribution Systems With Uncertain Repair Time and Demand. IEEE Transactions on Power Systems, 2018, 33, 6828-6838.	6.5	124
15	A Bidding Strategy for Virtual Power Plants With the Intraday Demand Response Exchange Market Using the Stochastic Programming. IEEE Transactions on Industry Applications, 2018, 54, 3044-3055.	4.9	111
16	Networked microgrids for service restoration in resilient distribution systems. IET Generation, Transmission and Distribution, 2017, 11, 3612-3619.	2.5	106
17	Resilience-Oriented Design of Distribution Systems. IEEE Transactions on Power Systems, 2019, 34, 2880-2891.	6.5	86
18	A Learning-Based Power Management Method for Networked Microgrids Under Incomplete Information. IEEE Transactions on Smart Grid, 2020, 11, 1193-1204.	9.0	85

#	ARTICLE	IF	CITATIONS
19	Interactive Model for Energy Management of Clustered Microgrids. IEEE Transactions on Industry Applications, 2017, 53, 1739-1750.	4.9	84
20	Distributed CVR in Unbalanced Distribution Systems With PV Penetration. IEEE Transactions on Smart Grid, 2019, 10, 5308-5319.	9.0	75
21	Data-Driven Power Outage Detection by Social Sensors. IEEE Transactions on Smart Grid, 2016, 7, 2516-2524.	9.0	71
22	Time-Varying Stochastic Assessment of Conservation Voltage Reduction Based on Load Modeling. IEEE Transactions on Power Systems, 2014, 29, 2321-2328.	6.5	69
23	Robust Time-Varying Load Modeling for Conservation Voltage Reduction Assessment. IEEE Transactions on Smart Grid, 2018, 9, 3304-3312.	9.0	68
24	A Data-Driven Game-Theoretic Approach for Behind-the-Meter PV Generation Disaggregation. IEEE Transactions on Power Systems, 2020, 35, 3133-3144.	6.5	66
25	Multi-Agent Safe Policy Learning for Power Management of Networked Microgrids. IEEE Transactions on Smart Grid, 2021, 12, 1048-1062.	9.0	64
26	Coordinated Restoration of Transmission and Distribution System Using Decentralized Scheme. IEEE Transactions on Power Systems, 2019, 34, 3428-3442.	6.5	63
27	A Data-Driven Stackelberg Market Strategy for Demand Response-Enabled Distribution Systems. IEEE Transactions on Smart Grid, 2019, 10, 2345-2357.	9.0	62
28	Stochastic DG Placement for Conservation Voltage Reduction Based on Multiple Replications Procedure. IEEE Transactions on Power Delivery, 2015, 30, 1039-1047.	4.3	61
29	A Time-Series Distribution Test System Based on Real Utility Data. , 2019, , .		61
30	Mobile Emergency Generator Planning in Resilient Distribution Systems: A Three-Stage Stochastic Model With Nonanticipativity Constraints. IEEE Transactions on Smart Grid, 2020, 11, 4847-4859.	9.0	60
31	Analysis of Conservation Voltage Reduction Effects Based on Multistage SVR and Stochastic Process. IEEE Transactions on Smart Grid, 2014, 5, 431-439.	9.0	54
32	Service restoration based on AMI and networked MGs under extreme weather events. IET Generation, Transmission and Distribution, 2017, 11, 401-408.	2.5	51
33	Energy Disaggregation via Deep Temporal Dictionary Learning. IEEE Transactions on Neural Networks and Learning Systems, 2020, 31, 1696-1709.	11.3	51
34	Robust Time-Varying Parameter Identification for Composite Load Modeling. IEEE Transactions on Smart Grid, 2019, 10, 967-979.	9.0	50
35	Enhanced Robustness of State Estimator to Bad Data Processing Through Multi-innovation Analysis. IEEE Transactions on Industrial Informatics, 2017, 13, 1610-1619.	11.3	49
36	Repair and Resource Scheduling in Unbalanced Distribution Systems Using Neighborhood Search. IEEE Transactions on Smart Grid, 2020, 11, 673-685.	9.0	48

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37	A Markovian Influence Graph Formed From Utility Line Outage Data to Mitigate Large Cascades. IEEE Transactions on Power Systems, 2020, 35, 3224-3235.	6.5	48
38	LMP-Based Pricing for Energy Storage in Local Market to Facilitate PV Penetration. IEEE Transactions on Power Systems, 2018, 33, 3373-3382.	6.5	47
39	Markov Decision Process-Based Resilience Enhancement for Distribution Systems: An Approximate Dynamic Programming Approach. IEEE Transactions on Smart Grid, 2020, 11, 2498-2510.	9.0	46
40	Two‐stage optimal demand response with battery energy storage systems. IET Generation, Transmission and Distribution, 2016, 10, 1286-1293.	2.5	41
41	A Two-Level Simulation-Assisted Sequential Distribution System Restoration Model With Frequency Dynamics Constraints. IEEE Transactions on Smart Grid, 2021, 12, 3835-3846.	9.0	40
42	SVM-Based Parameter Identification for Composite ZIP and Electronic Load Modeling. IEEE Transactions on Power Systems, 2019, 34, 182-193.	6.5	39
43	A Necessary Condition for Power Flow Insolvability in Power Distribution Systems With Distributed Generators. IEEE Transactions on Power Systems, 2017, 32, 1440-1450.	6.5	38
44	A Game-Theoretic Data-Driven Approach for Pseudo-Measurement Generation in Distribution System State Estimation. IEEE Transactions on Smart Grid, 2019, 10, 5942-5951.	9.0	38
45	Distributed Optimal Conservation Voltage Reduction in Integrated Primary-Secondary Distribution Systems. IEEE Transactions on Smart Grid, 2021, 12, 3889-3900.	9.0	38
46	Stochastic pre-event preparation for enhancing resilience of distribution systems. Renewable and Sustainable Energy Reviews, 2021, 152, 111636.	16.4	34
47	WECC Composite Load Model Parameter Identification Using Evolutionary Deep Reinforcement Learning. IEEE Transactions on Smart Grid, 2020, 11, 5407-5417.	9.0	32
48	A Stochastic Multi-Commodity Logistic Model for Disaster Preparation in Distribution Systems. IEEE Transactions on Smart Grid, 2020, 11, 565-576.	9.0	30
49	An integrated transmission and distribution test system for evaluation of transactive energy designs. Applied Energy, 2019, 240, 666-679.	10.1	28
50	SDP-Based Optimal Power Flow With Steady-State Voltage Stability Constraints. IEEE Transactions on Smart Grid, 2019, 10, 4637-4647.	9.0	27
51	Dynamic Game-Based Maintenance Scheduling of Integrated Electric and Natural Gas Grids With a Bilevel Approach. IEEE Transactions on Power Systems, 2018, 33, 4958-4971.	6.5	25
52	Disaggregating Customer-Level Behind-the-Meter PV Generation Using Smart Meter Data and Solar Exemplars. IEEE Transactions on Power Systems, 2021, 36, 5417-5427.	6.5	25
53	Outage Detection in Partially Observable Distribution Systems Using Smart Meters and Generative Adversarial Networks. IEEE Transactions on Smart Grid, 2020, 11, 5418-5430.	9.0	24
54	Cooperative Peak Shaving and Voltage Regulation in Unbalanced Distribution Feeders. IEEE Transactions on Power Systems, 2021, 36, 5235-5244.	6.5	24

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55	PMU Uncertainty Quantification in Voltage Stability Analysis. IEEE Transactions on Power Systems, 2015, 30, 2196-2197.	6.5	23
56	Voltage stability assessment based on improved coupled single‑port method. IET Generation, Transmission and Distribution, 2017, 11, 2703-2711.	2.5	23
57	A Linear Solution Method of Generalized Robust Chance Constrained Real-Time Dispatch. IEEE Transactions on Power Systems, 2018, 33, 7313-7316.	6.5	23
58	Nonlinear Multiple Models Adaptive Secondary Voltage Control of Microgrids. IEEE Transactions on Smart Grid, 2021, 12, 227-238.	9.0	21
59	Extracting Resilience Metrics From Distribution Utility Data Using Outage and Restore Process Statistics. IEEE Transactions on Power Systems, 2021, 36, 5814-5823.	6.5	20
60	A Sequential Black-Start Restoration Model for Resilient Active Distribution Networks. IEEE Transactions on Power Systems, 2022, 37, 3133-3136.	6.5	20
61	Distributed Online Voltage Control for Wind Farms Using Generalized Fast Dual Ascent. IEEE Transactions on Power Systems, 2020, 35, 4505-4517.	6.5	19
62	Mathematical Representation of WECC Composite Load Model. Journal of Modern Power Systems and Clean Energy, 2020, 8, 1015-1023.	5.4	19
63	A Data-Driven Framework for Assessing Cold Load Pick-Up Demand in Service Restoration. IEEE Transactions on Power Systems, 2019, 34, 4739-4750.	6.5	18
64	A Statistical Approach to Estimate Imbalance-Induced Energy Losses for Data-Scarce Low Voltage Networks. IEEE Transactions on Power Systems, 2019, 34, 2825-2835.	6.5	18
65	A Multi-Timescale Data-Driven Approach to Enhance Distribution System Observability. IEEE Transactions on Power Systems, 2019, 34, 3168-3177.	6.5	18
66	Imitation and Transfer Q-Learning-Based Parameter Identification for Composite Load Modeling. IEEE Transactions on Smart Grid, 2021, 12, 1674-1684.	9.0	18
67	Learning-Based Real-Time Event Identification Using Rich Real PMU Data. IEEE Transactions on Power Systems, 2021, 36, 5044-5055.	6.5	17
68	Cyber-Resilient Multi-Energy Management for Complex Systems. IEEE Transactions on Industrial Informatics, 2022, 18, 2144-2159.	11.3	17
69	Hybrid Imitation Learning for Real-Time Service Restoration in Resilient Distribution Systems. IEEE Transactions on Industrial Informatics, 2022, 18, 2089-2099.	11.3	16
70	A Data-Driven Customer Segmentation Strategy Based on Contribution to System Peak Demand. IEEE Transactions on Power Systems, 2020, 35, 4026-4035.	6.5	15
71	Service restoration in resilient power distribution systems with networked microgrid. , 2016, , .		14
72	Analysis of Solvability Boundary for Droop-Controlled Microgrids. IEEE Transactions on Power Systems, 2018, 33, 5799-5802.	6.5	14

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73	Switching Device-Cognizant Sequential Distribution System Restoration. IEEE Transactions on Power Systems, 2022, 37, 317-329.	6.5	14
74	Optimization of transmission system repair and restoration with crew routing. , 2016, , .		13
75	Chance‐constrained maintenance scheduling for interdependent power and natural gas grids considering wind power uncertainty. IET Generation, Transmission and Distribution, 2019, 13, 686-694.	2.5	12
76	Distribution Grid Modeling Using Smart Meter Data. IEEE Transactions on Power Systems, 2022, 37, 1995-2004.	6.5	12
77	Robust Voltage Instability Predictor. IEEE Transactions on Power Systems, 2016, , 1-1.	6.5	11
78	Mining Smart Meter Data to Enhance Distribution Grid Observability for Behind-the-Meter Load Control: Significantly improving system situational awareness and providing valuable insights. IEEE Electrification Magazine, 2021, 9, 92-103.	1.8	11
79	Parameter Reduction of Composite Load Model Using Active Subspace Method. IEEE Transactions on Power Systems, 2021, 36, 5441-5452.	6.5	10
80	Physical rotor inertia of DFIG wind turbines for short-term frequency regulation in low-inertia grids. , 2017, , .		9
81	A Hybrid Machine Learning Model for Battery Cycle Life Prediction with Early Cycle Data. , 2020, , .		9
82	Enriching Load Data Using Micro-PMUs and Smart Meters. IEEE Transactions on Smart Grid, 2021, 12, 5084-5094.	9.0	9
83	Resilience Assessment of Self-healing Distribution Systems Under Extreme Weather Events. , 2019, , .		8
84	Multisource Data Fusion Outage Location in Distribution Systems via Probabilistic Graphical Models. IEEE Transactions on Smart Grid, 2022, 13, 1357-1371.	9.0	8
85	A Novel MILP Formulation for Fault Isolation and Network Reconfiguration in Active Distribution Systems. , 2018, , .		7
86	A Customer-Centric Approach to Bid-Based Transactive Energy System Design. IEEE Transactions on Smart Grid, 2020, 11, 4996-5008.	9.0	7
87	Bayesian Estimates of Transmission Line Outage Rates That Consider Line Dependencies. IEEE Transactions on Power Systems, 2021, 36, 1095-1106.	6.5	7
88	Dynamic Reconfiguration and Fault Isolation for a Self-Healing Distribution System. , 2018, , .		6
89	Coordinated energy management of networked Microgrids in distribution systems. , 2015, , .		5
90	Mitigating Smart Meter Asynchrony Error Via Multi-Objective Low Rank Matrix Recovery. IEEE Transactions on Smart Grid, 2021, 12, 4308-4317.	9.0	5

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91	A Bilevel Voltage Regulation Operation for Distribution Systems With Self-Operated Microgrids. IEEE Transactions on Smart Grid, 2022, 13, 1238-1248.	9.0	5
92	Can the Markovian influence graph simulate cascading resilience from historical outage data?. , 2020, , .		4
93	Transmission grid outage statistics extracted from a web page logging outages in Northeast America. , 2021, , .		4
94	Participation factor based CVR for enhanced voltage stability using integrated transmission and distributed system. , 2017, , .		3
95	Comparison of CVR impact on transmission system load margin with aggregated and de-aggregated distribution system. , 2017, , .		3
96	Short-term transmission line maintenance scheduling with wind energy integration. , 2017, , .		3
97	SVM-Based Parameter Identification for Static Load Modeling. , 2018, , .		3
98	Analyzing Photovoltaic's Impact on Conservation Voltage Reduction in Distribution Networks. , 2021, , .		3
99	Online decomposed optimal outage management after natural disasters. , 2017, , .		2
100	Swing Contracts With Dynamic Reserves for Flexible Service Management. IEEE Transactions on Power Systems, 2019, 34, 4024-4037.	6.5	2
101	Statistical Modeling of Networked Solar Resources for Assessing and Mitigating Risk of Interdependent Inverter Tripping Events in Distribution Grids. IEEE Transactions on Power Systems, 2020, 35, 3835-3846.	6.5	2
102	Highâ€fidelity largeâ€signal order reduction approach for composite load model. IET Generation, Transmission and Distribution, 2020, 14, 4888-4897.	2.5	2
103	Analysis of Performance and Efficiency of Conservation Voltage Optimization Considering Load Model Uncertainty. Journal of Energy Engineering - ASCE, 2015, 141, .	1.9	1
104	Assessment of Conservation Voltage Reduction by Unscented Kalman Filter based load modeling. , 2016, , .		1
105	Decentralized voltage/VAR control based on PV inverters. , 2016, , .		1
106	Modelâ€based control addition to prescribe DFIG wind turbine fast frequency response. Wind Energy, 2019, 22, 1343-1355.	4.2	1
107	Applying Bayesian estimates of individual transmission line outage rates. , 2020, , .		1
108	Optimal Bidding of Li-ion BESS in Regulation Markets Considering Capacity Degradation. , 2020, , .		1

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109	Smart Meter Data Compression and Reconstruction Using Deep Convolutional Autoencoders. , 2021, , .		1
110	Quantifying Load Uncertainty Using Real Smart Meter Data. , 2020, , .		1