

Farrokh Aminifar

List of Publications by Year in descending order

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145
papers

6,999
citations

53660

45
h-index

62479

80
g-index

146
all docs

146
docs citations

146
times ranked

4802
citing authors

#	ARTICLE	IF	CITATIONS
1	Networked Microgrids for Enhancing the Power System Resilience. Proceedings of the IEEE, 2017, 105, 1289-1310.	16.4	422
2	Contingency-Constrained PMU Placement in Power Networks. IEEE Transactions on Power Systems, 2010, 25, 516-523.	4.6	343
3	Optimal Placement of Phasor Measurement Units Using Immunity Genetic Algorithm. IEEE Transactions on Power Delivery, 2009, 24, 1014-1020.	2.9	322
4	Microgrid Scheduling With Uncertainty: The Quest for Resilience. IEEE Transactions on Smart Grid, 2016, 7, 2849-2858.	6.2	236
5	Synchrophasor Measurement Technology in Power Systems: Panorama and State-of-the-Art. IEEE Access, 2014, 2, 1607-1628.	2.6	216
6	Load commitment in a smart home. Applied Energy, 2012, 96, 45-54.	5.1	196
7	Toward a Consensus on the Definition and Taxonomy of Power System Resilience. IEEE Access, 2018, 6, 32035-32053.	2.6	192
8	Probabilistic Multistage PMU Placement in Electric Power Systems. IEEE Transactions on Power Delivery, 2011, 26, 841-849.	2.9	170
9	Front Lines Against the Darkness: Enhancing the Resilience of the Electricity Grid Through Microgrid Facilities. IEEE Electrification Magazine, 2016, 4, 18-24.	1.8	168
10	Resilience-Oriented Proactive Management of Microgrids Against Windstorms. IEEE Transactions on Power Systems, 2018, 33, 4275-4284.	4.6	160
11	Probabilistic Load Flow in Correlated Uncertain Environment Using Unscented Transformation. IEEE Transactions on Power Systems, 2012, 27, 2233-2241.	4.6	152
12	Cybersecurity in Distributed Power Systems. Proceedings of the IEEE, 2017, 105, 1367-1388.	16.4	146
13	Smart Distribution Grid: Optimal Day-Ahead Scheduling With Reconfigurable Topology. IEEE Transactions on Smart Grid, 2014, 5, 2402-2411.	6.2	142
14	Metrics and quantitative framework for assessing microgrid resilience against windstorms. International Journal of Electrical Power and Energy Systems, 2019, 104, 716-723.	3.3	142
15	Impact of WAMS Malfunction on Power System Reliability Assessment. IEEE Transactions on Smart Grid, 2012, 3, 1302-1309.	6.2	124
16	Unit Commitment With Probabilistic Spinning Reserve and Interruptible Load Considerations. IEEE Transactions on Power Systems, 2009, 24, 388-397.	4.6	121
17	Wide-area power oscillation damping with a fuzzy controller compensating the continuous communication delays. IEEE Transactions on Power Systems, 2013, 28, 1997-2005.	4.6	119
18	Power system flexibility: an overview of emergence to evolution. Journal of Modern Power Systems and Clean Energy, 2019, 7, 987-1007.	3.3	117

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19	Reliability Modeling of PMUs Using Fuzzy Sets. IEEE Transactions on Power Delivery, 2010, 25, 2384-2391.	2.9	114
20	Toward Wide-Area Oscillation Control Through Doubly-Fed Induction Generator Wind Farms. IEEE Transactions on Power Systems, 2014, 29, 2985-2992.	4.6	112
21	An Analytical Adaptive Load Shedding Scheme Against Severe Combinational Disturbances. IEEE Transactions on Power Systems, 2016, 31, 4135-4143.	4.6	108
22	A Comprehensive Scheme for Reliability Centered Maintenance in Power Distribution Systemsâ€™Part I: Methodology. IEEE Transactions on Power Delivery, 2013, 28, 761-770.	2.9	107
23	Power System Dynamic State Estimation With Synchronized Phasor Measurements. IEEE Transactions on Instrumentation and Measurement, 2014, 63, 352-363.	2.4	107
24	Observability of Hybrid AC/DC Power Systems With Variable-Cost PMUs. IEEE Transactions on Power Delivery, 2014, 29, 345-352.	2.9	89
25	Application of UPFC to Enhancing Oscillatory Response of Series-Compensated Wind Farm Integrations. IEEE Transactions on Smart Grid, 2014, 5, 1961-1968.	6.2	86
26	Towards Proactive Scheduling of Microgrids Against Extreme Floods. IEEE Transactions on Smart Grid, 2018, 9, 3900-3902.	6.2	86
27	Distribution Automation Strategies Challenges and Opportunities in a Changing Landscape. IEEE Transactions on Smart Grid, 2015, 6, 2157-2165.	6.2	84
28	Synchrophasor-Based Wide-Area Backup Protection Scheme with Data Requirement Analysis. IEEE Transactions on Power Delivery, 2015, 30, 1410-1419.	2.9	84
29	Resilience-Promoting Proactive Scheduling Against Hurricanes in Multiple Energy Carrier Microgrids. IEEE Transactions on Power Systems, 2019, 34, 2160-2168.	4.6	81
30	Parameter Estimation of Multiterminal Transmission Lines Using Joint PMU and SCADA Data. IEEE Transactions on Power Delivery, 2015, 30, 1077-1085.	2.9	75
31	Distribution Automation Strategies: Evolution of Technologies and the Business Case. IEEE Transactions on Smart Grid, 2015, 6, 2166-2175.	6.2	68
32	Techno-Economic Collaboration of PEV Fleets in Energy Management of Microgrids. IEEE Transactions on Power Systems, 2017, 32, 3833-3841.	4.6	68
33	Dual-Setting Directional Overcurrent Relays for Protecting Automated Distribution Networks. IEEE Transactions on Industrial Informatics, 2019, 15, 730-740.	7.2	65
34	Reliability Evaluation of an HVDC Transmission System Tapped by a VSC Station. IEEE Transactions on Power Delivery, 2010, 25, 1962-1970.	2.9	63
35	A Hierarchical Response-Based Approach to the Load Restoration Problem. IEEE Transactions on Smart Grid, 2017, 8, 1700-1709.	6.2	63
36	Energy and Reserve Scheduling Under Wind Power Uncertainty: An Adjustable Interval Approach. IEEE Transactions on Smart Grid, 2016, 7, 2943-2952.	6.2	61

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37	Optimal PMU Placement Based on Probabilistic Cost/Benefit Analysis. IEEE Transactions on Power Systems, 2013, 28, 566-567.	4.6	59
38	Generating Unit Model Validation and Calibration Through Synchrophasor Measurements. IEEE Transactions on Smart Grid, 2015, 6, 441-449.	6.2	58
39	A Comprehensive Scheme for Reliability-Centered Maintenance in Power Distribution Systemsâ€™Part II: Numerical Analysis. IEEE Transactions on Power Delivery, 2013, 28, 771-778.	2.9	57
40	An Adaptive Wide-Area Load Shedding Scheme Incorporating Power System Real-Time Limitations. IEEE Systems Journal, 2018, 12, 759-767.	2.9	57
41	Observability enhancement by optimal PMU placement considering random power system outages. Energy Systems, 2011, 2, 45-65.	1.8	51
42	Reliability Study of HV Substations Equipped With the Fault Current Limiter. IEEE Transactions on Power Delivery, 2012, 27, 610-617.	2.9	51
43	Impact of inverter-based DERs integration on protection, control, operation, and planning of electrical distribution grids. Electricity Journal, 2019, 32, 43-56.	1.3	50
44	A Novel Straightforward Unit Commitment Method for Large-Scale Power Systems. IEEE Transactions on Power Systems, 2007, 22, 2134-2143.	4.6	49
45	Fuzzy Dynamic Thermal Rating of Transmission Lines. IEEE Transactions on Power Delivery, 2012, 27, 1885-1892.	2.9	48
46	Generation expansion and retirement planning based on the stochastic programming. Electric Power Systems Research, 2013, 104, 138-145.	2.1	46
47	Contingency-Constrained Optimal Placement of Micro-PMUs and Smart Meters in Microgrids. IEEE Transactions on Smart Grid, 2019, 10, 1889-1897.	6.2	46
48	Optimal Reconfiguration of Distribution Network Using μ PMU Measurements: A Data-Driven Stochastic Robust Optimization. IEEE Transactions on Smart Grid, 2020, 11, 420-428.	6.2	45
49	Compromising Wind and Solar Energies From the Power System Adequacy Viewpoint. IEEE Transactions on Power Systems, 2012, 27, 2368-2376.	4.6	42
50	Communication-Constrained Regionalization of Power Systems for Synchrophasor-Based Wide-Area Backup Protection Scheme. IEEE Transactions on Smart Grid, 2015, 6, 1530-1538.	6.2	39
51	Multi-area market clearing in wind-integrated interconnected power systems: A fast parallel decentralized method. Energy Conversion and Management, 2016, 113, 131-142.	4.4	38
52	Macroprotections for Microgrids: Toward a New Protection Paradigm Subsequent to Distributed Energy Resource Integration. IEEE Industrial Electronics Magazine, 2016, 10, 6-18.	2.3	37
53	Energy storage allocation in wind integrated distribution networks: An MILP-Based approach. Renewable Energy, 2019, 134, 1042-1055.	4.3	37
54	Optimal energy management in multi-carrier microgrids: an MILP approach. Journal of Modern Power Systems and Clean Energy, 2019, 7, 876-886.	3.3	36

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55	Reliability Assessment of Protective Relays in Harmonic-Polluted Power Systems. IEEE Transactions on Power Delivery, 2017, 32, 556-564.	2.9	34
56	A new formulation for power system reliability assessment with AC constraints. International Journal of Electrical Power and Energy Systems, 2014, 56, 298-306.	3.3	33
57	Transmission system wide-area back-up protection using current phasor measurements. International Journal of Electrical Power and Energy Systems, 2017, 92, 93-103.	3.3	33
58	Transactive Energy Market Mechanism With Loss Implication. IEEE Transactions on Smart Grid, 2021, 12, 1215-1223.	6.2	33
59	Adaptive Protection for Preserving Microgrid Security. IEEE Transactions on Smart Grid, 2019, 10, 592-600.	6.2	31
60	Congestion management through distributed generations and energy storage systems. International Transactions on Electrical Energy Systems, 2019, 29, e12018.	1.2	29
61	A two-stage resilience improvement planning for power distribution systems against hurricanes. International Journal of Electrical Power and Energy Systems, 2021, 132, 107214.	3.3	29
62	Optimal distributed static series compensator placement for enhancing power system loadability and reliability. IET Generation, Transmission and Distribution, 2015, 9, 1043-1050.	1.4	28
63	Application of WAMS and SCADA Data to Online Modeling of Series-Compensated Transmission Lines. IEEE Transactions on Smart Grid, 2017, 8, 1968-1976.	6.2	28
64	Tri-Level Robust Investment Planning of DERs in Distribution Networks With AC Constraints. IEEE Transactions on Power Systems, 2019, 34, 3749-3757.	4.6	28
65	Microgrid dynamic security: Challenges, solutions and key considerations. Electricity Journal, 2017, 30, 43-51.	1.3	27
66	MILP Formulation for Transmission Expansion Planning With Short-Circuit Level Constraints. IEEE Transactions on Power Systems, 2016, 31, 3109-3118.	4.6	26
67	Extended reliability model of a unified power flow controller. IET Generation, Transmission and Distribution, 2007, 1, 896.	1.4	25
68	Optimal Electricity Procurement in Smart Grids With Autonomous Distributed Energy Resources. IEEE Transactions on Smart Grid, 2015, 6, 2975-2984.	6.2	25
69	An Adaptive Auto-Reclosing Scheme to Preserve Transient Stability of Microgrids. IEEE Transactions on Smart Grid, 2018, 9, 2638-2646.	6.2	25
70	Guest Editorial: Special Section on Smart DC Distribution Systems. IEEE Transactions on Smart Grid, 2014, 5, 2473-2475.	6.2	24
71	Combinational scheme for voltage and frequency recovery in an islanded distribution system. IET Generation, Transmission and Distribution, 2016, 10, 2899-2906.	1.4	24
72	Adaptive Control of Microgrid Security. IEEE Transactions on Smart Grid, 2018, 9, 3909-3910.	6.2	23

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73	Generation Expansion Planning Considering the Rehabilitation of Aging Generating Units. IEEE Transactions on Smart Grid, 2020, 11, 3384-3393.	6.2	23
74	IoT-Enabled Humans in the Loop for Energy Management Systems: Promoting Building Occupants' Participation in Optimizing Energy Consumption. IEEE Electrification Magazine, 2018, 6, 64-72.	1.8	21
75	A review of power system protection and asset management with machine learning techniques. Energy Systems, 2022, 13, 855-892.	1.8	21
76	A Hierarchical Regionalization-Based Load Shedding Plan to Recover Frequency and Voltage in Microgrid. IEEE Transactions on Smart Grid, 2019, 10, 3818-3827.	6.2	20
77	Multi-stage equilibrium in electricity pool with flexible ramp market. International Journal of Electrical Power and Energy Systems, 2019, 109, 661-671.	3.3	20
78	Robust Energy Management of Residential Nanogrids via Decentralized Mean Field Control. IEEE Transactions on Sustainable Energy, 2020, 11, 1995-2002.	5.9	20
79	Machine learning for protection of distribution networks and power electronics-interfaced systems. Electricity Journal, 2021, 34, 106886.	1.3	19
80	Data-Driven Classifier for Extreme Outage Prediction Based On Bayes Decision Theory. IEEE Transactions on Power Systems, 2021, 36, 4906-4914.	4.6	19
81	Power systems wide-area voltage stability assessment considering dissimilar load variations and credible contingencies. Journal of Modern Power Systems and Clean Energy, 2019, 7, 78-87.	3.3	18
82	An improved method for estimation of inertia constant of power system based on polynomial approximation. , 2014, , .		17
83	Exploiting the Potential of Energy Hubs in Power Systems Regulation Services. IEEE Transactions on Smart Grid, 2019, 10, 5600-5608.	6.2	17
84	Resilient-enhancing critical load restoration using mobile power sources with incomplete information. Sustainable Energy, Grids and Networks, 2021, 26, 100418.	2.3	17
85	Exploiting the Potentials of HVAC Systems in Transactive Energy Markets. IEEE Transactions on Smart Grid, 2021, 12, 4039-4048.	6.2	17
86	Probabilistic Worth Assessment of Distributed Static Series Compensators. IEEE Transactions on Power Delivery, 2011, 26, 1734-1743.	2.9	15
87	A novel efficient model for the power flow analysis of power systems. Turkish Journal of Electrical Engineering and Computer Sciences, 2015, 23, 52-66.	0.9	15
88	Short-circuit-constrained transmission expansion planning with bus splitting flexibility. IET Generation, Transmission and Distribution, 2018, 12, 217-226.	1.4	15
89	Impacts of plug-in hybrid electric vehicle uncertainty and grid unavailability on home load management. , 2012, , .		14
90	Reliability Modeling of Run-of-the-River Power Plants in Power System Adequacy Studies. IEEE Transactions on Sustainable Energy, 2014, 5, 1278-1286.	5.9	14

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91	Incorporation of Controlled Islanding Scenarios and Complex Substations in Optimal WAMS Design. IEEE Transactions on Power Systems, 2019, 34, 3408-3416.	4.6	13
92	Distributed Robust Secondary Control of Islanded Microgrids: Voltage, Frequency, and Power Sharing. IEEE Transactions on Power Delivery, 2021, 36, 2501-2509.	2.9	13
93	Phase Identification of Single-Phase Customers and PV Panels via Smart Meter Data. IEEE Transactions on Smart Grid, 2021, 12, 4543-4552.	6.2	13
94	A non-iterative approach for AC state estimation using line flow based model. International Journal of Electrical Power and Energy Systems, 2012, 43, 1413-1420.	3.3	12
95	Hypothesis Testing for Privacy of Smart Meters With Side Information. IEEE Transactions on Smart Grid, 2019, 10, 2059-2067.	6.2	12
96	Distributed generation hosting capacity in electric distribution network in the presence of correlated uncertainties. IET Generation, Transmission and Distribution, 2021, 15, 836-848.	1.4	12
97	Reliability-constrained unit commitment using stochastic mixed-integer programming. , 2010, , .		11
98	On-line assessment of transmission line thermal rating using PMU data. , 2014, , .		11
99	Reliability assessment of HV substations equipped with fault current limiter considering changes of failure rate of components. IET Generation, Transmission and Distribution, 2016, 10, 1504-1509.	1.4	11
100	Unmanned Aerial Vehicles in Modern Power Systems: Technologies, Use Cases, Outlooks, and Challenges. IEEE Electrification Magazine, 2020, 8, 107-116.	1.8	11
101	Optimal Distribution of Power Grid Under-Frequency Load Shedding With Security Considerations. IEEE Transactions on Power Systems, 2022, 37, 4110-4112.	4.6	11
102	Probabilistic Home Load Controlling Considering Plug-in Hybrid Electric Vehicle Uncertainties. , 2014, , 117-132.		10
103	Ambient Data-Based Online Electromechanical Mode Estimation by Error-Feedback Lattice RLS Filter. IEEE Transactions on Power Systems, 2018, 33, 3745-3756.	4.6	10
104	Non-Stationary Stabilized Fast Transversal RLS Filter for Online Power System Modal Estimation. IEEE Transactions on Power Systems, 2019, 34, 2744-2754.	4.6	10
105	Unbalanced Source Detection in Power Distribution Networks by Negative Sequence Apparent Powers. IEEE Transactions on Power Delivery, 2021, 36, 481-483.	2.9	10
106	Guest Editorial Special Section on Microgrids. IEEE Transactions on Smart Grid, 2012, 3, 1857-1859.	6.2	8
107	A receding horizon data-driven chance-constrained approach for energy flexibility trading in multi-microgrid distribution network. IET Renewable Power Generation, 2021, 15, 2860-2877.	1.7	8
108	Convolutional autoencoder anomaly detection and classification based on distribution PMU measurements. IET Generation, Transmission and Distribution, 2022, 16, 2816-2828.	1.4	8

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109	The Proliferation of Solar Photovoltaics: Their Impact on Widespread Deployment of Electric Vehicles. IEEE Electrification Magazine, 2020, 8, 79-91.	1.8	7
110	Optimal controlled islanding considering frequencyâ€restoring and frequencyâ€stabilising constraints: A graph theoryâ€assisted approach. IET Generation, Transmission and Distribution, 2021, 15, 2044-2060.	1.4	7
111	Digital filterâ€based grid synchronization for autonomous microgrids. IET Renewable Power Generation, 2021, 15, 3732-3742.	1.7	7
112	State-of-the-Art in Synchrophasor Measurement Technology Applications in Distribution Networks and Microgrids. IEEE Access, 2021, 9, 153875-153892.	2.6	7
113	Dual variable decomposition to discriminate the cost imposed by inflexible units in electricity markets. Applied Energy, 2021, 287, 116595.	5.1	6
114	Effect of Interline Power Flow Controller (IPFC) on interconnected power systems adequacy. , 2008, , .		5
115	A fast load shedding algorithm to relieve transmission system overloads. , 2011, , .		5
116	Coordinated multi-area energy and regulation joint dispatch under wind power uncertainty. Journal of Renewable and Sustainable Energy, 2017, 9, .	0.8	5
117	Energy pricing and demand scheduling in retail market: how microgridsâ€™ integration affects the market. IET Smart Grid, 2020, 3, 309-317.	1.5	5
118	A real-time voltage stability index based on local measurements. , 2015, , .		4
119	Guest Editorial Power Grid Resilience. IEEE Transactions on Smart Grid, 2016, 7, 2805-2806.	6.2	4
120	Composite power system adequacy assessment based on postoptimal analysis. Turkish Journal of Electrical Engineering and Computer Sciences, 0, , .	0.9	4
121	Design of an Asymmetrical Three-phase Inverter for Load Balancing and Power Factor Correction Based on Power Analysis. Journal of Electrical Engineering and Technology, 2011, 6, 293-301.	1.2	4
122	Unlocking the value of flexibility of behind-the-meter prosumers: An overview of mechanisms to esteemed trends. Electricity Journal, 2022, 35, 107126.	1.3	4
123	Unscented transformation-based probabilistic optimal power flow for modeling the effect of wind power generation. Turkish Journal of Electrical Engineering and Computer Sciences, 0, , .	0.9	3
124	AHP-based prioritization of microgrid generation plans considering resource uncertainties. , 2013, , .		3
125	Optimal fault location algorithm for series-compensated transmission lines based on PMU data. , 2015, , .		3
126	Direct drive surge wave energy converter with grid integration functionality. International Transactions on Electrical Energy Systems, 2016, 26, 1066-1084.	1.2	3

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127	An Adaptive Reclosing Scheme for Preserving Dynamic Security in Low-Inertia Microgrids. IEEE Transactions on Smart Grid, 2019, 10, 6228-6236.	6.2	3
128	An analytic methodology to determine generators redispatch for proactive damping of critical electromechanical oscillations. International Journal of Electrical Power and Energy Systems, 2020, 123, 106301.	3.3	3
129	A Decentralized Energy Flexibility Trading Framework for Active Distribution Network with Multiple Microgrids. , 2020, , .		3
130	A Multi-Objective Framework for Enhancing the Reliability and Minimizing the Cost of PMU Deployment in Power Systems. Scientia Iranica, 2016, 23, 2917-2927.	0.3	3
131	Robust fuzzy model predictive control for voltage regulation in islanded microgrids. IET Generation, Transmission and Distribution, 2022, 16, 1013-1029.	1.4	3
132	Optimal placement of Unified Power Flow Controllers (UPFCs) using Mixed-Integer Non-Linear Programming (MINLP) method. , 2009, , .		2
133	Practical aspects of phasor measurement unit (PMU) installation in power grids. , 2013, , .		2
134	A new approach for AC state estimation based on a linear network model. , 2013, , .		2
135	Optimal parking lot placement considering operational and security limitations using COA. , 2014, , .		2
136	Reliability-based maintenance scheduling of generating units in restructured power systems. Turkish Journal of Electrical Engineering and Computer Sciences, 2014, 22, 1147-1158.	0.9	2
137	Changing the regulations for regulating the changes: From distribution system operator (DSO) to electricity distribution stakeholders' organization (EDSO). Energy and Environment, 2023, 34, 830-854.	2.7	2
138	Cloud-Based Energy Storage Systems: A shared pool of benefits in distributed electric power systems. IEEE Electrification Magazine, 2022, 10, 82-91.	1.8	2
139	Evolution in Computing Paradigms for Internet of Things-Enabled Smart Grid Applications: Their Contributions to Power Systems. IEEE Systems, Man, and Cybernetics Magazine, 2022, 8, 8-20.	1.2	2
140	Synchrophasor-assisted line outage identification: A simple and iterative algorithm. , 2015, , .		1
141	Guest Editorial Special Section on Monitoring, Visualization, and State Estimation for Distribution Systems. IEEE Transactions on Smart Grid, 2015, 6, 1999-2001.	6.2	1
142	A New Methodology for Circuit Analysis with Reverse Analysis Capability. Journal of Circuits, Systems and Computers, 2017, 26, 1750101.	1.0	1
143	Aggregative Game for Charging Coordination of PEVs in a Network of Parking Lots. , 2019, , .		1
144	Guest Editorial Special Section on Optimization Techniques in Renewable Energy System Planning, Design, Operation, and Control. IEEE Transactions on Sustainable Energy, 2019, 10, 330-332.	5.9	1

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145	Budget-constrained drone allocation for distribution system damage assessment. IET Smart Grid, 0, , .	1.5	1