

Rohit Bhakar

List of Publications by Year in descending order

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114
papers

1,332
citations

471509

17
h-index

434195

31
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114
all docs

114
docs citations

114
times ranked

1000
citing authors

#	ARTICLE	IF	CITATIONS
1	Frequency response support assessment from uncertain wind generation. International Journal of Electrical Power and Energy Systems, 2022, 134, 107465.	5.5	25
2	Enhancing power systems operational flexibility with ramp products from flexible resources. Electric Power Systems Research, 2022, 202, 107599.	3.6	11
3	Virtual Power Plant (VPP) scheduling with uncertain multiple Locational Marginal Prices. IET Energy Systems Integration, 2022, 4, 436-447.	1.8	1
4	Optimal electric vehicles charging scheduling for energy and reserve markets considering wind uncertainty and generator contingency. International Journal of Energy Research, 2022, 46, 4516-4539.	4.5	6
5	Intra-regional renewable energy resource variability in long-term energy system planning. Energy, 2022, 245, 123302.	8.8	11
6	Synthetic inertia and frequency support assessment from renewable plants in low carbon grids. Electric Power Systems Research, 2022, 209, 107977.	3.6	22
7	Flexible Ramp Products: A solution to enhance power system flexibility. Renewable and Sustainable Energy Reviews, 2022, 162, 112429.	16.4	18
8	Multi-service based economic valuation of grid-connected battery energy storage systems. Journal of Energy Storage, 2022, 52, 104657.	8.1	6
9	Effect of High-Resolution Data Input on Wind Speed Prediction using Machine Learning Algorithms. , 2022, , .		0
10	Local Flexibility Markets in the Context of Reactive Power Provision by Distributed Energy Resources. , 2022, , .		2
11	Fuzzy-based Reserve Scheduling in Renewable Integrated Power Systems. , 2022, , .		0
12	Short Term Power Procurement for RE Rich Indian DISCOMS with Multi-Market Uncertainties. , 2022, , .		0
13	Multi-Interval Solar Ramp Product to Enhance Power System Flexibility. IEEE Systems Journal, 2021, 15, 170-179.	4.6	14
14	Optimal generation mix for frequency response adequacy in future power system. Energy and Built Environment, 2021, 2, 243-250.	5.9	3
15	Overview of current compressed air energy storage projects and analysis of the potential underground storage capacity in India and the UK. Renewable and Sustainable Energy Reviews, 2021, 139, 110705.	16.4	81
16	Performance Improvement of a CPV System: Experimental Investigation into Passive Cooling with Phase Change Materials. Energies, 2021, 14, 3550.	3.1	5
17	Bi-Level Approach for Load Serving Entity's Sale Price Determination under Spot Price Uncertainty and Renewable Availability. Technology and Economics of Smart Grids and Sustainable Energy, 2021, 6, 1.	2.6	2
18	A stochastic multi-interval scheduling framework to quantify operational flexibility in low carbon power systems. Applied Energy, 2021, 304, 117763.	10.1	14

#	ARTICLE	IF	CITATIONS
19	Long-Term Expansion Planning of the Transmission Network in India under Multi-Dimensional Uncertainty. <i>Energies</i> , 2021, 14, 7813.	3.1	13
20	Clustering Models for Demand Response Aggregation. , 2021, , .		1
21	P2P Energy Trading in Local Energy Market considering Network Fees and Losses. , 2021, , .		1
22	Optimal scheduling of electric vehicle in stochastic AC SCUC problem for large-scale wind power penetration. <i>International Transactions on Electrical Energy Systems</i> , 2020, 30, e12145.	1.9	5
23	Resource potential and variability assessment of solar and wind energy in India. <i>Energy</i> , 2020, 211, 118993.	8.8	56
24	Grey System Theory Based Net Load Forecasting for High Renewable Penetrated Power Systems. <i>Technology and Economics of Smart Grids and Sustainable Energy</i> , 2020, 5, 1.	2.6	19
25	Stochastic security constrained unit commitment with battery energy storage and wind power integration. <i>International Transactions on Electrical Energy Systems</i> , 2020, 30, e12556.	1.9	9
26	PFR constrained energy storage and interruptible load scheduling under high RE penetration. <i>IET Generation, Transmission and Distribution</i> , 2020, 14, 3070-3077.	2.5	9
27	Scheduling BESS for Primary Frequency Response in Low Inertia Grids. , 2020, , .		0
28	Coordinated Scheduling of Virtual Energy Storage System for Optimal Microgrid Operation. , 2020, , .		1
29	Flexibility requirement for large-scale renewable energy integration in Indian power system: Technology, policy and modeling options. <i>Energy Strategy Reviews</i> , 2020, 29, 100482.	7.3	45
30	Peer-to-peer local electricity market platform pricing strategies for prosumers. <i>IET Generation, Transmission and Distribution</i> , 2020, 14, 4388-4397.	2.5	20
31	Stochastic scheduling of compressed air energy storage in DC SCUC framework for high wind penetration. <i>IET Generation, Transmission and Distribution</i> , 2019, 13, 2747-2760.	2.5	14
32	Impact of LRIC pricing and demand response on generation and transmission expansion planning. <i>IET Generation, Transmission and Distribution</i> , 2019, 13, 679-685.	2.5	18
33	Long-term energy system planning considering short-term operational constraints. <i>Energy Strategy Reviews</i> , 2019, 26, 100383.	7.3	37
34	Stochastic scheduling of battery energy storage system for large-scale wind power penetration. <i>Journal of Engineering</i> , 2019, 2019, 5028-5032.	1.1	9
35	Gumbel copula based multi interval ramp product for power system flexibility enhancement. <i>International Journal of Electrical Power and Energy Systems</i> , 2019, 112, 417-427.	5.5	28
36	Risk-based retailer profit maximization: Time of Use price setting for elastic demand. <i>International Transactions on Electrical Energy Systems</i> , 2019, 29, e12036.	1.9	9

#	ARTICLE	IF	CITATIONS
37	Inertia Emulation Trends in Low Carbon Power System. , 2019, , .		2
38	Distribution Network Pricing to Mitigate Uncertain Load Scenario. , 2019, , .		0
39	Very Short term Wind Power Prediction Using Hybrid Univariate ARIMA-GARCH Model. , 2019, , .		6
40	Modified interval-based generator scheduling for PFR adequacy under uncertain PV generation. IET Generation, Transmission and Distribution, 2019, 13, 3725-3733.	2.5	9
41	Optimal Scheduling for Residential Building Based on Virtual Energy Storage System. , 2019, , .		1
42	Operational Flexibility Enhancement through Flexible Ramp Products from Energy Storage. , 2019, , .		4
43	Primary Frequency Response Constrained Energy Storage Scheduling Under Photovoltaic Generation. , 2019, , .		2
44	Identifying the Potential for Peer-to-Peer Trading of Rooftop Solar Power for Indian Scenario. , 2019, , .		5
45	Frequency Response Constrained Modified Interval Scheduling Under Wind Uncertainty. IEEE Transactions on Sustainable Energy, 2018, 9, 302-310.	8.8	34
46	Demand Side Contributions for System Inertia in the GB Power System. IEEE Transactions on Power Systems, 2018, 33, 3521-3530.	6.5	87
47	Impact of Renewable Energy Sources and Electric Vehicle Penetration on Generation Scheduling. , 2018, , .		4
48	Security Constrained Unit Commitment in a Power System based on Benders Decomposition and Mixed Integer Non-linear Programming. International Journal of Engineering and Technology(UAE), 2018, 7, 283.	0.3	2
49	System Inertia Prediction for Primary Frequency Response Adequacy Under Uncertain Wind Generation. , 2018, , .		2
50	Electric Vehicle Owner Preferred Smart Charge Scheduling of EV Aggregator Using PV Generation. , 2018, , .		2
51	Stacked Benefits of Energy Storage in Microgrid Scheduling. , 2018, , .		2
52	Profit Based Self Scheduling of Virtual Power Plant Under Multiple Locational Marginal Prices. , 2018, , .		1
53	State-of-Art on Flexibility Services in Electricity Markets. , 2018, , .		2
54	Operational Strategy of Energy Storage to Address Day-Ahead Scheduling Errors in High RE Scenario. , 2018, , .		3

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55	Integrated TOU Price-Based Demand Response and Dynamic G2V Charge Scheduling of Electric Vehicle Aggregator. , 2018, , .		2
56	Primary Frequency Response Constrained Interruptible Load Scheduling Under PV Generation. , 2018, , .		0
57	Interruptible Load Constrained Primary Frequency Response Scheduling with Photovoltaic Generation. , 2018, , .		0
58	Inertia and Primary Frequency Response Assessment Under Uncertain Photovoltaic Generation. , 2018, , .		2
59	Assessment of Energy Storage Potential for Primary Frequency Response Adequacy in Future Grids. , 2018, , .		6
60	Gumbel copula based aggregated net load forecasting for modern power systems. IET Generation, Transmission and Distribution, 2018, 12, 4348-4358.	2.5	24
61	Time of Use Price based Vehicle to Grid Scheduling of Electric Vehicle Aggregator for Improved Market Operations. , 2018, , .		11
62	A Benders Decomposition Approach: Security Constrained Unit Commitment in a Power System Using Mixed Integer Programming. , 2018, , .		1
63	Security constrained unit commitment in a power system based on battery energy storage with high wind penetration. , 2018, , .		8
64	Implications of short-term renewable energy resource intermittency in long-term power system planning. Energy Strategy Reviews, 2018, 22, 1-15.	7.3	48
65	A novel hierarchical contribution factor based model for distribution use-of-system charges. Applied Energy, 2017, 208, 996-1006.	10.1	1
66	Reliability-Security Constrained Unit Commitment based on benders decomposition and Mixed Integer Non-Linear Programming. , 2017, , .		15
67	Joint optimal sizing and placement of renewable distributed generation and energy storage for energy loss minimization. , 2017, , .		13
68	Demand responseâ€based enhanced LRIC pricing framework. IET Renewable Power Generation, 2017, 11, 1723-1730.	3.1	4
69	Modelling local electricity market over distribution network. , 2017, , .		1
70	Retailer risk-based trading decision making model under price responsive demand. , 2017, , .		1
71	Scenario based uncertainty modeling of electricity market prices. , 2017, , .		6
72	Transmission use of system charging for differentiating long-term impacts from various generation technologies. CSEE Journal of Power and Energy Systems, 2016, 2, 11-19.	1.1	4

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73	An optimally controlled charging scheme motivating EV owners for supporting grid stability. , 2016, , .		4
74	Matrix based univariate and multivariate linear similar day approach towards short term solar radiation forecasting. , 2016, , .		3
75	Optimized Support Vector Regression models for short term solar radiation forecasting in smart environment. , 2016, , .		12
76	Uncertainty and risk management in electricity market: Challenges and opportunities. , 2016, , .		5
77	Local energy markets: Concept, design and operation. , 2016, , .		38
78	Methodology for joint allocation of energy storage and renewable distributed generation. , 2016, , .		1
79	Joint optimal allocation of battery storage and hybrid renewable distributed generation. , 2016, , .		9
80	Joint optimal allocation methodology for renewable distributed generation and energy storage for economic benefits. IET Renewable Power Generation, 2016, 10, 1422-1429.	3.1	42
81	Capacity reimbursement mechanisms: Challenges and opportunities in deregulated markets. , 2016, , .		3
82	Risk constrained short term electricity procurement for open access consumer in India. , 2016, , .		8
83	Enhanced LRIC pricing differentiating generation technologies and load classes. , 2016, , .		2
84	Large consumer's purchase portfolio optimization in electricity market. , 2016, , .		1
85	ARIMA based statistical approach to predict wind power ramps. , 2015, , .		11
86	GenCo's optimal power portfolio selection under emission price risk. Electric Power Systems Research, 2015, 121, 279-286.	3.6	19
87	Influence of Bidding Mechanism and Spot Market Characteristics on Market Power of a Large Genco Using Hybrid DE/BBO. Journal of Energy Engineering - ASCE, 2015, 141, 04014028.	1.9	2
88	Adaptabilities of three mainstream short-term wind power forecasting methods. Journal of Renewable and Sustainable Energy, 2015, 7, 053101.	2.0	14
89	GenCo's Integrated Trading Decision Making to Manage Multimarket Uncertainties. IEEE Transactions on Power Systems, 2015, 30, 1465-1474.	6.5	10
90	Coordinated GEP and TEP integrating correlated solar generation and load. , 2014, , .		3

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91	Hybrid Differential Evolution with BBO for Genco's multi-hourly strategic bidding. , 2014, , .		0
92	Stochastic cournot model for wind power trading in electricity markets. , 2014, , .		8
93	IGDT based Genco's trading decision making in multimarket environment. , 2014, , .		0
94	Coincident demand based Smart Long Run Incremental Cost pricing model. , 2014, , .		1
95	Smart network pricing based on long run incremental cost pricing model. , 2014, , .		0
96	Integrated risk management model for portfolio selection in multiple markets. , 2014, , .		3
97	Carbon price risk influence on GenCo's portfolio optimization. , 2014, , .		0
98	Optimal sizing of PV-battery for loss reduction and intermittency mitigation. , 2014, , .		16
99	Info-Gap Approach to Manage GenCo's Trading Portfolio With Uncertain Market Returns. IEEE Transactions on Power Systems, 2014, 29, 2916-2925.	6.5	16
100	Strategic bidding for wind power producers in electricity markets. Energy Conversion and Management, 2014, 86, 259-267.	9.2	56
101	Stochastic EPEC approach for wind power trading in competitive electricity market. , 2014, , .		1
102	Wind Power Scenario Generation and Reduction in Stochastic Programming Framework. Electric Power Components and Systems, 2013, 41, 271-285.	1.8	98
103	Dynamic network pricing based on smart reference networks. , 2012, , .		4
104	Profit maximization of a generation company based on Biogeography based Optimization. , 2012, , .		4
105	A dynamic distribution network pricing model. , 2011, , .		2
106	Smart reference networks. , 2011, , .		13
107	Payment cost minimization auction in electricity markets. , 2011, , .		3
108	Probabilistic game approaches for network cost allocation. , 2010, , .		1

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109	Probabilistic Game Approaches for Network Cost Allocation. IEEE Transactions on Power Systems, 2010, 25, 51-58.	6.5	53
110	Development of a flexible distribution reference network. , 2010, , .		7
111	Reference network development for distribution network pricing. , 2010, , .		8
112	Transmission Embedded Cost Allocation in Restructured Environment: A Game-theoretic Approach. Electric Power Components and Systems, 2009, 37, 970-981.	1.8	10
113	Cost allocation of DG embedded distribution system by game theoretic models. , 2009, , .		6
114	State of art of the regulatory process in India. , 2008, , .		5