

# 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  
g-index

114  
all docs

114  
docs citations

114  
times ranked

1000  
citing authors

#	ARTICLE	IF	CITATIONS
1	Wind Power Scenario Generation and Reduction in Stochastic Programming Framework. Electric Power Components and Systems, 2013, 41, 271-285.	1.8	98
2	Demand Side Contributions for System Inertia in the GB Power System. IEEE Transactions on Power Systems, 2018, 33, 3521-3530.	6.5	87
3	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
4	Strategic bidding for wind power producers in electricity markets. Energy Conversion and Management, 2014, 86, 259-267.	9.2	56
5	Resource potential and variability assessment of solar and wind energy in India. Energy, 2020, 211, 118993.	8.8	56
6	Probabilistic Game Approaches for Network Cost Allocation. IEEE Transactions on Power Systems, 2010, 25, 51-58.	6.5	53
7	Implications of short-term renewable energy resource intermittency in long-term power system planning. Energy Strategy Reviews, 2018, 22, 1-15.	7.3	48
8	Flexibility requirement for large-scale renewable energy integration in Indian power system: Technology, policy and modeling options. Energy Strategy Reviews, 2020, 29, 100482.	7.3	45
9	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
10	Local energy markets: Concept, design and operation. , 2016, , .		38
11	Long-term energy system planning considering short-term operational constraints. Energy Strategy Reviews, 2019, 26, 100383.	7.3	37
12	Frequency Response Constrained Modified Interval Scheduling Under Wind Uncertainty. IEEE Transactions on Sustainable Energy, 2018, 9, 302-310.	8.8	34
13	Gumbel copula based multi interval ramp product for power system flexibility enhancement. International Journal of Electrical Power and Energy Systems, 2019, 112, 417-427.	5.5	28
14	Frequency response support assessment from uncertain wind generation. International Journal of Electrical Power and Energy Systems, 2022, 134, 107465.	5.5	25
15	Gumbel copula based aggregated net load forecasting for modern power systems. IET Generation, Transmission and Distribution, 2018, 12, 4348-4358.	2.5	24
16	Synthetic inertia and frequency support assessment from renewable plants in low carbon grids. Electric Power Systems Research, 2022, 209, 107977.	3.6	22
17	Peer-to-peer local electricity market platform pricing strategies for prosumers. IET Generation, Transmission and Distribution, 2020, 14, 4388-4397.	2.5	20
18	GenCo's optimal power portfolio selection under emission price risk. Electric Power Systems Research, 2015, 121, 279-286.	3.6	19

#	ARTICLE	IF	CITATIONS
19	Grey System Theory Based Net Load Forecasting for High Renewable Penetrated Power Systems. Technology and Economics of Smart Grids and Sustainable Energy, 2020, 5, 1.	2.6	19
20	Impact of LRIC pricing and demand response on generation and transmission expansion planning. IET Generation, Transmission and Distribution, 2019, 13, 679-685.	2.5	18
21	Flexible Ramp Products: A solution to enhance power system flexibility. Renewable and Sustainable Energy Reviews, 2022, 162, 112429.	16.4	18
22	Optimal sizing of PV-battery for loss reduction and intermittency mitigation. , 2014, , .		16
23	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
24	Reliability-Security Constrained Unit Commitment based on benders decomposition and Mixed Integer Non-Linear Programming. , 2017, , .		15
25	Adaptabilities of three mainstream short-term wind power forecasting methods. Journal of Renewable and Sustainable Energy, 2015, 7, 053101.	2.0	14
26	Stochastic scheduling of compressed air energy storage in DC SCUC framework for high wind penetration. IET Generation, Transmission and Distribution, 2019, 13, 2747-2760.	2.5	14
27	Multi-Interval Solar Ramp Product to Enhance Power System Flexibility. IEEE Systems Journal, 2021, 15, 170-179.	4.6	14
28	A stochastic multi-interval scheduling framework to quantify operational flexibility in low carbon power systems. Applied Energy, 2021, 304, 117763.	10.1	14
29	Smart reference networks. , 2011, , .		13
30	Joint optimal sizing and placement of renewable distributed generation and energy storage for energy loss minimization. , 2017, , .		13
31	Long-Term Expansion Planning of the Transmission Network in India under Multi-Dimensional Uncertainty. Energies, 2021, 14, 7813.	3.1	13
32	Optimized Support Vector Regression models for short term solar radiation forecasting in smart environment. , 2016, , .		12
33	ARIMA based statistical approach to predict wind power ramps. , 2015, , .		11
34	Time of Use Price based Vehicle to Grid Scheduling of Electric Vehicle Aggregator for Improved Market Operations. , 2018, , .		11
35	Enhancing power systems operational flexibility with ramp products from flexible resources. Electric Power Systems Research, 2022, 202, 107599.	3.6	11
36	Intra-regional renewable energy resource variability in long-term energy system planning. Energy, 2022, 245, 123302.	8.8	11

#	ARTICLE	IF	CITATIONS
37	Transmission Embedded Cost Allocation in Restructured Environment: A Game-theoretic Approach. Electric Power Components and Systems, 2009, 37, 970-981.	1.8	10
38	GenCo's Integrated Trading Decision Making to Manage Multimarket Uncertainties. IEEE Transactions on Power Systems, 2015, 30, 1465-1474.	6.5	10
39	Joint optimal allocation of battery storage and hybrid renewable distributed generation. , 2016, , .		9
40	Stochastic scheduling of battery energy storage system for large-scale wind power penetration. Journal of Engineering, 2019, 2019, 5028-5032.	1.1	9
41	Risk-based retailer profit maximization: Time of Use price setting for elastic demand. International Transactions on Electrical Energy Systems, 2019, 29, e12036.	1.9	9
42	Modified interval-based generator scheduling for PFR adequacy under uncertain PV generation. IET Generation, Transmission and Distribution, 2019, 13, 3725-3733.	2.5	9
43	Stochastic security constrained unit commitment with battery energy storage and wind power integration. International Transactions on Electrical Energy Systems, 2020, 30, e12556.	1.9	9
44	PFR constrained energy storage and interruptible load scheduling under high RE penetration. IET Generation, Transmission and Distribution, 2020, 14, 3070-3077.	2.5	9
45	Reference network development for distribution network pricing. , 2010, , .		8
46	Stochastic Cournot model for wind power trading in electricity markets. , 2014, , .		8
47	Risk constrained short term electricity procurement for open access consumer in India. , 2016, , .		8
48	Security constrained unit commitment in a power system based on battery energy storage with high wind penetration. , 2018, , .		8
49	Development of a flexible distribution reference network. , 2010, , .		7
50	Cost allocation of DG embedded distribution system by game theoretic models. , 2009, , .		6
51	Scenario based uncertainty modeling of electricity market prices. , 2017, , .		6
52	Assessment of Energy Storage Potential for Primary Frequency Response Adequacy in Future Grids. , 2018, , .		6
53	Very Short term Wind Power Prediction Using Hybrid Univariate ARIMA-GARCH Model. , 2019, , .		6
54	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

#	ARTICLE	IF	CITATIONS
55	Multi-service based economic valuation of grid-connected battery energy storage systems. Journal of Energy Storage, 2022, 52, 104657.	8.1	6
56	State of art of the regulatory process in India. , 2008, , .		5
57	Uncertainty and risk management in electricity market: Challenges and opportunities. , 2016, , .		5
58	Identifying the Potential for Peer-to-Peer Trading of Rooftop Solar Power for Indian Scenario. , 2019, , .		5
59	Optimal scheduling of electric vehicle in stochastic AC SCUC problem for large-scale wind power penetration. International Transactions on Electrical Energy Systems, 2020, 30, e12145.	1.9	5
60	Performance Improvement of a CPV System: Experimental Investigation into Passive Cooling with Phase Change Materials. Energies, 2021, 14, 3550.	3.1	5
61	Dynamic network pricing based on smart reference networks. , 2012, , .		4
62	Profit maximization of a generation company based on Biogeography based Optimization. , 2012, , .		4
63	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
64	An optimally controlled charging scheme motivating EV owners for supporting grid stability. , 2016, , .		4
65	Demand response-based enhanced LRIC pricing framework. IET Renewable Power Generation, 2017, 11, 1723-1730.	3.1	4
66	Impact of Renewable Energy Sources and Electric Vehicle Penetration on Generation Scheduling. , 2018, , .		4
67	Operational Flexibility Enhancement through Flexible Ramp Products from Energy Storage. , 2019, , .		4
68	Payment cost minimization auction in electricity markets. , 2011, , .		3
69	Coordinated GEP and TEP integrating correlated solar generation and load. , 2014, , .		3
70	Integrated risk management model for portfolio selection in multiple markets. , 2014, , .		3
71	Matrix based univariate and multivariate linear similar day approach towards short term solar radiation forecasting. , 2016, , .		3
72	Capacity reimbursement mechanisms: Challenges and opportunities in deregulated markets. , 2016, , .		3

#	ARTICLE	IF	CITATIONS
73	Operational Strategy of Energy Storage to Address Day-Ahead Scheduling Errors in High RE Scenario. , 2018, , .		3
74	Optimal generation mix for frequency response adequacy in future power system. Energy and Built Environment, 2021, 2, 243-250.	5.9	3
75	A dynamic distribution network pricing model. , 2011, , .		2
76	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
77	Enhanced LRIC pricing differentiating generation technologies and load classes. , 2016, , .		2
78	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
79	System Inertia Prediction for Primary Frequency Response Adequacy Under Uncertain Wind Generation. , 2018, , .		2
80	Electric Vehicle Owner Preferred Smart Charge Scheduling of EV Aggregator Using PV Generation. , 2018, , .		2
81	Stacked Benefits of Energy Storage in Microgrid Scheduling. , 2018, , .		2
82	State-of-Art on Flexibility Services in Electricity Markets. , 2018, , .		2
83	Integrated TOU Price-Based Demand Response and Dynamic G2V Charge Scheduling of Electric Vehicle Aggregator. , 2018, , .		2
84	Inertia and Primary Frequency Response Assessment Under Uncertain Photovoltaic Generation. , 2018, , .		2
85	Inertia Emulation Trends in Low Carbon Power System. , 2019, , .		2
86	Primary Frequency Response Constrained Energy Storage Scheduling Under Photovoltaic Generation. , 2019, , .		2
87	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
88	Local Flexibility Markets in the Context of Reactive Power Provision by Distributed Energy Resources. , 2022, , .		2
89	Probabilistic game approaches for network cost allocation. , 2010, , .		1
90	Coincident demand based Smart Long Run Incremental Cost pricing model. , 2014, , .		1

#	ARTICLE	IF	CITATIONS
91	Stochastic EPEC approach for wind power trading in competitive electricity market. , 2014, , .		1
92	Methodology for joint allocation of energy storage and renewable distributed generation. , 2016, , .		1
93	Large consumer's purchase portfolio optimization in electricity market. , 2016, , .		1
94	A novel hierarchical contribution factor based model for distribution use-of-system charges. Applied Energy, 2017, 208, 996-1006.	10.1	1
95	Modelling local electricity market over distribution network. , 2017, , .		1
96	Retailer risk-based trading decision making model under price responsive demand. , 2017, , .		1
97	Profit Based Self Scheduling of Virtual Power Plant Under Multiple Locational Marginal Prices. , 2018, , .		1
98	A Benders Decomposition Approach: Security Constrained Unit Commitment in a Power System Using Mixed Integer Programming. , 2018, , .		1
99	Optimal Scheduling for Residential Building Based on Virtual Energy Storage System. , 2019, , .		1
100	Coordinated Scheduling of Virtual Energy Storage System for Optimal Microgrid Operation. , 2020, , .		1
101	Virtual Power Plant (VPP) scheduling with uncertain multiple Locational Marginal Prices. IET Energy Systems Integration, 2022, 4, 436-447.	1.8	1
102	Clustering Models for Demand Response Aggregation. , 2021, , .		1
103	P2P Energy Trading in Local Energy Market considering Network Fees and Losses. , 2021, , .		1
104	Hybrid Differential Evolution with BBO for GenCo's multi-hourly strategic bidding. , 2014, , .		0
105	IGDT based GenCo's trading decision making in multimarket environment. , 2014, , .		0
106	Smart network pricing based on long run incremental cost pricing model. , 2014, , .		0
107	Carbon price risk influence on GenCo's portfolio optimization. , 2014, , .		0
108	Primary Frequency Response Constrained Interruptible Load Scheduling Under PV Generation. , 2018, , .		0

#	ARTICLE	IF	CITATIONS
109	Interruptible Load Constrained Primary Frequency Response Scheduling with Photovoltaic Generation. , 2018, , .		0
110	Distribution Network Pricing to Mitigate Uncertain Load Scenario. , 2019, , .		0
111	Scheduling BESS for Primary Frequency Response in Low Inertia Grids. , 2020, , .		0
112	Effect of High-Resolution Data Input on Wind Speed Prediction using Machine Learning Algorithms. , 2022, , .		0
113	Fuzzy-based Reserve Scheduling in Renewable Integrated Power Systems. , 2022, , .		0
114	Short Term Power Procurement for RE Rich Indian DISCOMS with Multi-Market Uncertainties. , 2022, , .		0