Om Prakash Mahela

List of Publications by Year in descending order

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162 papers 3,008 citations

201385 27 h-index 197535 **49** g-index

173 all docs

173 docs citations

173 times ranked

1597 citing authors

#	Article	IF	Citations
1	A critical review of detection and classification of power quality events. Renewable and Sustainable Energy Reviews, 2015, 41, 495-505.	8.2	316
2	Comprehensive Overview of Low Voltage Ride Through Methods of Grid Integrated Wind Generator. IEEE Access, 2019, 7, 99299-99326.	2.6	142
3	Comprehensive overview of grid interfaced wind energy generation systems. Renewable and Sustainable Energy Reviews, 2016, 57, 260-281.	8.2	127
4	Comprehensive overview of grid interfaced solar photovoltaic systems. Renewable and Sustainable Energy Reviews, 2017, 68, 316-332.	8.2	121
5	Topological aspects of power quality improvement techniques: A comprehensive overview. Renewable and Sustainable Energy Reviews, 2016, 58, 1129-1142.	8.2	115
6	Comprehensive Review on Detection and Classification of Power Quality Disturbances in Utility Grid With Renewable Energy Penetration. IEEE Access, 2020, 8, 146807-146830.	2.6	112
7	Power Quality Assessment and Event Detection in Distribution Network With Wind Energy Penetration Using Stockwell Transform and Fuzzy Clustering. IEEE Transactions on Industrial Informatics, 2020, 16, 6922-6932.	7.2	107
8	Power quality improvement in distribution network using DSTATCOM with battery energy storage system. International Journal of Electrical Power and Energy Systems, 2016, 83, 229-240.	3.3	100
9	Recognition of power quality disturbances using S-transform based ruled decision tree and fuzzy C-means clustering classifiers. Applied Soft Computing Journal, 2017, 59, 243-257.	4.1	95
10	Comprehensive Review of Distributed FACTS Control Algorithms for Power Quality Enhancement in Utility Grid With Renewable Energy Penetration. IEEE Access, 2020, 8, 107614-107634.	2.6	93
11	Power quality assessment and event detection in hybrid power system. Electric Power Systems Research, 2018, 161, 26-44.	2.1	86
12	Power quality recognition in distribution system with solar energy penetration using S -transform and Fuzzy C-means clustering. Renewable Energy, 2017, 106, 37-51.	4.3	82
13	Impact of Partial Shading on Various PV Array Configurations and Different Modeling Approaches: A Comprehensive Review. IEEE Access, 2020, 8, 181375-181403.	2.6	67
14	A review of distribution static compensator. Renewable and Sustainable Energy Reviews, 2015, 50, 531-546.	8.2	64
15	Wigner distribution function and alienation coefficientâ€based transmission line protection scheme. IET Generation, Transmission and Distribution, 2020, 14, 1842-1853.	1.4	56
16	Assessment of power quality in the utility grid integrated with wind energy generation. IET Power Electronics, 2020, 13, 2917-2925.	1.5	49
17	Power Quality Detection in Distribution System with Wind Energy Penetration Using Discrete Wavelet Transform. , 2015, , .		45
18	Effect of Various Incremental Conductance MPPT Methods on the Charging of Battery Load Feed by Solar Panel. IEEE Access, 2021, 9, 90977-90988.	2.6	44

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19	Detection of power quality events associated with grid integration of 100kW solar PV plant., 2015,,.		41
20	Recognition of Complex Power Quality Disturbances Using S-Transform Based Ruled Decision Tree. IEEE Access, 2020, 8, 173530-173547.	2.6	40
21	Alienation Coefficient and Wigner Distribution Function Based Protection Scheme for Hybrid Power System Network with Renewable Energy Penetration. Energies, 2020, 13, 1120.	1.6	37
22	An Algorithm for Recognition of Fault Conditions in the Utility Grid with Renewable Energy Penetration. Energies, 2020, 13, 2383.	1.6	36
23	A Protection Scheme for a Power System with Solar Energy Penetration. Applied Sciences (Switzerland), 2020, 10, 1516.	1.3	33
24	Incremental Conductance Based Particle Swarm Optimization Algorithm for Global Maximum Power Tracking of Solar-PV under Nonuniform Operating Conditions. Applied Sciences (Switzerland), 2020, 10, 4575.	1.3	31
25	Wavelet-Alienation-Neural-Based Protection Scheme for STATCOM Compensated Transmission Line. IEEE Transactions on Industrial Informatics, 2021, 17, 2557-2565.	7.2	31
26	Recognition of Power Quality Issues Associated With Grid Integrated Solar Photovoltaic Plant in Experimental Framework. IEEE Systems Journal, 2021, 15, 3740-3748.	2.9	29
27	Comprehensive Overview of Power System Flexibility during the Scenario of High Penetration of Renewable Energy in Utility Grid. Energies, 2022, 15, 516.	1.6	29
28	A Hybrid Fault Recognition Algorithm Using Stockwell Transform and Wigner Distribution Function for Power System Network with Solar Energy Penetration. Energies, 2020, 13, 3519.	1.6	28
29	Optimal expansion planning of distribution system using grid-based multi-objective harmony search algorithm. Computers and Electrical Engineering, 2020, 87, 106823.	3.0	28
30	Detection of transmission line faults using discrete wavelet transform. , 2016, , .		27
31	Mendelian evolutionary theory optimization algorithm. Soft Computing, 2020, 24, 14345-14390.	2.1	27
32	Protection Scheme using Wavelet-Alienation-Neural Technique for UPFC Compensated Transmission Line. IEEE Access, 2021, 9, 13737-13753.	2.6	27
33	Recognition of Islanding and Operational Events in Power System With Renewable Energy Penetration Using a Stockwell Transform-Based Method. IEEE Systems Journal, 2022, 16, 166-175.	2.9	24
34	A Hybrid Algorithm for Recognition of Power Quality Disturbances. IEEE Access, 2020, 8, 229184-229200.	2.6	24
35	Design and Performance Analysis of Hybrid Battery and Ultracapacitor Energy Storage System for Electrical Vehicle Active Power Management. Sustainability, 2022, 14, 776.	1.6	24
36	Reliability enhancement and voltage profile improvement of distribution network using optimal capacity allocation and placement of distributed energy resources. Computers and Electrical Engineering, 2021, 93, 107295.	3.0	20

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37	Convolutional Neural Networks with Transfer Learning for Recognition of COVID-19: A Comparative Study of Different Approaches. Al, 2020, 1, 586-606.	2.1	20
38	Harmonic mitigation and power quality improvement in utility grid with solar energy penetration using distribution static compensator. IET Power Electronics, 2021, 14, 912-922.	1.5	19
39	Distribution network reliability enhancement and power loss reduction by optimal network reconfiguration. Computers and Electrical Engineering, 2021, 96, 107518.	3.0	17
40	Optimal integration of DSTATCOM using improved bacterial search algorithm for distribution network optimization. AEJ - Alexandria Engineering Journal, 2022, 61, 5539-5555.	3.4	16
41	Reactive power flow control using Static VAR Compensator to improve voltage stability in transmission system. , 2016, , .		15
42	Detection and Classification of Complex Power Quality Disturbances Using Stockwell Transform and Rule Based Decision Tree., 2018,,.		15
43	Development of arduino assisted data acquisition system for solar photovoltaic array characterization under partial shading conditions. Computers and Electrical Engineering, 2021, 92, 107175.	3.0	15
44	Integration of Renewable Based Distributed Generation for Distribution Network Expansion Planning. Energies, 2022, 15, 1378.	1.6	15
45	Detection and Classification of Power System Faults using Discrete Wavelet Transform and Rule Based Decision Tree. , 2018, , .		14
46	A Novel \$k\$-Means Clustering and Weighted \$k\$-NN-Regression-Based Fast Transmission Line Protection. IEEE Transactions on Industrial Informatics, 2021, 17, 6034-6043.	7.2	14
47	Experimental Investigations on Particle Swarm Optimization Based Control Algorithm for Shunt Active Power Filter to Enhance Electric Power Quality. IEEE Access, 2022, 10, 54878-54890.	2.6	13
48	Mitigation of Low-Frequency Oscillation in Power Systems through Optimal Design of Power System Stabilizer Employing ALO. Energies, 2022, 15, 3809.	1.6	13
49	Identification of Islanding Events in Utility Grid With Renewable Energy Penetration Using Current Based Passive Method. IEEE Access, 2021, 9, 93781-93794.	2.6	12
50	Shade dispersion methodologies for performance improvement of classical total crossâ€tied photovoltaic array configuration under partial shading conditions. IET Renewable Power Generation, 2021, 15, 1796-1811.	1.7	12
51	A double input SMV controlled DC/DC buck-boost converter for solar PV/wind energy sources. , 2014, , .		10
52	Recognition of power quality disturbances using S-transform and Fuzzy C-means clustering. , 2016, , .		10
53	Optimal capacitor placement in distribution system using genetic algorithm. , 2016, , .		10
54	Detection and Classification of Transmission Line Faults Using Stockwell Transform and Rule Based Decision Tree. , 2018, , .		10

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55	A multivariable transmission line protection scheme using signal processing techniques. IET Generation, Transmission and Distribution, 2021, 15, 3115-3137.	1.4	10
56	Detection of Power quality disturbances using discrete wavelet transform. , 2016, , .		9
57	Recognition of power quality disturbances using S-transform and rule-based decision tree. , 2016, , .		9
58	Impact of grid disturbances on the output of grid connected solar photovoltaic system. , 2016, , .		9
59	Detection of transmission line faults in the presence of solar PV generation using discrete wavelet. , 2016, , .		9
60	A Stockwell Transform Based Approach for Detection of Transmission Line Faults in the Presence of Thyristor Controlled Reactor. , 2018, , .		9
61	Hybridization of the Stockwell Transform and Wigner Distribution Function to Design a Transmission Line Protection Scheme. Applied Sciences (Switzerland), 2020, 10, 7985.	1.3	9
62	Development of Stand-Alone Green Hybrid System for Rural Areas. Sustainability, 2020, 12, 3808.	1.6	9
63	A protection scheme for distribution utility grid with wind energy penetration. Computers and Electrical Engineering, 2021, 94, 107324.	3.0	9
64	A Hybrid Signal Processing Technique for Recognition of Complex Power Quality Disturbances. Electric Power Systems Research, 2022, 207, 107865.	2.1	9
65	Detection of transmission line faults in the presence of wind power generation using discrete wavelet transform. , 2016, , .		8
66	Detection and Classification of Transmission Line Faults Using Empirical Mode Decomposition and Rule Based Decision Tree Based Algorithm. , $2018, \ldots$		8
67	Optimal Capacitor Placement Techniques in Transmission and Distribution Networks to Reduce Line Losses and Voltage Stability Enhancement: A Review. IOSR Journal of Electrical and Electronics Engineering, 2012, 3, 01-08.	0.0	8
68	Feasibility Analysis and Development of Stand-Alone Hybrid Power Generation System for Remote Areas: A Case Study of Ethiopian Rural Area. Wind, 2022, 2, 68-86.	0.6	8
69	Optimal Placement of Renewable Energy Generators Using Grid-Oriented Genetic Algorithm for Loss Reduction and Flexibility Improvement. Energies, 2022, 15, 1863.	1.6	8
70	Detection of transmission line faults in the presence of solar PV system using stockwell's transform. , 2016, , .		7
71	Implementation of Thyristor controlled series capacitor in transmission system to improve the performance of power system network., 2017,,.		7
72	Detection of Power System Faults in Distribution System Using Stockwell Transform. , 2018, , .		7

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73	Mitigating Generation Schedule Deviation of Wind Farm Using Battery Energy Storage System. Energies, 2022, 15, 1768.	1.6	7
74	Analysis of high voltage shunt capacitor bank on reduced capacity: The case of RRVPNL power grid. , 2013, , .		6
75	Recognition of Power Quality Disturbances Using Discrete Wavelet Transform and Fuzzy C-means Clustering. , 2018, , .		6
76	Detection and Classification of Complex Power Quality Disturbances Using Hilbert Transform and Rule Based Decision Tree. , 2018, , .		6
77	A Technique Using Stockwell Transform Based Median for Detection of Power System Faults. , 2018, , .		6
78	An Algorithm Based on Hilbert Transform and Rule Based Decision Tree Classification of Power Quality Disturbances. , $2018, , .$		6
79	Analysing integration issues of the microgrid system with utility grid network. International Journal of Emerging Electric Power Systems, 2021, 22, 113-127.	0.6	6
80	Voltage-Based Hybrid Algorithm Using Parameter Variations and Stockwell Transform for Islanding Detection in Utility Grids. Informatics, 2021, 8, 21.	2.4	6
81	Recognition of complex and multiple power quality disturbances using wavelet packet-based fast kurtogram and ruled decision tree algorithm. International Journal of Modeling, Simulation, and Scientific Computing, 2021, 12, 2150032.	0.9	6
82	Performance Evaluation of a MW-Size Grid-Connected Solar Photovoltaic Plant Considering the Impact of Tilt Angle. Sustainability, 2022, 14, 1444.	1.6	6
83	Detection of power quality disturbances in the utility grid with solar energy using S-transform. , 2016, , .		5
84	Experimental investigation of power quality disturbances associated with grid integrated wind energy system. , 2017, , .		5
85	Detection of Power Quality Disturbances in Utility Grid with Solar Photovoltaic Energy Penetration. , 2018, , .		5
86	Power Quality Improvement in Renewable Energy Sources Based Power System Using DSTATCOM Supported by Battery Energy Storage System. , 2019, , .		5
87	Detection and Classification of Complex Power Quality Disturbances Using Hybrid Algorithm Based on Combined Features of Stockwell Transform and Hilbert Transform. , 2020, , .		5
88	Estimation of Islanding Events in Utility Distribution Grid With Renewable Energy Using Current Variations and Stockwell Transform. IEEE Access, 2021, 9, 69798-69813.	2.6	5
89	Events Recognition and Power Quality Estimation in Distribution Network in the Presence of Solar PV Generation., 2021,,.		5
90	Detection and Analysis of Power System Faults in the Presence of Wind Power Generation Using Stockwell Transform Based Median. Lecture Notes in Electrical Engineering, 2020, , 319-329.	0.3	5

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91	Tracing the Points in Search Space in Plant Biology Genetics Algorithm Optimization. Springer Tracts in Nature-inspired Computing, 2020, , 180-195.	1.2	5
92	Analysis of transmission line faults with linear and dynamic loads. , 2016, , .		4
93	Harmonics Mitigation in Industrial Sector by using Space Vector PWM and Shunt Active Power Filter. , 2020, , .		4
94	Combined Stockwell and Hilbert Transforms Based Technique for the Detection of Islanding Events in Hybrid Power System., 2020,,.		4
95	Recognition of Power Quality Disturbances Using Hybrid Algorithm Based on Combined Features of Stockwell Transform and Hilbert Transform. , 2020, , .		4
96	Hybrid Algorithm for Detection of Events and Power Quality Disturbances Associated with Distribution Network in the Presence of Wind Energy. , 2021, , .		4
97	Plant Genetics-Inspired Evolutionary Optimization: A Descriptive Tutorial. Springer Tracts in Nature-inspired Computing, 2020, , 53-77.	1.2	4
98	Improvement of Power Quality in Distribution Grid with Renewable Energy Generation Using DSTATCOM., 2021,,.		4
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100	A study of industrial manufacturing and testing procedures for press board transformer insulation. , 2016, , .		3
101	Detection of Power Quality Disturbances in Utility Grid with Wind Energy Penetration., 2018, , .		3
102	Investigation of Power Quality Events in Distribution Network with Wind Energy Penetration. , 2018, , .		3
103	Detection of Transmission Line Faults in the Presence of Wind Energy Power Generation Source Using Stockwell's Transform. , 2019, , .		3
104	A Current Based Hybrid Algorithm using Discrete Wavelet Transform and Hilbert Transform for Detection and Classification of Power System Faults in the Presence of Solar Energy. , 2020, , .		3
105	K-means Clustering and Linear Regression Based Protection Scheme for Transmission Line. , 2020, , .		3
106	Managing Energy Plus Performance in Data Centers and Battery-Based Devices Using an Online Non-Clairvoyant Speed-Bounded Multiprocessor Scheduling. Applied Sciences (Switzerland), 2020, 10, 2459.	1.3	3
107	A Discrete Wavelet Transform and Rule Based Decision Tree Based Technique for Identification of Fault in Utility Grid Network with Wind Energy. , 2021, , .		3
108	Identification and Classification of Faults in Utility Grid with Solar Energy Using Discrete Wavelet Transform and Decision Rules. , 2020, , .		3

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110	Power System Flexibility Improvement and Loss Reduction Using Optimal Restructuring of Transmission Network., 2022,,.		3
111	Impact of grid disturbances on the output of grid connected wind power generation. , 2016, , .		2
112	Detection of transmission line faults in the presence of thyristor controlled reactor using discrete wavelet transform. , 2016 , , .		2
113	Analysis of faults on series compensated EHV transmission line in the presence of wind generation. , 2016, , .		2
114	Detection of power quality disturbances in the utility grid using stockwell transform. , 2016, , .		2
115	Detection of Saturation of Core of Current Transformer Using Combined Feature of Hilbert Transform and Stockwell Transform. , 2018, , .		2
116	Power Quality Improvement in the Distribution Network with Solar Energy Penetration Using Distribution Static Compensator. , 2018, , .		2
117	Investigation of Power Quality Events in Distribution Network with Solar Energy Penetration. , 2018, , .		2
118	Detection of Transmission Line Faults in the Presence of Thyristor Switched Capacitor Using Stockwell Transform. , 2018, , .		2
119	A Current Based Algorithm Using Harmonic Wavelet Transform and Rule Based Decision Tree for Transmission Line Protection. , 2019, , .		2
120	A Voltage Based Technique Using Combined Features of Stockwell Transform and Hilbert Transform for Detection of Islanding Events. , 2020, , .		2
121	A Fusion-Based Hybrid-Feature Approach for Recognition of Unconstrained Offline Handwritten Hindi Characters. Future Internet, 2021, 13, 239.	2.4	2
122	Reactive power compensation for voltage variation mitigation in grid with renewable energy. , 2022, , 415-426.		2
123	Islanding detection in utility grid with renewable energy using rate of change of frequency and signal processing technique. AIMS Electronics and Electrical Engineering, 2022, 6, 144-160.	0.8	2
124	Estimation of Power Quality in Distribution System with High Penetration of Renewable Power Generation. , 2021, , .		2
125	Restructuring of Transmission Network to Cater Load Demand in Northern Parts of Rajasthan Using Renewable Energy. Algorithms for Intelligent Systems, 2022, , 193-212.	0.5	2
126	Analysis of capacitor cells failure due to circuit breaker pole discrepancy in RRVPNL power grid. , 2014, , .		1

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127	Detection of transmission line faults in the presence of dynamic load using stockwell's transform. , 2016, , .		1
128	Detection and Classification of Power Quality Disturbances Using Stockwell Transform and Rule Based Decision Tree. , 2018, , .		1
129	Transmission Line Protection Schemes Based on Wigner Distribution Function and Discrete Wavelet Transform. , 2020, , .		1
130	Transmission Line Protection Scheme Based on Combined Features of Stockwell Transform and Hilbert Transform. , 2020, , .		1
131	Algorithm Based on Combined Features of Stockwell Transform and Hilbert Transform for Detection of Transmission Line Faults with Dynamic Load. , 2020, , .		1
132	Voltage Based Transmission Line Protection Algorithm Using Signal Processing Techniques., 2020,,.		1
133	Protection of Distribution Feeder Using Stockwell Transform Supported Voltage Features. , 2020, , .		1
134	Capacityâ€based optimization using whale optimization technique of a power distribution network. Engineering Reports, 0, , e12455.	0.9	1
135	Impressions of remote area electrification on social and economic indicators. AIMS Energy, 2020, 8, 1045-1068.	1.1	1
136	Optimal Capacitor Placement in Transmission Network Using Grid Oriented Genetic Algorithm for Loss Reduction and Flexibility Improvement: Indian Scenario. , 2022, , .		1
137	Human resource training to implement transmission schemes for renewable power evacuation in India. Utilities Policy, 2022, 76, 101376.	2.1	1
138	Evaluation of Power Quality in Distribution System with High Penetration of Wind Power Generation. , 2021, , .		1
139	Multivariable passive method for detection of islanding events in renewable energy based power grids. IET Renewable Power Generation, 2022, 16, 497-516.	1.7	1
140	Protection Scheme for Utility Network with Wind Power Generation. , 2022, , .		1
141	Hybrid protection algorithm for power system with renewable energy generation using Stockwell transform and Wigner distribution function. Journal of Engineering, 2022, 2022, 832-846.	0.6	1
142	Hybrid signal processing technique to design smart meter for detection of voltage amplitude disturbances., 2022,, 361-377.		1
143	Detection of transmission line faults in the presence of thyristor switched capacitor using discrete wavelet transform. , 2016, , .		0
144	Detection of power quality disturbances in the utility grid with wind energy penetration using stockwell's transform. , 2016, , .		0

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145	Analysis of faults in power system network in the presence of series compensated EHV transmission lines. , $2016, , .$		0
146	Power System Oscillations Damping During Faulty Events in the Presence of Linear Load. , 2018, , .		0
147	Detection of Open Circuiting of Secondary Winding of Current Transformer Using Combined Feature of Hilbert Transform and Stockwell Transform. , $2018, , .$		0
148	Transient Performance of a Series Compensated 765 kV Transmission Line During Faulty Conditions. , 2018, , .		0
149	Recognition of Faults in Grid Connected Solar Photovoltaic Farm Using Current Features Evaluated Using Stockwell Transform Based Algorithm. , 2020, , .		0
150	Estimation of Faults in Grid Connected Solar Photovoltaic Farm Using Voltage Based Median and Summing Values Features of Stockwell Transform Based Algorithm. , 2020, , .		0
151	A Voltage Algorithm using Discrete Wavelet Transform and Hilbert Transform for Detection and Classification of Power System Faults in the Presence of Solar Energy. , 2020, , .		0
152	Current Based Transmission Line Protection Algorithm Using Signal Processing Techniques., 2020,,.		0
153	Optimal Generation Mix Based Design of Grid Integrated Hybrid Renewable Energy Farm with Common DC bus and Performance Evaluation. , 2020, , .		0
154	Recognition of Disturbances in Hybrid Grid Using Discrete Wavelet Transform and Stockwell Transform Based Algorithm. , 2020, , .		0
155	Performance Evaluation of Second Order Generalized Integrator-Quadrature Algorithm for DSTATCOM in Non-ideal Grid. , 2020, , .		0
156	Analyzing the Association between Pattern and Returns Using Goodman–Kruskal Prediction Error Reduction Index (λ). Complexity, 2022, 2022, 1-8.	0.9	0
157	Identification and classification of faults using Stockwell transform and decision rule. , 2022, , 439-455.		0
158	DC smart micro grid protection system. , 2022, , 427-437.		0
159	Automatic analysis of the heart sound signal to build smart healthcare system. , 2022, , 151-188.		0
160	Fault Events Recognition to Design a Current Based Transmission Line Protection Scheme Using Signal Processing Techniques., 2022,,.		0
161	Voltage Actuated Transmission Line Protection Scheme Applying Signal Processing Techniques. , 2022, , .		0
162	Protection of Utility Network with Solar Power Generation. , 2022, , .		0