Lingling Fan

List of Publications by Year
in descending order

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193 papers	4,918 citations	126907 33 h-index	110387 64 g-index
194 all docs	194 docs citations	194 times ranked	3161 citing authors

#	Article	IF	Citations
1	Microgrid Stability Definitions, Analysis, and Examples. IEEE Transactions on Power Systems, 2020, 35, 13-29.	6.5	422
2	Modeling of DFIG-Based Wind Farms for SSR Analysis. IEEE Transactions on Power Delivery, 2010, 25, 2073-2082.	4.3	390
3	Mitigating SSR Using DFIG-Based Wind Generation. IEEE Transactions on Sustainable Energy, 2012, 3, 349-358.	8.8	220
4	Modal Analysis of a DFIG-Based Wind Farm Interfaced With a Series Compensated Network. IEEE Transactions on Energy Conversion, 2011, 26, 1010-1020.	5.2	202
5	Control of DFIG-Based Wind Generation to Improve Interarea Oscillation Damping. IEEE Transactions on Energy Conversion, 2009, 24, 415-422.	5.2	191
6	On Active/Reactive Power Modulation of DFIG-Based Wind Generation for Interarea Oscillation Damping. IEEE Transactions on Energy Conversion, 2011, 26, 513-521.	5.2	144
7	Harmonic Analysis of a DFIG for a Wind Energy Conversion System. IEEE Transactions on Energy Conversion, 2010, 25, 181-190.	5.2	136
8	Extended Kalman filtering based real-time dynamic state and parameter estimation using PMU data. Electric Power Systems Research, 2013, 103, 168-177.	3.6	133
9	An SOC-Based Battery Management System for Microgrids. IEEE Transactions on Smart Grid, 2014, 5, 966-973.	9.0	132
10	Wind in Weak Grids: Low-Frequency Oscillations, Subsynchronous Oscillations, and Torsional Interactions. IEEE Transactions on Power Systems, 2020, 35, 109-118.	6.5	129
11	Wind Farms With HVdc Delivery in Inertial Response and Primary Frequency Control. IEEE Transactions on Energy Conversion, 2010, 25, 1171-1178.	5.2	119
12	Investigation of Microgrids With Both Inverter Interfaced and Direct AC-Connected Distributed Energy Resources. IEEE Transactions on Power Delivery, 2011, 26, 1634-1642.	4.3	110
13	Nyquist-Stability-Criterion-Based SSR Explanation for Type-3 Wind Generators. IEEE Transactions on Energy Conversion, 2012, 27, 807-809.	5.2	107
14	DC Impedance-Model-Based Resonance Analysis of a VSCâ€“HVDC System. IEEE Transactions on Power Delivery, 2015, 30, 1221-1230.	4.3	102
15	Modeling Type-4 Wind in Weak Grids. IEEE Transactions on Sustainable Energy, 2019, 10, 853-864.	8.8	102
16	Impedance-Based Resonance Analysis in a VSC-HVDC System. IEEE Transactions on Power Delivery, 2013, 28, 2209-2216.	4.3	93
17	Impedance Model-Based SSR Analysis for TCSC Compensated Type-3 Wind Energy Delivery Systems. IEEE Transactions on Sustainable Energy, 2015, 6, 179-187.	8.8	92
18	Admittance-Based Stability Analysis: Bode Plots, Nyquist Diagrams or Eigenvalue Analysis?. IEEE Transactions on Power Systems, 2020, 35, 3312-3315.	6.5	83

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19	Application of Dynamic State and Parameter Estimation Techniques on Real-World Data. IEEE Transactions on Smart Grid, 2013, 4, 1133-1141.	9.0	80
20	Wind in Weak Grids: 4ÂHz or 30ÂHz Oscillations?. IEEE Transactions on Power Systems, 2018, 33, 5803-5804.	6.5	77
21	An Explanation of Oscillations Due to Wind Power Plants Weak Grid Interconnection. IEEE Transactions on Sustainable Energy, 2018, 9, 488-490.	8.8	76
22	Stability Control for Wind in Weak Grids. IEEE Transactions on Sustainable Energy, 2019, 10, 2094-2103.	8.8	61
23	Wind Farms With HVDC Delivery in Load Frequency Control. IEEE Transactions on Power Systems, 2009, 24, 1894-1895.	6.5	60
24	The art of modeling and simulation of induction generator in wind generation applications using high-order model. Simulation Modelling Practice and Theory, 2008, 16, 1239-1253.	3.8	57
25	Replicating Real-World Wind Farm SSR Events. IEEE Transactions on Power Delivery, 2020, 35, 339-348.	4.3	57
26	Positive-Feedback-Based Active Anti-Islanding Schemes for Inverter-Based Distributed Generators: Basic Principle, Design Guideline and Performance Analysis. IEEE Transactions on Power Electronics, 2010, 25, 2941-2948.	7.9	56
27	Dynamic Phasor-Based Modeling of Unbalanced Radial Distribution Systems. IEEE Transactions on Power Systems, 2015, 30, 3102-3109.	6.5	46
28	Selection and design of a TCSC control signal in damping power system inter-area oscillations for multiple operating conditions. Electric Power Systems Research, 2002, 62, 127-137.	3.6	43
29	Control and Dynamics in Power Systems and Microgrids. , 0, , .		43
30	Identification of synchronous generator model with frequency control using unscented Kalman filter. Electric Power Systems Research, 2015, 126, 45-55.	3.6	42
31	Minimizing DC system loss in multi-terminal HVDC systems through adaptive droop control. Electric Power Systems Research, 2015, 126, 78-86.	3.6	40
32	A tutorial on dataâ€driven eigenvalue identification: Prony analysis, matrix pencil, and eigensystem realization algorithm. International Transactions on Electrical Energy Systems, 2020, 30, e12283.	1.9	40
33	Small-Signal Stability Analysis of Type-4 Wind in Series-Compensated Networks. IEEE Transactions on Energy Conversion, 2020, 35, 529-538.	5.2	38
34	Distributed Prony analysis for real-world PMU data. Electric Power Systems Research, 2016, 133, 113-120.	3.6	36
35	Consensus ADMM and Proximal ADMM for economic dispatch and AC OPF with SOCP relaxation. , 2016, , .		35
36	Stability Analysis of Two Parallel Converters with Voltage-Current Droop Control. IEEE Transactions on Power Delivery, 2017, , 1-1.	4.3	32

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37	Optimal PMU placement for modeling power grid observability with mathematical programming methods. International Transactions on Electrical Energy Systems, 2020, 30, e12182.	1.9	31
38	A novel control scheme for DFIG-based wind energy systems under unbalanced grid conditions. Electric Power Systems Research, 2011, 81, 254-262.	3.6	26
39	Fast Power Routing Through HVDC. IEEE Transactions on Power Delivery, 2012, 27, 1432-1441.	4.3	26
40	Planning Energy Storage and Photovoltaic Panels for Demand Response With Heating Ventilation and Air Conditioning Systems. IEEE Transactions on Industrial Informatics, 2018, 14, 5029-5037.	11.3	26
41	Impact of doubly fed wind turbine generation on inter-area oscillation damping. , 2008, , .		25
42	Least squares based estimation of synchronous generator states and parameters with phasor measurement units. , 2012, , .		24
43	Least Squares Estimation Based SDP Cuts for SOCP Relaxation of AC OPF. IEEE Transactions on Automatic Control, 2018, 63, 241-248.	5.7	24
44	Control of DFIG based wind generation to improve inter-area oscillation damping. , 2008, , .		23
45	Least squares estimation-based synchronous generator parameter estimation using PMU data. , 2015, , .		22
46	Time-Domain Measurement-Based DQ-Frame Admittance Model Identification for Inverter-Based Resources. IEEE Transactions on Power Systems, 2021, 36, 2211-2221.	6.5	21
47	Reduced-Order Analytical Models of Grid-Connected Solar Photovoltaic Systems for Low-Frequency Oscillation Analysis. IEEE Transactions on Sustainable Energy, 2021, 12, 1662-1671.	8.8	21
48	Data-Driven Dynamic Modeling in Power Systems: A Fresh Look on Inverter-Based Resource Modeling. IEEE Power and Energy Magazine, 2022, 20, 64-76.	1.6	21
49	Coordinated reactive power control of DFIG rotor and grid sides converters. , 2009, , .		19
50	Real-time digital simulation-based modeling of a single-phase single-stage PV system. Electric Power Systems Research, 2015, 123, 85-91.	3.6	19
51	Fast model predictive control algorithms for fast-switching modular multilevel converters. Electric Power Systems Research, 2015, 129, 105-113.	3.6	19
52	Randomized Dynamic Mode Decomposition for Oscillation Modal Analysis. IEEE Transactions on Power Systems, 2021, 36, 1399-1408.	6.5	19
53	MPPT control for a PMSG-based grid-tied wind generation system. , 2010, , .		18
54	Multi-agent control of community and utility using Lagrangian relaxation based dual decomposition. Electric Power Systems Research, 2014, 110, 45-54.	3.6	18

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55	Real-time digital simulation modeling of single-phase PV in RT-LAB. , 2014, , .		17
56	A hardware-in-the-loop SCADA testbed. , 2015, , .		16
57	Data fusion-based distributed Prony analysis. Electric Power Systems Research, 2017, 143, 634-642.	3.6	16
58	Control and analysis of DFIG-based wind turbines in a series compensated network for SSR damping. , 2010, , .		15
59	Regional transmission planning for large-scale wind power. , 2009, , .		14
60	Modeling and simulation of a DFIG-based wind turbine for SSR. , 2009, , .		14
61	Mixed integer programming based battery sizing. Energy Systems, 2014, 5, 787-805.	3.0	13
62	Circulating current and DC current ripple control in MMC under unbalanced grid voltage. , 2015, , .		13
63	Mixed integer linear programming formulation for chance constrained mathematical programs with equilibrium constraints. , 2017, , .		13
64	Robust TCSC control design for damping inter-area oscillations. , 2001, , .		12
65	Sensorless Maximum Power Point Tracking in multi-type wind energy conversion systems. , 2009, , .		12
66	Control of DFIG for rotor current harmonics elimination. , 2009, , .		12
67	Modeling and control of DFIG-based large offshore wind farm with HVDC-link integration. , 2009, , .		12
68	Distributed DC Optimal Power Flow for radial networks through partial Primal Dual algorithm. , 2015, , .		12
69	Interarea Oscillation Revisit. IEEE Transactions on Power Systems, 2016, , 1-1.	6.5	12
70	Subcycle Overvoltage Dynamics in Solar PVs. IEEE Transactions on Power Delivery, 2021, 36, 1847-1858.	4.3	12
71	Identifying DQ-Domain Admittance Models of a 2.3-MVA Commercial Grid-Following Inverter via Frequency-Domain and Time-Domain Data. IEEE Transactions on Energy Conversion, 2021, 36, 2463-2472.	5.2	12
72	Toward a self-healing protection and control system. , 2008, , .		11

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73	Impact of unbalanced grid conditions on PV systems. , 2010, , .		11
74	Achieving Economic Operation and Secondary Frequency Regulation Simultaneously Through Feedback Control. IEEE Transactions on Power Systems, 2016, 31, 3324-3325.	6.5	11
75	Achieving Economic Operation and Secondary Frequency Regulation Simultaneously Through Local Feedback Control. IEEE Transactions on Power Systems, 2017, 32, 85-93.	6.5	11
76	Distribution Locational Marginal Pricing (DLMP) for Multiphase Systems. , 2018, , .		11
77	Decentralized stabilization of nonlinear electric power systems using local measurements and feedback linearization. , 0, , .		10
78	A doubly-fed induction generator-based wind generation system with quasi-sine rotor injection. Journal of Power Sources, 2008, 184, 325-330.	7.8	10
79	PMU data-based fault location techniques. , 2010, , .		10
80	A one-step model predictive control for modular multilevel converters. , 2014, , .		10
81	Mixed integer linear programming and nonlinear programming for optimal PMU placement. , 2017, , .		10
82	A Novel Multi-Agent Decision Making Architecture Based on Dualâ€™s Dual Problem Formulation. IEEE Transactions on Smart Grid, 2018, 9, 1150-1160.	9.0	10
83	Inter-IBR Oscillation Modes. IEEE Transactions on Power Systems, 2022, 37, 824-827.	6.5	10
84	Hybrid modeling of DFIGs for wind energy conversion systems. Simulation Modelling Practice and Theory, 2010, 18, 1032-1045.	3.8	9
85	UKF based estimation of synchronous generator electromechanical parameters from phasor measurements. , 2012, , .		9
86	Real-time simulation and hardware-in-the-loop tests of a battery system. , 2015, , .		9
87	Least squares estimation and Kalman filter based dynamic state and parameter estimation. , 2015, , .		9
88	Dynamic Mode Decomposition in Various Power System Applications. , 2019, , .		9
89	Multi-Time Co-optimization of Voltage Regulators and Photovoltaics in Unbalanced Distribution Systems. IEEE Transactions on Sustainable Energy, 2021, 12, 482-491.	8.8	9
90	Negative sequence compensation techniques of DFIG-based wind energy systems under unbalanced grid conditions. , 2009, , .		8

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91	Coordinated control of a solar and battery system in a microgrid. , 2012, , .		8
92	Mixed integer programming for HVACs operation. , 2015, , .		8
93	PMU Measurements for Oscillation Monitoring: Connecting Prony Analysis with Observability. , 2019, , .		8
94	An Optimal Power Control Strategy for Grid-Following Inverters in a Synchronous Frame. Applied Sciences (Switzerland), 2020, 10, 6730.	2.5	8
95	Damping enhancement by TCSC in the Western US Power System. , 0, , .		7
96	Review of robust feedback control applications in power systems. , 2009, , .		7
97	Modeling and simulation of multi-terminal HVDC for wind power delivery. , 2012, , .		7
98	Unbalance and harmonic mitigation using battery inverters. , 2015, , .		7
99	Blackstart of an induction motor in an autonomous microgrid. , 2015, , .		7
100	Volt/Var Optimization with Minimum Equipment Operation under High PV Penetration. , 2018, , .		7
101	A sparse convex AC OPF solver and convex iteration implementation based on 3-node cycles. Electric Power Systems Research, 2020, 180, 106169.	3.6	7
102	Analytical model building for Type-3 wind farm subsynchronous oscillation analysis. Electric Power Systems Research, 2021, 201, 107566.	3.6	7
103	Identification of system wide disturbances using synchronized phasor data and ellipsoid method. , 2008, , .		6
104	Control of a battery system to improve operation of a microgrid. , 2012, , .		6
105	Realizing space vector modulation in MATLAB/Simulink and PSCAD. , 2013, , .		6
106	Real-Time Simulation of Electric Vehicle Battery Charging Systems. , 2018, , .		6
107	Stability analysis of two types of g <scp>ridâ€forming</scp> converters for weak grids. International Transactions on Electrical Energy Systems, 2021, 31, e13136.	1.9	6
108	Reactive power modulation for inter-area oscillation damping of DFIG-based wind generation. , 2010, , .		5

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109	Coordination between DFIG-based wind farm and LCC-HVDC transmission considering limiting factors. , 2011, , .		5
110	PMU-based system identification for a modified classic generator model. , 2015, , .		5
111	Modular Multilevel Converter based induction machine drive. , 2015, , .		5
112	Integrated control and switching strategy for a grid-connected modular multilevel converter. , 2015, , .		5
113	Implementing consensus based distributed control in power system toolbox. , 2016, , .		5
114	ADMM for nonconvex AC optimal power flow. , 2017, , .		5
115	Hardware Demonstration of Weak Grid Oscillations in Grid-Following Converters. , 2021, , .		5
116	Modeling and slip control of a doubly fed induction wind turbine generator. , 2008, , .		4
117	AC or DC power modulation for DFIG wind generation with HVDC delivery to improve interarea oscillation damping. , 2011, , .		4
118	Deriving ARX models for synchronous generators. , 2016, , .		4
119	Benders Decomposition for stochastic programming-based PV/Battery/HVAC planning. , 2016, , .		4
120	Performance of Branch-Current Based Distribution System State Estimation. , 2018, , .		4
121	Mixed-Integer SDP Relaxation-based Volt/Var Optimization for Unbalanced Distribution Systems. , 2019, , .		4
122	Comparison of Islanding and Synchronization for a Microgrid with Different Converter Control. , 2019, , .		4
123	An alternating direction method of multipliers <scp>â€based</scp> approach to solve <scp>mixedâ€integer</scp> nonlinear volt/var optimization problems in distribution systems. International Transactions on Electrical Energy Systems, 2021, 31, e12795.	1.9	4
124	Wind farms in weak grids stability enhancement: SynCon or STATCOM?. Electric Power Systems Research, 2022, 202, 107623.	3.6	4
125	Inner Current Controls of Grid-Connected PV for Unbalanced Grid Conditions. , 2021, , .		4
126	Modeling and small signal analysis of a PMSG-based wind generator With sensorless maximum power extraction. , 2012, , .		3

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127	System identification based VSC-HVDC DC voltage controller design. , 2012, , .		3
128	Dynamic phase based model of Type 1 wind generator for unbalanced operation. , 2012, , .		3
129	DC State Estimation Model-Based Mixed Integer Semidefinite Programming for Optimal PMU Placement. , 2018, , .		3
130	Bilevel Programming-Based Unit Commitment for Locational Marginal Price Computation. , 2018, , .		3
131	New auxiliary variable-based ADMM for nonconvex AC OPF. Electric Power Systems Research, 2019, 174, 105867.	3.6	3
132	Security constrained DC OPF considering generator responses. Electric Power Systems Research, 2021, 192, 106920.	3.6	3
133	Comparison of Synchronous Condenser and STATCOM for Wind Farms in Weak Grids. , 2021, , .		3
134	Root Cause Analysis of AC Overcurrent in July 2020 San Fernando Disturbance. IEEE Transactions on Power Systems, 2021, 36, 4892-4895.	6.5	3
135	Grid Forming Inverter: Laboratory-Scale Hardware Test Bed Setup and Weak Grid Operation. , 2021, , .		3
136	Decentralized control of power systems using-disturbance accommodation techniques. , 2001, , .		2
137	Synchronized global Phasor Measurement based inter-area oscillation control considering communication delay. , 2008, , .		2
138	An optimal power flow algorithm considering wind power penetration. , 2011, , .		2
139	Determine power transfer limits of an SMIB system through linear System Analysis with nonlinear simulation validation. , 2015, , .		2
140	Design a robust power system stabilizer on SMIB using Lyapunov theory. , 2016, , .		2
141	Design robust cascade control structure for voltage source converters. , 2017, , .		2
142	Battery identification based on real-world data. , 2017, , .		2
143	MIP-Based Fault Location Identification Using MicroPMUs. , 2018, , .		2
144	Loss Locational Sensitivity in Distribution Systems. , 2019, , .		2

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145	Data-Driven Dynamic Model Identification for Synchronous Generators. , 2019, , .		2
146	Extended radial Distribution ACOPF Model: Retrieving Exactness Via Convex Iteration. IEEE Transactions on Power Systems, 2021, 36, 4967-4978.	6.5	2
147	Stability Analysis of VSC Systems Using 3Ã—3 Admittance Measurements. , 2021, , .		2
148	Dynamic Performance of Type-4 Wind with Synchronous Condenser during Weak Grids and Faults. , 2021, , .		2
149	Weak Grid Operation of A Grid-Following Current-Sourced PV Solar System. , 2021, , .		2
150	Practical Start-Up Process of Multiple Grid-Tied Voltage-Sourced Inverters in Laboratory. , 2021, , .		2
151	Effective signal selection in decentralized control design of nonlinear interconnected systems. , 0, , .		1
152	A comparison of slip control, FMA control and vector control in DFIG converter. , 2008, , .		1
153	A contingency database for transmission system reliability analysis. , 2008, , .		1
154	Estimation of a shunted radial transfer path dynamics using PMUs. , 2011, , .		1
155	Wind Farm with HVDC Delivery in Inertial and Primary Frequency Response. Green Energy and Technology, 2012, , 465-483.	0.6	1
156	Initialization of unbalanced radial distribution systems for small signal stability analysis. , 2015, , .		1
157	DQ-axis current-based droop controller. , 2017, , .		1
158	Power Grid Partitioning: Static and Dynamic Approaches. , 2018, , .		1
159	Rankâ€1 positive semidefinite matrixâ€based nonlinear programming formulation for AC OPF. International Transactions on Electrical Energy Systems, 2019, 29, e12095.	1.9	1
160	Data Analytics of Real-World PV/Battery Systems. , 2019, , .		1
161	Day-Ahead Distribution Market Analysis Via Convex Bilevel Programming. , 2019, , .		1
162	Realization of Enhanced Phase Locked Loop using Raspberry Pi and LabVIEW. , 2019, , .		1

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163	Operation of Parallel Grid-Supporting PVs. , 2019, , .		1
164	Modeling and Control of Grid-following Single-Phase Voltage-Sourced Converter. , 2021, , .		1
165	Mixed integer programming formulation for fault identification based on MicroPMUs. International Transactions on Electrical Energy Systems, 2021, 31, e12949.	1.9	1
166	Operation of Parallel Grid-Connected PVs Due to an Islanding Event. , 2020, , .		1
167	Investigation of the capability of a solid oxide fuel cell power plant supplying a motor load. , 2008, , .		0
168	A unified model of DFIG for simulating acceleration with rotor injection and harmonics in wind energy conversion systems. , 2009, , .		0
169	Fault ride through techniques of DFIG-based wind energy systems. , 2009, , .		0
170	Influence of no-load superconducting cable's input on distance protection. , 2012, , .		0
171	Multi objectives operation of cascade inverter-based voltage quality disturbance generator. , 2012, , .		0
172	Modeling of Z-source converter for renewable energy integration. , 2013, , .		0
173	Frequency-Domain Based DFIG Wind Energy Systems Modeling. , 2015, , 94-127.		0
174	Multi-Machine Modeling and Inter-Area Oscillation Damping. , 2015, , 128-145.		0
175	State-Space Based DFIG Wind Energy System Modeling. , 2015, , 74-93.		0
176	Capacitor siting using benders decomposition. , 2015, , .		0
177	Damping torque analysis of a UPFC installed in a real Chinese power grid. , 2016, , .		0
178	Economic dispatch with heavy loading and maximum loading identification using convex relaxation of AC OPF. , 2017, , .		0
179	Bender's decomposition algorithm for model predictive control of a modular multi-level converter. , 2017, , .		0
180	Space vector-based synchronous machine modeling. , 2017, , .		0

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181	Loss allocation in AC OPF-based financial transmission rights auction models. , 2017, , .		0
182	Labs for EGN 3375 Electromechanical Energy Systems at University of South Florida. , 2018, , .		0
183	Editorial: Introduction to the Special Section on Dynamic Modeling, System Identification, Analysis, and Control of Renewable Distributed Energy Resources for Grid Integration. IEEE Transactions on Sustainable Energy, 2019, 10, 1397-1398.	8.8	0
184	Innovation Is About Integration [About This Issue]. IEEE Electrification Magazine, 2020, 8, 2-4.	1.8	0
185	Induction Machines limits Identification During Abnormal Conditions Using an Optimization Algorithm. , 2020, , .		0
186	Electrification Is Key to Our Economy [About This Issue]. IEEE Electrification Magazine, 2020, 8, 2-5.	1.8	0
187	The Age of Data [About This Issue]. IEEE Electrification Magazine, 2021, 9, 2-4.	1.8	0
188	Dynamic Parameter Estimation Based on Rank-Reduced Prony Analysis. , 2021, , .		0
189	On Converter Topology, Control, and Modeling [About This Issue]. IEEE Electrification Magazine, 2021, 9, 2-4.	1.8	0
190	Stability enhancement module for <scp>gridâ€following</scp> converters: Hardware implementation and validation. International Transactions on Electrical Energy Systems, 2021, 31, e13115.	1.9	0
191	ON INTEGRATION OF DISTRIBUTED ENERGY RESOURCES TO MICROGRIDS â€“ AN OVERVIEW. International Journal of Power and Energy Systems, 2012, 32, .	0.2	0
192	Measured Admittance Model for Dynamic Simulation of Inverter-Based Resources Using Numerical Laplace Transform. , 2021, , .		0
193	The cause of sub-cycle overvoltage: Capacitive characteristics of solar PVs. Electric Power Systems Research, 2022, 209, 108039.	3.6	0