Lingling Fan

List of Publications by Year
in descending order

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	Wind farms in weak grids stability enhancement: SynCon or STATCOM?. Electric Power Systems Research, 2022, 202, 107623.	3.6	4
2	Inter-IBR Oscillation Modes. IEEE Transactions on Power Systems, 2022, 37, 824-827.	6.5	10
3	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
4	The cause of sub-cycle overvoltage: Capacitive characteristics of solar PVs. Electric Power Systems Research, 2022, 209, 108039.	3.6	0
5	Randomized Dynamic Mode Decomposition for Oscillation Modal Analysis. IEEE Transactions on Power Systems, 2021, 36, 1399-1408.	6.5	19
6	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
7	Security constrained DC OPF considering generator responses. Electric Power Systems Research, 2021, 192, 106920.	3.6	3
8	Subcycle Overvoltage Dynamics in Solar PVs. IEEE Transactions on Power Delivery, 2021, 36, 1847-1858.	4.3	12
9	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
10	Extended radial Distribution ACOPF Model: Retrieving Exactness Via Convex Iteration. IEEE Transactions on Power Systems, 2021, 36, 4967-4978.	6.5	2
11	The Age of Data [About This Issue]. IEEE Electrification Magazine, 2021, 9, 2-4.	1.8	0
12	Comparison of Synchronous Condenser and STATCOM for Wind Farms in Weak Grids. , 2021, , .		3
13	Modeling and Control of Grid-following Single-Phase Voltage-Sourced Converter. , 2021, , .		1
14	Dynamic Parameter Estimation Based on Rank-Reduced Prony Analysis. , 2021, , .		0
15	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
16	Mixed integer programming formulation for fault identification based on MicroPMUs. International Transactions on Electrical Energy Systems, 2021, 31, e12949.	1.9	1
17	On Converter Topology, Control, and Modeling [About This Issue]. IEEE Electrification Magazine, 2021, 9, 2-4.	1.8	0
18	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

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19	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
20	Root Cause Analysis of AC Overcurrent in July 2020 San Fernando Disturbance. IEEE Transactions on Power Systems, 2021, 36, 4892-4895.	6.5	3
21	Analytical model building for Type-3 wind farm subsynchronous oscillation analysis. Electric Power Systems Research, 2021, 201, 107566.	3.6	7
22	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
23	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
24	Stability Analysis of VSC Systems Using 3Ã—3 Admittance Measurements. , 2021, , .		2
25	Dynamic Performance of Type-4 Wind with Synchronous Condenser during Weak Grids and Faults. , 2021, , .		2
26	Weak Grid Operation of A Grid-Following Current-Sourced PV Solar System. , 2021, , .		2
27	Practical Start-Up Process of Multiple Grid-Tied Voltage-Sourced Inverters in Laboratory. , 2021, , .		2
28	Measured Admittance Model for Dynamic Simulation of Inverter-Based Resources Using Numerical Laplace Transform. , 2021, , .		0
29	Inner Current Controls of Grid-Connected PV for Unbalanced Grid Conditions. , 2021, , .		4
30	Grid Forming Inverter: Laboratory-Scale Hardware Test Bed Setup and Weak Grid Operation. , 2021, , .		3
31	Hardware Demonstration of Weak Grid Oscillations in Grid-Following Converters. , 2021, , .		5
32	Small-Signal Stability Analysis of Type-4 Wind in Series-Compensated Networks. IEEE Transactions on Energy Conversion, 2020, 35, 529-538.	5.2	38
33	Wind in Weak Grids: Low-Frequency Oscillations, Subsynchronous Oscillations, and Torsional Interactions. IEEE Transactions on Power Systems, 2020, 35, 109-118.	6.5	129
34	Microgrid Stability Definitions, Analysis, and Examples. IEEE Transactions on Power Systems, 2020, 35, 13-29.	6.5	422
35	Replicating Real-World Wind Farm SSR Events. IEEE Transactions on Power Delivery, 2020, 35, 339-348.	4.3	57
36	Optimal PMU placement for modeling power grid observability with mathematical programming methods. International Transactions on Electrical Energy Systems, 2020, 30, e12182.	1.9	31

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37	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
38	An Optimal Power Control Strategy for Grid-Following Inverters in a Synchronous Frame. Applied Sciences (Switzerland), 2020, 10, 6730.	2.5	8
39	Innovation Is About Integration [About This Issue]. IEEE Electrification Magazine, 2020, 8, 2-4.	1.8	0
40	Induction Machines limits Identification During Abnormal Conditions Using an Optimization Algorithm. , 2020, , .		0
41	Electrification Is Key to Our Economy [About This Issue]. IEEE Electrification Magazine, 2020, 8, 2-5.	1.8	0
42	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
43	Admittance-Based Stability Analysis: Bode Plots, Nyquist Diagrams or Eigenvalue Analysis?. IEEE Transactions on Power Systems, 2020, 35, 3312-3315.	6.5	83
44	Operation of Parallel Grid-Connected PVs Due to an Islanding Event. , 2020, , .		1
45	Modeling Type-4 Wind in Weak Grids. IEEE Transactions on Sustainable Energy, 2019, 10, 853-864.	8.8	102
46	Rankâ€1 positive semidefinite matrixâ€based nonlinear programming formulation for AC OPF. International Transactions on Electrical Energy Systems, 2019, 29, e12095.	1.9	1
47	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
48	New auxiliary variable-based ADMM for nonconvex AC OPF. Electric Power Systems Research, 2019, 174, 105867.	3.6	3
49	Data Analytics of Real-World PV/Battery Systems. , 2019, , .		1
50	Loss Locational Sensitivity in Distribution Systems. , 2019, , .		2
51	Mixed-Integer SDP Relaxation-based Volt/Var Optimization for Unbalanced Distribution Systems. , 2019, , .		4
52	Comparison of Islanding and Synchronization for a Microgrid with Different Converter Control. , 2019, , .		4
53	Data-Driven Dynamic Model Identification for Synchronous Generators. , 2019, , .		2
54	PMU Measurements for Oscillation Monitoring: Connecting Prony Analysis with Observability. , 2019, , .		8

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55	Day-Ahead Distribution Market Analysis Via Convex Bilevel Programming. , 2019, , .		1
56	Realization of Enhanced Phase Locked Loop using Raspberry Pi and LabVIEW. , 2019, , .		1
57	Dynamic Mode Decomposition in Various Power System Applications. , 2019, , .		9
58	Operation of Parallel Grid-Supporting PVs. , 2019, , .		1
59	Stability Control for Wind in Weak Grids. IEEE Transactions on Sustainable Energy, 2019, 10, 2094-2103.	8.8	61
60	Least Squares Estimation Based SDP Cuts for SOCP Relaxation of AC OPF. IEEE Transactions on Automatic Control, 2018, 63, 241-248.	5.7	24
61	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
62	An Explanation of Oscillations Due to Wind Power Plants Weak Grid Interconnection. IEEE Transactions on Sustainable Energy, 2018, 9, 488-490.	8.8	76
63	Distribution Locational Marginal Pricing (DLMP) for Multiphase Systems. , 2018, , .		11
64	MIP-Based Fault Location Identification Using MicroPMUs. , 2018, , .		2
65	Power Grid Partitioning: Static and Dynamic Approaches. , 2018, , .		1
66	DC State Estimation Model-Based Mixed Integer Semidefinite Programming for Optimal PMU Placement. , 2018, , .		3
67	Performance of Branch-Current Based Distribution System State Estimation. , 2018, , .		4
68	Labs for EGN 3375 Electromechanical Energy Systems at University of South Florida. , 2018, , .		0
69	Volt/Var Optimization with Minimum Equipment Operation under High PV Penetration. , 2018, , .		7
70	Bilevel Programming-Based Unit Commitment for Locational Marginal Price Computation. , 2018, , .		3
71	Real-Time Simulation of Electric Vehicle Battery Charging Systems. , 2018, , .		6
72	Wind in Weak Grids: 4ÂHz or 30ÂHz Oscillations?. IEEE Transactions on Power Systems, 2018, 33, 5803-5804.	6.5	77

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73	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
74	Achieving Economic Operation and Secondary Frequency Regulation Simultaneously Through Local Feedback Control. IEEE Transactions on Power Systems, 2017, 32, 85-93.	6.5	11
75	Stability Analysis of Two Parallel Converters with Voltage-Current Droop Control. IEEE Transactions on Power Delivery, 2017, , 1-1.	4.3	32
76	Data fusion-based distributed Prony analysis. Electric Power Systems Research, 2017, 143, 634-642.	3.6	16
77	Economic dispatch with heavy loading and maximum loading identification using convex relaxation of AC OPF. , 2017, , .		0
78	Mixed integer linear programming and nonlinear programming for optimal PMU placement. , 2017, , .		10
79	ADMM for nonconvex AC optimal power flow. , 2017, , .		5
80	Design robust cascade control structure for voltage source converters. , 2017, , .		2
81	Bender's decomposition algorithm for model predictive control of a modular multi-level converter. , 2017, , .		0
82	Space vector-based synchronous machine modeling. , 2017, , .		0
83	Mixed integer linear programming formulation for chance constrained mathematical programs with equilibrium constraints. , 2017, , .		13
84	Loss allocation in AC OPF-based financial transmission rights auction models. , 2017, , .		0
85	DQ-axis current-based droop controller. , 2017, , .		1
86	Battery identification based on real-world data. , 2017, , .		2
87	Deriving ARX models for synchronous generators. , 2016, , .		4
88	Design a robust power system stabilizer on SMIB using Lyapunov theory. , 2016, , .		2
89	Damping torque analysis of a UPFC installed in a real Chinese power grid. , 2016, , .		0
90	Interarea Oscillation Revisit. IEEE Transactions on Power Systems, 2016, , 1-1.	6.5	12

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91	Implementing consensus based distributed control in power system toolbox. , 2016, , .		5
92	Consensus ADMM and Proximal ADMM for economic dispatch and AC OPF with SOCP relaxation. , 2016, , .		35
93	Benders Decomposition for stochastic programming-based PV/Battery/HVAC planning. , 2016, , .		4
94	Distributed Prony analysis for real-world PMU data. Electric Power Systems Research, 2016, 133, 113-120.	3.6	36
95	Achieving Economic Operation and Secondary Frequency Regulation Simultaneously Through Feedback Control. IEEE Transactions on Power Systems, 2016, 31, 3324-3325.	6.5	11
96	Real-time simulation and hardware-in-the-loop tests of a battery system. , 2015, , .		9
97	Mixed integer programming for HVACs operation. , 2015, , .		8
98	Identification of synchronous generator model with frequency control using unscented Kalman filter. Electric Power Systems Research, 2015, 126, 45-55.	3.6	42
99	Minimizing DC system loss in multi-terminal HVDC systems through adaptive droop control. Electric Power Systems Research, 2015, 126, 78-86.	3.6	40
100	Frequency-Domain Based DFIG Wind Energy Systems Modeling. , 2015, , 94-127.		0
101	Multi-Machine Modeling and Inter-Area Oscillation Damping. , 2015, , 128-145.		0
102	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
103	State-Space Based DFIG Wind Energy System Modeling. , 2015, , 74-93.		0
104	PMU-based system identification for a modified classic generator model. , 2015, , .		5
105	Modular Multilevel Converter based induction machine drive. , 2015, , .		5
106	A hardware-in-the-loop SCADA testbed. , 2015, , .		16
107	Initialization of unbalanced radial distribution systems for small signal stability analysis. , 2015, , .		1
108	Least squares estimation-based synchronous generator parameter estimation using PMU data. , 2015, , .		22

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109	Capacitor siting using benders decomposition. , 2015, , .		0
110	Determine power transfer limits of an SMIB system through linear System Analysis with nonlinear simulation validation. , 2015, , .		2
111	Circulating current and DC current ripple control in MMC under unbalanced grid voltage. , 2015, , .		13
112	Unbalance and harmonic mitigation using battery inverters. , 2015, , .		7
113	Dynamic Phasor-Based Modeling of Unbalanced Radial Distribution Systems. IEEE Transactions on Power Systems, 2015, 30, 3102-3109.	6.5	46
114	DC Impedance-Model-Based Resonance Analysis of a VSCâ€"HVDC System. IEEE Transactions on Power Delivery, 2015, 30, 1221-1230.	4.3	102
115	Distributed DC Optimal Power Flow for radial networks through partial Primal Dual algorithm. , 2015, , .		12
116	Integrated control and switching strategy for a grid-connected modular multilevel converter. , 2015, , .		5
117	Blackstart of an induction motor in an autonomous microgrid. , 2015, , .		7
118	Least squares estimation and Kalman filter based dynamic state and parameter estimation. , 2015, , .		9
119	Fast model predictive control algorithms for fast-switching modular multilevel converters. Electric Power Systems Research, 2015, 129, 105-113.	3.6	19
120	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
121	A one-step model predictive control for modular multilevel converters. , 2014, , .		10
122	Mixed integer programming based battery sizing. Energy Systems, 2014, 5, 787-805.	3.0	13
123	An SOC-Based Battery Management System for Microgrids. IEEE Transactions on Smart Grid, 2014, 5, 966-973.	9.0	132
124	Real-time digital simulation modeling of single-phase PV in RT-LAB. , 2014, , .		17
125	Multi-agent control of community and utility using Lagrangian relaxation based dual decomposition. Electric Power Systems Research, 2014, 110, 45-54.	3.6	18
126	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

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127	Impedance-Based Resonance Analysis in a VSC-HVDC System. IEEE Transactions on Power Delivery, 2013, 28, 2209-2216.	4.3	93
128	Modeling of Z-source converter for renewable energy integration. , 2013, , .		0
129	Application of Dynamic State and Parameter Estimation Techniques on Real-World Data. IEEE Transactions on Smart Grid, 2013, 4, 1133-1141.	9.0	80
130	Realizing space vector modulation in MATLAB/Simulink and PSCAD. , 2013, , .		6
131	Least squares based estimation of synchronous generator states and parameters with phasor measurement units. , 2012, , .		24
132	Influence of no-load superconducting cable's input on distance protection. , 2012, , .		0
133	Multi objectives operation of cascade inverter-based voltage quality disturbance generator. , 2012, , .		0
134	Coordinated control of a solar and battery system in a microgrid. , 2012, , .		8
135	Fast Power Routing Through HVDC. IEEE Transactions on Power Delivery, 2012, 27, 1432-1441.	4.3	26
136	Modeling and small signal analysis of a PMSG-based wind generator With sensorless maximum power extraction. , 2012, , .		3
137	System identification based VSC-HVDC DC voltage controller design. , 2012, , .		3
138	Dynamic phase based model of Type 1 wind generator for unbalanced operation. , 2012, , .		3
139	Mitigating SSR Using DFIG-Based Wind Generation. IEEE Transactions on Sustainable Energy, 2012, 3, 349-358.	8.8	220
140	Nyquist-Stability-Criterion-Based SSR Explanation for Type-3 Wind Generators. IEEE Transactions on Energy Conversion, 2012, 27, 807-809.	5.2	107
141	Wind Farm with HVDC Delivery in Inertial and Primary Frequency Response. Green Energy and Technology, 2012, , 465-483.	0.6	1
142	UKF based estimation of synchronous generator electromechanical parameters from phasor measurements. , 2012, , .		9
143	Control of a battery system to improve operation of a microgrid. , 2012, , .		6
144	Modeling and simulation of multi-terminal HVDC for wind power delivery. , 2012, , .		7

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145	ON INTEGRATION OF DISTRIBUTED ENERGY RESOURCES TO MICROGRIDS â€“ AN OVERVIEW. International Journal of Power and Energy Systems, 2012, 32, .	0.2	0
146	An optimal power flow algorithm considering wind power penetration. , 2011, , .		2
147	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
148	AC or DC power modulation for DFIG wind generation with HVDC delivery to improve interarea oscillation damping. , 2011, , .		4
149	Estimation of a shunted radial transfer path dynamics using PMUs. , 2011, , .		1
150	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
151	Coordination between DFIG-based wind farm and LCC-HVDC transmission considering limiting factors. , 2011, , .		5
152	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
153	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
154	Hybrid modeling of DFIGs for wind energy conversion systems. Simulation Modelling Practice and Theory, 2010, 18, 1032-1045.	3.8	9
155	PMU data-based fault location techniques. , 2010, , .		10
156	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
157	Modeling of DFIG-Based Wind Farms for SSR Analysis. IEEE Transactions on Power Delivery, 2010, 25, 2073-2082.	4.3	390
158	Reactive power modulation for inter-area oscillation damping of DFIG-based wind generation. , 2010, , .		5
159	Impact of unbalanced grid conditions on PV systems. , 2010, , .		11
160	Harmonic Analysis of a DFIG for a Wind Energy Conversion System. IEEE Transactions on Energy Conversion, 2010, 25, 181-190.	5.2	136
161	Control and analysis of DFIG-based wind turbines in a series compensated network for SSR damping. , 2010, , .		15
162	Wind Farms With HVdc Delivery in Inertial Response and Primary Frequency Control. IEEE Transactions on Energy Conversion, 2010, 25, 1171-1178.	5.2	119

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163	MPPT control for a PMSG-based grid-tied wind generation system. , 2010, , .		18
164	A unified model of DFIG for simulating acceleration with rotor injection and harmonics in wind energy conversion systems. , 2009, , .		0
165	Sensorless Maximum Power Point Tracking in multi-type wind energy conversion systems. , 2009, , .		12
166	Control of DFIG for rotor current harmonics elimination. , 2009, , .		12
167	Negative sequence compensation techniques of DFIG-based wind energy systems under unbalanced grid conditions. , 2009, , .		8
168	Coordinated reactive power control of DFIG rotor and grid sides converters. , 2009, , .		19
169	Control of DFIG-Based Wind Generation to Improve Interarea Oscillation Damping. IEEE Transactions on Energy Conversion, 2009, 24, 415-422.	5.2	191
170	Regional transmission planning for large-scale wind power. , 2009, , .		14
171	Modeling and control of DFIG-based large offshore wind farm with HVDC-link integration. , 2009, , .		12
172	Review of robust feedback control applications in power systems. , 2009, , .		7
173	Fault ride through techniques of DFIG-based wind energy systems. , 2009, , .		0
174	Modeling and simulation of a DFIG-based wind turbine for SSR. , 2009, , .		14
175	Wind Farms With HVDC Delivery in Load Frequency Control. IEEE Transactions on Power Systems, 2009, 24, 1894-1895.	6.5	60
176	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
177	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
178	A comparison of slip control, FMA control and vector control in DFIG converter. , 2008, , .		1
179	Control of DFIG based wind generation to improve inter-area oscillation damping. , 2008, , .		23
180	Synchronized global Phasor Measurement based inter-area oscillation control considering communication delay. , 2008, , .		2

#	Article	IF	Citations
181	Impact of doubly fed wind turbine generation on inter-area oscillation damping. , 2008, , .		25
182	Modeling and slip control of a doubly fed induction wind turbine generator. , 2008, , .		4
183	Identification of system wide disturbances using synchronized phasor data and ellipsoid method. , 2008, , .		6
184	A contingency database for transmission system reliability analysis. , 2008, , .		1
185	Investigation of the capability of a solid oxide fuel cell power plant supplying a motor load. , 2008, , .		0
186	Toward a self-healing protection and control system. , 2008, , .		11
187	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
188	Robust TCSC control design for damping inter-area oscillations. , 2001, , .		12
189	Decentralized control of power systems using-disturbance accommodation techniques. , 2001, , .		2
190	Decentralized stabilization of nonlinear electric power systems using local measurements and feedback linearization. , 0, , .		10
191	Effective signal selection in decentralized control design of nonlinear interconnected systems. , 0, , .		1
192	Damping enhancement by TCSC in the Western US Power System. , 0, , .		7
193	Control and Dynamics in Power Systems and Microgrids. , 0, , .		43