

Lei Shang

List of Publications by Year in descending order

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63
papers

2,669
citations

279701

23
h-index

289141

40
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64
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64
docs citations

64
times ranked

1829
citing authors

#	ARTICLE	IF	CITATIONS
1	Modelling and Analysis of Electromagnetic Time Scale Voltage Variation Affected by Power Electronic Interfaced Voltage Regulatory Devices. IEEE Transactions on Power Systems, 2022, 37, 1102-1112.	4.6	18
2	Fast Grid Frequency and Voltage Control of Battery Energy Storage System Based on the Amplitude-Phase-Locked-Loop. IEEE Transactions on Smart Grid, 2022, 13, 941-953.	6.2	46
3	Voltage Source Converter-Based Voltage Stiffness Compensator to Improve Grid Voltage Dynamics. Frontiers in Energy Research, 2022, 10, .	1.2	1
4	Mechanism Analysis of Subsynchronous Torsional Interaction With PMSG-Based WTs and LCC-HVDC. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 1708-1724.	3.7	13
5	Analytic Quantification of Interactions in MTDC Systems Based on Self-/En-Stabilizing Coefficients in DC Voltage Control Timescale. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 2980-2991.	3.7	5
6	Research on Photovoltaic VSG Control Technology Based on Generation. , 2021, , .		0
7	Damping Injection Control Strategy of Low Frequency Oscillation in Photovoltaic Power Plant. , 2021, , .		2
8	A bi-level optimal configuration model of isolated microgrid considering energy storage lifetime. , 2021, , .		0
9	Mechanism Analysis of DFIG-Based Wind Turbine's Fault Current During LVRT With Equivalent Inductances. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2020, 8, 1515-1527.	3.7	38
10	Fault Ride Through Strategy of Virtual-Synchronous-Controlled DFIG-Based Wind Turbines Under Symmetrical Grid Faults. IEEE Transactions on Energy Conversion, 2020, 35, 1360-1371.	3.7	36
11	Stability analysis of VSC based on SISO equivalent in current control time scale. , 2020, , .		0
12	Frequency Coupling of Asymmetrical VSC-dominated Power Systems in Small-signal Dynamic Analysis. , 2020, , .		1
13	Research on Transient Interaction Mechanism of Two PMSG Considering Different Nodes and Network Characteristics. , 2020, , .		0
14	Active and Reactive Power Joint Balancing for Analyzing Short-Term Voltage Instability Caused by Induction Motor. Energies, 2019, 12, 3617.	1.6	2
15	Simplified Frequency-Domain Model of Modular Multilevel Converter. , 2019, , .		0
16	SISO Equivalent of MIMO VSC-Dominated Power Systems for Voltage Amplitude and Phase Dynamic Analyses in Current Control Timescale. IEEE Transactions on Energy Conversion, 2019, 34, 1454-1465.	3.7	37
17	Phase-amplitude model for doubly fed induction generators. Journal of Modern Power Systems and Clean Energy, 2019, 7, 369-379.	3.3	7
18	Analysis on SSR frequency components by studying two-dimensional modulation of synchronous generator's flux linkage. Journal of Engineering, 2019, 2019, 1313-1318.	0.6	2

#	ARTICLE	IF	CITATIONS
19	Study on Sub-synchronous Oscillation of Grid-connected VSC via Series Compensation Lines. , 2019, , .		0
20	Characteristic of the Equivalent Inertia of PLL-Based DFIG Wind Turbine and Its Impact on System Frequency Dynamic. , 2019, , .		1
21	Modeling and Analyzing the Effect of Frequency Variation on Weak Grid-Connected VSC System Stability in DC Voltage Control Timescale. Energies, 2019, 12, 4458.	1.6	5
22	Nonlinear analysis of a simple amplitudeâ€“phase motion equation for power-electronics-based power system. Nonlinear Dynamics, 2019, 95, 1965-1976.	2.7	10
23	Improved virtual synchronous control for grid-connected VSCs under grid voltage unbalanced conditions. Journal of Modern Power Systems and Clean Energy, 2019, 7, 174-185.	3.3	13
24	Phenomenon of Active Power Consumption by the Inductors in Voltage Source Converters Dominated Power Systems. , 2019, , .		0
25	Time-Varying Amplitude-Frequency Characteristics Analysis of VSC Internal Voltage Under Grid Fault. , 2019, , .		0
26	Fault Current Analysis of Type-3 Wind Turbine Considering Dynamic Influence of Phase Locked Loop. , 2019, , .		1
27	Stability and Adaptability Analysis for PLL-Synchronized VSC-HVDC with Frequency Regulation Scheme Under Islanded Grid. , 2019, , .		0
28	Impact of Inertia Control of DFIG-Based WT on Electromechanical Oscillation Damping of SG. IEEE Transactions on Power Systems, 2018, 33, 3450-3459.	4.6	67
29	Interaction analysis between induction motor loads and STATCOM in weak grid using induction machine model. Journal of Modern Power Systems and Clean Energy, 2018, 6, 158-167.	3.3	6
30	An Improved Design of Current Controller for <i>LCL</i>-Type Grid-Connected Converter to Reduce Negative Effect of PLL in Weak Grid. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2018, 6, 648-663.	3.7	126
31	Inertia and Primary Frequency Provisions of PLL-Synchronized VSC HVDC When Attached to Islanded AC System. IEEE Transactions on Power Systems, 2018, 33, 4179-4188.	4.6	54
32	Modeling of DFIG Wind Turbine Based on Internal Voltage Motion Equation in Power Systems Phase-Amplitude Dynamics Analysis. IEEE Transactions on Power Systems, 2018, 33, 1484-1495.	4.6	45
33	Inertia Provision and Estimation of PLL-Based DFIG Wind Turbines. IEEE Transactions on Power Systems, 2017, 32, 510-521.	4.6	134
34	Modeling of Grid-Connected VSCs for Power System Small-Signal Stability Analysis in DC-Link Voltage Control Timescale. IEEE Transactions on Power Systems, 2017, 32, 3981-3991.	4.6	231
35	Modeling and Stability Analysis of DC-Link Voltage Control in Multi-VSCs With Integrated to Weak Grid. IEEE Transactions on Energy Conversion, 2017, 32, 1127-1138.	3.7	51
36	Modeling of DFIG-Based WTs for Small-Signal Stability Analysis in DVC Timescale in Power Electronized Power Systems. IEEE Transactions on Energy Conversion, 2017, 32, 1151-1165.	3.7	66

#	ARTICLE	IF	CITATIONS
37	Inertia Characteristic of DFIG-Based WT Under Transient Control and its Impact on the First-Swing Stability of SGs. IEEE Transactions on Energy Conversion, 2017, 32, 1502-1511.	3.7	29
38	Multi-time scale dynamics in power electronics-dominated power systems. Frontiers of Mechanical Engineering, 2017, 12, 303-311.	2.5	26
39	Multiband filter: estimator of different frequency components of grid voltage. Journal of Engineering, 2017, 2017, 696-701.	0.6	0
40	Dynamic characteristic and interaction analysis of synchronous generator based on amplitudeâ€“phase motion equation. Journal of Engineering, 2017, 2017, 714-718.	0.6	1
41	Positive and negative sequence control of DFIG based wind turbines and its impact on grid voltage profile concerning converter control capability. Journal of Engineering, 2017, 2017, 1584-1589.	0.6	6
42	Impact of largeâ€“scale photovoltaic generation integration structure on static voltage stability in China's Qinghai province network. Journal of Engineering, 2017, 2017, 671-675.	0.6	14
43	Understanding Inertial Response of Variable-Speed Wind Turbines by Defined Internal Potential Vector. Energies, 2017, 10, 22.	1.6	25
44	Wind farm aggregation method based on motion equation concept: a case study. Journal of Engineering, 2017, 2017, 708-713.	0.6	4
45	Dynamics and Collapse in a Power System Model with Voltage Variation: The Damping Effect. PLoS ONE, 2016, 11, e0165943.	1.1	19
46	Commonâ€“mode voltage injectionâ€“based nearest level modulation with loss reduction for modular multilevel converters. IET Renewable Power Generation, 2016, 10, 798-806.	1.7	20
47	Interaction analysis of multi VSCs integrated into weak grid in current control time-scale. , 2016, , .		9
48	Voltage Dynamics of Current Control Time-Scale in a VSC-Connected Weak Grid. IEEE Transactions on Power Systems, 2016, 31, 2925-2937.	4.6	163
49	DC-Bus Voltage Control Stability Affected by AC-Bus Voltage Control in VSCs Connected to Weak AC Grids. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2016, 4, 445-458.	3.7	149
50	Modeling of VSC Connected to Weak Grid for Stability Analysis of DC-Link Voltage Control. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2015, 3, 1193-1204.	3.7	266
51	Amplitude-phase-locked loop: Estimator of three-phase grid voltage vector. , 2015, , .		5
52	Modeling of Grid-Connected DFIG-Based Wind Turbines for DC-Link Voltage Stability Analysis. IEEE Transactions on Sustainable Energy, 2015, 6, 1325-1336.	5.9	193
53	Virtual Synchronous Control for Grid-Connected DFIG-Based Wind Turbines. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2015, 3, 932-944.	3.7	176
54	Impact of the voltage feed-forward and current decoupling on VSC current control stability in weak grid based on complex variables. , 2015, , .		10

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55	Dynamic compensating strategy and en-stabilizing compensator to enhance the stability of wind farms integrated into weak grid. , 2014, , .		0
56	Functionality identification for the testing systems with large-scale highly-concentrated wind power integration by long-distance transmission lines. , 2014, , .		3
57	Stability of DC-link voltage as affected by phase locked loop in VSC when attached to weak grid. , 2014, , .		61
58	Effect of reactive power control on stability of DC-link voltage control in VSC connected to weak grid. , 2014, , .		11
59	Overview of problems in large-scale wind integrations. Journal of Modern Power Systems and Clean Energy, 2013, 1, 22-25.	3.3	34
60	Sliding-Mode-Based Direct Power Control of Grid-Connected Wind-Turbine-Driven Doubly Fed Induction Generators Under Unbalanced Grid Voltage Conditions. IEEE Transactions on Energy Conversion, 2012, 27, 362-373.	3.7	156
61	Direct Active and Reactive Power Regulation of Grid-Connected DC/AC Converters Using Sliding Mode Control Approach. IEEE Transactions on Power Electronics, 2011, 26, 210-222.	5.4	255
62	Sliding mode current control of grid-connected voltage source converter. , 2010, , .		5
63	Predictive direct power control of grid-connected voltage-sourced converters under unbalanced grid voltage conditions. , 2009, , .		11