Meng Huang

List of Publications by Year
in descending order

116 papers	1,295 citations	394286 19 h-index	395590 33 g-index
116 all docs	116 docs citations	116 times ranked	911 citing authors

#	Article	IF	Citations
1	Bifurcations of Grid-Following Rectifiers and Routes to Voltage Instability in Weak AC Grids. IEEE Transactions on Power Systems, 2023, 38, 1702-1713.	4.6	3
2	Hamilton-Based Stability Criterion and Attraction Region Estimation for Grid-Tied Inverters Under Large-Signal Disturbances. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2022, 10, 413-423.	3.7	21
3	Impact Analysis of Fast Dynamics on Stability of Grid-Tied Inverter Based on Oscillator Model and Damping Torque Analysis. IEEE Transactions on Power Systems, 2022, 37, 1881-1892.	4.6	2
4	CDSC-Based Adaptive Impedance Measurement Method for Grid-Tied Inverter System Under Adverse Grid Voltage Conditions. IEEE Transactions on Industrial Electronics, 2022, 69, 11210-11220.	5.2	6
5	Robust Stability Assessment of Single-Phase Inverter With Multiparameter Distributions. IEEE Transactions on Power Electronics, 2022, 37, 6062-6073.	5.4	6
6	Optimization of DC-Link Capacitance Based on the Power Loss Modeling of IGBT for Inverters Under Swing Bus Operation. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2022, 12, 73-80.	2.7	0
7	Frequency-Dependent Network Analysis and Stability Enhanced Design for Voltage-Source Converters Under Weak Grid Conditions. IEEE Transactions on Power Delivery, 2022, 37, 4593-4602.	2.9	4
8	An Improved Equal Area Criterion for Transient Stability Analysis of Converter-Based Microgrid Considering Nonlinear Damping Effect. IEEE Transactions on Power Electronics, 2022, 37, 11272-11284.	5.4	26
9	Optimal Virtual Inertia Design for VSG-based Motor Starting Systems to Improve Motor Loading Capacity. IEEE Transactions on Energy Conversion, 2022, , 1-1.	3.7	3
10	Cascading Synchronization Instability in Multi-VSC Grid-Connected System. IEEE Transactions on Power Electronics, 2022, 37, 7572-7576.	5.4	17
11	Synchronization Stability of Grid-Following Converters Governed by Saturation Nonlinearities. IEEE Transactions on Power Systems, 2022, 37, 4102-4105.	4.6	4
12	An Online Monitoring Method for Single Aluminum Electrolytic Capacitor in the DC Bank of Single-Phase Inverter Based on the Rogowski Coil. IEEE Transactions on Power Electronics, 2022, 37, 12647-12658.	5.4	4
13	An Improved Impedance Measurement Method for Grid-Connected Inverter Systems Considering the Background Harmonics and Frequency Deviation. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 4236-4247.	3.7	16
14	Emulation of Multi-Inverter Integrated Weak Grid via Interaction-Preserved Aggregation. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 4153-4164.	3.7	7
15	Nonlinear and Transient Stability Analysis of Phase-Locked Loops in Grid-Connected Converters. IEEE Transactions on Power Electronics, 2021, 36, 1018-1029.	5.4	85
16	Speed-Sensorless and Motor Parameters-Free Starting Method for Large-Capacity Synchronous Machines Based on Virtual Synchronous Generator Technology. IEEE Transactions on Industrial Electronics, 2021, 68, 6607-6618.	5.2	6
17	Clustering-Based Modeling and Interaction Analysis of Multiple Differently Parameterized Grid-Side Inverters in PMSG Wind Turbines. IEEE Transactions on Energy Conversion, 2021, 36, 3031-3043.	3.7	6
18	Resilient Power Converter: A Grid-Connected Converter With Disturbance/Attack Resiliency via Multi-Timescale Current Limiting Scheme. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2021, 11, 59-68.	2.7	6

#	Article	IF	Citations
19	Guest Editorial Stability and Robustness of Power Grids With High Penetration of Power Electronics. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2021, 11, 1-4.	2.7	0
20	A Novel Node Flexibility Evaluation Method of Active Distribution Network for SNOP Integration. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2021, 11, 188-198.	2.7	17
21	Large-Signal Stability of Grid-Forming and Grid-Following Controls in Voltage Source Converter: A Comparative Study. IEEE Transactions on Power Electronics, 2021, 36, 7832-7840.	5.4	117
22	Overview of recent progress in condition monitoring for insulated gate bipolar transistor modules: Detection, estimation, and prediction. High Voltage, 2021, 6, 967-977.	2.7	5
23	Stability and Multiconstraint Operating Region of Grid-Connected Modular Multilevel Converter Under Grid Phase Disturbance. IEEE Transactions on Power Electronics, 2021, 36, 12551-12564.	5.4	7
24	Homoclinic Bifurcation of a Grid-Forming Voltage Source Converter. IEEE Transactions on Power Electronics, 2021, 36, 13176-13187.	5.4	12
25	Transient Modeling of Phase-Locked Loop and its Applications in a Multi-VSCs Grid-connected System. , 2021, , .		3
26	Interaction Analysis of Current Control Loops in MMC Under Asymmetrical Grid Faults. , 2021, , .		0
27	Transient Stability Analysis for Grid-tied Virtual Synchronous Generator Based on T-S Fuzzy Modeling and LMI Approach. , 2021, , .		0
28	Research on Improvement Mechanism of Transient Stability of Droop Converter Based on SVG Compensation. , 2021, , .		0
29	Simplified Power Loss Model for Aluminum Electrolytic Capacitors in Single-Phase Inverters. IEEE Transactions on Power Electronics, 2020, 35, 4452-4456.	5.4	5
30	Multiple-Loop Control Design for a Single-Stage PV-Fed Grid-Tied Differential Boost Inverter. Applied Sciences (Switzerland), 2020, 10, 4808.	1.3	10
31	An Integrated Design of the Solid-State Circuit Breaker and the DC-DC Converter. , 2020, , .		3
32	Circuits and Systems Issues in Power Electronics Penetrated Power Grid. IEEE Open Journal of Circuits and Systems, 2020, 1, 140-156.	1.4	43
33	Analysis of Subharmonic Oscillation and Slope Compensation for a Differential Boost Inverter. Applied Sciences (Switzerland), 2020, 10, 5626.	1.3	3
34	IGBT Remaining Useful Life Prediction Based on Particle Filter With Fusing Precursor. IEEE Access, 2020, 8, 154281-154289.	2.6	13
35	Nonlinear Analysis of PLL Damping Characteristics in Weak-Grid-Tied Inverters. IEEE Transactions on Circuits and Systems II: Express Briefs, 2020, 67, 2752-2756.	2.2	31
36	Transient Voltage and Current Stresses Estimation of MMC-MTDC System via Discrete-Time Analysis. IEEE Transactions on Power Delivery, 2020, 35, 2821-2830.	2.9	5

#	Article	IF	Citations
37	Multiple Time-scales Node Flexibility Evaluation and Partitioning Method of the Distribution Network Oriented to SNOP Integration. , 2020, , .		1
38	Voltage Balancing Scheme Based on Active Voltage Cross Control for Series-Connected IGBTs. , 2020, , .		0
39	Lifetime Estimation for Aluminum Electrolytic Capacitors in Active Power Filter. , 2020, , .		0
40	Short-Circuit Current Estimation of Modular Multilevel Converter Using Discrete-Time Modeling. IEEE Transactions on Power Electronics, 2019, 34, 40-45.	5.4	17
41	An Integrated Dual Voltage Loop Control for Capacitance Reduction in CHB-Based Regenerative Motor Drive Systems. IEEE Transactions on Industrial Electronics, 2019, 66, 3369-3379.	5.2	19
42	Large-Signal Stability Criterion for Parallel-Connected DCâ€“DC Converters With Current Source Equivalence. IEEE Transactions on Circuits and Systems II: Express Briefs, 2019, 66, 2037-2041.	2.2	26
43	Reliability evaluation of MMC system considering working conditions. Journal of Engineering, 2019, 2019, 1877-1881.	0.6	5
44	Impedance Measurement of Grid-Tied Inverter With Deviate-Frequency Harmonic Current Injection. , 2019, , .		2
45	Stability Analysis of MMC under Grid Voltage Phase Change. , 2019, , .		0
46	Back-to-back Starting of Large-capacity Condenser with Virtual Synchronous Generator. , 2019, , .		3
47	Direct Frequency Control Based MPPT Algorithm of LLC Resonant Converter for Photovoltaic System. , 2019, , .		7
48	Multi-objective Design of LC Filter for High-efficiency, High-power-density and High-performance Buck Converter. , 2019, , .		6
49	An Improved SSCB Combining Fault Interruption and Fault Location Functions for DC Line Short-Circuit Fault Protection. IEEE Transactions on Power Delivery, 2019, 34, 858-868.	2.9	24
50	A Novel Dynamic Aggregation Modeling Method of Grid-Connected Inverters: Application in Small-Signal Analysis. IEEE Transactions on Sustainable Energy, 2019, 10, 1554-1564.	5.9	14
51	Dynamic Aggregation Modeling of Grid-Connected Inverters Using Hamilton's-Action-Based Coherent Equivalence. IEEE Transactions on Industrial Electronics, 2019, 66, 6437-6448.	5.2	35
52	Power Decoupling Control for Capacitance Reduction in Cascaded-H-Bridge-Converter-Based Regenerative Motor Drive Systems. IEEE Transactions on Power Electronics, 2019, 34, 538-549.	5.4	42
53	Compensation method of phaseâ€locked loop under unbalanced grid condition based on harmonic linearization. International Journal of Circuit Theory and Applications, 2018, 46, 1181-1203.	1.3	5
54	Modeling method of sequence admittance for three-phase voltage source converter under unbalanced grid condition. Journal of Modern Power Systems and Clean Energy, 2018, 6, 595-606.	3.3	6

#	Article	IF	Citations
55	Robust Bad Data Detection Method for Microgrid Using Improved ELM and DBSCAN Algorithm. Journal of Energy Engineering - ASCE, 2018, 144, 04018026.	1.0	17
56	An Adaptive Carrier Frequency Optimization Method for Harmonic Energy Unbalance Minimization in a Cascaded H-Bridge-Based Active Power Filter. IEEE Transactions on Power Electronics, 2018, 33, 1024-1037.	5.4	29
57	Explore the Operating Limit of Cascaded H-Bridge Converters with Uneven Power Distribution. , 2018, , .		1
58	Transient Current Calculation of Grid-Connected Converters under Grid Faults. , 2018, , .		0
59	Modular Multilevel Converter DC Bipolar Short-Circuit Current Calculation on Discrete-Time Model. , 2018, , .		3
60	Transient Stability Analysis of Grid-Connected VSIs via PLL Interaction. , 2018, , .		10
61	A Closed-Loop Power Decoupling Control for Capacitance Reduction in CHB-based Regenerative Motor Drive Systems. , 2018, , .		2
62	Influence of DC Link Capacitance on Power Efficiency of Single-Phase Inverter. , 2018, , .		1
63	Reliability model of bond wire fatigue for IGBT in MMC with system redundancy consideration. Microelectronics Reliability, 2018, 88-90, 1164-1167.	0.9	4
64	Investigation of artificial neural network algorithm based IGBT online condition monitoring. Microelectronics Reliability, 2018, 88-90, 103-106.	0.9	3
65	Two-thermal-states model predictive control for IGBT in three-phase inverter. Microelectronics Reliability, 2018, 88-90, 1098-1102.	0.9	2
66	Transient junction temperature estimation of IGBT using improved thermal model. Microelectronics Reliability, 2018, 88-90, 1146-1150.	0.9	4
67	Dynamic State Estimation for DFIG Wind Turbine with Stochastic Wind Speed in Power System. , 2018, , .		0
68	Bifurcation-Based Stability Analysis of Photovoltaic-Battery Hybrid Power System. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2017, 5, 1055-1067.	3.7	40
69	Adaptability of weighted average current control to the weak grid considering the effect of grid-voltage feedforward. , 2017, , .		5
70	Bifurcation and Large-Signal Stability Analysis of Three-Phase Voltage Source Converter Under Grid Voltage Dips. IEEE Transactions on Power Electronics, 2017, 32, 8868-8879.	5.4	108
71	Optimized damping for LCL filters in three-phase voltage source inverters coupled by power grid. Journal of Modern Power Systems and Clean Energy, 2017, 5, 642-651.	3.3	4
72	Redefinition of safety operating area (SOA) considering transient thermal dynamics of IGET module. , 2017, , .		0

#	Article	IF	Citations
73	Asymmetrical carrier phaseâ€shifted pulseâ€width modulation for partly regenerative converter. IET Power Electronics, 2017, 10, 442-450.	1.5	8
74	Individual DC voltage balancing method at zero current mode for cascaded H-bridge based static synchronous compensator. , 2017, , .		2
75	Reliability-Oriented Optimization of the LC Filter in a Buck DC-DC Converter. IEEE Transactions on Power Electronics, 2017, 32, 6323-6337.	5.4	35
76	Reliability-oriented optimization of DC bank in single phase inverter. , 2017, , .		2
77	Comb filtering assisted proportional-repetitive control achieving zero static error for single-phase inverters. , 2017, , .		0
78	A research of discrete-time modeling method for the modular multilevel converter. , 2017, , .		0
79	Frequency-dependent impedance modeling of power grid with high power electronics penetration. , 2017, , .		0
80	A Stable and Fast-Transient Performance Switched-Mode Power Amplifier for a Power Hardware in the Loop (PHIL) System. Energies, 2017, 10, 1569.	1.6	2
81	Interaction of voltage and current control loop in three-phase voltage source converter. , 2017, , .		0
82	Improving the Stability and Accuracy of Power Hardware-in-the-Loop Simulation Using Virtual Impedance Method. Energies, 2016, 9, 974.	1.6	6
83	A source-type harmonic energy unbalance suppression method based on carrier frequency optimization for cascaded multilevel APF. , 2016, , .		1
84	Bifurcation analysis of photovoltaic-battery hybrid power system with constant power load. , 2016, , .		3
85	Reliability-oriented design of LC filter in buck DC-DC converter with multi-objective optimization. , 2016, , .		5
86	Hopf bifurcation in single-phase inverter connected to inductive load. , 2016, , .		0
87	A nonlinear large-signal model for DC-DC converters. , 2016, , .		3
88	Dead-time effect suppression with PMR control in single-phase H-bridge inverters. , 2016, , .		0
89	Study on SVG plus FC allocation optimization by considering reactive load fluctuation coefficients and probabilistic analysis of compensating capacity. , 2016, , .		0
90	Study on SVG plus FC allocation optimization by considering reactive load fluctuation coefficients and probabilistic analysis of compensating capacity. , 2016, , .		0

#	Article	IF	Citations
91	A composite compensation method of a grid-connected AC/DC converter to improve robustness under weak grid conditions. , 2015, , .		5
92	Transient response of three-phase voltage-source converters under grid-side faults. , 2015, , .		4
93	Reliability-oriented design of LC filter in buck DC-DC converter. , 2015, , .		3
94	Effects of Interaction of Power Converters Coupled via Power Grid: A Design-Oriented Study. IEEE Transactions on Power Electronics, 2015, 30, 3589-3600.	5.4	75
95	Analysis and design of repetitive controller based on regeneration spectrum and sensitivity function in active power filter system. IET Power Electronics, 2014, 7, 2133-2140.	1.5	20
96	Design consideration of LCL-filter for three-phase voltage source inverter in distributed power grid. , 2014, , .		1
97	Active power decoupling method for isolated micro-inverters. , 2014, , .		2
98	Stability of interacting grid-connected power converters. , 2014, , .		1
99	Low-Frequency Hopf Bifurcation and Its Effects on Stability Margin in Three-Phase PFC Power Supplies Connected to Non-Ideal Power Grid. IEEE Transactions on Circuits and Systems I: Regular Papers, 2013, 60, 3328-3340.	3.5	49
100	Stability of interacting grid-connected power converters. Journal of Modern Power Systems and Clean Energy, 2013, 1, 249-257.	3.3	12
101	Coordinate control system for photovoltaic-based DC microgrid. , 2013, , .		2
102	Nonlinear Behavior and Instability in a Three-Phase Boost Rectifier Connected to a Nonideal Power Grid With an Interacting Load. IEEE Transactions on Power Electronics, 2013, 28, 3255-3265.	5.4	45
103	Current control for single-phase grid-connected inverters by splitting the elements of LLCL filter. , 2013, , .		0
104	Catastrophic Bifurcation in Three-Phase Voltage-Source Converters. IEEE Transactions on Circuits and Systems I: Regular Papers, 2013, 60, 1062-1071.	3.5	49
105	Bifurcation analysis in dual-input buck converter in hybrid power system. , 2013, , .		4
106	Interacting bifurcation phenomenon in three-phase voltage source converter connected to non-ideal power grid. , 2013, , .		4
107	Research on testing platform for new energy grid-connected devices. , 2013, , .		1
108	Irreversible instability in three-phase voltage-source converter connected to non-ideal power grid with interacting load. , 2012, , .		2

#	Article	IF	Citations
109	Hopf-type Bifurcation in Three-Phase PFC Power Supplies Connected to Non-ideal Power Grid. , 2012, , .		0
110	Line-frequency instability of three-phase PFC power supplies connecting to non-ideal power grid. , 2012, , .		0
111	IRREVERSIBLE BIFURCATION PHENOMENON IN POWER-GRID CONNECTED CONVERTER SYSTEMS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2012, 22, 1250155.	0.7	0
112	Catastrophic Bifurcation in Three-Phase Voltage-Source Converters. , 2011, , .		2
113	Catastrophic bifurcation in three-phase boost rectifiers. , 2011, , .		3
114	Parallel operation of active power filters based on Boost Converter Control. , 2010, , .		0
115	Realization and improvement of repetitive control in rotating frame for active power filter system. , 2010, , .		3
116	A Boost Converter Control Based Three-phase Four-leg Active Power Filter. , 2010, , .		0