

# Rongwu Zhu

## List of Publications by Year in descending order

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68  
papers

1,392  
citations

361413

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361022

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all docs

68  
docs citations

68  
times ranked

1181  
citing authors

#	ARTICLE	IF	CITATIONS
1	Nonlinear Modular State-Space Modeling of Power-Electronics-Based Power Systems. IEEE Transactions on Power Electronics, 2022, 37, 6102-6115.	7.9	15
2	An overview of series-connected power electronic converter with function extension strategies in the context of high-penetration of power electronics and renewables. Renewable and Sustainable Energy Reviews, 2022, 156, 111934.	16.4	9
3	Weighting Factor-Less Sequential Predictive Control of LC-Filtered Voltage Source Inverters. International Transactions on Electrical Energy Systems, 2022, 2022, 1-13.	1.9	0
4	Neutral Current Optimization Control for Smart Transformer-Fed Distribution System Under Unbalanced Loads. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 1696-1707.	5.4	11
5	Crossing Thyristor Branches-Based Hybrid Modular Multilevel Converters for DC Line Faults. IEEE Transactions on Industrial Electronics, 2021, 68, 9719-9730.	7.9	37
6	Impact of smart transformer voltage and frequency support in a high renewable penetration system. Electric Power Systems Research, 2021, 190, 106836.	3.6	21
7	Improved Dual-Functional DVR With Integrated Auxiliary Capacitor for Capacity Optimization. IEEE Transactions on Industrial Electronics, 2021, 68, 9755-9766.	7.9	16
8	Improved dynamic voltage restorer with reduced capacity of power inverter and energy storage for voltage sag mitigation. IET Power Electronics, 2021, 14, 958-968.	2.1	6
9	Operation and Control of the Smart Transformer in Meshed and Hybrid Grids: Choosing the Appropriate Smart Transformer Control and Operation Scheme. IEEE Industrial Electronics Magazine, 2021, 15, 43-57.	2.6	21
10	Cascaded H-bridge Converter-based Large-Scale Photovoltaic Systems : Power Imbalance and Topology Derivation. , 2021, , .		4
11	A Comprehensive Assessment of Multiwinding Transformer-Based DC-DC Converters. IEEE Transactions on Power Electronics, 2021, 36, 10020-10036.	7.9	40
12	The Role of Renewable Energy System in Reshaping the Electrical Grid Scenario. IEEE Open Journal of the Industrial Electronics Society, 2021, 2, 451-468.	6.8	21
13	Architecture and Topology Overview of Modular Smart Solid-State Transformer. , 2021, , .		0
14	Analysis of Voltage Control Strategies for Wind Farms. IEEE Transactions on Sustainable Energy, 2020, 11, 1002-1012.	8.8	30
15	Fault Localization Strategy for Modular Multilevel Converters Under Submodule Lower Switch Open-Circuit Fault. IEEE Transactions on Power Electronics, 2020, 35, 5190-5204.	7.9	46
16	Capacitor ESR and $C$ Monitoring in Modular Multilevel Converters. IEEE Transactions on Power Electronics, 2020, 35, 4063-4075.	7.9	34
17	Design Consideration of a Dual-Functional Bridge-Type Fault Current Limiter. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2020, 8, 3825-3834.	5.4	16
18	Suppression of DC-Link Current Ripple for Modular Multilevel Converters Under Phase-Disposition PWM. IEEE Transactions on Power Electronics, 2020, 35, 3310-3324.	7.9	33

#	ARTICLE	IF	CITATIONS
19	A Thermal Modeling Method Considering Ambient Temperature Dynamics. IEEE Transactions on Power Electronics, 2020, 35, 6-9.	7.9	23
20	Control of Smart Transformer Under Single-Phase to Ground Fault Condition. IEEE Transactions on Power Electronics, 2020, 35, 2034-2043.	7.9	8
21	Power Losses Control for Modular Multilevel Converters Under Capacitor Deterioration. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2020, 8, 4318-4332.	5.4	37
22	Asymmetrical Bidirectional DC-DC Converter With Limited Reverse Power Rating in Smart Transformer. IEEE Transactions on Power Electronics, 2020, 35, 6895-6905.	7.9	13
23	Output Impedance Modeling and High-Frequency Impedance Shaping Method for Distributed Bidirectional DC-DC Converters in DC Microgrids. IEEE Transactions on Power Electronics, 2020, 35, 7001-7014.	7.9	18
24	A Currentless Submodule Individual Voltage Balancing Control for Modular Multilevel Converters. IEEE Transactions on Industrial Electronics, 2020, 67, 9370-9382.	7.9	36
25	Protection and Management of Internal Faults in Modular Smart Transformer. , 2020, , .		4
26	Management and Control of Smart Transformer-Fed LV Distribution Networks During Grid Faults. Lecture Notes in Electrical Engineering, 2020, , 267-277.	0.4	2
27	Operation and Supervision Control in Smart Transformer-based Meshed and Hybrid Grids. , 2020, , .		3
28	Future MVDC Applications Using Modular Multilevel Converter. , 2020, , .		8
29	State-feedback-based Low-Frequency Active Damping for VSC Operating in Weak-Grid Conditions. , 2020, , .		6
30	Scalable State-Space Model of Voltage Source Converter for Low-Frequency Stability Analysis. , 2020, , .		5
31	Impedance-based Stability Assessment of Self-Synchronising Power Electronics Converter. , 2020, , .		2
32	Phase Angle Compensation-based Highly Accurate Self-Synchronising Inverter. , 2020, , .		1
33	Modulated Model Predictive Control for MMC-Based Active Front-End Rectifiers Under Unbalanced Grid Conditions. IEEE Transactions on Industrial Electronics, 2019, 66, 2398-2409.	7.9	77
34	Operations and Coordination of Dual-Functional DVR and Recloser in a Power Distribution System. IEEE Access, 2019, 7, 140908-140921.	4.2	6
35	Smart Transformer-Based Single Phase-To-Neutral Fault Management. IEEE Transactions on Power Delivery, 2019, 34, 1049-1059.	4.3	11
36	Integration and Optimization of Voltage Active Filtering Functionality in a PV Park. , 2019, , .		1

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37	High Performances Voltage Control of Bidirectional-Asymmetrical DC/DC Converter in Smart Transformer for Limited Reverse Power Flow. , 2019, , .		0
38	Mitigation of Disturbances by Means of Smart Transformer-based Storage Systems. , 2019, , .		0
39	Overload Operation of LV-Side Inverter in Smart Transformer. , 2019, , .		4
40	Lifetime Estimation of DC-Link Electrolytic Capacitor for Smart Transformer LV Side Inverter. , 2019, , .		3
41	Cascaded Multilevel Converter Topology for Large-Scale Photovoltaic System With Balanced Operation. IEEE Transactions on Industrial Electronics, 2019, 66, 7694-7705.	7.9	62
42	Control of Smart Transformer in Different Electric Grid Configurations. , 2019, , .		3
43	Sizing and SOC Management of a Smart-Transformer-Based Energy Storage System. IEEE Transactions on Industrial Electronics, 2018, 65, 6709-6718.	7.9	59
44	Protection Scheme for Modular Multilevel Converters Under Diode Open-Circuit Faults. IEEE Transactions on Power Electronics, 2018, 33, 2866-2877.	7.9	32
45	Smart Transformer and Low Frequency Transformer Comparison on Power Delivery Characteristics in the Power System. , 2018, , .		11
46	Robustness Analysis of Voltage Control Strategies of Smart Transformer. , 2018, , .		7
47	High Power Quality Voltage Control of Smart Transformer-Fed Distribution Grid. , 2018, , .		9
48	Zero-Sequence Injection Technique for Capacitor Lifetime Extension on the Low-Voltage Converter of a Smart Transformer. , 2018, , .		0
49	Smart Transformer for the Provision of Coordinated Voltage and Frequency Support in the Grid. , 2018, , .		9
50	Comparison of Voltage Control Strategies for Wind Parks. , 2018, , .		2
51	An Improved Imperialist Competitive Algorithm to Solve the Selected Harmonic Elimination Pulse-Width Modulation in Multilevel Converters. Energies, 2018, 11, 3080.	3.1	5
52	Enhanced Control of DFIG Wind Turbine Based on Stator Flux Decay Compensation. , 2018, , .		1
53	Comparison of voltage support services by means of STATCOM and smart transformer in medium voltage grid. , 2018, , .		5
54	Neutral current reduction control for smart transformer under the imbalanced load in distribution system. , 2018, , .		6

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55	Investigation on Common-Mode Voltage Suppression in Smart Transformer-Fed Distributed Hybrid Grids. IEEE Transactions on Power Electronics, 2018, 33, 8438-8448.	7.9	30
56	Integration of Large Photovoltaic and Wind System by Means of Smart Transformer. IEEE Transactions on Industrial Electronics, 2017, 64, 8928-8938.	7.9	58
57	Impacts of unbalanced grid voltages on lifetime of DC-link capacitors of back-to-back converters in wind turbines with doubly-fed induction generators. , 2017, , .		4
58	Decentralized reactive power and voltage control of wind farms with type-4 generators. , 2017, , .		7
59	Zero-Sequence Voltage Modulation Strategy for Multiparallel Converters Circulating Current Suppression. IEEE Transactions on Industrial Electronics, 2017, 64, 1841-1852.	7.9	36
60	Voltage control strategies of smart transformer considering DC capacitor lifetime. , 2017, , .		6
61	Cascaded H-bridge multilevel converter topology for large-scale photovoltaic system with balanced operation. , 2017, , .		4
62	Fault-Tolerant Approach for Modular Multilevel Converters Under Submodule Faults. IEEE Transactions on Industrial Electronics, 2016, 63, 7253-7263.	7.9	118
63	Dual-Loop Control Strategy for DFIG-Based Wind Turbines Under Grid Voltage Disturbances. IEEE Transactions on Power Electronics, 2016, 31, 2239-2253.	7.9	46
64	Diode rectifier bridge-based structure for DFIG-based wind turbine. , 2015, , .		3
65	High stability vector-based direct power control for DFIG-based wind turbine. , 2015, , .		0
66	Generalized stability regions of current control for LCL-filtered grid-connected converters without passive or active damping. , 2015, , .		16
67	Dynamic performance of doubly-fed induction generator stator flux during consecutive grid voltage variations. IET Renewable Power Generation, 2015, 9, 720-728.	3.1	13
68	Fault Detection and Localization Method for Modular Multilevel Converters. IEEE Transactions on Power Electronics, 2015, 30, 2721-2732.	7.9	212