Guoyi Xu

List of Publications by Year in descending order

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		87843	45285
128	8,728	38	90
papers	citations	h-index	g-index

128	128	128	5040
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Reduced Switching-Frequency Modulation and Circulating Current Suppression for Modular Multilevel Converters. IEEE Transactions on Power Delivery, 2011, 26, 2009-2017.	2.9	1,202
2	Direct Active and Reactive Power Control of DFIG for Wind Energy Generation. IEEE Transactions on Energy Conversion, 2006, 21, 750-758.	3.7	604
3	Control and Operation of a DC Microgrid With Variable Generation and Energy Storage. IEEE Transactions on Power Delivery, 2011, 26, 2513-2522.	2.9	510
4	Design and Operation of a Hybrid Modular Multilevel Converter. IEEE Transactions on Power Electronics, 2015, 30, 1137-1146.	5.4	368
5	Direct Power Control of DFIG With Constant Switching Frequency and Improved Transient Performance. IEEE Transactions on Energy Conversion, 2007, 22, 110-118.	3.7	350
6	Grid Integration of Large DFIG-Based Wind Farms Using VSC Transmission. IEEE Transactions on Power Systems, 2007, 22, 976-984.	4.6	344
7	Coordinated Control of DFIG's Rotor and Grid Side Converters During Network Unbalance. IEEE Transactions on Power Electronics, 2008, 23, 1041-1049.	5.4	306
8	Control of PMSG-Based Wind Turbines for System Inertial Response and Power Oscillation Damping. IEEE Transactions on Sustainable Energy, 2015, 6, 565-574.	5.9	284
9	DC Fault Detection and Location in Meshed Multiterminal HVDC Systems Based on DC Reactor Voltage Change Rate. IEEE Transactions on Power Delivery, 2017, 32, 1516-1526.	2.9	278
10	Autonomous DC Voltage Control of a DC Microgrid With Multiple Slack Terminals. IEEE Transactions on Power Systems, 2012, 27, 1897-1905.	4.6	251
11	HVDC transmission for large offshore wind farms. Power Engineering Journal, 2002, 16, 135-141.	0.2	214
12	Model-Based Predictive Direct Power Control of Doubly Fed Induction Generators. IEEE Transactions on Power Electronics, 2010, 25, 341-351.	5.4	201
13	Enhanced Control and Operation of DFIG-Based Wind Farms During Network Unbalance. IEEE Transactions on Energy Conversion, 2008, 23, 1073-1081.	3.7	191
14	VSC Transmission Operating Under Unbalanced AC Conditionsâ€"Analysis and Control Design. IEEE Transactions on Power Delivery, 2005, 20, 427-434.	2.9	188
15	A Transient Voltage-Based DC Fault Line Protection Scheme for MMC-Based DC Grid Embedding DC Breakers. IEEE Transactions on Power Delivery, 2019, 34, 334-345.	2.9	181
16	Improved Direct Power Control of Grid-Connected DC/AC Converters. IEEE Transactions on Power Electronics, 2009, 24, 1280-1292.	5.4	177
17	Precharging and DC Fault Ride-Through of Hybrid MMC-Based HVDC Systems. IEEE Transactions on Power Delivery, 2015, 30, 1298-1306.	2.9	153
18	A Reliable Microgrid With Seamless Transition Between Grid Connected and Islanded Mode for Residential Community With Enhanced Power Quality. IEEE Transactions on Industry Applications, 2018, 54, 5246-5255.	3.3	151

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19	Grid connection of large offshore wind farms using HVDC. Wind Energy, 2006, 9, 371-382.	1.9	140
20	Continuous Operation of Radial Multiterminal HVDC Systems Under DC Fault. IEEE Transactions on Power Delivery, 2016, 31, 351-361.	2.9	138
21	Improvement of the Hilbert Method via ESPRIT for Detecting Rotor Fault in Induction Motors at Low Slip. IEEE Transactions on Energy Conversion, 2013, 28, 225-233.	3.7	127
22	Multi-terminal DC transmission systems for connecting large offshore wind farms. , 2008, , .		104
23	A Hybrid Modular Multilevel Converter With Novel Three-Level Cells for DC Fault Blocking Capability. IEEE Transactions on Power Delivery, 2015, 30, 2017-2026.	2.9	99
24	Predictive Current Control of Doubly Fed Induction Generators. IEEE Transactions on Industrial Electronics, 2009, 56, 4143-4153.	5.2	93
25	Slidingâ€mode control of a wind turbineâ€driven doubleâ€fed induction generator under nonâ€ideal grid voltages. IET Renewable Power Generation, 2013, 7, 370-379.	1.7	84
26	Coordinated Control of DFIG and FSIG-Based Wind Farms Under Unbalanced Grid Conditions. IEEE Transactions on Power Delivery, 2010, 25, 367-377.	2.9	82
27	Distributed PLL-Based Control of Offshore Wind Turbines Connected With Diode-Rectifier-Based HVDC Systems. IEEE Transactions on Power Delivery, 2018, 33, 1328-1336.	2.9	81
28	A Nearest Level PWM Method for the MMC in DC Distribution Grids. IEEE Transactions on Power Electronics, 2018, 33, 9209-9218.	5.4	80
29	Leaky-Least-Logarithmic-Absolute-Difference-Based Control Algorithm and Learning-Based InC MPPT Technique for Grid-Integrated PV System. IEEE Transactions on Industrial Electronics, 2019, 66, 9003-9012.	5.2	77
30	Enhanced Independent Pole Control of Hybrid MMC-HVdc System. IEEE Transactions on Power Delivery, 2018, 33, 861-872.	2.9	73
31	VSC Transmission System Using Flying Capacitor Multilevel Converters and Hybrid PWM Control. IEEE Transactions on Power Delivery, 2007, 22, 693-702.	2.9	72
32	Adjustable Inertial Response From the Converter With Adaptive Droop Control in DC Grids. IEEE Transactions on Smart Grid, 2019, 10, 3198-3209.	6.2	54
33	Coordinated Control of Parallel DR-HVDC and MMC-HVDC Systems for Offshore Wind Energy Transmission. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2020, 8, 2572-2582.	3.7	52
34	Analysis and Control of Modular Multilevel Converters under Asymmetric Arm Impedance Conditions. IEEE Transactions on Industrial Electronics, 2016, 63, 71-81.	5.2	47
35	Active Control of DC Fault Currents in DC Solid-State Transformers During Ride-Through Operation of Multi-Terminal HVDC Systems. IEEE Transactions on Energy Conversion, 2016, 31, 1336-1346.	3.7	46
36	Offshore AC Fault Protection of Diode Rectifier Unit-Based HVdc System for Wind Energy Transmission. IEEE Transactions on Industrial Electronics, 2019, 66, 5289-5299.	5.2	45

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37	Comparison of Using SVC and STATCOM for Wind Farm Integration. , 2006, , .		43
38	An ESPRIT-SAA-Based Detection Method for Broken Rotor Bar Fault in Induction Motors. IEEE Transactions on Energy Conversion, 2012, 27, 654-660.	3.7	41
39	Power oscillation damping using wind turbines with energy storage systems. IET Renewable Power Generation, 2013, 7, 449-457.	1.7	41
40	Analysis of voltage source converterâ€based highâ€voltage direct current under DC lineâ€toâ€earth fault. IET Power Electronics, 2015, 8, 428-438.	1.5	41
41	A Novel Method to Determine Droop Coefficients of DC Voltage Control for VSC-MTDC System. IEEE Transactions on Power Delivery, 2020, 35, 2196-2211.	2.9	41
42	DC grid management of a multi-terminal HVDC transmission system for large offshore wind farms. , 2009, , .		39
43	Coordinated DC Voltage Control of Wind Turbine With Embedded Energy Storage System. IEEE Transactions on Energy Conversion, 2012, 27, 1036-1045.	3.7	39
44	Protection of large partitioned MTDC Networks Using DC-DC converters and circuit breakers. Protection and Control of Modern Power Systems, 2016, 1, .	4.3	38
45	Enhanced Flat-Topped Modulation for MMC Control in HVDC Transmission Systems. IEEE Transactions on Power Delivery, 2017, 32, 152-161.	2.9	38
46	Control of an LCC HVDC system for connecting large offshore wind farms with special consideration of grid fault. , 2008, , .		37
47	An improved modular multilevel converter with DC fault blocking capability. , 2014, , .		36
48	An Improved Transient Traveling-Wave Based Direction Criterion for Multi-Terminal HVDC Grid. IEEE Transactions on Power Delivery, 2020, 35, 2517-2529.	2.9	35
49	Control of Offshore MMC During Asymmetric Offshore AC Faults for Wind Power Transmission. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2020, 8, 1074-1083.	3.7	34
50	Current Error Based Compensations for VSC Current Control in Weak Grids for Wind Farm Applications. IEEE Transactions on Sustainable Energy, 2019, 10, 26-35.	5.9	33
51	Direct Power Control of Grid Connected Voltage Source Converters. IEEE Power Engineering Society General Meeting, 2007, , .	0.0	28
52	Control of DFIG-Based Wind Generation Systems under Unbalanced Network Supply. , 2007, , .		25
53	Proportional integral plus multi-frequency resonant current controller for grid-connected voltage source converter under imbalanced and distorted supply voltage conditions. Journal of Zhejiang University: Science A, 2009, 10, 1532-1540.	1.3	24
54	Enhanced AC voltage and frequency control of offshore MMC station for wind farm connection. IET Renewable Power Generation, 2018, 12, 1771-1777.	1.7	24

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55	Improved use of WT kinetic energy for system frequency support. IET Renewable Power Generation, 2017, 11, 1094-1100.	1.7	22
56	Techno-Economic Assessment of Energy Storage Technologies for Inertia Response and Frequency Support from Wind Farms. Energies, 2020, 13, 3421.	1.6	21
57	Dynamic modeling and direct power control of wind turbine driven DFIG under unbalanced network voltage conditions. Journal of Zhejiang University: Science A, 2008, 9, 1731-1740.	1.3	20
58	Review of Local Network Impedance Estimation Techniques. IEEE Access, 2020, 8, 213647-213661.	2.6	20
59	Analysis and Control of Offshore Wind Farms Connected With Diode Rectifier-Based HVDC System. IEEE Transactions on Power Delivery, 2020, 35, 2049-2059.	2.9	20
60	A Unidirectional Hybrid HVDC Transmission System Based on Diode Rectifier and Full-Bridge MMC. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 6974-6984.	3.7	20
61	Accelerated switching function model of hybrid MMCs for HVDC system simulation. IET Power Electronics, 2017, 10, 2199-2207.	1.5	20
62	DC fault protection strategy considering DC network partition. , 2016, , .		18
63	Adaptive DC Stabilizer with Reduced DC fault Current for Active Distribution Power System Application. IEEE Transactions on Power Systems, 2016, , 1-1.	4.6	17
64	Behaviour and protection of doubly-fed induction generators during network faults. , 2009, , .		16
65	DC network stability and dynamic analysis using virtual impedance method. , 2012, , .		16
66	Frequency support using multiâ€terminal HVDC systems based on DC voltage manipulation. IET Renewable Power Generation, 2016, 10, 1393-1401.	1.7	16
67	Flexible Virtual Synchronous Generator Control for Distributed Generator with Adaptive Inertia. Electric Power Components and Systems, 2019, 47, 128-140.	1.0	16
68	Power Electronics Options for Large Wind Farm Integration: VSC-Based HVDC Transmission. , 2006, , .		15
69	Coordinated control and operation of DFIG and FSIG based Wind Farms. , 2007, , .		15
70	Wind turbines output power smoothing using embedded energy storage systems. Journal of Modern Power Systems and Clean Energy, 2013, 1, 49-57.	3.3	15
71	Review of DC fault protection for HVDC grids. Wiley Interdisciplinary Reviews: Energy and Environment, 2018, 7, e278.	1.9	15
72	Hierarchical control of offshore wind farm connected by parallel diodeâ€rectifierâ€based HVDC and HVAC links. IET Renewable Power Generation, 2019, 13, 1493-1502.	1.7	15

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73	An Integrated Control and Protection Scheme Based on FBSM-MMC Active Current Limiting Strategy for DC Distribution Network. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 2632-2642.	3.7	15
74	Impedance Modelling and Stability Analysis of Diode-Rectifier based HVDC Connected Offshore Wind Farms. IEEE Transactions on Power Delivery, 2022, 37, 591-602.	2.9	15
75	Hybrid modular multilevel converter based multiâ€terminal DC/DC converter with minimised fullâ€bridge submodules ratio considering DC fault isolation. IET Renewable Power Generation, 2016, 10, 1587-1596.	1.7	14
76	Enhanced AC voltage and frequency control on offshore MMC station for wind farm. Journal of Engineering, 2017, 2017, 1264-1268.	0.6	14
77	Multiâ€tasking dcâ€“dc and dcâ€“ac converters for dc voltage tapping and power control in highly meshed multiâ€terminal HVDC networks. IET Power Electronics, 2017, 10, 2217-2228.	1.5	13
78	DC Fault Protection of Diode Rectifier Unit Based HVDC System Connecting Offshore Wind Farms. , 2018, , .		13
79	Energy Efficient Three-Phase Utility Interactive Residential Microgrid With Mode Transfer Capabilities at Weak Grid Conditions. IEEE Transactions on Industry Applications, 2019, 55, 7082-7091.	3.3	13
80	Detailed quantitative comparison of halfâ€bridge modular multilevel converter modelling methods. Journal of Engineering, 2019, 2019, 1292-1298.	0.6	13
81	A Hybrid Modular Multilevel Converter With Reduced Full-Bridge Submodules. IEEE Transactions on Power Delivery, 2020, 35, 1876-1885.	2.9	13
82	Enhanced Control of Offshore Wind Farms Connected to MTDC Network Using Partially Selective DC Fault Protection. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 2926-2935.	3.7	13
83	Contribution of VSC-HVDC connected wind farms to grid frequency regulation and power damping. , 2010, , .		12
84	Improved Two-Level Voltage Source Converter for High-Voltage Direct Current Transmission Systems. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2017, 5, 1670-1686.	3.7	12
85	Wind turbines with energy storage for power smoothing and FRT enhancement. , 2011, , .		11
86	Study on high voltage ride through control strategy of PMSGâ€based wind turbine generation system with SCESU. Journal of Engineering, 2019, 2019, 4257-4260.	0.6	11
87	Parallel operation of diodeâ€rectifier based HVDC link and HVAC link for offshore wind power transmission. Journal of Engineering, 2019, 2019, 4713-4717.	0.6	10
88	Frequency regulation participation of offshore wind farm integrated by diodeâ€rectifer HVDC system. Journal of Engineering, 2019, 2019, 977-981.	0.6	9
89	MMC Impedance Modeling and Interaction of Converters in Close Proximity. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 7223-7236.	3.7	9
90	DC Fault Study of a Point-to-Point HVDC System Integrating Offshore Wind Farm Using High-Temperature Superconductor DC Cables. IEEE Transactions on Energy Conversion, 2022, 37, 377-388.	3.7	9

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91	Submodule configuration of HVDCâ€DC autotransformer considering DC fault. IET Power Electronics, 2016, 9, 2776-2785.	1.5	8
92	Active distribution power system with multiâ€terminal DC links. IET Renewable Power Generation, 2017, 11, 27-34.	1.7	8
93	Hybrid converter topologies for dc transmission systems. IET Power Electronics, 2019, 12, 607-619.	1.5	8
94	Control of DFIG-based wind farms for network unbalance compensation. Power Electronics Specialist Conference (PESC), IEEE, 2008, , .	0.0	7
95	High performance predictive current control of bi-directional DC-DC converters for DC micro grid application. , 2011, , .		6
96	A Novel VSG-Based Accurate Voltage Control and Reactive Power Sharing Method for Islanded Microgrids. Sustainability, 2019, 11, 6666.	1.6	6
97	Hybrid AC/DC hub for integrating onshore wind power and interconnecting onshore and offshore DC networks. IET Renewable Power Generation, 2020, 14, 1738-1745.	1.7	6
98	Improved Direct Power Control of Doubly-Fed Induction Generator Based Wind Energy System. , 2007, , .		4
99	An Alternative Current-Error Based Control for VSC Integration to Weak Grid. , 2018, , .		4
100	Control of VSCâ€HVDC connected wind farms for system frequency support. International Transactions on Electrical Energy Systems, 2020, 30, e12352.	1.2	4
101	Impact of DC protection strategy of large HVDC network on frequency response of the connected AC system. Journal of Engineering, 2019, 2019, 4031-4035.	0.6	4
102	Improved rotor current control of wind turbine driven doubly fed induction generators during network unbalance. , 2009, , .		3
103	Transient analysis of an interline dynamic voltage restorer using dynamic phasor representation. , 2016, , .		3
104	Protection and postâ€fault recovery of large HVDC networks using partitioning and fastâ€acting DC breakers at strategic locations. Journal of Engineering, 2019, 2019, 2736-2742.	0.6	3
105	A Less-Intrusive Approach to Stabilize VSC Transmission Against Highly Variable Grid Strength. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 7199-7211.	3.7	3
106	Generalised dqâ€dynamic phasor modelling of a STATCOM connected to a grid for stability analysis. IET Power Electronics, 2020, 13, 720-731.	1.5	3
107	Harmonic Voltage Control in Distributed Generation Systems Using Optimal Switching Vector Strategy. IEEE Systems Journal, 2022, 16, 1861-1872.	2.9	3
108	A Diode-MMC AC/DC Hub for Connecting Offshore Wind Farm and Offshore Production Platform. Energies, 2021, 14, 3759.	1.6	3

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109	Improved operation of DFIG and FSIG-based wind farms during network unbalance. , 2008, , .		2
110	DC microgrid dynamic performance assessment and enhancement based on virtual impedance method. , 2014, , .		2
111	DC STATCOM in multiâ€terminal DC distribution power system. Journal of Engineering, 2017, 2017, 2077-2082.	0.6	2
112	A Wind Farm Frequency Control Method Based on the Frequency Regulation Ability of Wind Turbine Generators. , 2020, , .		2
113	Microgrid design using folded P-f droop and new grid interface unit to minimize the need for communication. International Journal of Electrical Power and Energy Systems, 2021, 130, 106949.	3.3	2
114	Credible Reactive Power Regulation Capacity Assessment of DFIG Wind Farms. , 2021, , .		2
115	Real-Time Reactive Power Regulation Capacity Assessment of DFIG Wind Farms. , 2022, , .		2
116	Modeling and analysis approaches for smallâ€signal stability assessment of powerâ€electronicâ€dominated systems. Wiley Interdisciplinary Reviews: Energy and Environment, 2023, 12, .	1.9	2
117	Improved direct power control of three-phase PWM converters. , 2008, , .		1
118	Combined deload and kinetic energy control of variable speed wind turbines for frequency support. , 2016, , .		1
119	Studies of coordinated zone protection strategy for DC grid. , 2016, , .		1
120	Frequency control capability of wind turbine under different operation status. Journal of Engineering, 2017, 2017, 1533-1538.	0.6	1
121	A Coordinated Frequency Regulation Method for Offshore Wind Farms Integrated by VSC-HVDC. , 2020, , .		1
122	Energy-Based Virtual Damping Control of FB-MMCs for HVDC Grid. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 7320-7328.	3.7	1
123	Stability norms control using the virtual impedance concept for power frequency applications. , 2017, , .		0
124	Active Control of DC Fault Currents in DC Solid-State Transformers during Ride-Through Operation of Multi-Terminal HVDC Systems. , 2018, , .		0
125	Simulation-based Optimisation of LCC-HVDC Controller Parameters using Surrogate Model Solvers. , 2019, , .		0
126	Interoperability assessment of MMC and DRU connected offshore windfarms in meshed multi-terminal dc grids. , 2019, , .		0

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127	Parameter Value Selection of Wind Turbines Frequency Controller. , 2019, , .		0
128	PN admittance characterisation of grid supporting VSC controllers with negative sequence regulation and inertia emulation. , 2021, , .		0