Fang Peng

List of Publications by Year
in descending order

83 papers	12,819 citations	172207 29 h-index	360668 35 g-index
84 all docs	84 docs citations	84 times ranked	4930 citing authors

#	Article	IF	Citations
1	Multilevel inverters: a survey of topologies, controls, and applications. IEEE Transactions on Industrial Electronics, 2002, 49, 724-738.	5.2	5,307
2	Z-source inverter. IEEE Transactions on Industry Applications, 2003, 39, 504-510.	3.3	2,657
3	Maximum Boost Control of the Z-Source Inverter. IEEE Transactions on Power Electronics, 2005, 20, 833-838.	5.4	705
4	Trans-Z-Source Inverters. IEEE Transactions on Power Electronics, 2011, 26, 3453-3463.	5.4	472
5	Z-Source Inverter for Motor Drives. IEEE Transactions on Power Electronics, 2005, 20, 857-863.	5.4	328
6	Modeling and Control of Quasi-Z-Source Inverter for Distributed Generation Applications. IEEE Transactions on Industrial Electronics, 2013, 60, 1532-1541.	5.2	317
7	Operation Modes and Characteristics of the Z-Source Inverter With Small Inductance or Low Power Factor. IEEE Transactions on Industrial Electronics, 2008, 55, 89-96.	5.2	202
8	Overview of Space Vector Modulations for Three-Phase Z-Source/Quasi-Z-Source Inverters. IEEE Transactions on Power Electronics, 2014, 29, 2098-2108.	5.4	188
9	Single-phase Z-source PWM AC-AC converters. IEEE Power Electronics Letters, 2005, 3, 121-124.	1.1	184
10	55-kW Variable 3X DC-DC Converter for Plug-in Hybrid Electric Vehicles. IEEE Transactions on Power Electronics, 2012, 27, 1668-1678.	5.4	164
11	Simple topologies of PWM AC-AC converters. IEEE Power Electronics Letters, 2003, 1, 10-13.	1.1	158
12	An Energy Stored Quasi-Z-Source Cascade Multilevel Inverter-Based Photovoltaic Power Generation System. IEEE Transactions on Industrial Electronics, 2015, 62, 5458-5467.	5.2	141
13	Zero-Current-Switching Multilevel Modular Switched-Capacitor DCâ€“DC Converter. IEEE Transactions on Industry Applications, 2010, 46, 2536-2544.	3.3	137
14	DC Capacitor-Less Inverter for Single-Phase Power Conversion With Minimum Voltage and Current Stress. IEEE Transactions on Power Electronics, 2015, 30, 5499-5507.	5.4	108
15	Stray Inductance Reduction of Commutation Loop in the P-cell and N-cell-Based IGBT Phase Leg Module. IEEE Transactions on Power Electronics, 2014, 29, 3616-3624.	5.4	101
16	Novel Energy Stored Single-Stage Photovoltaic Power System With Constant DC-Link Peak Voltage. IEEE Transactions on Sustainable Energy, 2014, 5, 28-36.	5.9	83
17	A family of zero current switching switched-capacitor dc-dc converters. , 2010, , .		81
18	Novel Loss and Harmonic Minimized Vector Modulation for a Current-Fed Quasi-Z-Source Inverter in HEV Motor Drive Application. IEEE Transactions on Power Electronics, 2014, 29, 1344-1357.	5.4	75

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19	Phaseâ€shifted pulseâ€widthâ€amplitude modulation for quasiâ€Zâ€source cascade multilevel inverterâ€based photovoltaic power system. IET Power Electronics, 2014, 7, 1444-1456.	1.5	75
20	Optimal Design of a Multilevel Modular Capacitor-Clamped DCâ€“DC Converter. IEEE Transactions on Power Electronics, 2013, 28, 3816-3826.	5.4	68
21	Z-Source Resonant Converter With Power Factor Correction for Wireless Power Transfer Applications. IEEE Transactions on Power Electronics, 2016, 31, 7691-7700.	5.4	63
22	An Effective Control Technique for Medium-Voltage High-Power Induction Motor Fed by Cascaded Neutral-Point-Clamped Inverter. IEEE Transactions on Industrial Electronics, 2010, 57, 2659-2668.	5.2	61
23	Z-Source-Converter-Based Energy-Recycling Zero-Voltage Electronic Loads. IEEE Transactions on Industrial Electronics, 2009, 56, 4894-4902.	5.2	60
24	Modelling and controller design of quasiâ€Zâ€source inverter with batteryâ€based photovoltaic power system. IET Power Electronics, 2014, 7, 1665-1674.	1.5	59
25	Reliability, efficiency, and cost comparisons of MW-scale photovoltaic inverters. , 2012, , .		55
26	Space Vector Pulsewidth Amplitude Modulation for a Buckâ€“Boost Voltage/Current Source Inverter. IEEE Transactions on Power Electronics, 2014, 29, 266-274.	5.4	55
27	An Alternative Energy Recovery Clamp Circuit for Full-Bridge PWM Converters With Wide Ranges of Input Voltage. IEEE Transactions on Power Electronics, 2008, 23, 2828-2837.	5.4	52
28	Distributed Impedance Network (Z-Network) DCâ€“DC Converter. IEEE Transactions on Power Electronics, 2010, 25, 2722-2733.	5.4	48
29	Switching cells and their implications for power electronic circuits. , 2009, , .		45
30	Trans-Z-source inverters. , 2010, , .		43
31	Effect of Gate-Oxide Degradation on Electrical Parameters of Power MOSFETs. IEEE Transactions on Power Electronics, 2018, 33, 10764-10773.	5.4	40
32	Modularized buck-boost + Cuk converter for high voltage series connected battery cells. , 2012, , .		38
33	Multiphase-Leg Coupling Current Balancer for Parallel Operation of Multiple MW Power Modules. IEEE Transactions on Industrial Electronics, 2014, 61, 1147-1157.	5.2	38
34	A High-Performance Resonant Gate-Drive Circuit for MOSFETs and IGBTs. IEEE Transactions on Power Electronics, 2014, 29, 4366-4373.	5.4	38
35	Quasi-Z-Source inverter based PMSG wind power generation system. , 2011, , .		36
36	P-cell and N-cell based IGBT module: Layout design, parasitic extraction, and experimental verification. , 2011, , .		32

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37	A new grid-connected PV system based on cascaded H-bridge quasi-Z source inverter. , 2012, , .		32
38	Theoretical analysis of DC link capacitor current ripple reduction in the HEV DC-DC converter and inverter system using a carrier modulation method. , 2012, , .		26
39	Practical Layouts and DC-Rail Voltage Clamping Techniques of Z-Source Inverters. IEEE Transactions on Power Electronics, 2016, 31, 7471-7479.	5.4	26
40	A Solid State Variable Capacitor With Minimum Capacitor. IEEE Transactions on Power Electronics, 2017, 32, 5035-5044.	5.4	26
41	A novel method to estimate the maximum power for a photovoltaic inverter system. , 0, , .		25
42	A modular multilevel space vector modulation for photovoltaic quasi-Z-source cascade multilevel inverter. , 2013, , .		25
43	A novel quasiâ€Zâ€source indirect matrix converter. International Journal of Circuit Theory and Applications, 2015, 43, 438-454.	1.3	23
44	A compact nX DC-DC converter for photovoltaic power systems. , 2013, , .		22
45	An H-Bridge-Based Single-Phase VAr Generator With Minimum DC Capacitance. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2018, 6, 2001-2014.	3.7	22
46	Optimal modulation of indirect Z-source matrix converter. , 2010, , .		17
47	Sliding-mode control of quasi-Z-source inverter with battery for renewable energy system. , 2011, , .		17
48	A zero-current-switching multilevel switched capacitor DC-DC converter. , 2011, , .		15
49	Boost converter — Inverter system using PWAM for HEV/EV motor drive. , 2012, , .		15
50	1.5MVA grid-connected interleaved inverters using coupled inductors for wind power generation system. , 2013, , .		15
51	Comparison of synchronous condenser and STATCOM for inertial response support. , 2014, , .		14
52	High Power Density Z-Source Resonant Wireless Charger With Line Frequency Sinusoidal Charging. IEEE Transactions on Power Electronics, 2018, 33, 10148-10156.	5.4	14
53	Non-linear capacitor based variable capacitor for self-tuning resonant converter in wireless power transfer. , 2018, , .		14
54	An effective PV power generation control system using quasi-Z source inverter with battery. , 2011, , .		13

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55	Low cost battery equalizer using buck-boost and series LC converter with synchronous phase-shift control. , 2013, , .		11
56	Impedance design of 21-kW quasi-Z-source H-bridge module for MW-scale medium-voltage cascaded multilevel photovoltaic inverter. , 2014, , .		11
57	Quasi-Z source inverter with battery based PV power generation system. , 2011, , .		10
58	Transformer-less unified power flow controller using the cascade multilevel inverter. , 2014, , .		9
59	A double Fourier analysis development of THD for PWM inverters: A theoretical method for motor loss minimization. , 2010, , .		8
60	Speed Sensorless Vector Control Induction Motor Drives Fed by Cascaded Neutral Point Clamped Inverter. , 2009, , .		6
61	Nine IGBTs based UPFC topology and control for renewable power integration. , 2013, , .		6
62	Phase-shifted pulse-width-amplitude modulation for quasi-Z-source cascade multilevel inverter based PV power system. , 2013, , .		6
63	An effective control method for quasi-Z-source cascade multilevel three-phase grid-tie photovoltaic power system. , 2014, , .		6
64	Fractionally rated transformer-less unified power flow controllers for interconnecting synchronous AC grids. , 2015, , .		6
65	Simplified quasiâ€Z source indirect matrix converter. International Journal of Circuit Theory and Applications, 2015, 43, 1775-1793.	1.3	6
66	Operation and analysis of an improved transformerless unified power flow controller. , 2016, , .		5
67	High power factor Z-source resonant wireless charger. , 2017, , .		5
68	Real DC capacitor-less active capacitors. , 2017, , .		5
69	Minimizing DC capacitance requirement of cascadeded H-bridge multilevel inverters for photovoltaic systems by 3rd harmonic injection. , 2012, , .		4
70	An Effective SPWM Control Technique for 1MVA 6000V Cascaded Neutral Point Clamped Inverter. , 2008, , .		3
71	The effects of the resonant network and control variables on the dc-link capacitor of a wireless charging system. , 2017, , .		3
72	Auto-tuning based resonance damping of grid-connected voltage source inverters with long transmission cable. , 2013, , .		2

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73	Independent real and reactive power flow control without sensing receiving end voltage in transformer-less unified power flow controller. , 2014, , .		2
74	Harmonic burst mode control strategy for full-bridge series resonant convertersfor electric vehicles application. , 2015, , .		2
75	Z-source resonant converter with power factor correction for wireless power transfer applications. , 2016, , .		2
76	Comprehensive design comparison of using different order harmonics as the power carrier in wireless power transfer for PHEV and EV wireless charging. , 2016, , .		2
77	First order frequency-domain analytical model for resonant converters in CCM. , 2018, , .		2
78	An effective control technique for medium-voltage high power induction motor drives. , 2008, , .		1
79	Quasi-Z source inverter based pole-phase modulation machine drive system. , 2011, , .		1
80	High power factor Z-source resonant wireless charger with soft switching. , 2017, , .		1
81	High power density Z-source resonant wireless charger with line frequency sinusoidal charging. , 2017, , .		1
82	Current balancer for parallel operation of multiple MW power modules. , 2013, , .		0
83	A carrier magnitude varying modulation for distributed static series compensator to achieve a maximum reactive power generating capability. , 2018, , .		0