Poh Chiang Andrew Loh

List of Publications by Year
in descending order

144 papers	6,302 citations	71102 41 h-index	85541 71 g-index
148 all docs	148 docs citations	148 times ranked	4015 citing authors

#	Article	IF	Citations
1	Virtual-Impedance-Based Control for Voltage-Source and Current-Source Converters. IEEE Transactions on Power Electronics, 2015, 30, 7019-7037.	7.9	458
2	Grid-Current-Feedback Active Damping for <italic>LCL</italic> Resonance in Grid-Connected Voltage-Source Converters. IEEE Transactions on Power Electronics, 2016, 31, 213-223.	7.9	342
3	Virtual <italic>RC</italic> Damping of <italic>LCL</italic>-Filtered Voltage Source Converters With Extended Selective Harmonic Compensation. IEEE Transactions on Power Electronics, 2015, 30, 4726-4737.	7.9	271
4	Decoupling of Fluctuating Power in Single-Phase Systems Through a Symmetrical Half-Bridge Circuit. IEEE Transactions on Power Electronics, 2015, 30, 1855-1865.	7.9	245
5	Design and Analysis of Robust Active Damping for LCL Filters Using Digital Notch Filters. IEEE Transactions on Power Electronics, 2017, 32, 2360-2375.	7.9	239
6	An Improved Second-Order Generalized Integrator Based Quadrature Signal Generator. IEEE Transactions on Power Electronics, 2016, 31, 8068-8073.	7.9	213
7	Y-Source Impedance Network. IEEE Transactions on Power Electronics, 2014, 29, 3250-3254.	7.9	195
8	Highly Accurate Derivatives for <italic>LCL</italic>-Filtered Grid Converter With Capacitor Voltage Active Damping. IEEE Transactions on Power Electronics, 2016, 31, 3612-3625.	7.9	190
9	Passivity-Based Stability Analysis and Damping Injection for Multiparalleled VSCs with LCL Filters. IEEE Transactions on Power Electronics, 2017, 32, 8922-8935.	7.9	174
10	Highly Reliable Transformerless Photovoltaic Inverters With Leakage Current and Pulsating Power Elimination. IEEE Transactions on Industrial Electronics, 2016, 63, 1016-1026.	7.9	169
11	Grid-Current-Feedback Control for LCL-Filtered Grid Converters With Enhanced Stability. IEEE Transactions on Power Electronics, 2017, 32, 3216-3228.	7.9	162
12	Resonance Interaction of Multiparallel Grid-Connected Inverters With LCL Filter. IEEE Transactions on Power Electronics, 2017, 32, 894-899.	7.9	130
13	A Dual Voltage Control Strategy for Single-Phase PWM Converters With Power Decoupling Function. IEEE Transactions on Power Electronics, 2015, 30, 7060-7071.	7.9	128
14	Design of LCL Filters With LCL Resonance Frequencies Beyond the Nyquist Frequency for Grid-Connected Converters. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2016, 4, 3-14.	5.4	119
15	Stability Analysis and Controller Synthesis for Single-Loop Voltage-Controlled VSIs. IEEE Transactions on Power Electronics, 2017, 32, 7394-7404.	7.9	118
16	Y-Source Boost DC/DC Converter for Distributed Generation. IEEE Transactions on Industrial Electronics, 2015, 62, 1059-1069.	7.9	109
17	Lifetime Estimation of MMC for Offshore Wind Power HVDC Application. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2016, 4, 504-511.	5.4	107
18	Benchmark of AC and DC Active Power Decoupling Circuits for Second-Order Harmonic Mitigation in Kilowatt-Scale Single-Phase Inverters. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2016, 4, 15-25.	5.4	102

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19	Control of hybrid AC/DC microgrid under islanding operational conditions. Journal of Modern Power Systems and Clean Energy, 2014, 2, 223-232.	5.4	100
20	A Series-<italic>LC</italic>-Filtered Active Damper With Grid Disturbance Rejection for AC Power-Electronics-Based Power Systems. IEEE Transactions on Power Electronics, 2015, 30, 4037-4041.	7.9	87
21	Benchmarking of Stability and Robustness Against Grid Impedance Variation for <italic>LCL</italic> -Filtered Grid-Interfacing Inverters. IEEE Transactions on Power Electronics, 2018, 33, 9033-9046.	7.9	86
22	An Improved Flux Observer for Field-Oriented Control of Induction Motors Based on Dual Second-Order Generalized Integrator Frequency-Locked Loop. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2017, 5, 513-525.	5.4	85
23	Distributed Primary and Secondary Power Sharing in a Droop-Controlled LVDC Microgrid With Merged AC and DC Characteristics. IEEE Transactions on Smart Grid, 2018, 9, 2284-2294.	9.0	84
24	Re-Investigation of Generalized Integrator Based Filters From a First-Order-System Perspective. IEEE Access, 2016, 4, 7131-7144.	4.2	82
25	Quasi-Y-Source Boost DCâ€“DC Converter. IEEE Transactions on Power Electronics, 2015, 30, 6514-6519.	7.9	79
26	Graphical Evaluation of Time-Delay Compensation Techniques for Digitally Controlled Converters. IEEE Transactions on Power Electronics, 2018, 33, 2601-2614.	7.9	77
27	A Dual Active Bridge Converter With an Extended High-Efficiency Range by DC Blocking Capacitor Voltage Control. IEEE Transactions on Power Electronics, 2018, 33, 5949-5966.	7.9	71
28	<italic>LLCL</italic>-Filtered Grid Converter With Improved Stability and Robustness. IEEE Transactions on Power Electronics, 2016, 31, 3958-3967.	7.9	69
29	Effects of Leakage Inductances on Magnetically Coupled Z-Source Network. IEEE Transactions on Power Electronics, 2014, 29, 5662-5666.	7.9	63
30	A Six-Switch Seven-Level Triple-Boost Inverter. IEEE Transactions on Power Electronics, 2021, 36, 1225-1230.	7.9	62
31	Passivity Enhancement of Grid-Tied Converters by Series LC-Filtered Active Damper. IEEE Transactions on Industrial Electronics, 2017, 64, 369-379.	7.9	57
32	Highâ€voltage boost quasiâ€Zâ€source isolated DC/DC converter. IET Power Electronics, 2014, 7, 2387-2395.	2.1	55
33	Droop Control With Improved Disturbance Adaption for a PV System With Two Power Conversion Stages. IEEE Transactions on Industrial Electronics, 2016, 63, 6073-6085.	7.9	54
34	Realization of Digital Differentiator Using Generalized Integrator For Power Converters. IEEE Transactions on Power Electronics, 2015, 30, 6520-6523.	7.9	53
35	Improved Power Decoupling Scheme for a Single-Phase Grid-Connected Differential Inverter With Realistic Mismatch in Storage Capacitances. IEEE Transactions on Power Electronics, 2017, 32, 186-199.	7.9	53
36	Costâ€based droop scheme with lower generation costs for microgrids. IET Power Electronics, 2014, 7, 1171-1180.	2.1	52

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37	A Review of Traditional Helical to Recent Miniaturized Printed Circuit Board Rogowski Coils for Power-Electronic Applications. IEEE Transactions on Power Electronics, 2020, 35, 12207-12222.	7.9	52
38	Four-Leg Converters With Improved Common Current Sharing and Selective Voltage-Quality Enhancement for Islanded Microgrids. IEEE Transactions on Power Delivery, 2016, 31, 522-531.	4.3	51
39	High Step-Up Trans-Inverse (Tx^{â^1}) DCâ€“DC Converter for the Distributed Generation System. IEEE Transactions on Industrial Electronics, 2016, 63, 4278-4291.	7.9	48
40	Autonomous operation of acâ€“dc microgrids with minimised interlinking energy flow. IET Power Electronics, 2013, 6, 1650-1657.	2.1	47
41	An impedance-based stability analysis method for paralleled voltage source converters. , 2014, , .		47
42	Active Damping of <italic>LLCL</italic>-Filter Resonance Based on <italic>LC</italic>-Trap Voltage or Current Feedback. IEEE Transactions on Power Electronics, 2016, 31, 2337-2346.	7.9	44
43	Application Criteria for Nine-Switch Power Conversion Systems with Improved Thermal Performance. IEEE Transactions on Power Electronics, 2015, 30, 4608-4620.	7.9	43
44	Cost-based droop scheme for DC microgrid. , 2014, , .		40
45	Transâ€Zâ€source and Î“â€Zâ€source neutralâ€pointâ€clamped inverters. IET Power Electronics, 2015, 8, 371-377	2.1	37
46	The SVC Additional Adaptive Voltage Controller of Isolated Wind-Diesel Power System Based on Double Sliding-Mode Optimal Strategy. IEEE Transactions on Sustainable Energy, 2018, 9, 24-34.	8.8	36
47	Y-source impedance network. , 2014, , .		33
48	Sub-module Short Circuit Fault Diagnosis in Modular Multilevel Converter Based on Wavelet Transform and Adaptive Neuro Fuzzy Inference System. Electric Power Components and Systems, 2015, 43, 1080-1088.	1.8	32
49	An Enhanced Dual Droop Control Scheme for Resilient Active Power Sharing Among Paralleled Two-Stage Converters. IEEE Transactions on Power Electronics, 2017, 32, 6091-6104.	7.9	32
50	Indirect thermal control for improved reliability of Modular Multilevel Converter by utilizing circulating current. , 2015, , .		31
51	Proportional derivative based stabilizing control of paralleled grid converters with cables in renwable power plants. , 2014, , .		29
52	Magnetically coupled highâ€gain Yâ€source isolated DC/DC converter. IET Power Electronics, 2014, 7, 2817-2824.	2.1	29
53	Y-source inverter. , 2014, , .		27
54	Online Fault Identification Based on an Adaptive Observer for Modular Multilevel Converters Applied to Wind Power Generation Systems. Energies, 2015, 8, 7140-7160.	3.1	27

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55	A unified impedance model of voltage-source converters with phase-locked loop effect. , 2016, , .		25
56	Investigation into the control methods to reduce the DC-link capacitor ripple current in a back-to-back converter. , 2014, , .		24
57	Interaction and aggregated modeling of multiple paralleled inverters with LCL filter. , 2015, , .		24
58	Effects of Passive Components on the Input Current Interharmonics of Adjustable-Speed Drives. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2016, 4, 152-161.	5.4	24
59	Multiuser Communication Through Power Talk in DC MicroGrids. IEEE Journal on Selected Areas in Communications, 2016, 34, 2006-2021.	14.0	23
60	An Improved di/dt-RCD Detection for Short-Circuit Protection of SiC mosfet. IEEE Transactions on Power Electronics, 2021, 36, 12-17.	7.9	23
61	Review of fault diagnosis and fault-tolerant control for modular multilevel converter of HVDC. , 2013, , .		22
62	An analysis method for harmonic resonance and stability of multi-paralleled LCL-filtered inverters. , 2015, , .		21
63	A unified active damping control for single-phase differential mode buck inverter with LCL-filter. , 2015, , .		21
64	Structure and modelling of fourâ€layer screenâ€returned PCB Rogowski coil with very few turns for highâ€bandwidth SiC current measurement. IET Power Electronics, 2020, 13, 765-775.	2.1	21
65	Autonomous operation of distributed storages in microgrids. IET Power Electronics, 2014, 7, 23-30.	2.1	19
66	A Rotating Speed Controller Design Method for Power Leveling by Means of Inertia Energy in Wind Power Systems. IEEE Transactions on Energy Conversion, 2015, 30, 1052-1060.	5.2	19
67	Impedance interactions in bidirectional cascaded converter. IET Power Electronics, 2016, 9, 2482-2491.	2.1	19
68	Power decoupling with autonomous reference generation for single-phase differential inverters. , 2015, , .		18
69	A new second-order generalized integrator based quadrature signal generator with enhanced performance. , 2016, , .		18
70	Quasi-Y-source inverter. , 2015, , .		17
71	Design of state observer for modular multilevel converter. , 2015, , .		17
72	A dual voltage control strategy for single-phase PWM converters with power decoupling function. , 2014, , .		16

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73	Decoupling of fluctuating power in single-phase systems through a symmetrical half-bridge circuit. , 2014, , .		16
74	High-performance feedback-type active damping of LCL-filtered voltage source converters. , 2015, , .		16
75	Single-Source Cascaded Multilevel Inverter With Voltage-Boost Submodule and Continuous Input Current for Photovoltaic Applications. IEEE Transactions on Power Electronics, 2022, 37, 955-970.	7.9	16
76	Autonomous economic operation of grid connected DC microgrid. , 2014, , .		15
77	Power Talk: How to Modulate Data over a DC Micro Grid Bus Using Power Electronics. , 2015, , .		15
78	Modulation Schemes With Enhanced Switch Thermal Distribution for Single-Phase ACâ€“DCâ€“AC Reduced-Switch Converters. IEEE Transactions on Power Electronics, 2016, 31, 3302-3313.	7.9	15
79	A Direct Carrier-Based Modulation Scheme With Full Index Range for DC-Link Current Ripple Mitigation of a Current Source Converter. IEEE Transactions on Industrial Electronics, 2022, 69, 452-462.	7.9	15
80	Evaluation of current stresses in nineâ€switch energy conversion systems. IET Power Electronics, 2014, 7, 2877-2886.	2.1	14
81	Stability analysis and active damping for LLCL-filter based grid-connected inverters. , 2014, , .		14
82	Power decoupling method for single phase differential buck converter. , 2015, , .		14
83	An Active Trap Filter for Switching Harmonic Attenuation of Low-Pulse-Ratio Inverters. IEEE Transactions on Power Electronics, 2017, 32, 9078-9092.	7.9	14
84	Stability Analysis and Active Damping for <i>LLCL</i>-Filter-Based Grid-Connected Inverters. IEEJ Journal of Industry Applications, 2015, 4, 187-195.	1.1	13
85	DQ reference frame modeling and control of single-phase active power decoupling circuits. , 2015, , .		13
86	Benchmark of AC and DC active power decoupling circuits for second-order harmonic mitigation in kW-scale single-phase inverters. , 2015, , .		13
87	Integrator Design of the Rogowski Current Sensor for Detecting Fast Switch Current of SiC Devices. , 2019, , .		13
88	Single-Stage Active Split-Source Inverter With High DC-Link Voltage Utilization. IEEE Transactions on Power Electronics, 2021, 36, 6699-6711.	7.9	13
89	Design of LLCL-filter for grid-connected converter to improve stability and robustness. , 2015, , .		12
90	Passivity-based design of passive damping for LCL-filtered voltage source converters. , 2015, , .		12

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91	Ultra-step-up DC-DC converter with integrated autotransformer and coupled inductor. , 2016, , .		11
92	A Dual-Boost H-Bridge Inverter With Common Ground for Photovoltaic Interfacing. IEEE Transactions on Industrial Electronics, 2021, 68, 9515-9526.	7.9	11
93	Active damping of LLCL-filter resonance based on LC-trap voltage and capacitor current feedback. , 2015, , .		10
94	Resonant-inductor-voltage-feedback active damping based control for grid-connected inverters with LLCL-filters. , 2014, , .		9
95	Review and reâ€evaluation of modulation techniques for neutralâ€pointâ€clamped inverters with highâ€order filters. IET Power Electronics, 2019, 12, 1307-1320.	2.1	9
96	Cost-prioritized droop schemes for autonomous microgrids. , 2013, , .		8
97	Design-oriented analysis of resonance damping and harmonic compensation for LCL-filtered voltage source converters. , 2014, , .		8
98	The feasibility study on thermal loading control of wind power converters with a flexible switching frequency. , 2015, , .		8
99	Quasi Y-source boost DC-DC converter. , 2015, , .		8
100	Power loss benchmark of nine-switch converters in three-phase online-UPS application. , 2014, , .		7
101	Interharmonic analysis and mitigation in adjustable speed drives. , 2014, , .		7
102	Y-source impedance-network-based isolated boost DC/DC converter. , 2014, , .		7
103	The overview of damping methods for three-phase grid-tied inverter with LLCL-filter. , 2014, , .		7
104	Passivity enhancement of grid-tied converter by series LC-filtered active damper. , 2015, , .		7
105	Design of LCL-filters with LCL resonance frequencies beyond the Nyquist frequency for grid-connected inverters. , 2015, , .		7
106	Improvement of device current ratings in Modular Multilevel Converter by utilizing circulating current. , 2015, , .		7
107	Four new applications of Second-Order Generalized Integrator Quadrature Signal Generator. , 2016, , .		7
108	Sliding-Mode Flux-Weakening Control With Only Single Current Regulator for Permanent Magnet Synchronous Motor. IEEE Access, 2019, 7, 131616-131626.	4.2	7

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109	A novel flux estimator based on SOGI with FLL for induction machine drives. , 2016, , .		6
110	A Natural-balancing Filter for Three-Level Grid-Connected Converter. , 2019, , .		6
111	Review of Methodologies for Evaluating Short-Circuit Robustness and Reliability of SiC Power MOSFETs. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2022, 10, 4665-4679.	5.4	6
112	An Integrated Common-Mode Fast-Balancing Mechanism for Three-Phase Three-Level Converter With LCL Filter. IEEE Transactions on Power Electronics, 2021, 36, 12694-12709.	7.9	5
113	Lifetime estimation of MMC for offshore wind power HVDC application. , 2014, , .		4
114	Design of the LC + trap filter for a current source rectifier. , 2015, , .		4
115	An active trap filter for high-power voltage source converters. , 2015, , .		4
116	An enhanced droop control scheme for resilient active power sharing in paralleled two-stage PV inverter systems. , 2016, , .		4
117	A Single-Stage Three-Phase Split-Y-Source Inverter. , 2019, , .		4
118	A SiC-Si Hybrid Module for Direct Matrix Converter With Mitigated Current Spikes. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2022, 10, 3805-3817.	5.4	4
119	Effects of leakage inductances on magnetically-coupled impedance-source networks. , 2014, , .		3
120	Reliability-oriented energy storage sizing in wind power systems. , 2014, , .		3
121	A high voltage gain quasi Z-source isolated DC/DC converter. , 2014, , .		3
122	Power Talk: How to Modulate Data over a DC Micro Grid Bus Using Power Electronics. , 2014, , .		3
123	Current control of grid converters connected with series ac capacitor. , 2015, , .		3
124	Influence of modulation method on using LC-traps with single-phase voltage source inverters. , 2015, , .		3
125	A unified grid current control for grid-interactive DG inverters in microgrids. , 2015, , .		3
126	Realization of quadrature signal generator using accurate magnitude integrator. , 2016, , .		3

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127	Stability analysis and controller synthesis for digital single-loop voltage-controlled inverters. , 2016, , .		3
128	Input current interharmonics in adjustable speed drives caused by fixed-frequency modulation techniques. , 2016, , .		3
129	Modulation Schemes for Single-Phase B6 Converters With Two Asymmetrical Terminal Voltages. IEEE Transactions on Industrial Electronics, 2016, 63, 49-59.	7.9	3
130	Two Degrees of Freedom Power Decoupling Method for Single-Phase Split-Source Inverter. , 2019, , .		3
131	Modified splitâ€source inverter with singleâ€phase dual power decoupling. IET Power Electronics, 2020, 13, 2201-2211.	2.1	3
132	Loss comparison of different nine-switch and twelve-switch energy conversion systems. , 2014, , .		2
133	Enhanced stability of capacitor-current feedback active damping for LCL-filtered grid converters. , 2015, , .		2
134	A series-ZC-filtered active trap filter for high power voltage source inverter. , 2016, , .		2
135	Differential-Mode Filters With Common-Mode Neutral-Point-Balancing Accelerators for Single-Phase Symmetrical Five-Level Converters. IEEE Transactions on Power Electronics, 2021, 36, 9209-9220.	7.9	2
136	Generalized modular multilevel converter and modulation. , 2014, , .		1
137	A series-LC-filtered active damper for ac power electronics based power systems. , 2015, , .		1
138	SOGI-based capacitor voltage feedback active damping in LCL-filtered grid converters. , 2015, , .		1
139	A comparative benchmark of digital delay compensation techniques based on a graphical approach. , 2017, , .		1
140	Modulation schemes with enhanced switch thermal distribution for single-phase AC-DC-AC reduced-switch converters. , 2015, , .		0
141	Impedance analysis of control modes in cascaded converter. , 2015, , .		0
142	Trans-inverse (Tx^{−1}) high step-up DC-DC converter. , 2015, , .		0
143	Line-to-line voltage based modulation scheme for single-phase reduced switch ac-dc-ac converters to achieve improved performance. , 2015, , .		0
144	Loading Analysis of Modular Multi-level Converter for Offshore High-voltage DC Application under Various Grid Faults. Electric Power Components and Systems, 2016, 44, 2007-2016.	1.8	0