

Pooya Davari

List of Publications by Year in descending order

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152
papers

3,199
citations

147801

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189892

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docs citations

154
times ranked

2171
citing authors

#	ARTICLE	IF	CITATIONS
1	An Overview of Assessment Methods for Synchronization Stability of Grid-Connected Converters Under Severe Symmetrical Grid Faults. IEEE Transactions on Power Electronics, 2019, 34, 9655-9670.	7.9	226
2	Current Limiting Control With Enhanced Dynamics of Grid-Forming Converters During Fault Conditions. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2020, 8, 1062-1073.	5.4	171
3	A robust adaptive load frequency control for micro-grids. ISA Transactions, 2016, 65, 220-229.	5.7	141
4	Lifetime Estimation of DC-Link Capacitors in Adjustable Speed Drives Under Grid Voltage Unbalances. IEEE Transactions on Power Electronics, 2019, 34, 4064-4078.	7.9	118
5	An Overview of Condition Monitoring Techniques for Capacitors in DC-Link Applications. IEEE Transactions on Power Electronics, 2021, 36, 3692-3716.	7.9	111
6	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
7	Reliability of Power Electronic Systems for EV/HEV Applications. Proceedings of the IEEE, 2021, 109, 1060-1076.	21.3	80
8	Synchronverter-Enabled DC Power Sharing Approach for LVDC Microgrids. IEEE Transactions on Power Electronics, 2017, 32, 8089-8099.	7.9	75
9	Harmonic Emissions of Three-Phase Diode Rectifiers in Distribution Networks. IEEE Access, 2017, 5, 2819-2833.	4.2	73
10	Performance Evaluation of the Single-Phase Split-Source Inverter Using an Alternative DC-AC Configuration. IEEE Transactions on Industrial Electronics, 2018, 65, 363-373.	7.9	67
11	Switching Loss Reduction in the Three-Phase Quasi-Z-Source Inverters Utilizing Modified Space Vector Modulation Strategies. IEEE Transactions on Power Electronics, 2018, 33, 4045-4060.	7.9	67
12	Current Reference Generation Based on Next-Generation Grid Code Requirements of Grid-Tied Converters During Asymmetrical Faults. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2020, 8, 3784-3797.	5.4	67
13	Control of Grid-Following Inverters Under Unbalanced Grid Conditions. IEEE Transactions on Energy Conversion, 2020, 35, 184-192.	5.2	56
14	System-Level Reliability-Oriented Power Sharing Strategy for DC Power Systems. IEEE Transactions on Industry Applications, 2019, 55, 4865-4875.	4.9	55
15	Standard Test Systems for Modern Power System Analysis: An Overview. IEEE Industrial Electronics Magazine, 2019, 13, 86-105.	2.6	55
16	Performance evaluation of non-thermal plasma on particulate matter, ozone and CO2 correlation for diesel exhaust emission reduction. Chemical Engineering Journal, 2015, 276, 240-248.	12.7	51
17	Mission-Profile-Based System-Level Reliability Analysis in DC Microgrids. IEEE Transactions on Industry Applications, 2019, 55, 5055-5067.	4.9	51
18	A Multipulse Pattern Modulation Scheme for Harmonic Mitigation in Three-Phase Multimotor Drives. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2016, 4, 174-185.	5.4	50

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19	On Secondary Control Approaches for Voltage Regulation in DC Microgrids. IEEE Transactions on Industry Applications, 2017, 53, 4855-4862.	4.9	48
20	Optimization Design and Control of Single-Stage Single-Phase PV Inverters for MPPT Improvement. IEEE Transactions on Power Electronics, 2020, 35, 13000-13016.	7.9	47
21	Effect of Pulsed Power on Particle Matter in Diesel Engine Exhaust Using a DBD Plasma Reactor. IEEE Transactions on Plasma Science, 2013, 41, 2349-2358.	1.3	44
22	Single-Phase Bridgeless PFC Topology Derivation and Performance Benchmarking. IEEE Transactions on Power Electronics, 2020, 35, 9238-9250.	7.9	43
23	Decentralized Droop Control in DC Microgrids Based on a Frequency Injection Approach. IEEE Transactions on Smart Grid, 2019, 10, 6782-6791.	9.0	42
24	High-Voltage Gain Quasi-SEPIC DC-DC Converter. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2019, 7, 1243-1257.	5.4	39
25	An Optimized Hybrid Modulation Scheme for Reducing Conduction Losses in Dual Active Bridge Converters. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 921-936.	5.4	38
26	Pulse Pattern-Modulated Strategy for Harmonic Current Components Reduction in Three-Phase AC-DC Converters. IEEE Transactions on Industry Applications, 2016, 52, 3182-3192.	4.9	36
27	Review of Harmonic Mitigation Methods in Microgrid: From a Hierarchical Control Perspective. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 3044-3060.	5.4	36
28	Designing a new robust on-line secondary path modeling technique for feedforward active noise control systems. Signal Processing, 2009, 89, 1195-1204.	3.7	35
29	High-Voltage Modular Power Supply Using Parallel and Series Configurations of Flyback Converter for Pulsed Power Applications. IEEE Transactions on Plasma Science, 2012, 40, 2578-2587.	1.3	35
30	Effects of Modulation Techniques on the Input Current Interharmonics of Adjustable Speed Drives. IEEE Transactions on Industrial Electronics, 2018, 65, 167-178.	7.9	35
31	An Online Parameters Monitoring Method for Output Capacitor of Buck Converter Based on Large-Signal Load Transient Trajectory Analysis. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 4004-4015.	5.4	33
32	Capacitance estimation algorithm based on DC-link voltage harmonics using artificial neural network in three-phase motor drive systems. , 2017, , .		32
33	An Efficient Reduced-Order Model for Studying Synchronization Stability of Grid-Following Converters during Grid Faults. , 2019, , .		32
34	Bridgeless PFC Topology Simplification and Design for Performance Benchmarking. IEEE Transactions on Power Electronics, 2021, 36, 5398-5414.	7.9	31
35	Reduced-Order and Aggregated Modeling of Large-Signal Synchronization Stability for Multiconverter Systems. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 3150-3165.	5.4	30
36	A DC-Link Modulation Scheme With Phase-Shifted Current Control for Harmonic Cancellations in Multidrive Applications. IEEE Transactions on Power Electronics, 2016, 31, 1837-1840.	7.9	29

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37	The Impact of Topology and Mission Profile on the Reliability of Boost-type Converters in PV Applications. , 2018, , .		29
38	Family of step-up DC/DC converters with fast dynamic response for low power applications. IET Power Electronics, 2016, 9, 2665-2673.	2.1	27
39	Predictive Pulse-Pattern Current Modulation Scheme for Harmonic Reduction in Three-Phase Multidrive Systems. IEEE Transactions on Industrial Electronics, 2016, 63, 5932-5942.	7.9	25
40	Overview of Power Electronic Converter Topologies Enabling Large-Scale Hydrogen Production via Water Electrolysis. Applied Sciences (Switzerland), 2022, 12, 1906.	2.5	25
41	The impact of grid unbalances on the reliability of DC-link capacitors in a motor drive. , 2017, , .		24
42	An efficient online secondary path estimation for feedback active noise control systems. , 2009, 19, 241-249.		23
43	Enhanced Phase-Shifted Current Control for Harmonic Cancellation in Three-Phase Multiple Adjustable Speed Drive Systems. IEEE Transactions on Power Delivery, 2017, 32, 996-1004.	4.3	23
44	Characterization of Input Current Interharmonics in Adjustable Speed Drives. IEEE Transactions on Power Electronics, 2017, 32, 8632-8643.	7.9	22
45	Systematic Approach for Transient Stability Evaluation of Grid-Tied Converters during Power System Faults. , 2019, , .		22
46	Controlling current and voltage type interfaces in power hardware-in-the-loop simulations. IET Power Electronics, 2014, 7, 2618-2627.	2.1	21
47	A Modular Active Front-End Rectifier With Electronic Phase Shifting for Harmonic Mitigation in Motor Drive Applications. IEEE Transactions on Industry Applications, 2017, 53, 5440-5450.	4.9	21
48	A Review on Fault Current Limiting Devices to Enhance the Fault Ride-Through Capability of the Doubly-Fed Induction Generator Based Wind Turbine. Applied Sciences (Switzerland), 2018, 8, 2059.	2.5	21
49	Modeling of Converter Synchronization Stability Under Grid Faults: The General Case. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2022, 10, 2790-2804.	5.4	20
50	A Single-Phase Reduced Component Count Asymmetrical Multilevel Inverter Topology. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2021, 9, 6780-6790.	5.4	20
51	System-level reliability enhancement of DC/DC stage in a single-phase PV inverter. Microelectronics Reliability, 2018, 88-90, 1030-1035.	1.7	18
52	Common-Mode Current Prediction and Analysis in Motor Drive Systems for the New Frequency Range of 2â€“150 kHz. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2022, 10, 74-90.	5.4	18
53	Nonlinear C_{oss} - V_{DS} Profile Based ZVS Range Calculation for Dual Active Bridge Converters. IEEE Transactions on Power Electronics, 2021, 36, 45-50.	7.9	18
54	A review of electronic inductor technique for power factor correction in three-phase adjustable speed drives. , 2016, , .		16

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55	A variable step-size FxLMS algorithm for feedforward active noise control systems based on a new online secondary path modelling technique. , 2008, , .		15
56	Passivity-Based Control Design Methodology for UPS Systems. Energies, 2019, 12, 4301.	3.1	15
57	Reliability Analysis of Capacitors in Voltage Regulator Modules With Consecutive Load Transients. IEEE Transactions on Power Electronics, 2021, 36, 2481-2487.	7.9	15
58	Analysis of three-phase rectifier systems with controlled DC-link current under unbalanced grids. , 2017, , .		14
59	An improved modulation strategy for the three-phase Z-source inverters (ZSIs). , 2017, , .		14
60	Mission Profile Based Power Converter Reliability Analysis in a DC Power Electronic Based Power System. , 2018, , .		14
61	An Adaptive Model Predictive Voltage Control for LC-Filtered Voltage Source Inverters. Applied Sciences (Switzerland), 2021, 11, 704.	2.5	14
62	Harmonics mitigation and non-ideal voltage compensation utilising active power filter based on predictive current control. IET Power Electronics, 2020, 13, 2782-2793.	2.1	14
63	High Power Factor Bridgeless Integrated Buck-Type PFC Converter With Wide Output Voltage Range. IEEE Transactions on Power Electronics, 2022, 37, 12577-12590.	7.9	14
64	Effects of DC-link filter on harmonic and interharmonic generation in three-phase adjustable speed drive systems. , 2017, , .		13
65	Performance Assessment of Grid Forming Converters Using Different Finite Control Set Model Predictive Control (FCS-MPC) Algorithms. Applied Sciences (Switzerland), 2019, 9, 3513.	2.5	13
66	Improving the efficiency of high power piezoelectric transducers for industrial applications. IET Science, Measurement and Technology, 2012, 6, 213.	1.6	12
67	Efficiency Enhancement of Bridgeless Buck-Boost PFC Converter with Unity PF and DC Split to Reduce Voltage Stresses. , 2018, , .		12
68	Grid Synchronization of Wind Turbines during Severe Symmetrical Faults with Phase Jumps. , 2018, , .		12
69	Model Predictive Control of Grid Forming Converters with Enhanced Power Quality. Applied Sciences (Switzerland), 2020, 10, 6390.	2.5	12
70	Lifetime benchmarking of two DC-link passive filtering configurations in adjustable speed drives. , 2018, , .		11
71	Applications of Power Electronics. Electronics (Switzerland), 2019, 8, 465.	3.1	11
72	Analysis and Design of the Quasi-Z-Source Inverter for Wide Range of Operation. , 2018, , .		10

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73	Power electronic converters for high power ultrasound transducers. , 2012, , .		9
74	An Optimized Control Scheme to Reduce the Backflow Power and Peak Current in Dual Active Bridge Converters. , 2019, , .		9
75	Online Capacitance Monitoring for DC/DC Boost Converters Based on Low-Sampling-Rate Approach. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2022, 10, 5192-5204.	5.4	9
76	A novel passive islanding detection scheme for distributed generations based on rate of change of positive sequence component of voltage and current. , 2017, , .		8
77	System-level lifetime-oriented power sharing control of paralleled DC/DC converters. , 2018, , .		8
78	Improved harmonic injection pulse-width modulation variable frequency triangular carrier scheme for multilevel inverters. IET Power Electronics, 2020, 13, 3146-3154.	2.1	8
79	Online DC-Link Capacitance Monitoring for Digital-Controlled Boost PFC Converters Without Additional Sampling Devices. IEEE Transactions on Industrial Electronics, 2023, 70, 907-920.	7.9	8
80	Analysing DBD plasma lamp intensity versus power consumption using a push-pull pulsed power supply. , 2013, , .		7
81	Load-independent harmonic mitigation in SCR-fed three-phase multiple adjustable speed drive systems with deliberately dispatched firing angles. IET Power Electronics, 2018, 11, 727-734.	2.1	7
82	An Optimized Control Scheme for Reducing Conduction and Switching Losses in Dual Active Bridge Converters. , 2018, , .		7
83	Robust Fault Ride-Through of Converter-based Generation during Severe Faults with Phase Jumps. IEEE Transactions on Industry Applications, 2019, , 1-1.	4.9	7
84	Analytical Modeling of 9-150 kHz EMI in Single-Phase PFC Converter. , 2019, , .		7
85	A Multistucture Multimode Three-Phase Dual-Active-Bridge Converter Targeting Wide-Range High-Efficiency Performance. IEEE Transactions on Power Electronics, 2021, 36, 3078-3098.	7.9	7
86	A Mixed Conduction Mode-Controlled Bridgeless Boost PFC Converter and Its Mission Profile-Based Reliability Analysis. IEEE Transactions on Power Electronics, 2022, 37, 9674-9686.	7.9	7
87	Power converters design and analysis for high power piezoelectric ultrasonic transducers. , 2014, , .		6
88	A novel harmonic elimination approach in three-phase multi-motor drives. , 2015, , .		6
89	Analysis of harmonics suppression by active damping control on multi slim dc-link drives. , 2016, , .		6
90	Dissimilar trend of nonlinearity in ultrasound transducers and systems at resonance and non-resonance frequencies. Ultrasonics, 2017, 74, 21-29.	3.9	6

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91	Frequency security constrained control of power electronic-based generation systems. IET Renewable Power Generation, 2021, 15, 2246-2256.	3.1	6
92	Effect of Unipolar and Bipolar SPWM on the Lifetime of DC-link Capacitors in Single-Phase Voltage Source Inverters. , 2020, , .		6
93	A new online secondary path modelling method for feedforward active noise control systems. , 2008, , .		5
94	A self-tuning feedforward active noise control system. IEICE Electronics Express, 2009, 6, 230-236.	0.8	5
95	Smart power management of DC microgrids in future milligrids. , 2016, , .		5
96	Energy Saving and Efficient Energy Use By Power Electronic Systems. Lecture Notes in Energy, 2017, , 1-14.	0.3	5
97	Active DaMPing control methods for three-phase slim DC-link drive system. , 2017, , .		5
98	Dynamic and control analysis of modular multi-parallel rectifiers (MMR). , 2017, , .		5
99	Enhanced Frequency Droop Method for load sharing in LVDC power systems. , 2018, , .		5
100	A Flexible Control Scheme for Single-Stage DAB AC/DC Converters. , 2018, , .		5
101	Characterization of Proportional-Integral-Resonant Compensator for DC Link Voltage Control. , 2018, , .		5
102	An Enhanced Generalized Average Modeling of Dual Active Bridge Converters. , 2020, , .		5
103	Differential Mode Noise Prediction and Analysis in Single-Phase Boost PFC for the New Frequency Range of 9â€“150 kHz. IEEE Journal of Emerging and Selected Topics in Industrial Electronics, 2022, 3, 177-187.	3.9	5
104	Sterilizing tissue-materials using pulsed power plasma. Journal of Materials Science: Materials in Medicine, 2014, 25, 953-964.	3.6	4
105	A smart current modulation scheme for harmonic reduction in three-phase motor drive applications. , 2015, , .		4
106	A multi-pulse front-end rectifier system with electronic phase-shifting for harmonic mitigation in motor drive applications. , 2016, , .		4
107	Addressing the unbalance loading issue in multi-drive systems with a DC-link modulation scheme for harmonic reduction. , 2016, , .		4
108	Single-stage Bridgeless Buck-boost PFC Converter with DC Split for Low Power LED applications. , 2018, , .		4

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109	IEEE Access Special Section Editorial: Power Quality and Harmonics Issues of Future and Smart Grids. IEEE Access, 2019, 7, 132803-132805.	4.2	4
110	Wear-Out Failure of a Power Electronic Converter Under Inversion and Rectification Modes. , 2019, , .		4
111	Reliability Assessment of Single-Phase PV Inverters. , 2019, , .		4
112	Robustness of Model-Predictive and Passivity-Based Control in the Three-Phase DC/AC Converter Application. Applied Sciences (Switzerland), 2022, 12, 4329.	2.5	4
113	A flexible solid-state pulsed power topology. , 2012, , .		3
114	Parallel and series configurations of flyback converter for pulsed power applications. , 2012, , .		3
115	Pulse pattern modulated strategy for harmonic current components reduction in three-phase AC-DC converters. , 2015, , .		3
116	Input current interharmonics in adjustable speed drives caused by fixed-frequency modulation techniques. , 2016, , .		3
117	Performance evaluation of electronic inductor based adjustable speed drives with respect to line current interharmonics. , 2017, , .		3
118	Harmonic distortion performance of multi three-phase SCR-fed drive systems with controlled DC-link current under unbalanced grid. , 2017, , .		3
119	Active Rectifiers and Their Control. , 2018, , 3-52.		3
120	Failure Mode, Effects and Criticality Analysis (FMECA) in Power Electronic based Power Systems. , 2019, , .		3
121	Differential Mode Noise Estimation and Filter Design for Interleaved Boost Power Factor Correction Converters. Applied Sciences (Switzerland), 2021, 11, 2716.	2.5	3
122	A Bridgeless Buck-flyback PFC Converter with High PF and Dead Angles Eliminated. , 2019, , .		3
123	Investigating the Effect of Different Parameters on Harmonics and EMI Emissions at the Frequency Range of 0â€“9 kHz. , 2020, , .		3
124	Mathematical Model of Common-Mode Sources in Long-Cable-Fed Adjustable Speed Drives. IEEE Transactions on Industry Applications, 2022, 58, 2013-2028.	4.9	3
125	A new secondary control approach for voltage regulation in DC microgrids. , 2016, , .		2
126	Power-quality-oriented optimization in multiple three-phase adjustable speed drives. , 2016, , .		2

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127	Energy saving in three-phase diode rectifiers using EI technique with adjustable switching frequency scheme. , 2016, , .		2
128	Improving Performance of Three-Phase Slim DC-Link Drives Utilizing Virtual Positive Impedance-Based Active Damping Control. Electronics (Switzerland), 2018, 7, 234.	3.1	2
129	Influence of phase-locked loop aggregation on the dynamic aggregation of wind farm strings with heterogeneous parameters. IET Energy Systems Integration, 2021, 3, 99-108.	1.8	2
130	A New Feedback ANC System Approach. Communications in Computer and Information Science, 2008, , 324-331.	0.5	2
131	Reliability Improvement of Voltage Regulator Modules by a Virtual Series Voltage Source. IEEE Transactions on Industrial Electronics, 2022, 69, 12641-12652.	7.9	2
132	Effect of Choke Placement on Common-Mode Noise in Three-Phase Variable Speed Drives. IEEE Transactions on Industry Applications, 2022, 58, 6253-6265.	4.9	2
133	Adjustable Speed Drives and power quality: Challenges and cost-effective opportunities. , 2016, , .		1
134	Investigation on capacitor switching transient limiter with a three phase variable resistance. , 2017, , .		1
135	Evaluation of Flicker Measurement in Grid-connected Wind Turbine. , 2018, , .		1
136	Analytical Modeling of 9-150 kHz EMI in Three-Phase Active Rectifiers. , 2020, , .		1
137	Enhanced Zero-Voltage-Switching Conditions of Dual Active Bridge Converter Under Light Load Situations. , 2020, , .		1
138	A Practical Approach to Model a Cable with Nonlinear Material Characteristics. , 2021, , .		1
139	Mission Profile Based Reliability Analysis of A Bridgeless Boost PFC. , 2021, , .		1
140	Fuzzy-based frequency security evaluation of wind-integrated power systems. IET Energy Systems Integration, 2021, 3, 451-463.	1.8	1
141	Benefiting White Noise in Developing Feedforward Active Noise Control Systems. Communications in Computer and Information Science, 2008, , 332-339.	0.5	1
142	Assessment accuracy of power system frequency security with additional frequency controls in wind turbines. IET Renewable Power Generation, 2020, 14, 3439-3447.	3.1	1
143	Common-mode noise modelling and resonant estimation in a three-phase motor drive system: 9-150 kHz frequency range. , 2020, , .		1
144	Frequency-Freezing FLL for Enhanced Synchronization Stability of Grid-Following Converters during Grid Faults. , 2020, , .		1

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145	An Online Monitoring Method for Output Capacitors of DC/DC Boost Converters. , 2020, , .		1
146	Robust H _∞ Current Control of Three-Phase Grid-Connected Voltage Source Converters Using Linear Matrix Inequalities. , 2021, , .		1
147	Impedance Analysis of Single-Phase PFC Converter in the Frequency Range of 0â€“150 kHz. , 2022, , .		1
148	Investigating Pulsed Discharge Polarity Employing Solid-state Pulsed Power Electronics. Electric Power Components and Systems, 2015, 43, 2214-2222.	1.8	0
149	Centralized Control of Modular Multi Rectifier for Motor Drive Applications under Unbalanced Grid. , 2018, , .		0
150	Study on Application of New Approach of Fault Current Limiters in Fault Ride through Capability Improvement of DFIG Based Wind Turbine. , 2018, , .		0
151	Power Electronics Topology Comparison and Improvement for Low Voltage - High Current DC/AC Applications. , 2019, , .		0
152	Performance enhancement of photovoltaic system under grid voltage distortion utilising total leastâ€square control scheme. IET Power Electronics, 2020, 13, 3044-3055.	2.1	0