

Gabriele Grandi

List of Publications by Year in descending order

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138
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148
docs citations

148
times ranked

2249
citing authors

#	ARTICLE	IF	CITATIONS
1	Single-Phase Single-Stage Photovoltaic Generation System Based on a Ripple Correlation Control Maximum Power Point Tracking. IEEE Transactions on Energy Conversion, 2006, 21, 562-568.	3.7	196
2	Stray capacitances of single-layer solenoid air-core inductors. IEEE Transactions on Industry Applications, 1999, 35, 1162-1168.	3.3	194
3	A New Multilevel Conversion Structure for Grid-Connected PV Applications. IEEE Transactions on Industrial Electronics, 2009, 56, 4416-4426.	5.2	160
4	Multilevel Operation and Input Power Balancing for a Dual Two-Level Inverter with Insulated DC Sources. IEEE Transactions on Industry Applications, 2008, 44, 1815-1824.	3.3	121
5	A Space Vector PWM Scheme for Multifrequency Output Voltage Generation With Multiphase Voltage-Source Inverters. IEEE Transactions on Industrial Electronics, 2008, 55, 1943-1955.	5.2	106
6	Analytical Determination of DC-Bus Utilization Limits in Multiphase VSI Supplied AC Drives. IEEE Transactions on Energy Conversion, 2008, 23, 433-443.	3.7	106
7	Analysis and Comparison of Peak-to-Peak Current Ripple in Two-Level and Multilevel PWM Inverters. IEEE Transactions on Industrial Electronics, 2015, 62, 2721-2730.	5.2	102
8	Effects of flux and torque hysteresis band amplitude in direct torque control of induction machines. , 0, , .		93
9	High-frequency small-signal model of ferrite core inductors. IEEE Transactions on Magnetics, 1999, 35, 4185-4191.	1.2	93
10	Model of Laminated Iron-Core Inductors for High Frequencies. IEEE Transactions on Magnetics, 2004, 40, 1839-1845.	1.2	92
11	Lumped parameter models for single- and multiple-layer inductors. , 0, , .		90
12	Thermal and Performance Analysis of a Photovoltaic Module with an Integrated Energy Storage System. Applied Sciences (Switzerland), 2017, 7, 1107.	1.3	74
13	Common- and Differential-Mode HF Current Components in AC Motors Supplied by Voltage Source Inverters. IEEE Transactions on Power Electronics, 2004, 19, 16-24.	5.4	66
14	Simultaneous Selective Harmonic Elimination and THD Minimization for a Single-Phase Multilevel Inverter With Staircase Modulation. IEEE Transactions on Industry Applications, 2018, 54, 1532-1541.	3.3	65
15	Space vector modulation of a seven-phase voltage source inverter. , 0, , .		61
16	An Output Ripple-Free Fast Charger for Electric Vehicles Based on Grid-Tied Modular Three-Phase Interleaved Converters. IEEE Transactions on Industry Applications, 2019, 55, 6102-6114.	3.3	60
17	Evaluation of current ripple amplitude in three-phase PWM voltage source inverters. , 2013, , .		55
18	Analysis of dc-Link Voltage Switching Ripple in Three-Phase PWM Inverters. Energies, 2018, 11, 471.	1.6	54

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19	High-Voltage High-Frequency Arbitrary Waveform Multilevel Generator for DBD Plasma Actuators. IEEE Transactions on Industry Applications, 2015, 51, 3334-3342.	3.3	52
20	Multi-phase multi-level AC motor drive based on four three-phase two-level inverters. , 2010, , .		51
21	A simple MPPT algorithm for novel PV power generation system by high output voltage DC-DC boost converter. , 2015, , .		50
22	Effective Low-Cost Hybrid LED-Halogen Solar Simulator. IEEE Transactions on Industry Applications, 2014, 50, 3055-3064.	3.3	41
23	General Analysis of Multi-Phase Systems Based on Space Vector Approach. , 2006, , .		37
24	Continuous PWM Techniques for Sinusoidal Voltage Generation with Seven-Phase Voltage Source Inverters. , 2007, , .		32
25	Evaluation of DC-Link Voltage Switching Ripple in Multiphase PWM Voltage Source Inverters. IEEE Transactions on Power Electronics, 2020, 35, 3478-3490.	5.4	31
26	Analysis of common- and differential-mode HF current components in PWM inverter-fed AC motors. , 0, , .		30
27	Simple Time Averaging Current Quality Evaluation of a Single-Phase Multilevel PWM Inverter. IEEE Transactions on Industrial Electronics, 2016, 63, 3605-3615.	5.2	29
28	Equivalent circuit of mush wound AC windings for high frequency analysis. , 0, , .		28
29	Theoretical and Experimental Investigation of Switching Ripple in the DC-Link Voltage of Single-Phase H-Bridge PWM Inverters. Energies, 2017, 10, 1189.	1.6	28
30	Space Vector Modulation of a Six-Phase VSI based on three-phase decomposition. , 2008, , .		27
31	Multilevel Operation of a Dual Two-Level Inverter with Power Balancing Capability. , 2006, , .		25
32	A Comprehensive Analysis and Hardware Implementation of Control Strategies for High Output Voltage DC-DC Boost Power Converter. International Journal of Computational Intelligence Systems, 2017, 10, 140.	1.6	25
33	Switching Technique for Dual-Two level Inverter Supplied by Two Separate Sources. IEEE Applied Power Electronics Conference and Exposition, 2007, , .	0.0	23
34	Control strategy for a multilevel inverter in grid-connected photovoltaic applications. , 2007, , .		23
35	General Analysis of Multi-Phase Systems Based on Space Vector Approach. , 2006, , .		23
36	Experimental investigation of fault-tolerant control strategies for quad-inverter converters. , 2012, , .		21

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37	A plasma aerodynamic actuator supplied by a multilevel generator operating with different voltage waveforms. <i>Plasma Sources Science and Technology</i> , 2015, 24, 045018.	1.3	21
38	Comparison of Output Current Ripple in Single and Dual Three-Phase Inverters for Electric Vehicle Motor Drives. <i>Energies</i> , 2015, 8, 3832-3848.	1.6	21
39	Multileg Interleaved Buck Converter for EV Charging: Discrete-Time Model and Direct Control Design. <i>Energies</i> , 2020, 13, 466.	1.6	21
40	Comparison between back-to-back and matrix converters based on thermal stress of the switches. , 2004, , .		20
41	Magnetic-field transducer based on closed-loop operation of magnetic sensors. <i>IEEE Transactions on Industrial Electronics</i> , 2006, 53, 880-885.	5.2	20
42	Space Vector Modulation of a Nine-Phase Voltage Source Inverter. , 2007, , .		20
43	Dual inverter space vector modulation with power balancing capability. , 2009, , .		20
44	W-CVT continuously variable transmission for wind energy conversion system. , 2009, , .		20
45	Effects of current ripple on dead-time distortion in three-phase voltage source inverters. , 2012, , .		20
46	Analytical evaluation of output current ripple amplitude in three-phase three-level inverters. <i>IET Power Electronics</i> , 2014, 7, 2258-2268.	1.5	20
47	Power sharing algorithm for vector controlled six-phase AC motor with four customary three-phase voltage source inverter drive. <i>Engineering Science and Technology, an International Journal</i> , 2015, 18, 408-415.	2.0	20
48	Time-Domain Minimization of Voltage and Current Total Harmonic Distortion for a Single-Phase Multilevel Inverter with a Staircase Modulation. <i>Energies</i> , 2016, 9, 815.	1.6	20
49	Control methods for active power filters with minimum measurement requirements. , 1999, , .		18
50	Electric Vehicle Aggregate Power Flow Prediction and Smart Charging System for Distributed Renewable Energy Self-Consumption Optimization. <i>Energies</i> , 2020, 13, 5003.	1.6	18
51	A Comprehensive AC Current Ripple Analysis and Performance Enhancement via Discontinuous PWM in Three-Phase Four-Leg Grid-Connected Inverters. <i>Energies</i> , 2020, 13, 4352.	1.6	18
52	Simulation of Processes in Dual Three-Phase System on the Base of Four Inverters with Synchronized Modulation. <i>Advances in Power Electronics</i> , 2011, 2011, 1-9.	0.8	17
53	Comparison of peak-to-peak current ripple amplitude in multiphase PWM voltage source inverters. , 2013, , .		17
54	Smart Battery Pack for Electric Vehicles Based on Active Balancing with Wireless Communication Feedback. <i>Energies</i> , 2019, 12, 3862.	1.6	17

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55	The DRYSMES4GRID Project: Development of a 500 kJ/200 kW Cryogen-Free Cooled SMES Demonstrator Based on MgB ₂ . IEEE Transactions on Applied Superconductivity, 2018, 28, 1-5.	1.1	16
56	Fault-tolerant control strategies for quad inverter induction motor drives with one failed inverter. , 2012, , .		15
57	Analysis and implementation of power management and control strategy for six-phase multilevel ac drive system in fault condition. Engineering Science and Technology, an International Journal, 2016, 19, 31-39.	2.0	15
58	A Single-Phase Multilevel PV Generation System with an Improved Ripple Correlation Control MPPT Algorithm. Energies, 2017, 10, 2037.	1.6	15
59	A DC/DC Fast Charger for Electric Vehicles with Minimum Input/Output Ripple Based on Multiphase Interleaved Converters. , 2019, , .		15
60	Variable Switching Frequency PWM for Three-Phase Four-Wire Split-Capacitor Inverter Performance Enhancement. IEEE Transactions on Power Electronics, 2021, 36, 13674-13685.	5.4	15
61	Analysis of a power conditioning system for superconducting magnetic energy storage (SMES). , 0, , .		14
62	Control strategy of a power line conditioner for cogeneration plants. , 0, , .		14
63	Capacitors Voltage Switching Ripple in Three-Phase Three-Level Neutral Point Clamped Inverters with Self-Balancing Carrier-Based Modulation. Energies, 2018, 11, 3244.	1.6	14
64	A Ripple-Free DC Output Current Fast Charger for Electric Vehicles Based on Grid-Tied Modular Three-Phase Interleaved Converters. , 2018, , .		14
65	Behavior of a power conditioner for $\hat{1}/4$ -SMES systems under unbalanced supply voltages and unbalanced loads. , 0, , .		13
66	High-frequency behavior of laminated iron-core inductors for filtering applications. , 0, , .		13
67	Quad-inverter configuration for multi-phase multi-level AC motor drives. , 2010, , .		13
68	Analysis of Peak-to-Peak Current Ripple Amplitude in Seven-Phase PWM Voltage Source Inverters. Energies, 2013, 6, 4429-4447.	1.6	13
69	Simplified implementation of optimised carrier-based PWM in three-level inverters. Electronics Letters, 2014, 50, 631-633.	0.5	13
70	Comparison of PV Cell Temperature Estimation by Different Thermal Power Exchange Calculation Methods. Renewable Energy and Power Quality Journal, 0, , 653-658.	0.2	13
71	Effects of supply voltage non-idealities on the behavior of an active power conditioner for cogeneration systems. , 0, , .		12
72	Power balancing of a multilevel converter with two insulated supplies for three-phase six-wire loads. , 2005, , .		12

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73	Series Hybrid Powertrain Based on the Dual Two-Level Inverter. , 2008, , .		12
74	Evaluation of DC voltage ripple in single-phase H-bridge PWM inverters. , 2016, , .		12
75	Direct Digital Design of PIDF Controllers with Complex Zeros for DC-DC Buck Converters. Energies, 2019, 12, 36.	1.6	12
76	The Role of Front-End AC/DC Converters in Hybrid AC/DC Smart Homes: Analysis and Experimental Validation. Electronics (Switzerland), 2021, 10, 2601.	1.8	12
77	A Novel Modular Multilevel Converter Based on Interleaved Half-Bridge Submodules. IEEE Transactions on Industrial Electronics, 2023, 70, 125-136.	5.2	12
78	Novel Multi-Vehicle Motion-Based Model of Trolleybus Grids towards Smarter Urban Mobility. Electronics (Switzerland), 2022, 11, 915.	1.8	12
79	Direct coupling of power active filters with photovoltaic generation systems with improved mppt capability. , 0, , .		10
80	Fault-tolerant operating analysis of a quad-inverter multiphase multilevel AC motor drive. , 2011, , .		10
81	Analysis of dead-time effects in multi-phase voltage source inverters. , 2012, , .		10
82	Experimental study on the termination impedance effects of a resonator array for inductive power transfer in the hundred kHz range. , 2015, , .		10
83	Electric Vehicles Charging Management System for Optimal Exploitation of Photovoltaic Energy Sources Considering Vehicle-to-Vehicle Mode. Frontiers in Energy Research, 2021, 9, .	1.2	10
84	Dual-inverter-based MPPT algorithm for grid-connected photovoltaic systems. , 2009, , .		9
85	Direct vector controlled six-phase asymmetrical induction motor with power balanced space vector PWM multilevel operation. International Journal of Power and Energy Conversion, 2016, 7, 57.	0.2	9
86	Evaluation of DC voltage ripple in three-phase PWM voltage source inverters. , 2017, , .		9
87	On PWM Strategies and Current THD for Single- and Three-Phase Cascade H-Bridge Inverters with Non-Equal DC Sources. Energies, 2019, 12, 441.	1.6	9
88	Analysis of Input Voltage Switching Ripple in Three-Phase Four-Wire Split Capacitor PWM Inverters. Energies, 2020, 13, 5076.	1.6	9
89	Six-phase motor drive supplied by four voltage source inverters with synchronized space-vector PWM. Archiwum Elektrotechniki, 2011, 60, 445-458.	0.5	9
90	Laminated iron-core inductor model for time-domain analysis. , 0, , .		8

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91	Evaluation of current ripple amplitude in five-phase PWM voltage source inverters. , 2013, , .		8
92	Efficiency Comparison of DC and AC Coupling Solutions for Large-Scale PV+BESS Power Plants. Energies, 2021, 14, 4823.	1.6	8
93	Sensorless Current Balancing Control for Interleaved Half-Bridge Submodules in Modular Multilevel Converters. IEEE Transactions on Industrial Electronics, 2023, 70, 5-16.	5.2	8
94	Optimal Design of Single-Layer Solenoid Air-Core Inductors for High Frequency Applications. , 1997, , .		7
95	Carrier-based discontinuous modulation for Dual three-phase two-level inverters. , 2010, , .		7
96	Synchronized PWM control of asymmetrical dual-inverter fed open-end winding traction drive. , 2012, , .		7
97	Analysis and realization of a low-cost hybrid LED-halogen solar simulator. , 2013, , .		7
98	Current ripple evaluation in dual three-phase inverters for open-end winding EV drives. , 2014, , .		7
99	Three-Phase Three-Level Flying Capacitor PV Generation System with an Embedded Ripple Correlation Control MPPT Algorithm. Electronics (Switzerland), 2019, 8, 118.	1.8	7
100	Modular Multilevel Converters Based on Interleaved Half-Bridge Submodules. , 2021, , .		7
101	AC Current Ripple in Three-Phase Four-Leg PWM Converters with Neutral Line Inductor. Energies, 2021, 14, 1430.	1.6	7
102	Comparison between air-core and laminated iron-core inductors in filtering applications for switching converters. , 0, , .		6
103	Power quality improvement and uninterruptible power supply using a power conditioning system with energy storage capability. , 2005, , .		6
104	Dual inverter configuration for grid-connected photovoltaic generation systems. , 2007, , .		6
105	Multilevel power conditioner for grid-connected photovoltaic applications. , 2008, , .		6
106	Input Current and Voltage Ripple Analysis in LDN Cells for H-Bridge Multilevel Inverters. IEEE Transactions on Industrial Electronics, 2019, 66, 8414-8423.	5.2	6
107	Analysis of Equivalent Inductance of Three-phase Induction Motors in the Switching Frequency Range. Electronics (Switzerland), 2019, 8, 120.	1.8	6
108	Space vector modulation of nine-phase voltage source inverters based on three-phase decomposition. , 2007, , .		5

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109	Modular Photovoltaic Generation Systems Based on a Dual-Panel MPPT Algorithm. , 2007, , .		5
110	A novel DC voltage regulation scheme for dual-inverter grid-connected photovoltaic plants. , 2009, , .		5
111	Cascaded neutral-clamped inverters with flexible synchronized PWM for photovoltaic installations. , 2011, , .		5
112	An improved MPPT algorithm based on hybrid RCC scheme for single-phase PV systems. , 2016, , .		5
113	Analysis of a Three-Phase Four-Leg Front-End Converter for EV Chargers with Balanced and Unbalanced Grid Currents. , 2019, , .		5
114	DC-link low-frequency current and voltage ripple analysis in multiphase voltage source inverters with unbalanced load. IET Electric Power Applications, 2022, 16, 300-314.	1.1	5
115	Five-phase and six-phase converters with synchronized PWM: An overview. , 2011, , .		4
116	Analysis and Minimization of Output Current Ripple for Discontinuous Pulse-Width Modulation Techniques in Three-Phase Inverters. Energies, 2016, 9, 380.	1.6	4
117	Evaluation of DC-link Voltage Ripple in Seven-Phase PWM Voltage Source Inverters. , 2018, , .		4
118	Evaluation of DC-link voltage ripple in five-phase PWM voltage source inverters. Journal of Engineering, 2019, 2019, 3709-3714.	0.6	4
119	AC Current Ripple Harmonic Pollution in Three-Phase Four-Leg Active Front-End AC/DC Converter for On-Board EV Chargers. Electronics (Switzerland), 2021, 10, 116.	1.8	4
120	Experimental tests on a multilevel converter for grid-connected photovoltaic systems. , 2008, , .		3
121	Space vector analysis of dead-time voltage distortion in multiphase inverters. , 2012, , .		3
122	High-voltage high-frequency arbitrary waveform multilevel generator for dielectric barrier discharge. , 2014, , .		3
123	Dc-link current and voltage ripple harmonics in three-phase three-level flying capacitor inverters with sinusoidal carrier-based PWM. , 2018, , .		3
124	Evaluation of AC Current Ripple in case of Split-Capacitor Three-Phase Four Wires Inverters. , 2020, , .		3
125	State of Charge Optimization-based Smart Charging of Aggregate Electric Vehicles from Distributed Renewable Energy Sources. , 2021, , .		3
126	Power quality and reliability supply improvement using a power conditioning system with energy storage capability. , 2004, , .		2

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127	Experimental verification of current ripple amplitude in five-phase PWM VSIs. , 2013, , .		2
128	Asymptotic time domain evaluation of a single-phase multilevel PWM inverter current quality. , 2015, , .		2
129	Current Pulse Generation Methods for Li-ion Battery Chargers. , 2020, , .		2
130	Theoretical Analysis of the AC Current Ripple in Three-Phase Four-Leg Sinusoidal PWM Inverters. , 2020, , .		2
131	Development of a Multilevel Plasma Generator for Dielectric Barrier Discharge Actuators. , 2014, , .		1
132	RCC-MPPT algorithms for single-phase PV systems in case of multiple dc harmonics. , 2017, , .		1
133	Capacitor Voltage Switching Ripple in Three-Phase Three-Level Neutral Point Clamped Inverters with Sinusoidal Carrier-Based PWM. , 2018, , .		1
134	A Ripple-Free Output Current Interleaved DC/DC Converter Design Algorithm for EV Charging. , 2021, , .		1
135	Prediction of DC-Link Voltage Switching Ripple in Three-Phase Four-Leg PWM Inverters. Energies, 2021, 14, 1434.	1.6	1
136	Ripple Correlation Control MPPT Scheme Applied to a Three-Phase Flying Capacitor PV System. Lecture Notes in Electrical Engineering, 2020, , 13-24.	0.3	1
137	Implementation of carrier-based optimized centered PWM in three-phase three-level inverters. , 2014, , .		0
138	Analysis of a flexible single-phase multilevel inverter topology for photovoltaic applications. , 2018, , .		0