Fernando Lessa Tofoli

List of Publications by Year
in descending order

126	2,001	331538	289141
papers	citations	21 h-index	40 g-index

126	126	126	1641
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Survey on nonâ€isolated highâ€voltage stepâ€up dcâ€“dc topologies based on the boost converter. IET Power Electronics, 2015, 8, 2044-2057.	1.5	459
2	Novel Nonisolated High-Voltage Gain DCâ€“DC Converters Based on 3SSC and VMC. IEEE Transactions on Power Electronics, 2012, 27, 3897-3907.	5.4	115
3	A review of single-phase PFC topologies based on the boost converter. , 2010, , .		109
4	Highâ€voltage gain dcâ€“dc boost converter with coupled inductors for photovoltaic systems. IET Power Electronics, 2015, 8, 1885-1892.	1.5	98
5	DCâ€“DC Nonisolated Boost Converter Based on the Three-State Switching Cell and Voltage Multiplier Cells. IEEE Transactions on Industrial Electronics, 2013, 60, 4438-4449.	5.2	93
6	Power Factor Correction Boost Converter Based on the Three-State Switching Cell. IEEE Transactions on Industrial Electronics, 2012, 59, 1565-1577.	5.2	69
7	A Nonisolated DCâ€“DC Boost Converter With High Voltage Gain and Balanced Output Voltage. IEEE Transactions on Industrial Electronics, 2014, 61, 6739-6746.	5.2	65
8	Comparative Study of Maximum Power Point Tracking Techniques for Photovoltaic Systems. International Journal of Photoenergy, 2015, 2015, 1-10.	1.4	48
9	Soft switching highâ€voltage gain dcâ€“dc interleaved boost converter. IET Power Electronics, 2015, 8, 120-129.	1.5	47
10	Two-Stage Isolated Switch-Mode Power Supply With High Efficiency and High Input Power Factor. IEEE Transactions on Industrial Electronics, 2010, 57, 3754-3766.	5.2	44
11	A Passive Lossless Snubber Applied to the ACâ€“DC Interleaved Boost Converter. IEEE Transactions on Power Electronics, 2010, 25, 775-785.	5.4	41
12	Experimental evaluation of global maximum power point techniques under partial shading conditions. Solar Energy, 2020, 196, 49-73.	2.9	34
13	Assessment of the ideality factor on the performance of photovoltaic modules. Energy Conversion and Management, 2018, 167, 63-69.	4.4	30
14	Interleaved bidirectional DCâ€“DC converter for electric vehicle applications based on multiple energy storage devices. Electrical Engineering, 2020, 102, 2011-2023.	1.2	29
15	Conception of an electric propulsion system for a 9ÂkW electric tractor suitable for family farming. IET Electric Power Applications, 2019, 13, 1993-2004.	1.1	27
16	Proposal of a Soft-Switching Single-Phase Three-Level Rectifier. IEEE Transactions on Industrial Electronics, 2008, 55, 107-113.	5.2	25
17	A DCâ€“DC Converter Based on the Three-State Switching Cell for High Current and Voltage Step-Down Applications. IEEE Transactions on Power Electronics, 2013, 28, 398-407.	5.4	25
18	A Phase-Locked Loop Algorithm for Single-Phase Systems With Inherent Disturbance Rejection. IEEE Transactions on Industrial Electronics, 2019, 66, 9260-9267.	5.2	25

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19	Modeling and Experimental Validation of a Single-Phase Series Active Power Filter for Harmonic Voltage Reduction. IEEE Access, 2019, 7, 151971-151984.	2.6	24
20	On the Study of Losses in Cables and Transformers in Nonsinusoidal Conditions. IEEE Transactions on Power Delivery, 2006, 21, 971-978.	2.9	23
21	Nonisolated DCâ€“DC Converters With Wide Conversion Range for High-Power Applications. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2020, 8, 749-760.	3.7	23
22	Switched Capacitor DC-DC Converters: A Survey on the Main Topologies, Design Characteristics, and Applications. Energies, 2021, 14, 2231.	1.6	23
23	A High-Power-Factor Half-Bridge Doubler Boost Converter Without Commutation Losses. IEEE Transactions on Industrial Electronics, 2005, 52, 1278-1285.	5.2	21
24	Experimental evaluation of active power factor correction techniques in a singleâ€phase ACâ€DC boost converter. International Journal of Circuit Theory and Applications, 2019, 47, 1529-1553.	1.3	20
25	Bidirectional Three-Level Stacked Neutral-Point-Clamped Converter for Electric Vehicle Charging Stations. IEEE Access, 2020, 8, 37565-37577.	2.6	19
26	Comprehensive review of high power factor ac-dc boost converters for PFC applications. International Journal of Electronics, 2015, 102, 1361-1381.	0.9	18
27	Analysis and Evaluation of Residential Air Conditioners for Power System Studies. IEEE Transactions on Power Systems, 2007, 22, 706-716.	4.6	17
28	Non-isolated DC-DC converters with wide conversion range used to drive high-brightness LEDs. , 2009, , .		16
29	Modified Artificial Potential Field for the Path Planning of Aircraft Swarms in Three-Dimensional Environments. Sensors, 2022, 22, 1558.	2.1	16
30	Three-Phase Grid-Connected WECS With Mechanical Power Control. IEEE Transactions on Sustainable Energy, 2018, 9, 1508-1517.	5.9	15
31	Analysis, Design, and Experimentation of a Double Forward Converter With Soft Switching Characteristics for All Switches. IEEE Transactions on Power Electronics, 2011, 26, 2137-2148.	5.4	14
32	Modeling, Digital Control, and Implementation of a Three-Phase Four-Wire Power Converter Used as a Power Redistribution Device. IEEE Transactions on Industrial Informatics, 2016, 12, 1035-1042.	7.2	14
33	Adaptive fuzzy directional bat algorithm for the optimal coordination of protection systems based on directional overcurrent relays. Electric Power Systems Research, 2022, 211, 108619.	2.1	14
34	Analysis, design, and implementation of softâ€switching cells applied to the singleâ€phase fullâ€bridge inverter. IET Power Electronics, 2016, 9, 1249-1258.	1.5	13
35	A unified modeling approach for DC-DC converters based on the three-state switching cell. AEU - International Journal of Electronics and Communications, 2018, 88, 30-37.	1.7	12
36	An integrated design approach of LCL filters based on nonlinear inductors for grid-connected inverter applications. Electric Power Systems Research, 2020, 186, 106389.	2.1	12

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37	Comparison of nonisolated dc-dc converters from the efficiency point of view. , 2011, , .		11
38	ZVS bidirectional isolated three-phase DC-DC converter with dual phase-shift and variable duty cycle. , 2012, , .		11
39	Singleâ€switch, integrated DCâ€“DC converter for highâ€voltage stepâ€down applications. IET Power Electronics, 2019, 12, 1880-1890.	1.5	10
40	A three-phase phase-locked loop algorithm with immunity to distorted signals employing an adaptive filter. Electric Power Systems Research, 2019, 170, 116-127.	2.1	10
41	Single-Phase Isolated ACâ€“AC Symmetrical Full-Bridge Converter. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2022, 10, 846-855.	3.7	10
42	Single-Phase Isolated AC-AC Converters Based on the Dual Active Bridge Converter. IEEE Transactions on Industrial Electronics, 2022, 69, 5680-5689.	5.2	10
43	Plotting Characteristic Curves of Photovoltaic Modules: A Simple and Portable Approach. IEEE Industry Applications Magazine, 2021, 27, 63-72.	0.3	9
44	Two-stage single-phase grid-connected photovoltaic system with reduced complexity. International Journal of Electronics, 2011, 98, 753-767.	0.9	8
45	Modelling of nonisolated high-voltage gain boost converters using the PWM switch model. International Journal of Electronics, 2014, 101, 1134-1156.	0.9	8
46	A DC-DC buck-boost converter based on the three-state switching cell. , 2017, , .		8
47	Portable and low cost photovoltaic curve tracer. , 2017, , .		8
48	Threeâ€state switching cell (3SSC)â€based nonâ€isolated dcâ€“dc boostâ€type converter with balanced output voltage and wide voltage conversion range. IET Power Electronics, 2018, 11, 1217-1223.	1.5	8
49	Comparative analysis of techniques for the limitation of compensation currents in multifunctional grid-tied inverters. International Journal of Electrical Power and Energy Systems, 2021, 126, 106574.	3.3	8
50	DC-DC nonisolated boost converter with high voltage gain adequate for split-capacitor inverter applications. , 2013, , .		7
51	Survey on topologies based on the threeâ€state and multiâ€state switching cells. IET Power Electronics, 2019, 12, 967-982.	1.5	7
52	Nonâ€isolated high stepâ€up DCâ€“DC converter based on coupled inductors, diodeâ€capacitor networks, and voltage multiplier cells. International Journal of Circuit Theory and Applications, 0, , .	1.3	7
53	Proposal of a SMPS with AC output voltage employing a quadratic boost converter, a new topology of soft-switched two-switch forward converter and a new topology of PWM three-level half-bridge inverter. , 0, , .		6
54	An efficient switch-mode power supply using an AC-DC interleaved boost converter and a DC-DC full-bridge topology. International Journal of Electronics, 2011, 98, 425-448.	0.9	6

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55	An extensive review of nonisolated DC-DC boost-based converters. , 2014, , .		6
56	Analysis of high voltage step-up nonisolated DCâ€“DC boost converters. International Journal of Electronics, 0, , 1-15.	0.9	6
57	Practical design of a DC-DC buck converter using an RCD snubber. , 2017, , .		6
58	Analysis of a static model for DC microgrids based on droop and MPPT control. International Transactions on Electrical Energy Systems, 2019, 29, e2778.	1.2	6
59	Nonâ€isolated high stepâ€up/stepâ€down quadratic converter for lightâ€emitting diode driving. International Journal of Circuit Theory and Applications, 2021, 49, 2699-2718.	1.3	6
60	Comparative analysis between overlapping and non-overlapping operation modes for the PWM buck converter using the three-state switching cell. International Journal of Electronics, 2014, 101, 553-568.	0.9	5
61	Three-phase phase-locked loop algorithm and application to a static synchronous compensator. Electric Power Systems Research, 2021, 192, 106924.	2.1	5
62	Inâ€depth analysis of an RCD snubber applied to a DCâ€ĐC boost converter. International Journal of Circuit Theory and Applications, 2021, 49, 283-305.	1.3	5
63	Fast and accurate voltage sag detection algorithm. International Journal of Electrical Power and Energy Systems, 2022, 135, 107516.	3.3	5
64	Analysis of the PV-to-PV architecture with a bidirectional Buck-Boost converter under shading conditions. Solar Energy, 2022, 232, 102-119.	2.9	5
65	Wheel Slip Control Applied to an Electric Tractor for Improving Tractive Efficiency and Reducing Energy Consumption. Sensors, 2022, 22, 4527.	2.1	5
66	A switched-mode power supply employing a quadratic boost converter and a soft-switched two-switch forward converter. , 0, , .		4
67	A new topology of soft-switched two-gwd'itch forward converter and a new topology of PWM three-level half-bridge inverter. , 0, , .		4
68	A low cost single-phase grid-connected photovoltaic system with reduced complexity. , 2009, , .		4
69	Piezoelectric actuators applied to neutralize mechanical vibrations. JVC/Journal of Vibration and Control, 2012, 18, 1650-1660.	1.5	4
70	Analysis and small-signal modeling of a nonisolated high voltage step-up dc-dc boost converter. , 2015, , .		4
71	Low cost wind energy conversion system based on the discontinuous conduction mode threeâ€phase semiâ€controlled rectifier. IET Power Electronics, 2015, 8, 851-859.	1.5	4
72	Comparison among mathematical models of the photovoltaic cell for computer simulation purposes. International Journal of Electronics, 2017, 104, 1077-1094.	0.9	4

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73	Bidirectional Three-Phase 3L-SNPC Converter for EV Charging Stations. , 2018, , .		4
74	A Curve Tracer for Photovoltaic Modules Based on The Capacitive Load Method. , 2019, , .		4
75	Reduced-order modeling approach for wind energy conversion systems based on the doubly-fed induction generator. Electric Power Systems Research, 2021, 192, 106963.	2.1	4
76	A soft switching ZCSâ€“ZVS double two-switch forward converter. Electrical Engineering, 2018, 100, 1229-1241.	1.2	3
77	Four-Port, Single-Stage, Multidirectional ACâ€“AC Converter for Solid-State Transformer Applications. IEEE Transactions on Industrial Electronics, 2022, 69, 4596-4606.	5.2	3
78	Case Study: Hydroelectric Generation Employing the Water Distribution Network in Pato Branco, Brazil. , 2011, , .		3
79	A switched-mode power supply using a boost-flyback converter and an interleaved soft-switching forward topology. Power Electronics Specialist Conference (PESC), IEEE, 2008, , .	0.0	2
80	Comparison of control techniques used in power factor correction rectifiers. , 2015, , .		2
81	Novel bidirectional DCâ€“DC converters based on the three-state switching cell. International Journal of Electronics, 0, , 1-20.	0.9	2
82	Detailed design procedure of a DC-DC buck-boost converter employing a passive snubber. , 2017, , .		2
83	Small-signal model validation of a SEPIC converter based on the three-state switching cell in CCM using the PWM switch model. , 2017, , .		2
84	Analysis of a high power COB led light source driven by offline double-stage PFC converter. , 2017, , .		2
85	Design Tradeoffs of A DC-DC Buck-Boost Converter Employing An RCD Snubber. , 2018, , .		2
86	Development of A Small-Signal Model for The DC-DC Buck Converter Based on The Three-State Switching Cell. IEEE Latin America Transactions, 2019, 17, 573-581.	1.2	2
87	Efficient two-stage offline driver for extra-high-current COB LED applications. Electrical Engineering, 2020, 102, 2135-2148.	1.2	2
88	Improved and accurate lowâ€frequency average modelling and control of a conventional power factor correction boost converter in continuous conduction mode. IET Power Electronics, 2021, 14, 373-385.	1.5	2
89	Household induction cooking system based on a gridâ€connected photovoltaic system. IET Circuits, Devices and Systems, 2020, 14, 1117-1128.	0.9	2
90	Novel differential power processing topology for the mitigation of mismatch in photovoltaic systems. Electronics Letters, 2022, 58, 67-69.	0.5	2

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91	Nonisolated high stepâ€up DCâ€DC interleaved SEPIC converter based on voltage multiplier cells. International Journal of Circuit Theory and Applications, 2022, 50, 2735-2758.	1.3	2
92	Nonlinear current control strategy for grid-connected voltage source converters. International Journal of Electrical Power and Energy Systems, 2022, 142, 108349.	3.3	2
93	A high power factor power supply employing a self-oscillating converter to supply control circuitry. , 0, , .		1
94	Application of the commutated power concept to the classical isolated dc-dc converters. , 2015, , .		1
95	Influence of series and shunt resistances in the ideality factor of photovoltaic modules. , 2016, , .		1
96	Analysis of the low-frequency output current ripple in a buck-based LED driver under distinct control techniques. , 2016, , .		1
97	Evaluation of IGBT modules in ASDs submitted to overvoltage. , 2017, , .		1
98	Comparative analysis of basic single-stage non-isolated AC-DC topologies employed as high-current COB LED drivers. , 2017, , .		1
99	Nonisolated Quadratic SEPIC Converter Without Electrolytic Capacitors for LED Driver Applications. , 2019, , .		1
100	High-Voltage Step-Up DC-DC Converter Employing The Four State Switching Cell and Voltage Multiplier Cells. , 2019, , .		1
101	Evaluation of Techniques to Reduce the Effects of Partial Shading on Photovoltaic Arrays. , 2019, , .		1
102	Nonâ€isolated singleâ€phase inverter based on an autotransformer for lowâ€power applications. International Journal of Circuit Theory and Applications, 2021, 49, 2593-2611.	1.3	1
103	Maximum Power Point Tracking Based on The Curve Sweep Method. , 2021, , .		1
104	<scp>Nonâ€isolated</scp> high <scp>stepâ€up</scp> / <scp>stepâ€down DCâ€“DC</scp> quadratic Ä†uk converter. International Transactions on Electrical Energy Systems, 2021, 31, e13173.	1.2	1
105	Bridgeless boost PFC converter using the three-state switching cell. EletrÃ´nica De PotÃªncia, 2012, 17, 513-520.	0.1	1
106	Maximum power point tracking technique based on sweeping the characteristic curve of the photovoltaic module. Sustainable Computing: Informatics and Systems, 2022, 33, 100638.	1.6	1
107	Thermal Analysis of Power Converters for DFIG-Based Wind Energy Conversion Systems during Voltage Sags. Energies, 2022, 15, 3152.	1.6	1
108	Association of a ZCZVS PWM three-level full-bridge McMurray inverter and an auxiliary power supply. , 0, , .		0

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109	A new topology of three-level half bridge inverter. , 0, , .		0
110	A novel high power factor switched-mode power supply employing an interleaved boost-flyback converter and a ZCZVS PWM full-bridge McMurray inverter. , 0, , .		0
111	A ZCZVT PWM three-level full-bridge McMurray inverter. , 0, , .		0
112	A unity power factor single-phase three-level rectifier associated with a passive nondissipative snubber. , 0, , .		0
113	A high power factor rectifier associated with a ZCZVS PWM full-bridge inverter in a rectifier/inverter system. , 2010, , .		0
114	Comparative study of high power factor boost rectifiers in continuous conduction mode. , 2014, , .		0
115	Application of ADALINE-based ARX model to control the DC-link voltage in resonant inverters used in induction cookers. , 2017, , .		0
116	Current multilevel pfc buck rectifier applied to a high-power COB LED driver. , 2017, , .		0
117	Efficiency Analysis for Interleaved Buck Converters Employed as Extra-High Current COB LED Drivers. , 2019, , .		0
118	Active Cooling and Thermal Simulation Applied to an Extra-High Current COB LED. , 2019, , .		0
119	A critical analysis of PSO and its variations applied to MPPT for PV Systems under Partial Shading Condition. , 2019, , .		0
120	A stepâ€up/stepâ€down direct current to direct current converter for highâ€power, highâ€current applications. International Journal of Circuit Theory and Applications, 2019, 47, 445-463.	1.3	0
121	Three-phase phase-locked loop algorithms for the detection of positive-sequence and negative-sequence components. International Journal of Electrical Power and Energy Systems, 2021, 126, 106570.	3.3	0
122	Non-Isolated DC-DC Ä†uk-Buck Converter for High Step-Down Applications. , 2021, , .		0
123	Study, Design and Implementation of a High Efficiency AC-DC-AC SMPS with Soft Switching Characteristics. , 2011, , .		0
124	A Grid-Connected PV System based on the Buck Converter. , 2011, , .		0
125	General Evaluation of Rectifier Arrangements for the Three-Phase DC/DC Converter. , 2021, , .		0
126	Magnetic Integration in High-Frequency-Isolated AC-AC Interleaved Converters. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2022, , 1-1.	3.7	0