

Fernando Lessa Tofoli

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

91
papers

1,213
citations

15
h-index

32
g-index

126
ext. papers

1,679
ext. citations

3.8
avg, IF

4.93
L-index

| # | Paper | IF | Citations |
|----|--|-----|-----------|
| 91 | Analysis of the PV-to-PV architecture with a bidirectional Buck-Boost converter under shading conditions. <i>Solar Energy</i> , 2022 , 232, 102-119 | 6.8 | 1 |
| 90 | Maximum power point tracking technique based on sweeping the characteristic curve of the photovoltaic module. <i>Sustainable Computing: Informatics and Systems</i> , 2022 , 33, 100638 | 3 | 1 |
| 89 | Fast and accurate voltage sag detection algorithm. <i>International Journal of Electrical Power and Energy Systems</i> , 2022 , 135, 107516 | 5.1 | 1 |
| 88 | Modified Artificial Potential Field for the Path Planning of Aircraft Swarms in Three-Dimensional Environments.. <i>Sensors</i> , 2022 , 22, | 3.8 | 3 |
| 87 | Thermal Analysis of Power Converters for DFIG-Based Wind Energy Conversion Systems during Voltage Sags. <i>Energies</i> , 2022 , 15, 3152 | 3.1 | |
| 86 | Nonlinear current control strategy for grid-connected voltage source converters. <i>International Journal of Electrical Power and Energy Systems</i> , 2022 , 142, 108349 | 5.1 | 0 |
| 85 | Improved and accurate low-frequency average modelling and control of a conventional power factor correction boost converter in continuous conduction mode. <i>IET Power Electronics</i> , 2021 , 14, 373-385 | 2.2 | 0 |
| 84 | Non-isolated single-phase inverter based on an autotransformer for low-power applications. <i>International Journal of Circuit Theory and Applications</i> , 2021 , 49, 2593 | 2 | |
| 83 | Non-isolated high step-up/step-down quadratic converter for light-emitting diode driving. <i>International Journal of Circuit Theory and Applications</i> , 2021 , 49, 2699-2718 | 2 | 1 |
| 82 | Switched Capacitor DC-DC Converters: A Survey on the Main Topologies, Design Characteristics, and Applications. <i>Energies</i> , 2021 , 14, 2231 | 3.1 | 7 |
| 81 | Plotting Characteristic Curves of Photovoltaic Modules: A Simple and Portable Approach. <i>IEEE Industry Applications Magazine</i> , 2021 , 27, 63-72 | 0.6 | 4 |
| 80 | Three-phase phase-locked loop algorithm and application to a static synchronous compensator. <i>Electric Power Systems Research</i> , 2021 , 192, 106924 | 3.5 | 2 |
| 79 | Reduced-order modeling approach for wind energy conversion systems based on the doubly-fed induction generator. <i>Electric Power Systems Research</i> , 2021 , 192, 106963 | 3.5 | 3 |
| 78 | In-depth analysis of an RCD snubber applied to a DC-DC boost converter. <i>International Journal of Circuit Theory and Applications</i> , 2021 , 49, 283-305 | 2 | 1 |
| 77 | Three-phase phase-locked loop algorithms for the detection of positive-sequence and negative-sequence components. <i>International Journal of Electrical Power and Energy Systems</i> , 2021 , 126, 106570 | 5.1 | |
| 76 | Comparative analysis of techniques for the limitation of compensation currents in multifunctional grid-tied inverters. <i>International Journal of Electrical Power and Energy Systems</i> , 2021 , 126, 106574 | 5.1 | 3 |
| 75 | Four-Port, Single-Stage, Multi-Directional AC-AC Converter for Solid-State Transformer Applications. <i>IEEE Transactions on Industrial Electronics</i> , 2021 , 1-1 | 8.9 | 1 |

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| 74 | Single-Phase Isolated AC-AC Converters Based on The Dual Active Bridge Converter. <i>IEEE Transactions on Industrial Electronics</i> , 2021 , 1-1 | 8.9 | 0 |
| 73 | Interleaved bidirectional DCDC converter for electric vehicle applications based on multiple energy storage devices. <i>Electrical Engineering</i> , 2020 , 102, 2011-2023 | 1.5 | 10 |
| 72 | An integrated design approach of LCL filters based on nonlinear inductors for grid-connected inverter applications. <i>Electric Power Systems Research</i> , 2020 , 186, 106389 | 3.5 | 4 |
| 71 | Efficient two-stage offline driver for extra-high-current COB LED applications. <i>Electrical Engineering</i> , 2020 , 102, 2135-2148 | 1.5 | 0 |
| 70 | . <i>IEEE Access</i> , 2020 , 8, 37565-37577 | 3.5 | 7 |
| 69 | Household induction cooking system based on a grid-connected photovoltaic system. <i>IET Circuits, Devices and Systems</i> , 2020 , 14, 1117-1128 | 1.1 | 2 |
| 68 | Experimental evaluation of global maximum power point techniques under partial shading conditions. <i>Solar Energy</i> , 2020 , 196, 49-73 | 6.8 | 16 |
| 67 | Nonisolated DCDC Converters With Wide Conversion Range for High-Power Applications. <i>IEEE Journal of Emerging and Selected Topics in Power Electronics</i> , 2020 , 8, 749-760 | 5.6 | 9 |
| 66 | Modeling and Experimental Validation of a Single-Phase Series Active Power Filter for Harmonic Voltage Reduction. <i>IEEE Access</i> , 2019 , 7, 151971-151984 | 3.5 | 15 |
| 65 | A three-phase phase-locked loop algorithm with immunity to distorted signals employing an adaptive filter. <i>Electric Power Systems Research</i> , 2019 , 170, 116-127 | 3.5 | 6 |
| 64 | A Phase-Locked Loop Algorithm for Single-Phase Systems With Inherent Disturbance Rejection. <i>IEEE Transactions on Industrial Electronics</i> , 2019 , 66, 9260-9267 | 8.9 | 18 |
| 63 | Survey on topologies based on the three-state and multi-state switching cells. <i>IET Power Electronics</i> , 2019 , 12, 967-982 | 2.2 | 4 |
| 62 | Single-switch, integrated DCDC converter for high-voltage step-down applications. <i>IET Power Electronics</i> , 2019 , 12, 1880-1890 | 2.2 | 8 |
| 61 | Experimental evaluation of active power factor correction techniques in a single-phase AC-DC boost converter. <i>International Journal of Circuit Theory and Applications</i> , 2019 , 47, 1529-1553 | 2 | 10 |
| 60 | Nonisolated Quadratic SEPIC Converter Without Electrolytic Capacitors for LED Driver Applications 2019 , | | 1 |
| 59 | Conception of an electric propulsion system for a 9 kW electric tractor suitable for family farming. <i>IET Electric Power Applications</i> , 2019 , 13, 1993-2004 | 1.8 | 14 |
| 58 | Development of A Small-Signal Model for The DC-DC Buck Converter Based on The Three-State Switching Cell. <i>IEEE Latin America Transactions</i> , 2019 , 17, 573-581 | 0.7 | 0 |
| 57 | Analysis of a static model for DC microgrids based on droop and MPPT control. <i>International Transactions on Electrical Energy Systems</i> , 2019 , 29, e2778 | 2.2 | 4 |

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|----|--|------|----|
| 56 | A step-up/step-down direct current to direct current converter for high-power, high-current applications. <i>International Journal of Circuit Theory and Applications</i> , 2019 , 47, 445-463 | 2 | |
| 55 | A unified modeling approach for DC-DC converters based on the three-state switching cell. <i>AEU - International Journal of Electronics and Communications</i> , 2018 , 88, 30-37 | 2.8 | 9 |
| 54 | Three-Phase Grid-Connected WECS With Mechanical Power Control. <i>IEEE Transactions on Sustainable Energy</i> , 2018 , 9, 1508-1517 | 8.2 | 10 |
| 53 | Assessment of the ideality factor on the performance of photovoltaic modules. <i>Energy Conversion and Management</i> , 2018 , 167, 63-69 | 10.6 | 15 |
| 52 | A soft switching ZCS/ZVS double two-switch forward converter. <i>Electrical Engineering</i> , 2018 , 100, 1229-1244 | 11.4 | 2 |
| 51 | Three-state switching cell (3SSC)-based non-isolated dc/dc boost-type converter with balanced output voltage and wide voltage conversion range. <i>IET Power Electronics</i> , 2018 , 11, 1217-1223 | 2.2 | 6 |
| 50 | 2018 , | | 3 |
| 49 | Design Tradeoffs of A DC-DC Buck-Boost Converter Employing An RCD Snubber 2018 , | | 1 |
| 48 | Comparison among mathematical models of the photovoltaic cell for computer simulation purposes. <i>International Journal of Electronics</i> , 2017 , 104, 1077-1094 | 1.2 | 3 |
| 47 | Detailed design procedure of a DC-DC buck-boost converter employing a passive snubber 2017 , | | 2 |
| 46 | Practical design of a DC-DC buck converter using an RCD snubber 2017 , | | 4 |
| 45 | A DC-DC buck-boost converter based on the three-state switching cell 2017 , | | 2 |
| 44 | Comparative analysis of basic single-stage non-isolated AC-DC topologies employed as high-current COB LED drivers 2017 , | | 1 |
| 43 | Analysis of a high power COB led light source driven by offline double-stage PFC converter 2017 , | | 1 |
| 42 | Portable and low cost photovoltaic curve tracer 2017 , | | 5 |
| 41 | Analysis, design, and implementation of soft-switching cells applied to the single-phase full-bridge inverter. <i>IET Power Electronics</i> , 2016 , 9, 1249-1258 | 2.2 | 10 |
| 40 | Modeling, Digital Control, and Implementation of a Three-Phase Four-Wire Power Converter Used as a Power Redistribution Device. <i>IEEE Transactions on Industrial Informatics</i> , 2016 , 12, 1035-1042 | 11.9 | 12 |
| 39 | Soft switching high-voltage gain dc/dc interleaved boost converter. <i>IET Power Electronics</i> , 2015 , 8, 120-129 | 2.2 | 34 |

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|----|--|-----|-----|
| 38 | Low cost wind energy conversion system based on the discontinuous conduction mode three-phase semi-controlled rectifier. <i>IET Power Electronics</i> , 2015 , 8, 851-859 | 2.2 | 4 |
| 37 | High-voltage gain dc/dc boost converter with coupled inductors for photovoltaic systems. <i>IET Power Electronics</i> , 2015 , 8, 1885-1892 | 2.2 | 72 |
| 36 | Survey on non-isolated high-voltage step-up dc/dc topologies based on the boost converter. <i>IET Power Electronics</i> , 2015 , 8, 2044-2057 | 2.2 | 300 |
| 35 | Analysis of high voltage step-up nonisolated DCDC boost converters. <i>International Journal of Electronics</i> , 2015 , 1-15 | 1.2 | 2 |
| 34 | Novel bidirectional DCDC converters based on the three-state switching cell. <i>International Journal of Electronics</i> , 2015 , 1-20 | 1.2 | 2 |
| 33 | Comparative Study of Maximum Power Point Tracking Techniques for Photovoltaic Systems. <i>International Journal of Photoenergy</i> , 2015 , 2015, 1-10 | 2.1 | 25 |
| 32 | Comprehensive review of high power factor ac-dc boost converters for PFC applications. <i>International Journal of Electronics</i> , 2015 , 102, 1361-1381 | 1.2 | 12 |
| 31 | Analysis and small-signal modeling of a nonisolated high voltage step-up dc-dc boost converter 2015 , | | 3 |
| 30 | Application of the commutated power concept to the classical isolated dc-dc converters 2015 , | | 1 |
| 29 | Modelling of nonisolated high-voltage gain boost converters using the PWM switch model. <i>International Journal of Electronics</i> , 2014 , 101, 1134-1156 | 1.2 | 6 |
| 28 | . <i>IEEE Transactions on Industrial Electronics</i> , 2014 , 61, 6739-6746 | 8.9 | 51 |
| 27 | Comparative analysis between overlapping and non-overlapping operation modes for the PWM buck converter using the three-state switching cell. <i>International Journal of Electronics</i> , 2014 , 101, 553-568 | 1.2 | 3 |
| 26 | An extensive review of nonisolated DC-DC boost-based converters 2014 , | | 3 |
| 25 | 2013 , | | 4 |
| 24 | . <i>IEEE Transactions on Power Electronics</i> , 2013 , 28, 398-407 | 7.2 | 16 |
| 23 | DCDC Nonisolated Boost Converter Based on the Three-State Switching Cell and Voltage Multiplier Cells. <i>IEEE Transactions on Industrial Electronics</i> , 2013 , 60, 4438-4449 | 8.9 | 66 |
| 22 | Novel Nonisolated High-Voltage Gain DCDC Converters Based on 3SSC and VMC. <i>IEEE Transactions on Power Electronics</i> , 2012 , 27, 3897-3907 | 7.2 | 91 |
| 21 | ZVS bidirectional isolated three-phase DC-DC converter with dual phase-shift and variable duty cycle 2012 , | | 7 |

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|----|---|-----|----|
| 20 | Power Factor Correction Boost Converter Based on the Three-State Switching Cell. <i>IEEE Transactions on Industrial Electronics</i> , 2012 , 59, 1565-1577 | 8.9 | 48 |
| 19 | Piezoelectric actuators applied to neutralize mechanical vibrations. <i>JVC/Journal of Vibration and Control</i> , 2012 , 18, 1650-1660 | 2 | 4 |
| 18 | Analysis, Design, and Experimentation of a Double Forward Converter With Soft Switching Characteristics for All Switches. <i>IEEE Transactions on Power Electronics</i> , 2011 , 26, 2137-2148 | 7.2 | 11 |
| 17 | Comparison of nonisolated dc-dc converters from the efficiency point of view 2011 , | | 8 |
| 16 | An efficient switch-mode power supply using an AC-DC interleaved boost converter and a DC-DC full-bridge topology. <i>International Journal of Electronics</i> , 2011 , 98, 425-448 | 1.2 | 5 |
| 15 | Two-stage single-phase grid-connected photovoltaic system with reduced complexity. <i>International Journal of Electronics</i> , 2011 , 98, 753-767 | 1.2 | 5 |
| 14 | Case Study: Hydroelectric Generation Employing the Water Distribution Network in Pato Branco, Brazil 2011 , | | 2 |
| 13 | A review of single-phase PFC topologies based on the boost converter 2010 , | | 53 |
| 12 | Two-Stage Isolated Switch-Mode Power Supply With High Efficiency and High Input Power Factor. <i>IEEE Transactions on Industrial Electronics</i> , 2010 , 57, 3754-3766 | 8.9 | 27 |
| 11 | A Passive Lossless Snubber Applied to the ACDC Interleaved Boost Converter. <i>IEEE Transactions on Power Electronics</i> , 2010 , 25, 775-785 | 7.2 | 32 |
| 10 | Non-isolated DC-DC converters with wide conversion range used to drive high-brightness LEDs 2009 , | | 8 |
| 9 | A low cost single-phase grid-connected photovoltaic system with reduced complexity 2009 , | | 3 |
| 8 | Proposal of a Soft-Switching Single-Phase Three-Level Rectifier. <i>IEEE Transactions on Industrial Electronics</i> , 2008 , 55, 107-113 | 8.9 | 15 |
| 7 | A switched-mode power supply using a boost-flyback converter and an interleaved soft-switching forward topology. <i>Power Electronics Specialist Conference (PESC), IEEE</i> , 2008 , | | 1 |
| 6 | Analysis and Evaluation of Residential Air Conditioners for Power System Studies. <i>IEEE Transactions on Power Systems</i> , 2007 , 22, 706-716 | 7 | 9 |
| 5 | On the study of losses in cables and transformers in nonsinusoidal conditions. <i>IEEE Transactions on Power Delivery</i> , 2006 , 21, 971-978 | 4.3 | 12 |
| 4 | A high-power-factor half-bridge doubler boost converter without commutation losses. <i>IEEE Transactions on Industrial Electronics</i> , 2005 , 52, 1278-1285 | 8.9 | 11 |
| 3 | A switched-mode power supply employing a quadratic boost converter and a soft-switched two-switch forward converter | | 3 |

- 2 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 3
- 1 Non-isolated high step-up/step-down DCDC quadratic π k converter. *International Transactions on Electrical Energy Systems*, e13173 2.2