

Tamas Kerekes

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.

104 papers	3,509 citations	27 h-index	58 g-index
128 ext. papers	4,688 ext. citations	5.2 avg, IF	5.59 L-index

#	Paper	IF	Citations
104	A Novel Modular Multilevel Converter Based on Interleaved Half-Bridge Submodules. <i>IEEE Transactions on Industrial Electronics</i> , 2022 , 1-1	8.9	5
103	Effect of Battery Degradation on the Probabilistic Optimal Operation of Renewable-Based Microgrids. <i>Electricity</i> , 2022 , 3, 53-74	1	2
102	Sensorless Current Balancing Control for Interleaved Half-Bridge Submodules in Modular Multilevel Converters. <i>IEEE Transactions on Industrial Electronics</i> , 2022 , 1-1	8.9	2
101	Communication-free Equivalent Grid Impedance Estimation Technique for Multi-inverter Systems. <i>IEEE Transactions on Industrial Electronics</i> , 2022 , 1-1	8.9	1
100	Stochastic Optimal Strategy for Power Management in Interconnected Multi-Microgrid Systems. <i>Electronics (Switzerland)</i> , 2022 , 11, 1424	2.6	1
99	Flexible Active Power Control for PV-ESS Systems: A Review. <i>Energies</i> , 2021 , 14, 7388	3.1	2
98	Optimum Sizing of Photovoltaic-Battery Power Supply for Drone-Based Cellular Networks. <i>Drones</i> , 2021 , 5, 138	5.4	1
97	Dispatchable High-Power Wind Turbine Based on a Multilevel Converter With Modular Structure and Hybrid Energy Storage Integration. <i>IEEE Access</i> , 2021 , 9, 152878-152891	3.5	1
96	Optimum Sizing of Photovoltaic and Energy Storage Systems for Powering Green Base Stations in Cellular Networks. <i>Energies</i> , 2021 , 14, 1895	3.1	3
95	A Simple Mismatch Mitigating Partial Power Processing Converter for Solar PV Modules. <i>Energies</i> , 2021 , 14, 2308	3.1	1
94	Reconfigurable Distributed Power Electronics Technique for Solar PV Systems. <i>Electronics (Switzerland)</i> , 2021 , 10, 1121	2.6	0
93	A Cascaded H-Bridge With Integrated Boosting Circuit. <i>IEEE Transactions on Power Electronics</i> , 2021 , 36, 18-22	7.2	2
92	Generalized Space Vector Modulation for Ripple Current Reduction in Quasi-Z-Source Inverters. <i>IEEE Transactions on Power Electronics</i> , 2021 , 36, 1730-1741	7.2	7
91	Inductor Current Ripple Analysis and Reduction for Quasi-Z-Source Inverters With an Improved ZSVM6 Strategy. <i>IEEE Transactions on Power Electronics</i> , 2021 , 36, 7693-7704	7.2	3
90	An Online Event-Based Grid Impedance Estimation Technique Using Grid-Connected Inverters. <i>IEEE Transactions on Power Electronics</i> , 2021 , 36, 6106-6117	7.2	18
89	Novel Converter Topology With Reduced Cost, Size and Weight for High-Power Medium-Voltage Machine Drives: 3x3 Modular Multilevel Series Converter. <i>IEEE Access</i> , 2021 , 9, 49082-49097	3.5	2
88	Performance Analysis of Modular Multilevel Converter and Modular Multilevel Series Converter under Variable-Frequency Operation Regarding Submodule-Capacitor Voltage Ripple. <i>Energies</i> , 2021 , 14, 776	3.1	3

87	Medium-Voltage Converter Solution With Modular Multilevel Structure and Decentralized Energy Storage Integration for High-Power Wind Turbines. <i>IEEE Transactions on Power Electronics</i> , 2021 , 36, 12954-12967	7.2	3
86	High step-up DCDC converter composed of quadratic boost converter and switched capacitor. <i>IET Power Electronics</i> , 2020 , 13, 4008-4018	2.2	5
85	Three-port DCDC converter based on quadratic boost converter for stand-alone PV/battery systems. <i>IET Power Electronics</i> , 2020 , 13, 2106-2118	2.2	10
84	New ACAC Modular Multilevel Converter Solution for Medium-Voltage Machine-Drive Applications: Modular Multilevel Series Converter. <i>Energies</i> , 2020 , 13, 3664	3.1	5
83	Multiple-Power-Sample Based P&O MPPT for Fast-Changing Irradiance Conditions for a Simple Implementation. <i>IEEE Journal of Photovoltaics</i> , 2020 , 10, 1481-1488	3.7	19
82	Solar Cell Cracks and Finger Failure Detection Using Statistical Parameters of Electroluminescence Images and Machine Learning. <i>Applied Sciences (Switzerland)</i> , 2020 , 10, 8834	2.6	8
81	Common-Mode Voltage Analysis and Reduction for the Quasi-Z-Source Inverter with a Split Inductor. <i>Applied Sciences (Switzerland)</i> , 2020 , 10, 8713	2.6	2
80	Transformerless Inverter Topologies for Single-Phase Photovoltaic Systems: A Comparative Review. <i>IEEE Journal of Emerging and Selected Topics in Power Electronics</i> , 2020 , 8, 805-835	5.6	99
79	A Review on Transformerless Step-Up Single-Phase Inverters with Different DC-Link Voltage for Photovoltaic Applications. <i>Energies</i> , 2019 , 12, 3626	3.1	6
78	Characteristic Analysis of the Grid-Connected Impedance-Source Inverter for PV Applications 2019 ,		1
77	Case Study of Residential PV Power and Battery Storage with the Danish Flexible Pricing Scheme. <i>Energies</i> , 2019 , 12, 799	3.1	2
76	Three-Phase ZVR Topology and Modulation Strategy for Transformerless PV System. <i>IEEE Transactions on Power Electronics</i> , 2019 , 34, 1017-1021	7.2	30
75	Switched capacitor based Z-source DCDC converter. <i>IET Power Electronics</i> , 2019 , 12, 3582-3589	2.2	20
74	A Classification of Single-Phase Transformerless Inverter Topologies for Photovoltaic Applications 2018 ,		1
73	Modeling and Control of Single-Phase Quasi-Z-Source Inverters 2018 ,		3
72	Application Layer Design for Smart Battery Pack Control with Wi-Fi Feedback 2018 ,		2
71	Optimized Integrated Harmonic Filter Inductor for Dual-Converter-Fed Open-End Transformer Topology. <i>IEEE Transactions on Power Electronics</i> , 2017 , 32, 1818-1831	7.2	15
70	Flux-Balancing Scheme for PD-Modulated Parallel-Interleaved Inverters. <i>IEEE Transactions on Power Electronics</i> , 2017 , 32, 3442-3457	7.2	19

69	Short-Circuit Degradation of 10-kV 10-A SiC MOSFET. <i>IEEE Transactions on Power Electronics</i> , 2017 , 32, 9342-9354	7.2	41
68	Power Ramp Limitation Capabilities of Large PV Power Plants With Active Power Reserves. <i>IEEE Transactions on Sustainable Energy</i> , 2017 , 8, 573-581	8.2	27
67	Short-circuit characterization of 10 kV 10A 4H-SiC MOSFET 2016 ,		16
66	Fault identification in crystalline silicon PV modules by complementary analysis of the light and dark current voltage characteristics. <i>Progress in Photovoltaics: Research and Applications</i> , 2016 , 24, 517-532	6.8	19
65	Magnetic Integration for Parallel Interleaved VSCs Connected in a Whiffletree Configuration. <i>IEEE Transactions on Power Electronics</i> , 2016 , 31, 7797-7808	7.2	18
64	An Integrated Inductor for Parallel Interleaved Three-Phase Voltage Source Converters. <i>IEEE Transactions on Power Electronics</i> , 2016 , 31, 3400-3414	7.2	36
63	Evaluation of circulating current suppression methods for parallel interleaved inverters 2016 ,		4
62	Comparative evaluation of modulation schemes for grid-connected parallel interleaved inverters 2016 ,		1
61	Power-Hardware-In-Loop harmonic analysis of a Smart Transformer-fed distribution grid 2016 ,		3
60	Dual-Converter-Fed Open-End Transformer Topology With Parallel Converters and Integrated Magnetics. <i>IEEE Transactions on Industrial Electronics</i> , 2016 , 1-1	8.9	6
59	A New PWM Strategy for Grid-Connected Half-Bridge Active NPC Converters With Losses Distribution Balancing Mechanism. <i>IEEE Transactions on Power Electronics</i> , 2015 , 30, 5331-5340	7.2	51
58	Temperature-dependency analysis and correction methods of in situ power-loss estimation for crystalline silicon modules undergoing potential-induced degradation stress testing. <i>Progress in Photovoltaics: Research and Applications</i> , 2015 , 23, 1536-1549	6.8	31
57	Firefighter Safety for PV Systems: A Solution for the Protection of Emergency Responders from Hazardous dc Voltage. <i>IEEE Industry Applications Magazine</i> , 2015 , 21, 75-84	0.6	2
56	Three-phase Photovoltaic Systems: Structures, Topologies, and Control. <i>Electric Power Components and Systems</i> , 2015 , 43, 1364-1375	1	12
55	An Integrated Inductor for Parallel Interleaved VSCs and PWM Schemes for Flux Minimization. <i>IEEE Transactions on Industrial Electronics</i> , 2015 , 62, 7534-7546	8.9	40
54	Diagnostic method for photovoltaic systems based on light I _V measurements. <i>Solar Energy</i> , 2015 , 119, 29-44	6.8	69
53	Integrated inductor for interleaved operation of two parallel three-phase voltage source converters 2015 ,		11
52	Design of low impedance busbar for 10 kV, 100A 4H-SiC MOSFET short-circuit tester using axial capacitors 2015 ,		6

51	Optimal interleaving angle determination in multi paralleled converters considering the DC current ripple and grid Current THD 2015 ,		9
50	Modified Discontinuous PWM for Size Reduction of the Circulating Current Filter in Parallel Interleaved Converters. <i>IEEE Transactions on Power Electronics</i> , 2015 , 30, 3457-3470	7.2	73
49	Thermal Loading and Lifetime Estimation for Power Device Considering Mission Profiles in Wind Power Converter. <i>IEEE Transactions on Power Electronics</i> , 2015 , 30, 590-602	7.2	282
48	Characterisation of 10 kV 10 A SiC MOSFET 2015 ,		5
47	Leakage current analysis of single-phase transformer-less grid-connected PV inverters 2015 ,		4
46	Quantifying solar cell cracks in photovoltaic modules by electroluminescence imaging 2015 ,		12
45	Circulating current controller for parallel interleaved converters using PR controllers 2015 ,		4
44	Line Filter Design of Parallel Interleaved VSCs for High-Power Wind Energy Conversion Systems. <i>IEEE Transactions on Power Electronics</i> , 2015 , 30, 6775-6790	7.2	63
43	Reduction of DC-link capacitor in case of cascade multilevel converters by means of reactive power control 2014 ,		9
42	. <i>IEEE Transactions on Industrial Informatics</i> , 2014 , 10, 2270-2279	11.9	33
41	A Self-commissioning Notch Filter for Active Damping in a Three-Phase LCL -Filter-Based Grid-Tie Converter. <i>IEEE Transactions on Power Electronics</i> , 2014 , 29, 6754-6761	7.2	116
40	A Hybrid Power Control Concept for PV Inverters With Reduced Thermal Loading. <i>IEEE Transactions on Power Electronics</i> , 2014 , 29, 6271-6275	7.2	113
39	Frequency Support Functions in Large PV Power Plants With Active Power Reserves. <i>IEEE Journal of Emerging and Selected Topics in Power Electronics</i> , 2014 , 2, 849-858	5.6	98
38	Analytical method to calculate the DC link current stress in voltage source converters 2014 ,		10
37	Parallel interleaved VSCs: Influence of the PWM scheme on the design of the coupled inductor 2014 ,		11
36	Design of the trap filter for the high power converters with parallel interleaved VSCs 2014 ,		12
35	Development of a test platform for controlling parallel converters 2014 ,		1
34	Remote and centralized monitoring of PV power plants 2014 ,		3

33	An Optimization Method for Designing Large PV Plants. <i>IEEE Journal of Photovoltaics</i> , 2013 , 3, 814-822	3.7	79
32	Photovoltaic array condition monitoring based on online regression of performance model 2013 ,		14
31	Self-commissioning notch filter for active damping in three phase LCL-filter based grid converters 2013 ,		2
30	DC-bias cancellation for phase shift controlled dual active bridge 2013 ,		1
29	2013 ,		9
28	Benchmark networks for grid integration impact studies of large PV plants 2013 ,		4
27	Robustness analysis of the efficiency in PV inverters 2013 ,		6
26	On the Perturb-and-Observe and Incremental Conductance MPPT Methods for PV Systems. <i>IEEE Journal of Photovoltaics</i> , 2013 , 3, 1070-1078	3.7	397
25	High efficiency battery converter with SiC devices for residential PV systems 2013 ,		5
24	Power ramp limitation and frequency support in large scale PVPPs without storage 2013 ,		3
23	Firefighter safety for PV systems: Overview of future requirements and protection systems 2013 ,		2
22	2012 ,		6
21	Leakage current measurement in transformerless PV inverters 2012 ,		5
20	Detection of increased series losses in PV arrays using Fuzzy Inference Systems 2012 ,		21
19	Overview of recent Grid Codes for PV power integration 2012 ,		75
18	Improved voltage regulation strategies by PV inverters in LV rural networks 2012 ,		16
17	Power electronics - key technology for renewable energy systems 2011 ,		29
16	A New High-Efficiency Single-Phase Transformerless PV Inverter Topology. <i>IEEE Transactions on Industrial Electronics</i> , 2011 , 58, 184-191	8.9	469

15	Control of parallel-connected bidirectional AC-DC converters in stationary frame for microgrid application 2011 ,		16
14	A practical optimization method for designing large PV plants 2011 ,		7
13	A low-disturbance diagnostic function integrated in the PV arraysMPPT algorithm 2011 ,		4
12	Stability analysis of grid inverter LCL-filter resonance in wind or photovoltaic parks 2011 ,		8
11	Robustness analysis of active damping methods for an inverter connected to the grid with an LCL-filter 2011 ,		28
10	Trends in power electronics and control of renewable energy systems 2010 ,		43
9	A photovoltaic three-phase topology to reduce Common Mode Voltage 2010 ,		21
8	Losses and CMV evaluation in transformerless grid-connected PV topologies 2009 ,		21
7	Evaluation of Three-Phase Transformerless Photovoltaic Inverter Topologies. <i>IEEE Transactions on Power Electronics</i> , 2009 , 24, 2202-2211	7.2	267
6	A Single-Phase Voltage-Controlled Grid-Connected Photovoltaic System With Power Quality Conditioner Functionality. <i>IEEE Transactions on Industrial Electronics</i> , 2009 , 56, 4436-4444	8.9	156
5	Adaptive hysteresis band current control for transformerless single-phase PV inverters 2009 ,		18
4	Common mode voltage in case of transformerless PV inverters connected to the grid 2008 ,		64
3	Improved MPPT method for rapidly changing environmental conditions 2006 ,		74
2	Improved MPPT Algorithms for Rapidly Changing Environmental Conditions 2006 ,		59
1	PV inverter simulation using MATLAB/Simulink graphical environment and PLECS blockset. <i>Industrial Electronics Society (IECON), Annual Conference of IEEE</i> , 2006 ,		17