Tamas Kerekes

List of Publications by Citations

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 New High-Efficiency Single-Phase Transformerless PV Inverter Topology. *IEEE Transactions on Industrial Electronics*, **2011**, 58, 184-191	8.9	469
103	On the Perturb-and-Observe and Incremental Conductance MPPT Methods for PV Systems. *IEEE Journal of Photovoltaics*, **2013**, 3, 1070-1078	3.7	397
102	Thermal Loading and Lifetime Estimation for Power Device Considering Mission Profiles in Wind Power Converter. *IEEE Transactions on Power Electronics*, **2015**, 30, 590-602	7.2	282
101	Evaluation of Three-Phase Transformerless Photovoltaic Inverter Topologies. *IEEE Transactions on Power Electronics*, **2009**, 24, 2202-2211	7.2	267
100	A Single-Phase Voltage-Controlled Grid-Connected Photovoltaic System With Power Quality Conditioner Functionality. *IEEE Transactions on Industrial Electronics*, **2009**, 56, 4436-4444	8.9	156
99	A Self-commissioning Notch Filter for Active Damping in a Three-Phase LCL -Filter-Based Grid-Tie Converter. *IEEE Transactions on Power Electronics*, **2014**, 29, 6754-6761	7.2	116
98	A Hybrid Power Control Concept for PV Inverters With Reduced Thermal Loading. *IEEE Transactions on Power Electronics*, **2014**, 29, 6271-6275	7.2	113
97	Transformerless Inverter Topologies for Single-Phase Photovoltaic Systems: A Comparative Review. *IEEE Journal of Emerging and Selected Topics in Power Electronics*, **2020**, 8, 805-835	5.6	99
96	Frequency Support Functions in Large PV Power Plants With Active Power Reserves. *IEEE Journal of Emerging and Selected Topics in Power Electronics*, **2014**, 2, 849-858	5.6	98
95	An Optimization Method for Designing Large PV Plants. *IEEE Journal of Photovoltaics*, **2013**, 3, 814-822	3.7	79
94	Overview of recent Grid Codes for PV power integration **2012**,		75
93	Improved MPPT method for rapidly changing environmental conditions **2006**,		74
92	Modified Discontinuous PWM for Size Reduction of the Circulating Current Filter in Parallel Interleaved Converters. *IEEE Transactions on Power Electronics*, **2015**, 30, 3457-3470	7.2	73
91	Diagnostic method for photovoltaic systems based on light IV measurements. *Solar Energy*, **2015**, 119, 29-44	6.8	69
90	Common mode voltage in case of transformerless PV inverters connected to the grid **2008**,		64
89	Line Filter Design of Parallel Interleaved VSCs for High-Power Wind Energy Conversion Systems. *IEEE Transactions on Power Electronics*, **2015**, 30, 6775-6790	7.2	63
88	Improved MPPT Algorithms for Rapidly Changing Environmental Conditions **2006**,		59

87	A New PWM Strategy for Grid-Connected Half-Bridge Active NPC Converters With Losses Distribution Balancing Mechanism. *IEEE Transactions on Power Electronics*, **2015**, 30, 5331-5340	7.2	51
86	Trends in power electronics and control of renewable energy systems **2010**,		43
85	Short-Circuit Degradation of 10-kV 10-A SiC MOSFET. *IEEE Transactions on Power Electronics*, **2017**, 32, 9342-9354	7.2	41
84	An Integrated Inductor for Parallel Interleaved VSCs and PWM Schemes for Flux Minimization. *IEEE Transactions on Industrial Electronics*, **2015**, 62, 7534-7546	8.9	40
83	An Integrated Inductor for Parallel Interleaved Three-Phase Voltage Source Converters. *IEEE Transactions on Power Electronics*, **2016**, 31, 3400-3414	7.2	36
82	. *IEEE Transactions on Industrial Informatics*, **2014**, 10, 2270-2279	11.9	33
81	Temperature-dependency analysis and correction methods of in situ power-loss estimation for crystalline silicon modules undergoing potential-induced degradation stress testing. *Progress in Photovoltaics: Research and Applications*, **2015**, 23, 1536-1549	6.8	31
80	Three-Phase ZVR Topology and Modulation Strategy for Transformerless PV System. *IEEE Transactions on Power Electronics*, **2019**, 34, 1017-1021	7.2	30
79	Power electronics - key technology for renewable energy systems **2011**,		29
78	Robustness analysis of active damping methods for an inverter connected to the grid with an LCL-filter **2011**,		28
77	Power Ramp Limitation Capabilities of Large PV Power Plants With Active Power Reserves. *IEEE Transactions on Sustainable Energy*, **2017**, 8, 573-581	8.2	27
76	Detection of increased series losses in PV arrays using Fuzzy Inference Systems **2012**,		21
75	A photovoltaic three-phase topology to reduce Common Mode Voltage **2010**,		21
74	Losses and CMV evaluation in transformerless grid-connected PV topologies **2009**,		21
73	Switched capacitor based Z-source DC□DC converter. *IET Power Electronics*, **2019**, 12, 3582-3589	2.2	20
72	Flux-Balancing Scheme for PD-Modulated Parallel-Interleaved Inverters. *IEEE Transactions on Power Electronics*, **2017**, 32, 3442-3457	7.2	19
71	Fault identification in crystalline silicon PV modules by complementary analysis of the light and dark current□oltage characteristics. *Progress in Photovoltaics: Research and Applications*, **2016**, 24, 517-532	6.8	19
70	Multiple-Power-Sample Based P&O MPPT for Fast-Changing Irradiance Conditions for a Simple Implementation. *IEEE Journal of Photovoltaics*, **2020**, 10, 1481-1488	3.7	19

69	Magnetic Integration for Parallel Interleaved VSCs Connected in a Whiffletree Configuration. *IEEE Transactions on Power Electronics*, **2016**, 31, 7797-7808	7.2	18
68	Adaptive hysteresis band current control for transformerless single-phase PV inverters **2009**,		18
67	An Online Event-Based Grid Impedance Estimation Technique Using Grid-Connected Inverters. *IEEE Transactions on Power Electronics*, **2021**, 36, 6106-6117	7.2	18
66	PV inverter simulation using MATLAB/Simulink graphical environment and PLECS blockset. *Industrial Electronics Society (IECON), Annual Conference of IEEE*, **2006**,		17
65	Short-circuit characterization of 10 kV 10A 4H-SiC MOSFET **2016**,		16
64	Improved voltage regulation strategies by PV inverters in LV rural networks **2012**,		16
63	Control of parallel-connected bidirectional AC-DC converters in stationary frame for microgrid application **2011**,		16
62	Optimized Integrated Harmonic Filter Inductor for Dual-Converter-Fed Open-End Transformer Topology. *IEEE Transactions on Power Electronics*, **2017**, 32, 1818-1831	7.2	15
61	Photovoltaic array condition monitoring based on online regression of performance model **2013**,		14
60	Three-phase Photovoltaic Systems: Structures, Topologies, and Control. *Electric Power Components and Systems*, **2015**, 43, 1364-1375	1	12
59	Quantifying solar cell cracks in photovoltaic modules by electroluminescence imaging **2015**,		12
58	Design of the trap filter for the high power converters with parallel interleaved VSCs **2014**,		12
57	Integrated inductor for interleaved operation of two parallel three-phase voltage source converters **2015**,		11
56	Parallel interleaved VSCs: Influence of the PWM scheme on the design of the coupled inductor **2014**,		11
55	Analytical method to calculate the DC link current stress in voltage source converters **2014**,		10
54	Three-port DCDC converter based on quadratic boost converter for stand-alone PV/battery systems. *IET Power Electronics*, **2020**, 13, 2106-2118	2.2	10
53	Optimal interleaving angle determination in multi paralleled converters considering the DC current ripple and grid Current THD **2015**,		9
52	Reduction of DC-link capacitor in case of cascade multilevel converters by means of reactive power control **2014**,		9

51	**2013**,		9
50	Stability analysis of grid inverter LCL-filter resonance in wind or photovoltaic parks **2011**,		8
49	Solar Cell Cracks and Finger Failure Detection Using Statistical Parameters of Electroluminescence Images and Machine Learning. *Applied Sciences (Switzerland)*, **2020**, 10, 8834	2.6	8
48	A practical optimization method for designing large PV plants **2011**,		7
47	Generalized Space Vector Modulation for Ripple Current Reduction in Quasi-Z-Source Inverters. *IEEE Transactions on Power Electronics*, **2021**, 36, 1730-1741	7.2	7
46	A Review on Transformerless Step-Up Single-Phase Inverters with Different DC-Link Voltage for Photovoltaic Applications. *Energies*, **2019**, 12, 3626	3.1	6
45	Design of low impedance busbar for 10 kV, 100A 4H-SiC MOSFET short-circuit tester using axial capacitors **2015**,		6
44	Robustness analysis of the efficiency in PV inverters **2013**,		6
43	**2012**,		6
42	Dual-Converter-Fed Open-End Transformer Topology With Parallel Converters and Integrated Magnetics. *IEEE Transactions on Industrial Electronics*, **2016**, 1-1	8.9	6
41	Characterisation of 10 kV 10 A SiC MOSFET **2015**,		5
40	Leakage current measurement in transformerless PV inverters **2012**,		5
39	High efficiency battery converter with SiC devices for residential PV systems **2013**,		5
38	A Novel Modular Multilevel Converter Based on Interleaved Half-Bridge Submodules. *IEEE Transactions on Industrial Electronics*, **2022**, 1-1	8.9	5
37	High step-up DC–DC converter composed of quadratic boost converter and switched capacitor. *IET Power Electronics*, **2020**, 13, 4008-4018	2.2	5
36	New AC–AC Modular Multilevel Converter Solution for Medium-Voltage Machine-Drive Applications: Modular Multilevel Series Converter. *Energies*, **2020**, 13, 3664	3.1	5
35	Benchmark networks for grid integration impact studies of large PV plants **2013**,		4
34	Leakage current analysis of single-phase transformer-less grid-connected PV inverters **2015**,		4

33	Circulating current controller for parallel interleaved converters using PR controllers **2015**,		4
32	A low-disturbance diagnostic function integrated in the PV arraysWMPPT algorithm **2011**,		4
31	Evaluation of circulating current suppression methods for parallel interleaved inverters **2016**,		4
30	Remote and centralized monitoring of PV power plants **2014**,		3
29	Power ramp limitation and frequency support in large scale PVPPs without storage **2013**,		3
28	Optimum Sizing of Photovoltaic and Energy Storage Systems for Powering Green Base Stations in Cellular Networks. *Energies*, **2021**, 14, 1895	3.1	3
27	Power-Hardware-In-Loop harmonic analysis of a Smart Transformer-fed distribution grid **2016**,		3
26	Inductor Current Ripple Analysis and Reduction for Quasi-Z-Source Inverters With an Improved ZSVM6 Strategy. *IEEE Transactions on Power Electronics*, **2021**, 36, 7693-7704	7.2	3
25	Performance Analysis of Modular Multilevel Converter and Modular Multilevel Series Converter under Variable-Frequency Operation Regarding Submodule-Capacitor Voltage Ripple. *Energies*, **2021**, 14, 776	3.1	3
24	Modeling and Control of Single-Phase Quasi-Z-Source Inverters **2018**,		3
23	Medium-Voltage Converter Solution With Modular Multilevel Structure and Decentralized Energy Storage Integration for High-Power Wind Turbines. *IEEE Transactions on Power Electronics*, **2021**, 36, 12954-12967	7.2	3
22	Case Study of Residential PV Power and Battery Storage with the Danish Flexible Pricing Scheme. *Energies*, **2019**, 12, 799	3.1	2
21	Firefighter Safety for PV Systems: A Solution for the Protection of Emergency Responders from Hazardous dc Voltage. *IEEE Industry Applications Magazine*, **2015**, 21, 75-84	0.6	2
20	Self-commissioning notch filter for active damping in three phase LCL-filter based grid converters **2013**,		2
19	Firefighter safety for PV systems: Overview of future requirements and protection systems **2013**,		2
18	Effect of Battery Degradation on the Probabilistic Optimal Operation of Renewable-Based Microgrids. *Electricity*, **2022**, 3, 53-74	1	2
17	Flexible Active Power Control for PV-ESS Systems: A Review. *Energies*, **2021**, 14, 7388	3.1	2
16	Common-Mode Voltage Analysis and Reduction for the Quasi-Z-Source Inverter with a Split Inductor. *Applied Sciences (Switzerland)*, **2020**, 10, 8713	2.6	2

List of Publications

15	A Cascaded H-Bridge With Integrated Boosting Circuit. *IEEE Transactions on Power Electronics*, **2021**, 36, 18-22	7.2	2
14	Novel Converter Topology With Reduced Cost, Size and Weight for High-Power Medium-Voltage Machine Drives: 3x3 Modular Multilevel Series Converter. *IEEE Access*, **2021**, 9, 49082-49097	3.5	2
13	Application Layer Design for Smart Battery Pack Control with Wi-Fi Feedback **2018**,		2
12	Sensorless Current Balancing Control for Interleaved Half-Bridge Submodules in Modular Multilevel Converters. *IEEE Transactions on Industrial Electronics*, **2022**, 1-1	8.9	2
11	Characteristic Analysis of the Grid-Connected Impedance-Source Inverter for PV Applications **2019**,		1
10	DC-bias cancellation for phase shift controlled dual active bridge **2013**,		1
9	Development of a test platform for controlling parallel converters **2014**,		1
8	Optimum Sizing of Photovoltaic-Battery Power Supply for Drone-Based Cellular Networks. *Drones*, **2021**, 5, 138	5.4	1
7	Dispatchable High-Power Wind Turbine Based on a Multilevel Converter With Modular Structure and Hybrid Energy Storage Integration. *IEEE Access*, **2021**, 9, 152878-152891	3.5	1
6	A Simple Mismatch Mitigating Partial Power Processing Converter for Solar PV Modules. *Energies*, **2021**, 14, 2308	3.1	1
5	Comparative evaluation of modulation schemes for grid-connected parallel interleaved inverters **2016**,		1
4	A Classification of Single-Phase Transformerless Inverter Topologies for Photovoltaic Applications **2018**,		1
3	Communication-free Equivalent Grid Impedance Estimation Technique for Multi-inverter Systems. *IEEE Transactions on Industrial Electronics*, **2022**, 1-1	8.9	1
2	Stochastic Optimal Strategy for Power Management in Interconnected Multi-Microgrid Systems. *Electronics (Switzerland)*, **2022**, 11, 1424	2.6	1
1	Reconfigurable Distributed Power Electronics Technique for Solar PV Systems. *Electronics (Switzerland)*, **2021**, 10, 1121	2.6	0