

Dezso Sera

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117
papers

3,309
citations

28
h-index

55
g-index

135
ext. papers

4,384
ext. citations

4.4
avg, IF

5.61
L-index

#	Paper	IF	Citations
117	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
116	PV panel model based on datasheet values 2007 ,		380
115	Local Reactive Power Control Methods for Overvoltage Prevention of Distributed Solar Inverters in Low-Voltage Grids. <i>IEEE Journal of Photovoltaics</i> , 2011 , 1, 174-182	3.7	288
114	Optimized Maximum Power Point Tracker for Fast-Changing Environmental Conditions. <i>IEEE Transactions on Industrial Electronics</i> , 2008 , 55, 2629-2637	8.9	275
113	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
112	Lifetime Evaluation of Grid-Connected PV Inverters Considering Panel Degradation Rates and Installation Sites. <i>IEEE Transactions on Power Electronics</i> , 2018 , 33, 1225-1236	7.2	85
111	An Optimization Method for Designing Large PV Plants. <i>IEEE Journal of Photovoltaics</i> , 2013 , 3, 814-822	3.7	79
110	Investigation of wind speed cooling effect on PV panels in windy locations. <i>Renewable Energy</i> , 2016 , 90, 283-290	8.1	77
109	Overview of recent Grid Codes for PV power integration 2012 ,		75
108	Improved MPPT method for rapidly changing environmental conditions 2006 ,		74
107	Diagnostic method for photovoltaic systems based on light I _V measurements. <i>Solar Energy</i> , 2015 , 119, 29-44	6.8	69
106	Clustered PV inverters in LV networks: An overview of impacts and comparison of voltage control strategies 2009 ,		67
105	. <i>IEEE Transactions on Industry Applications</i> , 2017 , 53, 3862-3870	4.3	62
104	Improved MPPT Algorithms for Rapidly Changing Environmental Conditions 2006 ,		59
103	Evaluation of the voltage support strategies for the low voltage grid connected PV generators 2010 ,		54
102	On the Impacts of PV Array Sizing on the Inverter Reliability and Lifetime. <i>IEEE Transactions on Industry Applications</i> , 2018 , 54, 3656-3667	4.3	52
101	Spread Spectrum Modulation by Using Asymmetric-Carrier Random PWM. <i>IEEE Transactions on Industrial Electronics</i> , 2012 , 59, 3710-3718	8.9	49

100	Coupled thermal model of photovoltaic-thermoelectric hybrid panel for sample cities in Europe. <i>Renewable Energy</i> , 2016 , 99, 127-135	8.1	47
99	. <i>IEEE Transactions on Power Electronics</i> , 2018 , 33, 7273-7287	7.2	46
98	Analysis and Modeling of Interharmonics From Grid-Connected Photovoltaic Systems. <i>IEEE Transactions on Power Electronics</i> , 2018 , 33, 8353-8364	7.2	43
97	PV inverter test setup for European efficiency, static and dynamic MPPT efficiency evaluation 2008 ,		36
96	Comparative Study of Ramp-Rate Control Algorithms for PV with Energy Storage Systems. <i>Energies</i> , 2019 , 12, 1342	3.1	34
95	. <i>IEEE Transactions on Industrial Informatics</i> , 2014 , 10, 2270-2279	11.9	33
94	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
93	Mission Profile-Oriented Control for Reliability and Lifetime of Photovoltaic Inverters. <i>IEEE Transactions on Industry Applications</i> , 2020 , 56, 601-610	4.3	30
92	Optimized Maximum Power Point Tracker for fast changing environmental conditions 2008 ,		29
91	Review of mismatch mitigation techniques for PV modules. <i>IET Renewable Power Generation</i> , 2019 , 13, 2035-2050	2.9	28
90	Photovoltaic module diagnostics by series resistance monitoring and temperature and rated power estimation 2008 ,		28
89	Performance Analysis of Medium-Voltage Grid Integration of PV Plant Using Modular Multilevel Converter. <i>IEEE Transactions on Energy Conversion</i> , 2019 , 34, 1731-1740	5.4	27
88	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
87	A Direct Maximum Power Point Tracking Method for Single-Phase Grid-Connected PV Inverters. <i>IEEE Transactions on Power Electronics</i> , 2018 , 33, 8961-8971	7.2	26
86	A Dual-Discrete Model Predictive Control-Based MPPT for PV Systems. <i>IEEE Transactions on Power Electronics</i> , 2019 , 34, 9686-9697	7.2	26
85	Power Electronics and Control of Renewable Energy Systems 2007 ,		22
84	Detection of increased series losses in PV arrays using Fuzzy Inference Systems 2012 ,		21
83	Flat tie-line power scheduling control of grid-connected hybrid microgrids. <i>Applied Energy</i> , 2018 , 210, 786-799	10.7	20

82	Large Photovoltaic Power Plants Integration: A Review of Challenges and Solutions. <i>Energies</i> , 2019 , 12, 3798	3.1	20
81	Low-cost digital implementation of proportional-resonant current controllers for PV inverter applications using delta operator 2005 ,		20
80	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
79	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
78	. <i>IEEE Transactions on Industry Applications</i> , 2017 , 53, 3814-3820	4.3	18
77	Enhancing PV Inverter Reliability With Battery System Control Strategy. <i>CPSS Transactions on Power Electronics and Applications</i> , 2018 , 3, 93-101	3.5	16
76	Improved voltage regulation strategies by PV inverters in LV rural networks 2012 ,		16
75	Improved MPPT Algorithms for Rapidly Changing Environmental Conditions 2006 ,		15
74	Photovoltaic array condition monitoring based on online regression of performance model 2013 ,		14
73	Enhanced local grid voltage support method for high penetration of distributed generators 2011 ,		14
72	Robust series resistance estimation for diagnostics of photovoltaic modules 2009 ,		14
71	Automatic detection and evaluation of solar cell micro-cracks in electroluminescence images using matched filters 2016 ,		14
70	Three-phase Photovoltaic Systems: Structures, Topologies, and Control. <i>Electric Power Components and Systems</i> , 2015 , 43, 1364-1375	1	12
69	. <i>IEEE Journal of Photovoltaics</i> , 2020 , 10, 872-877	3.7	12
68	Interharmonics from grid-connected PV systems: Mechanism and mitigation 2017 ,		12
67	Quantifying solar cell cracks in photovoltaic modules by electroluminescence imaging 2015 ,		12
66	Dual-Input Quasi-Z-Source PV Inverter: Dynamic Modeling, Design, and Control. <i>IEEE Transactions on Industrial Electronics</i> , 2020 , 67, 6483-6493	8.9	11
65	. <i>IEEE Transactions on Industry Applications</i> , 2020 , 56, 2788-2798	4.3	10

64	Partial shadowing detection based on equivalent thermal voltage monitoring for PV module diagnostics 2009 ,		10
63	Detection of potential induced degradation in c-Si PV panels using electrical impedance spectroscopy 2016 ,		10
62	2013 ,		9
61	Dynamic Performance of Maximum Power Point Trackers in TEG Systems Under Rapidly Changing Temperature Conditions. <i>Journal of Electronic Materials</i> , 2016 , 45, 1309-1315	1.9	9
60	Arm Power Control of the Modular Multilevel Converter in Photovoltaic Applications. <i>Energies</i> , 2019 , 12, 1620	3.1	8
59	Solar Cell Capacitance Determination Based on an RLC Resonant Circuit. <i>Energies</i> , 2018 , 11, 672	3.1	8
58	Evaluation of Interconnection Configuration Schemes for PV Modules with Switched-Inductor Converters under Partial Shading Conditions. <i>Energies</i> , 2019 , 12, 2802	3.1	8
57	Implementation of PLL and FLL trackers for signals with high harmonic content and low sampling frequency 2014 ,		8
56	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
55	2018 ,		8
54	A practical optimization method for designing large PV plants 2011 ,		7
53	Comparative Assessment of PV Plant Performance Models Considering Climate Effects. <i>Electric Power Components and Systems</i> , 2017 , 45, 1381-1392	1	6
52	Impacts of PV array sizing on PV inverter lifetime and reliability 2017 ,		6
51	Development of outdoor luminescence imaging for drone-based PV array inspection 2017 ,		6
50	Machine learning prediction of defect types for electroluminescence images of photovoltaic panels 2019 ,		6
49	Delta power control strategy for multi-string grid-connected PV inverters 2016 ,		6
48	Advancements in Photovoltaic Cell and System Technologies. <i>International Journal of Photoenergy</i> , 2019 , 2019, 1-2	2.1	6
47	Lifetime evaluation of PV inverters considering panel degradation rates and installation sites 2017 ,		5

46	Leakage current measurement in transformerless PV inverters 2012 ,		5
45	Method for Estimation and Correction of Perspective Distortion of Electroluminescence Images of Photovoltaic Panels. <i>IEEE Journal of Photovoltaics</i> , 2020 , 10, 1797-1802	3.7	5
44	Model Predictive-Based Direct Battery Control in PV Fed Quasi Z-Source Inverters 2018 ,		5
43	Comparison of the reactive control strategies in low voltage network with photovoltaic generation and storage. <i>Thermal Science</i> , 2018 , 22, 887-896	1.2	5
42	Benchmark networks for grid integration impact studies of large PV plants 2013 ,		4
41	A low-disturbance diagnostic function integrated in the PV arraysMPPT algorithm 2011 ,		4
40	Condition Monitoring in Photovoltaic Systems by Semi-Supervised Machine Learning. <i>Energies</i> , 2020 , 13, 584	3.1	4
39	. <i>IEEE Transactions on Industrial Electronics</i> , 2021 , 68, 8231-8240	8.9	4
38	SNR Study of Outdoor Electroluminescence Images under High Sun Irradiation 2018 ,		4
37	Investigation of extra power loss sharing among photovoltaic inverters caused by reactive power management in distribution networks 2014 ,		3
36	Influence of resolution of the input data on distributed generation integration studies 2014 ,		3
35	Remote and centralized monitoring of PV power plants 2014 ,		3
34	Power ramp limitation and frequency support in large scale PVPPs without storage 2013 ,		3
33	Low-cost, high flexibility I _V curve tracer for photovoltaic modules 2010 ,		3
32	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
31	Resonance reduction for AC drives with small capacitance in the DC link 2016 ,		3
30	PV Module-Level CHB Inverter with Integrated Battery Energy Storage System. <i>Energies</i> , 2019 , 12, 4601	3.1	3
29	Correcting for Perspective Distortion in Electroluminescence Images of Photovoltaic Panels 2018 ,		3

28	Mission Profile-Oriented Control for Reliability and Lifetime of Photovoltaic Inverters 2018,		3
27	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
26	Case Study of Residential PV Power and Battery Storage with the Danish Flexible Pricing Scheme. <i>Energies</i> , 2019 , 12, 799	3.1	2
25	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
24	Modular Multilevel Converter for Photovoltaic Application with High Energy Yield under Uneven Irradiance. <i>Energies</i> , 2020 , 13, 2619	3.1	2
23	Harmonics Mitigation in Cascaded Multilevel PV Inverters During Power Imbalance Between Cells 2019,		2
22	Firefighter safety for PV systems: Overview of future requirements and protection systems 2013,		2
21	Effect of Battery Degradation on the Probabilistic Optimal Operation of Renewable-Based Microgrids. <i>Electricity</i> , 2022 , 3, 53-74	1	2
20	An overview of supercapacitors for integrated PV Energy storage panels 2021,		2
19	A Photovoltaic Module Diagnostic Setup for Lock-in Electroluminescence Imaging 2019,		2
18	2019,		2
17	A Cascaded H-Bridge With Integrated Boosting Circuit. <i>IEEE Transactions on Power Electronics</i> , 2021 , 36, 18-22	7.2	2
16	Enhancement of Electroluminescence images for fault detection in photovoltaic panels 2018,		2
15	Reliability Assessment of PV Inverters with Battery Systems Considering PV Self-Consumption and Battery Sizing 2018,		2
14	Outdoor electroluminescence acquisition using a movable testbed 2018,		2
13	Automatic Detection of Inactive Solar Cell Cracks in Electroluminescence Images 2017,		1
12	Optimum Sizing of Photovoltaic-Battery Power Supply for Drone-Based Cellular Networks. <i>Drones</i> , 2021 , 5, 138	5.4	1
11	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

10	Design and Implementation of a New Cuk-Based Step-Up DCDC Converter. <i>Energies</i> , 2021 , 14, 6975	3.1	1
9	A Simple Mismatch Mitigating Partial Power Processing Converter for Solar PV Modules. <i>Energies</i> , 2021 , 14, 2308	3.1	1
8	Test Platform for Rapid Prototyping of Digital Control for Power Electronic Converters 2019 ,		1
7	Test Platform for Photovoltaic Systems with Integrated Battery Energy Storage Applications 2018 ,		1
6	A Shadow Tolerant Configuration for PV Integration to Grid using Modular Multilevel Converter 2018 ,		1
5	Frequency Adaptive Digital Filter Implementation of Proportional-Resonant Controller for Inverter Applications 2018 ,		1
4	Stochastic Optimal Strategy for Power Management in Interconnected Multi-Microgrid Systems. <i>Electronics (Switzerland)</i> , 2022 , 11, 1424	2.6	1
3	In-Situ Measurement of Power Loss for Crystalline Silicon Modules Undergoing Thermal Cycling and Mechanical Loading Stress Testing. <i>Energies</i> , 2021 , 14, 72	3.1	0
2	Photovoltaic System in Progress: A Survey of Recent Development. <i>Communications in Computer and Information Science</i> , 2014 , 239-250	0.3	0
1	Reconfigurable Distributed Power Electronics Technique for Solar PV Systems. <i>Electronics (Switzerland)</i> , 2021 , 10, 1121	2.6	0