

Pietro Romano

List of Publications by Year in descending order

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124
papers

1,803
citations

516215

16
h-index

414034

32
g-index

124
all docs

124
docs citations

124
times ranked

939
citing authors

#	ARTICLE	IF	CITATIONS
1	Reconfigurable electrical interconnection strategies for photovoltaic arrays: A review. Renewable and Sustainable Energy Reviews, 2014, 33, 412-426.	8.2	163
2	Review of space charge measurement systems: acoustic, thermal and optical methods. IEEE Transactions on Dielectrics and Electrical Insulation, 2016, 23, 3126-3142.	1.8	105
3	Dynamic programming and Munkres algorithm for optimal photovoltaic arrays reconfiguration. Solar Energy, 2015, 122, 347-358.	2.9	82
4	On PD mechanisms at high temperature in voids included in an epoxy resin. IEEE Transactions on Dielectrics and Electrical Insulation, 2001, 8, 589-597.	1.8	77
5	Optimization of photovoltaic energy production through an efficient switching matrix. Journal of Sustainable Development of Energy, Water and Environment Systems, 2013, 1, 227-236.	0.9	65
6	Reconfiguration Techniques of Partial Shaded PV Systems for the Maximization of Electrical Energy Production. , 2007, , .		58
7	Finite difference time domain simulation of earth electrodes soil ionisation under lightning surge condition. IET Science, Measurement and Technology, 2008, 2, 134-145.	0.9	55
8	Increasing efficiency of photovoltaic systems under non-homogeneous solar irradiation using improved Dynamic Programming methods. Solar Energy, 2017, 150, 325-334.	2.9	54
9	Piezoelectric Rainfall Energy Harvester Performance by an Advanced Arduino-Based Measuring System. IEEE Transactions on Industry Applications, 2018, 54, 458-468.	3.3	39
10	Harvesting rainfall energy by means of piezoelectric transducer. , 2013, , .		37
11	Technical and Economical Evaluation on the Use of Reconfiguration Systems in Some EU Countries for PV Plants. IEEE Transactions on Industry Applications, 2017, 53, 1308-1315.	3.3	37
12	A new approach to partial discharge detection under DC voltage. IEEE Electrical Insulation Magazine, 2018, 34, 32-41.	1.1	37
13	Partial Discharge Detection Using a Spherical Electromagnetic Sensor. Sensors, 2019, 19, 1014.	2.1	36
14	Economical evaluation of ecological benefits of the demand side management. , 2014, , .		33
15	Experimental analysis with FPGA controller-based of MC PWM techniques for three-phase five level cascaded H-bridge for PV applications. , 2016, , .		33
16	An economic study about the installation of PV plants reconfiguration systems in Italy. , 2014, , .		32
17	Proof of Concept of an Irradiance Estimation System for Reconfigurable Photovoltaic Arrays. Energies, 2015, 8, 6641-6657.	1.6	30
18	Contributed Review: Review of thermal methods for space charge measurement. Review of Scientific Instruments, 2016, 87, 111501.	0.6	28

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19	Review of the PEA Method for Space Charge Measurements on HVDC Cables and Mini-Cables. Energies, 2019, 12, 3512.	1.6	28
20	Piezoelectric model of rainfall energy harvester. , 2014, , .		26
21	How is the spread of the Electric Vehicles?. , 2015, , .		26
22	Recharge stations: A review. , 2016, , .		24
23	Different Scenarios of Electric Mobility: Current Situation and Possible Future Developments of Fuel Cell Vehicles in Italy. Sustainability, 2020, 12, 564.	1.6	24
24	Review of acoustic methods for space charge measurement. , 2015, , .		23
25	Space charges and partial discharges simultaneous measurements under DC stress. , 2016, , .		22
26	Design and experimental characterization of a low-cost, real-time, wireless AC monitoring system based on ATmega 328P-PU microcontroller. , 2015, , .		20
27	Influence on PD parameters due to voltage conducted disturbances. IEEE Transactions on Dielectrics and Electrical Insulation, 2004, 11, 160-165.	1.8	19
28	Simplified hybrid PD model in voids. , 2011, , .		19
29	A Dynamic Electrical Scheme for the Optimal Reconfiguration of PV Modules under Non-Homogeneous Solar Irradiation. Applied Mechanics and Materials, 0, 197, 768-777.	0.2	18
30	Partial discharges on IGBT modules: Are sinusoidal waveforms sufficient to evaluate behavior?. , 2014, , .		18
31	Electric vehicles impact using renewable energy. , 2015, , .		18
32	Experimental Investigation on the Performances of Innovative PV Vertical Structures. Photonics, 2019, 6, 86.	0.9	18
33	Electric Mobility in Portugal: Current Situation and Forecasts for Fuel Cell Vehicles. Energies, 2021, 14, 7945.	1.6	18
34	Simplified hybrid PD model in voids: Pattern validation. , 2013, , .		17
35	Survey on power increase of power by employment of PV reconfigurator. , 2015, , .		17
36	Economic evaluation of PV system for EV charging stations: Comparison between matching maximum orientation and storage system employment. , 2016, , .		17

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37	Partial discharges at different voltage waveshapes: Comparison between two different acquisition systems. IEEE Transactions on Dielectrics and Electrical Insulation, 2018, 25, 584-593.	1.8	16
38	A novel HV system for multi specimens aging tests under partial discharges and temperature. , 0, , .		15
39	Wireless partial discharge tracking on cross-linked polyethylene MV and HV cables. IEEE Electrical Insulation Magazine, 2018, 34, 8-17.	1.1	15
40	A hierarchical architecture for increasing efficiency of large photovoltaic plants under non-homogeneous solar irradiation. Solar Energy, 2019, 188, 1306-1319.	2.9	15
41	The Industrial Applicability of PEA Space Charge Measurements, for Performance Optimization of HVDC Power Cables. Energies, 2019, 12, 4186.	1.6	15
42	Economic benefits of the use of a PV plants reconfiguration systems. , 2015, , .		14
43	Partial discharge of gel insulated high voltage power modules subjected to unconventional voltage waveforms. , 2016, , .		14
44	Nanostructured lead acid battery for electric vehicles applications. , 2017, , .		14
45	A new technique for partial discharges measurement under DC periodic stress. , 2017, , .		14
46	Performance of the shape of Partial Discharge signal wireless probes. , 2013, , .		12
47	Space charge behavior of different insulating materials employed in AC and DC cable systems. , 2017, , .		12
48	A low-cost, real-time monitoring system for PV plants based on ATmega 328P-PU microcontroller. , 2015, , .		11
49	On the harvest of rainfall energy by means of piezoelectric transducer. , 2013, , .		10
50	Partial Discharge Measurements under DC Voltages Containing Harmonics Produced by Power Electronic Devices. , 2018, , .		10
51	Finite-Difference Time-Domain Simulation of Towers Cascade Under Lightning Surge Conditions. IEEE Transactions on Industry Applications, 2015, 51, 4917-4923.	3.3	9
52	Partial discharges behavior under different rectified waveforms. , 2017, , .		9
53	A New Approach to Partial Discharge Detection Under DC Voltage: Application to Different Materials. IEEE Electrical Insulation Magazine, 2021, 37, 18-32.	1.1	9
54	Partial Discharges in HVDC Cables - The Effect of the Temperature Gradient During Load Transients. IEEE Transactions on Dielectrics and Electrical Insulation, 2021, 28, 1767-1774.	1.8	9

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55	Simulation of a single-phase five-level cascaded H-Bridge inverter with multicarrier SPWM B-Spline based modulation techniques. , 2017, , .		8
56	Different Space Charge Behavior of Materials Used in AC and DC Systems. , 2017, , .		8
57	The Role of Right Interpretation of Space Charge Distribution for Optimized Design of HVDC Cables. IEEE Transactions on Industry Applications, 2019, 55, 7165-7174.	3.3	8
58	A life model for epoxy resins subjected to PD activity at different temperatures. , 0, , .		7
59	Partial discharge behavior under single phase half and full-bridge rectifier. , 2017, , .		7
60	Space Charge Measurement Under DC and DC Periodic Waveform. , 2018, , .		7
61	Pulsed Electro-Acoustic Method for specimens and cables employed in HVDC systems: some feasibility considerations. , 2018, , .		7
62	Dynamic Reconfiguration Systems for PV Plant: Technical and Economic Analysis. Energies, 2020, 13, 2004.	1.6	7
63	Analysis of partial discharge activity at different temperatures through an heuristic algorithm. , 0, , .		6
64	Optimisation of a numerical model for analysis of partial discharge phenomena in a flat cavity. , 0, , .		6
65	Effect of Acoustic Wave Reflections on Space Charge Measurements with PEA Method. , 2018, , .		6
66	Experimental investigation on different rainfall energy harvesting structures. , 2018, , .		6
67	The Effect of the Axial Heat Transfer on Space Charge Accumulation Phenomena in HVDC Cables. Energies, 2020, 13, 4827.	1.6	6
68	Reliability of PEA Measurement in Presence of an Air Void Defect. Energies, 2020, 13, 5652.	1.6	6
69	Searching for PD-based indexes able to infer the location of internal defects in insulation. , 0, , .		5
70	The Acoustic Wave Behavior Within the PEA Cell for Space Charge Measurement. , 2018, , .		5
71	Interpretation of PEA Output Signal in a Multilayer Specimen. , 2018, , .		5
72	Modelling, simulation and characterization of Li-Ion battery cell. , 2019, , .		5

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73	Influence on PD parameters due to distorted voltage. , 0, , .		4
74	PV systems in the vertical walls: A comparison of innovative structures. , 2016, , .		4
75	From electric mobility to hydrogen mobility: current state and possible future expansions. , 2020, , .		4
76	Space charge accumulation in undersea HVDC cables as function of heat exchange conditions at the boundaries " water-air interface. , 2020, , .		4
77	Rainfall Energy Harvester. Advances in Environmental Engineering and Green Technologies Book Series, 2015, , 116-142.	0.3	4
78	on investigation of PD aging of epoxy resin under distorted voltage. , 0, , .		3
79	Numerical simulation of PD activity in a spherical cavity embedded in the stator winding insulation of an inverter-fed induction motor. , 0, , .		3
80	Electromagnetic radiated field measurements for partial discharge diagnostic. , 0, , .		3
81	An improved MSD-based method for PD pattern recognition. , 2007, , .		3
82	Building Partial Discharge Signal Wireless Probes. , 0, , .		3
83	Comparison on the use of PV systems in the vertical walls. , 2015, , .		3
84	Performance of the glass block in photovoltaic generation. , 2015, , .		3
85	Economic evaluation on the use of reconfiguration systems for increase of energy production in PV plants. , 2016, , .		3
86	Measuring rain energy with the employment of "Arduino", 2016, , .		3
87	PD characteristics at square shaped voltages applying two different detecting techniques. , 2016, , .		3
88	Remote voltage synchronization for wireless Partial Discharge diagnostics. , 2016, , .		3
89	A Smart Sensing Method for Real- Time Monitoring of Low Voltage Series-Arc-Fault. , 2020, , .		3
90	Time Evolution of Partial Discharges in a Dielectric Subjected to the DC Periodic Voltage. Energies, 2022, 15, 2052.	1.6	3

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91	An improved MSD-based method for PD defects classification. , 2006, , .		2
92	Wireless Power Transmission for house appliances: A small-scale resonant coupling prototype. , 2016, , .		2
93	Comparison between Different Dynamic Reconfigurations of Electrical Connections for partially shaded PV Modules. , 2018, , .		2
94	Detection of Partial Discharges at Square Shaped Voltages. , 2018, , .		2
95	Electromagnetic Full-Wave Simulation of Partial Discharge Detection in High Voltage AC Cables. , 2019, , .		2
96	Acoustic Wave Behavior in a Specimen Containing an Air Void Defect. , 2019, , .		2
97	The Partial Discharge Behavior of Different Materials Under DC Periodic Stress. , 2019, , .		2
98	Effect of Heat Exchange Transient Conditions With Moving Water-Air Interface on Space Charge Accumulation in Undersea HVdc Cables. IEEE Transactions on Industry Applications, 2021, 57, 4528-4536.	3.3	2
99	Effect of Space charge accumulation inside the thermoplastic insulation of a loaded HVDC model cable. , 2021, , .		2
100	Partial discharge on-line measures in cable's EPR insulation. , 0, , .		1
101	Effect of high frequency conducted disturbances on the interturn insulation of an inverter-fed induction motor. , 0, , .		1
102	A novel flexible approach for prediction and on line diagnostic of partial discharge. , 0, , .		1
103	A digital device for the diagnosis of insulation systems. , 0, , .		1
104	A combined CWT-DWT method using model-based design simulator for partial discharges online detection. , 2009, , .		1
105	Finite-difference time-domain simulation of tower and grounding subjected to lightning. , 2015, , .		1
106	Overcoming synchronization issues in wireless technology Partial Discharge measurement. , 2016, , .		1
107	The strategies for the diffusion of EVs: Focus on Norway and Italy. , 2017, , .		1
108	Partial discharge detection and localization along medium voltage cables. , 2017, , .		1

#	ARTICLE	IF	CITATIONS
109	Partial Discharges Diagnostics Along Medium Voltage Cables. , 2018, , .		1
110	Unmanned Aerial Vehicle-Based Non Destructive Diagnostics. , 2018, , .		1
111	Different Measurement Setup Configurations for Space Charge test in Mini Cable Specimens with the PEA Method. , 2019, , .		1
112	Design of Soft Ferrite filters for EMI reduction in Power Conversion Systems. , 2019, , .		1
113	Polarity reversal in HVDC joints - the effect of the axial thermal conduction. , 2020, , .		1
114	Effect of Polarity Reversal on the Partial Discharge Phenomena. , 2020, , .		1
115	PD performance of dielectric insulations in presence of low frequency conducted disturbances: a life model approach. , 0, , .		0
116	Android tool to evaluate grounding resistance. , 2015, , .		0
117	Local DoS applications with micro wind generation systems. , 2015, , .		0
118	An Optimization Device for Series Parallel Connected PV Plants. Lecture Notes in Electrical Engineering, 2017, , 227-236.	0.3	0
119	Photovoltaic facade: Comparison of actual technologies. , 2017, , .		0
120	The Effect of the Harmonic Content Generated by AC/DC Modular Multilevel Converters on HVDC Cable Systems. , 2019, , .		0
121	A new approach to calibrate the thermal conditions in space charge measurements on HVDC mini-cables. , 2019, , .		0
122	Deformation of bubbles in silicon gel insulation under an alternating electric field. , 2019, , .		0
123	The effect of Transient Over Voltages on the Partial Discharges activity in HVDC joints. , 2021, , .		0
124	Investigation on partial discharges in HVDC cables after polarity reversal events. , 2020, , .		0