

Pablo Sanchis

List of Publications by Year in descending order

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123
papers

6,381
citations

101496

36
h-index

161767

54
g-index

123
all docs

123
docs citations

123
times ranked

5761
citing authors

#	ARTICLE	IF	CITATIONS
1	Monitoring of Electric Buses Within an Urban Smart City Environment. IEEE Sensors Journal, 2022, 22, 11364-11372.	2.4	10
2	Noninvasive Aging Analysis of Lithium-Ion Batteries in Extreme Cold Temperatures. IEEE Transactions on Industry Applications, 2022, 58, 2400-2410.	3.3	5
3	Winding Resistance Measurement in Power Inductors - Understanding the Impact of the Winding Mutual Resistance. IEEE Access, 2021, 9, 92224-92238.	2.6	8
4	Control Design and Stability Analysis of Power Converters: The Discrete Generalized Bode Criterion. IEEE Access, 2021, 9, 37840-37854.	2.6	3
5	Experimental Assessment of First- and Second-Life Electric Vehicle Batteries: Performance, Capacity Dispersion, and Aging. IEEE Transactions on Industry Applications, 2021, 57, 4107-4117.	3.3	24
6	Energy management for an electro-thermal renewable-based residential microgrid with energy balance forecasting and demand side management. Applied Energy, 2021, 295, 117062.	5.1	50
7	An Energy Management System Design Using Fuzzy Logic Control: Smoothing the Grid Power Profile of a Residential Electro-Thermal Microgrid. IEEE Access, 2021, 9, 25172-25188.	2.6	57
8	Medium-Voltage Cascaded Sequential Topology for Large-Scale PV Plants. IEEE Access, 2021, 9, 130601-130614.	2.6	4
9	Dynamic modeling and simulation of a pressurized alkaline water electrolyzer: a multiphysics approach. , 2021, , .		3
10	Inertial Response and Inertia Emulation in DFIG and PMSG Wind Turbines: Emulating Inertia from a Supercapacitor-based Energy Storage System. , 2021, , .		1
11	Applied method to model the thermal runaway of lithium-ion batteries. , 2021, , .		5
12	DC Capacitance Reduction in Photovoltaic Inverters based on PV Voltage Feed-Forward Compensation. , 2021, , .		2
13	Integration of second-life battery packs for self-consumption applications: analysis of a real experience. , 2021, , .		5
14	Control Design and Stability Analysis of Power Converters: The MIMO Generalized Bode Criterion. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2020, 8, 1880-1893.	3.7	25
15	Development of energy management strategies for the sizing of a fast charging station for electric buses. , 2020, , .		9
16	Experimental assessment of cycling ageing of lithium-ion second-life batteries from electric vehicles. Journal of Energy Storage, 2020, 32, 101695.	3.9	67
17	On the technical reliability of Lithium-ion batteries in a zero emission polar expedition. , 2020, , .		2
18	Identification of Critical Parameters for the Design of Energy Management Algorithms for Li-Ion Batteries Operating in PV Power Plants. IEEE Transactions on Industry Applications, 2020, 56, 4670-4678.	3.3	17

#	ARTICLE	IF	CITATIONS
19	Active control for medium-frequency transformers flux-balancing in a novel three-phase topology for cascaded conversion structures. , 2020, , .		1
20	Control of a Photovoltaic Array Interfacing Current-Mode-Controlled Boost Converter Based on Virtual Impedance Emulation. IEEE Transactions on Industrial Electronics, 2019, 66, 3496-3506.	5.2	16
21	Analysis of the main battery characterization techniques and experimental comparison of commercial 18650 Li-ion cells. , 2019, , .		12
22	Critical comparison of energy management algorithms for lithium-ion batteries in renewable power plants. , 2019, , .		3
23	Parameter-Independent Battery Control Based on Series and Parallel Impedance Emulation. IEEE Access, 2019, 7, 70021-70031.	2.6	2
24	Lithium-ion batteries as distributed energy storage systems for microgrids. , 2019, , 143-183.		7
25	Influence of renewable power fluctuations on the lifetime prediction of lithium-ion batteries in a microgrid environment. , 2019, , .		3
26	Supercapacitors: Electrical Characteristics, Modeling, Applications, and Future Trends. IEEE Access, 2019, 7, 50869-50896.	2.6	153
27	On the requirements of the power converter for second-life lithium-ion batteries. , 2019, , .		3
28	DC Capacitance Reduction in Three-Phase Photovoltaic Inverters by using Virtual Impedance Emulation. , 2019, , .		7
29	A Review of Fuzzy-Based Residential Grid-Connected Microgrid Energy Management Strategies for Grid Power Profile Smoothing. Energy, Environment, and Sustainability, 2019, , 165-199.	0.6	17
30	On the Stability of Advanced Power Electronic Converters: The Generalized Bode Criterion. IEEE Transactions on Power Electronics, 2019, 34, 9247-9262.	5.4	21
31	Methodology for sizing stand-alone hybrid systems: A case study of a traffic control system. Energy, 2018, 153, 870-881.	4.5	21
32	Parameter-Independent Control for Battery Chargers Based on Virtual Impedance Emulation. IEEE Transactions on Power Electronics, 2018, 33, 8848-8858.	5.4	12
33	Fuzzy Logic-Based Energy Management System Design for Residential Grid-Connected Microgrids. IEEE Transactions on Smart Grid, 2018, 9, 530-543.	6.2	230
34	A comprehensive model for lithium-ion batteries: From the physical principles to an electrical model. Energy, 2018, 144, 286-300.	4.5	78
35	Fuzzy-based energy management of a residential electro-thermal microgrid based on power forecasting. , 2018, , .		8
36	Influence of the Aging Model of Lithium-Ion Batteries on the Management of PV Self-Consumption Systems. , 2018, , .		12

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37	Design of Virtual Inductor Emulation for Soft Transition from Islanded Mode to Grid-Connected Operation. , 2018, , .		0
38	Evaluating engineering competencies in curricular internships. , 2018, , .		1
39	Combined dynamic programming and region-elimination technique algorithm for optimal sizing and management of lithium-ion batteries for photovoltaic plants. Applied Energy, 2018, 228, 1-11.	5.1	44
40	Energy Management of AC-Isolated Microgrids Based on Distributed Storage Systems and Renewable Energy Sources. Green Energy and Technology, 2017, , 327-379.	0.4	0
41	Low complexity energy management strategy for grid profile smoothing of a residential grid-connected microgrid using generation and demand forecasting. Applied Energy, 2017, 205, 69-84.	5.1	116
42	Fuzzy energy management strategy based on microgrid energy rate-of-change applied to an electro-thermal residential microgrid. , 2017, , .		12
43	New organizational and assessment frameworks for company internship programs. , 2017, , .		2
44	On the stability criteria for inverter current control loops with LCL output filters and varying grid impedance. , 2017, , .		4
45	Control strategy for an integrated photovoltaic-battery system. , 2017, , .		1
46	Comparison of State-of-Charge estimation methods for stationary Lithium-ion batteries. , 2016, , .		16
47	Energy management strategy for a grid-tied residential microgrid based on Fuzzy Logic and power forecasting. , 2016, , .		13
48	Control of a photovoltaic array interfacing current mode controlled boost converter based on virtual resistance emulation. , 2016, , .		1
49	Integration of commercial alkaline water electrolyzers with renewable energies: Limitations and improvements. International Journal of Hydrogen Energy, 2016, 41, 12852-12861.	3.8	63
50	Design of flexible cost-efficient international engineering curricula at Public University of Navarre. , 2015, , .		2
51	“24 hours of innovation”: A trans-pyrenean challenge initiative. , 2015, , .		2
52	Frequency-based energy management of stand-alone systems: Design of the control parameters for high versatility. , 2015, , .		1
53	Optimal DC gapped inductor design including high-frequency effects. , 2015, , .		7
54	Lithium-ion battery model and experimental validation. , 2015, , .		10

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55	Redefining best practices in company internships. , 2015, , .		0
56	High-frequency effects and minimum size design methodology for SMPS transformers with solid round conductors. , 2015, , .		0
57	Energy harvesting microsystems based on the QFG MOS transistors. , 2015, , .		4
58	High-Frequency Power Transformers With Foil Windings: Maximum Interleaving and Optimal Design. IEEE Transactions on Power Electronics, 2015, 30, 5712-5723.	5.4	53
59	Analytical Design Methodology for Litz-Wired High-Frequency Power Transformers. IEEE Transactions on Industrial Electronics, 2015, 62, 2103-2113.	5.2	72
60	State-of-charge-based droop control for stand-alone AC supply systems with distributed energy storage. Energy Conversion and Management, 2015, 106, 709-720.	4.4	42
61	Energy management strategy for a renewable-based residential microgrid with generation and demand forecasting. Applied Energy, 2015, 158, 12-25.	5.1	174
62	Optimal Fuzzy Logic EMS design for residential grid-connected microgrid with hybrid renewable generation and storage. , 2015, , .		22
63	Frequency-Based Energy-Management Strategy for Stand-Alone Systems With Distributed Battery Storage. IEEE Transactions on Power Electronics, 2015, 30, 4794-4808.	5.4	56
64	Modelling of PEM Fuel Cell Performance: Steady-State and Dynamic Experimental Validation. Energies, 2014, 7, 670-700.	1.6	77
65	Implementation and Control of a Residential Electrothermal Microgrid Based on Renewable Energies, a Hybrid Storage System and Demand Side Management. Energies, 2014, 7, 210-237.	1.6	53
66	Analysis of women enrollment in Engineering programs at the Public University of Navarre. , 2014, , .		4
67	Comparison of linear and small-signal models for inverter-based microgrids. , 2014, , .		4
68	Improved fuzzy controller design for battery energy management in a grid connected microgrid. , 2014, , .		12
69	Electro-thermal modelling of a supercapacitor and experimental validation. Journal of Power Sources, 2014, 259, 154-165.	4.0	51
70	Energy management strategy for a battery-diesel stand-alone system with distributed PV generation based on grid frequency modulation. Renewable Energy, 2014, 66, 325-336.	4.3	40
71	Small Wind Turbine Sensorless MPPT: Robustness Analysis and Lossless Approach. IEEE Transactions on Industry Applications, 2014, 50, 4113-4121.	3.3	42
72	University-industry collaboration chairs: Initiatives at the Public University of Navarre. , 2014, , .		7

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73	The influence of gender in the adoption of engineering studies. , 2014, , .		0
74	The role of university-industry liaisons in achieving comprehensive curricula in engineering. , 2014, , .		2
75	Fostering Industry-Academia synergies in the curricular development of engineering education. , 2014, , .		1
76	Fuzzy logic controller design for battery energy management in a grid connected electro-thermal microgrid. , 2014, , .		10
77	RMS voltage control with harmonic compensation for parallel-connected inverters feeding non-linear loads. , 2014, , .		1
78	Engineering international programs at the public university of Navarre: A satisfactory on-going experience in a context of industrial globalization. , 2014, , .		1
79	The role of university-industry liaisons to enhance engineering curricular development. , 2014, , .		1
80	Integration of fuel cells and supercapacitors in electrical microgrids: Analysis, modelling and experimental validation. International Journal of Hydrogen Energy, 2013, 38, 11655-11671.	3.8	46
81	Small Wind turbines sensorless MPPT: Robustness analysis and lossless approach. , 2013, , .		4
82	Engineering outreach programs at the Public University of Navarre: A holistic approach. , 2013, , .		6
83	Stand-alone operation of an alkaline water electrolyser fed by wind and photovoltaic systems. International Journal of Hydrogen Energy, 2013, 38, 14952-14967.	3.8	77
84	Modeling of small wind turbines based on PMSG with diode bridge for sensorless maximum power tracking. Renewable Energy, 2013, 55, 138-149.	4.3	94
85	Adaptive Voltage Control of the DC/DC Boost Stage in PV Converters With Small Input Capacitor. IEEE Transactions on Power Electronics, 2013, 28, 5038-5048.	5.4	88
86	Electric Conditioning and Efficiency of Hydrogen Production Systems and Their Integration with Renewable Energies. , 2013, , 333-360.		9
87	Implementation and control of a residential microgrid based on renewable energy sources, hybrid storage systems and thermal controllable loads. , 2013, , .		7
88	Modelling, improvement and experimental validation of a 50 kHz-5 kVA litz-wired transformer for PV inverters. , 2013, , .		3
89	Limiting the power generated by a photovoltaic system. , 2013, , .		42
90	Design of a Programmable Power Supply to study the performance of an alkaline electrolyser under different operating conditions. , 2012, , .		8

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91	Battery management fuzzy control for a grid- tied microgrid with renewable generation. , 2012, , .		28
92	Staticâ€“dynamic modelling of the electrical behaviour of a commercial advanced alkaline water electrolyser. International Journal of Hydrogen Energy, 2012, 37, 18598-18614.	3.8	122
93	Hydrogen Production From Water Electrolysis: Current Status and Future Trends. Proceedings of the IEEE, 2012, 100, 410-426.	16.4	1,037
94	Corrections to â€œHydrogen Production From Water Electrolysis: Current Status and Future Trendsâ€• [Feb 12 410-426]. Proceedings of the IEEE, 2012, 100, 811-811.	16.4	10
95	Primary regulation strategies applicable to wind farms coupled with hydrogen production systems. , 2011, , .		4
96	Wind-photovoltaic hybrid systems design. , 2010, , .		12
97	EMI filter inductor size for transformerless PV systems based on the full bridge structure. , 2010, , .		6
98	Influence of the power supply on the energy efficiency of an alkaline water electrolyser. International Journal of Hydrogen Energy, 2009, 34, 3221-3233.	3.8	107
99	Thermal performance of a commercial alkaline water electrolyzer: Experimental study and mathematical modeling. International Journal of Hydrogen Energy, 2008, 33, 7338-7354.	3.8	177
100	Control of Doubly Fed Induction Generator under symmetrical voltage dips. , 2008, , .		40
101	Wind Turbines Based on Doubly Fed Induction Generator Under Asymmetrical Voltage Dips. IEEE Transactions on Energy Conversion, 2008, 23, 321-330.	3.7	333
102	Robust adjustable speed drive with active filtering and regenerative braking capability. , 2008, , .		3
103	Dynamic Behavior of the Doubly Fed Induction Generator During Three-Phase Voltage Dips. IEEE Transactions on Energy Conversion, 2007, 22, 709-717.	3.7	467
104	Transformerless Inverter for Single-Phase Photovoltaic Systems. IEEE Transactions on Power Electronics, 2007, 22, 693-697.	5.4	572
105	Renewable Hydrogen Production:Â Performance of an Alkaline Water Electrolyzer Working under Emulated Wind Conditions. Energy & Fuels, 2007, 21, 1699-1706.	2.5	177
106	Ground currents in single-phase transformerless photovoltaic systems. Progress in Photovoltaics: Research and Applications, 2007, 15, 629-650.	4.4	249
107	On the testing, characterization, and evaluation of PV inverters and dynamic MPPT performance under real varying operating conditions. Progress in Photovoltaics: Research and Applications, 2007, 15, 541-556.	4.4	61
108	Energy-Sampled Data Modeling of a Cascade H-Bridge Multilevel Converter for Grid-connected PV Systems. , 2006, , .		35

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109	High-Efficiency Transformerless Single-phase Photovoltaic Inverter. , 2006, , .		4
110	Boost DC-AC Inverter: A New Control Strategy. IEEE Transactions on Power Electronics, 2005, 20, 343-353.	5.4	258
111	Design and experimental operation of a control strategy for the buck-boost DC-AC Inverter. IET Electric Power Applications, 2005, 152, 660.	1.4	47
112	Frequency Domain Model of Conducted EMI in Electrical Drives. IEEE Power Electronics Letters, 2005, 3, 45-49.	1.1	47
113	Electronic Controlled Device for the Analysis and Design of Photovoltaic Systems. IEEE Power Electronics Letters, 2005, 3, 57-62.	1.1	37
114	Design methodology for the frequency shift method of islanding prevention and analysis of its detection capability. Progress in Photovoltaics: Research and Applications, 2005, 13, 409-428.	4.4	27
115	Equipment for the analysis of the maximum energy of real photovoltaic systems. , 2005, , .		3
116	Control of three-phase stand-alone photovoltaic systems with unbalanced loads. , 2005, , .		10
117	A New Current Control Strategy for Three-Phase Rectifiers. EPE Journal (European Power Electronics) Tj ETQq1 1 0.784314 rgBT /Over 0.7 83		3
118	Analysis of neutral-point voltage balancing problem in three-level neutral-point-clamped inverters with SVPWM modulation. , 0, , .		22
119	Electronic converter for the analysis of photovoltaic arrays and inverters. , 0, , .		21
120	Cascaded H-bridge multilevel converter for grid connected photovoltaic generators with independent maximum power point tracking of each solar array. , 0, , .		133
121	Operation and control of a high performance inverter consisting of a buck-boost and a zero switching losses H-bridge for photovoltaic systems. , 0, , .		1
122	High frequency filter techniques for inverter-fed motors. , 0, , .		2
123	Buck-boost DC-AC inverter: proposal for a new control strategy. , 0, , .		15