

# Pedro J Perez-Higueras

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8422979/publications.pdf>

Version: 2024-02-01

73  
papers

2,667  
citations

147566

31  
h-index

182168

51  
g-index

74  
all docs

74  
docs citations

74  
times ranked

1919  
citing authors

#	ARTICLE	IF	CITATIONS
1	High Concentrator PhotoVoltaics efficiencies: Present status and forecast. <i>Renewable and Sustainable Energy Reviews</i> , 2011, 15, 1810-1815.	8.2	161
2	A methodology based on dynamic artificial neural network for short-term forecasting of the power output of a PV generator. <i>Energy Conversion and Management</i> , 2014, 85, 389-398.	4.4	161
3	Calculation of the energy provided by a PV generator. Comparative study: Conventional methods vs. artificial neural networks. <i>Energy</i> , 2011, 36, 375-384.	4.5	121
4	Proposal for a combined methodology for renewable energy planning. Application to a Spanish region. <i>Renewable and Sustainable Energy Reviews</i> , 2009, 13, 2022-2030.	8.2	119
5	A new estimation method of irradiance on a partially shaded PV generator in grid-connected photovoltaic systems. <i>Renewable Energy</i> , 2008, 33, 2048-2056.	4.3	115
6	Univer Project. A grid connected photovoltaic system of 200kWp at Ja�n University. Overview and performance analysis. <i>Solar Energy Materials and Solar Cells</i> , 2007, 91, 670-683.	3.0	101
7	Calculation of the cell temperature of a high concentrator photovoltaic (HCPV) module: A study and comparison of different methods. <i>Solar Energy Materials and Solar Cells</i> , 2014, 121, 144-151.	3.0	87
8	Levelised cost of electricity in high concentrated photovoltaic grid connected systems: Spatial analysis of Spain. <i>Applied Energy</i> , 2015, 151, 49-59.	5.1	82
9	Models for the electrical characterization of high concentration photovoltaic cells and modules: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2013, 26, 752-760.	8.2	80
10	Classification of methods for annual energy harvesting calculations of photovoltaic generators. <i>Energy Conversion and Management</i> , 2014, 78, 527-536.	4.4	78
11	Outdoor evaluation of concentrator photovoltaic systems modules from different manufacturers: first results and steps. <i>Progress in Photovoltaics: Research and Applications</i> , 2013, 21, 693-701.	4.4	76
12	Estimation of the energy of a PV generator using artificial neural network. <i>Renewable Energy</i> , 2009, 34, 2743-2750.	4.3	75
13	Relation between the cell temperature of a HCPV module and atmospheric parameters. <i>Solar Energy Materials and Solar Cells</i> , 2012, 105, 322-327.	3.0	67
14	A two subcell equivalent solar cell model for III�V triple junction solar cells under spectrum and temperature variations. <i>Solar Energy</i> , 2013, 92, 221-229.	2.9	65
15	Estimating the maximum power of a High Concentrator Photovoltaic (HCPV) module using an Artificial Neural Network. <i>Energy</i> , 2013, 53, 165-172.	4.5	63
16	Assessment of cost-competitiveness and profitability of fixed and tracking photovoltaic systems: The case of five specific sites. <i>Renewable Energy</i> , 2019, 134, 902-913.	4.3	60
17	Review of methods for the calculation of cell temperature in high concentration photovoltaic modules for electrical characterization. <i>Renewable and Sustainable Energy Reviews</i> , 2014, 38, 478-488.	8.2	59
18	Assessment of the renewable energies potential for intensive electricity production in the province of Ja�n, southern Spain. <i>Renewable and Sustainable Energy Reviews</i> , 2012, 16, 2994-3001.	8.2	57

#	ARTICLE	IF	CITATIONS
19	Quantification of the spectral coupling of atmosphere and photovoltaic system performance: Indexes, methods and impact on energy harvesting. <i>Solar Energy Materials and Solar Cells</i> , 2017, 163, 73-90.	3.0	56
20	A >3000 suns high concentrator photovoltaic design based on multiple Fresnel lens primaries focusing to one central solar cell. <i>Solar Energy</i> , 2018, 169, 457-467.	2.9	55
21	Efficiency and acceptance angle of High Concentrator Photovoltaic modules: Current status and indoor measurements. <i>Renewable and Sustainable Energy Reviews</i> , 2018, 94, 143-153.	8.2	51
22	Model for the prediction of the maximum power of a high concentrator photovoltaic module. <i>Solar Energy</i> , 2013, 97, 12-18.	2.9	48
23	A worldwide assessment of levelised cost of electricity of HCPV systems. <i>Energy Conversion and Management</i> , 2016, 127, 679-692.	4.4	45
24	A model based on artificial neuronal network for the prediction of the maximum power of a low concentration photovoltaic module for building integration. <i>Solar Energy</i> , 2014, 100, 148-158.	2.9	42
25	A worldwide assessment of economic feasibility of HCPV power plants: Profitability and competitiveness. <i>Energy</i> , 2017, 119, 408-424.	4.5	42
26	A simple accurate model for the calculation of shading power losses in photovoltaic generators. <i>Solar Energy</i> , 2013, 93, 322-333.	2.9	40
27	Optical modeling of four Fresnel-based high-CPV units. <i>Solar Energy</i> , 2017, 155, 805-815.	2.9	40
28	Temperature coefficients of monolithic III-V triple-junction solar cells under different spectra and irradiance levels. <i>AIP Conference Proceedings</i> , 2012, , .	0.3	38
29	A method for estimating cell temperature at the maximum power point of a HCPV module under actual operating conditions. <i>Solar Energy Materials and Solar Cells</i> , 2014, 124, 159-165.	3.0	37
30	A comprehensive method for estimating energy losses due to shading of GC-BIPV systems using monitoring data. <i>Solar Energy</i> , 2012, 86, 2397-2404.	2.9	34
31	Current-voltage dynamics of multi-junction CPV modules under different irradiance levels. <i>Solar Energy</i> , 2017, 155, 39-50.	2.9	33
32	CPV standardization: An overview. <i>Renewable and Sustainable Energy Reviews</i> , 2010, 14, 518-523.	8.2	29
33	A simplified method for estimating direct normal solar irradiation from global horizontal irradiation useful for CPV applications. <i>Renewable and Sustainable Energy Reviews</i> , 2012, 16, 5529-5534.	8.2	29
34	Model for estimating the energy yield of a high concentrator photovoltaic system. <i>Energy</i> , 2015, 87, 77-85.	4.5	28
35	Development, indoor characterisation and comparison to optical modelling of four Fresnel-based high-CPV units equipped with refractive secondary optics. <i>Solar Energy Materials and Solar Cells</i> , 2018, 186, 273-283.	3.0	28
36	Generation of ambient temperature hourly time series for some Spanish locations by artificial neural networks. <i>Renewable Energy</i> , 2013, 51, 285-291.	4.3	27

#	ARTICLE	IF	CITATIONS
37	Spectral Corrections Based on Air Mass, Aerosol Optical Depth, and Precipitable Water for CPV Performance Modeling. IEEE Journal of Photovoltaics, 2016, 6, 1598-1604.	1.5	24
38	Analysis of electrical mismatches in high-concentrator photovoltaic power plants with distributed inverter configurations. Energy, 2016, 107, 374-387.	4.5	24
39	Optical design of a 4-off-axis-unit Cassegrain ultra-high concentrator photovoltaics module with a central receiver. Optics Letters, 2016, 41, 1985.	1.7	23
40	Outdoor measurement of high concentration photovoltaic receivers operating with partial shading on the primary optics. Energy, 2013, 61, 583-588.	4.5	21
41	High concentrator photovoltaic module simulation by neuronal networks using spectrally corrected direct normal irradiance and cell temperature. Energy, 2015, 84, 336-343.	4.5	19
42	Performance Analysis of Models for Calculating the Maximum Power of High Concentrator Photovoltaic Modules. IEEE Journal of Photovoltaics, 2015, 5, 947-955.	1.5	18
43	Quantifying the effect of air temperature in CPV modules under outdoor conditions. AIP Conference Proceedings, 2012, , .	0.3	17
44	A new method for estimating angular, spectral and low irradiance losses in photovoltaic systems using an artificial neural network model in combination with the Osterwald model. Solar Energy Materials and Solar Cells, 2012, 96, 186-194.	3.0	17
45	Analytical Modelling of High Concentrator Photovoltaic Modules Based on Atmospheric Parameters. International Journal of Photoenergy, 2015, 2015, 1-8.	1.4	17
46	Exploring ultra-high concentrator photovoltaic Cassegrain-Koehler-based designs up to 6000Å—. Optics Express, 2020, 28, 6609.	1.7	17
47	Complete Procedure for the Economic, Financial and Cost-Competitiveness of Photovoltaic Systems with Self-Consumption. Energies, 2019, 12, 345.	1.6	16
48	Optimum sizing of the inverter for maximizing the energy yield in state-of-the-art high-concentrator photovoltaic systems. Solar Energy, 2018, 171, 728-739.	2.9	15
49	Analysis of high concentrator photovoltaic modules in outdoor conditions: Influence of direct normal irradiance, air temperature, and air mass. Journal of Renewable and Sustainable Energy, 2014, 6, .	0.8	14
50	Measures used to protect people exposed to a PV generator: "univer project"™. Progress in Photovoltaics: Research and Applications, 2001, 9, 57-67.	4.4	13
51	RMS Current of a Photovoltaic Generator in Grid-Connected PV Systems: Definition and Application. International Journal of Photoenergy, 2008, 2008, 1-7.	1.4	13
52	A methodology for the electrical characterization of shaded high concentrator photovoltaic modules. Energy, 2015, 89, 768-777.	4.5	12
53	Optimum capacity of the inverters in concentrator photovoltaic power plants with emphasis on shading impact. Energy, 2019, 187, 115964.	4.5	10
54	Ray Tracing Comparison between Triple-Junction and Four-Junction Solar Cells in PMMA Fresnel-Based High-CPV Units. Energies, 2018, 11, 2455.	1.6	8

#	ARTICLE	IF	CITATIONS
55	Analysis and Performance of a Two-Axis PV Tracker in Southern Spain. Journal of Solar Energy Engineering, Transactions of the ASME, 2011, 133, .	1.1	5
56	CPV Systems. , 2018, , 931-985.		5
57	Knowledge-Based Sensors for Controlling A High-Concentration Photovoltaic Tracker. Sensors, 2020, 20, 1315.	2.1	5
58	Performance analysis of the lineal model for estimating the maximum power of a HCPV module in different climate conditions. , 2014, , .		4
59	Thin photovoltaic modules at ultra high concentration. AIP Conference Proceedings, 2015, , .	0.3	4
60	Artificial neural networks for the generation of direct normal solar annual irradiance synthetic series. , 2012, , .		3
61	Calculation of direct normal irradiation from global horizontal irradiation. , 2012, , .		3
62	Tool for the design and energy harvesting of grid-connected photovoltaic power installations: PV Excel Jaen 3.0. , 2014, , .		3
63	High-Concentrator Photovoltaic Power Plants: Energy Balance and Case Studies. Green Energy and Technology, 2015, , 443-477.	0.4	2
64	Design and characterization of refractive secondary optical elements for a point-focus Fresnel lens-based high CPV system. AIP Conference Proceedings, 2017, , .	0.3	2
65	Proposal Of A Spanish CPV Feed-in Tariff. , 2010, , .		1
66	A method for evaluating shading losses involved in a GC-BIPV using real data. , 2012, , .		1
67	Two New Applications of Artificial Neural Networks: Estimation of Instantaneous Performance Ratio and of the Energy Produced by PV Generators. Studies in Fuzziness and Soft Computing, 2011, , 199-232.	0.6	1
68	Educational tools in order to promote the self-learning. Practical case of study: Dimex SFCR. , 2014, , .		0
69	Investigating the optical performance of Cassegrainian systems at ultra-high concentrations. AIP Conference Proceedings, 2016, , .	0.3	0
70	Impact of the Subcell Spectral Response of III-V Compound Semiconductors on the Optical Performance of High-CPV Systems. , 2018, , .		0
71	Influence of ground cover ratio on optimum inverter size in CPV plants. AIP Conference Proceedings, 2018, , .	0.3	0
72	Indoor characterization and comparison with optical modelling of four Fresnel-based High-CPV units equipped with secondary optics. AIP Conference Proceedings, 2018, , .	0.3	0

#	ARTICLE	IF	CITATIONS
73	PROTOTIPO EXPERIMENTAL DE UNA MARQUESINA DE APARCAMIENTO DISEÑADA PARA OPTIMIZAR LA RECARGA DE VEHÍCULOS ELÉCTRICOS. Dyna (Spain), 2015, 90, 324-330.	0.1	0