

Luis Hernández-Callejo

List of Publications by Year in descending order

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97
papers

2,871
citations

318942

23
h-index

214428

50
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99
all docs

99
docs citations

99
times ranked

3460
citing authors

#	ARTICLE	IF	CITATIONS
1	Energy-ecological efficiency of the fuel cell electric vehicle powered by different biofuels. Clean Technologies and Environmental Policy, 2022, 24, 1389-1402.	2.1	4
2	Análisis de la Resistencia a Corte de Conectores Tipo Ángulo en Losas de Hormigón Armado sobre Estructura Metálica. Revista Tecnica De La Facultad De Ingenieria Universidad Del Zulia, 2022, 45, 36-47.	0.1	8
3	Photovoltaic Cells Defects Classification by Means of Artificial Intelligence and Electroluminescence Images. Communications in Computer and Information Science, 2022, , 31-41.	0.4	0
4	Methodology for Inspection of Defects in Photovoltaic Plants by Drone and Electroluminescence. Communications in Computer and Information Science, 2022, , 3-14.	0.4	1
5	Photovoltaics and Electrification in Agriculture. Agronomy, 2022, 12, 44.	1.3	3
6	DIR-FCEV powered by different fuels “ Part I: Well-to-wheel analysis for the Brazilian and Spanish contexts. International Journal of Hydrogen Energy, 2022, 47, 17069-17081.	3.8	5
7	Analysis of the Integration of Drift Detection Methods in Learning Algorithms for Electrical Consumption Forecasting in Smart Buildings. Sustainability, 2022, 14, 5857.	1.6	7
8	Charge Management of Electric Vehicles from Undesired Dynamics in Solar Photovoltaic Generation. Applied Sciences (Switzerland), 2022, 12, 6246.	1.3	0
9	Integration of renewable energies in the urban environment of the city of Soria (Spain). , 2022, 1, 100016.		3
10	Low-Cost Three-Quadrant Single Solar Cell I-V Tracer. Applied Sciences (Switzerland), 2022, 12, 6623.	1.3	5
11	A review of strategies for building energy management system: Model predictive control, demand side management, optimization, and fault detect & diagnosis. Journal of Building Engineering, 2021, 33, 101692.	1.6	198
12	Demand Response Control in Electric Water Heaters: Evaluation of Impact on Thermal Comfort. Communications in Computer and Information Science, 2021, , 74-89.	0.4	2
13	Online Distributed Measurement of Dark I-V Curves in Photovoltaic Plants. Applied Sciences (Switzerland), 2021, 11, 1924.	1.3	6
14	Techno-Economic Viability of Agro-Photovoltaic Irrigated Arable Lands in the EU-Med Region: A Case-Study in Southwestern Spain. Agronomy, 2021, 11, 593.	1.3	28
15	Low-Cost Electronics for Online I-V Tracing at Photovoltaic Module Level: Development of Two Strategies and Comparison between Them. Electronics (Switzerland), 2021, 10, 671.	1.8	12
16	Additive Ensemble Neural Network with Constrained Weighted Quantile Loss for Probabilistic Electric-Load Forecasting. Sensors, 2021, 21, 2979.	2.1	14
17	Harmonic distortion characterization in groups of distribution networks applying the IEEE Standard 519-2014. IEEE Latin America Transactions, 2021, 19, 526-533.	1.2	14
18	Conversion of a Network Section with Loads, Storage Systems and Renewable Generation Sources into a Smart Microgrid. Applied Sciences (Switzerland), 2021, 11, 5012.	1.3	7

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19	Evaluation of Artificial Intelligence-Based Models for Classifying Defective Photovoltaic Cells. Applied Sciences (Switzerland), 2021, 11, 4226.	1.3	6
20	A Review of I-V Tracers for Photovoltaic Modules: Topologies and Challenges. Electronics (Switzerland), 2021, 10, 1283.	1.8	11
21	Analysis of the Viability of a Photovoltaic Greenhouse with Semi-Transparent Amorphous Silicon (a-Si) Glass. Agronomy, 2021, 11, 1097.	1.3	14
22	Novel Data-Driven Models Applied to Short-Term Electric Load Forecasting. Applied Sciences (Switzerland), 2021, 11, 5708.	1.3	14
23	Structural performance of steel angle shear connectors with different orientation. Case Studies in Construction Materials, 2021, 14, e00523.	0.8	9
24	Diagnosis of Broken Bars in Wind Turbine Squirrel Cage Induction Generator: Approach Based on Current Signal and Generative Adversarial Networks. Applied Sciences (Switzerland), 2021, 11, 6942.	1.3	3
25	A Data-Driven Forecasting Strategy to Predict Continuous Hourly Energy Demand in Smart Buildings. Applied Sciences (Switzerland), 2021, 11, 7886.	1.3	12
26	Method of monitoring and detection of failures in PV system based on machine learning. Revista Facultad De IngenierAa, 2021, , 26-43.	0.5	3
27	A Methodology for the Conversion of a Network Section with Generation Sources, Storage and Loads into an Electrical Microgrid Based on Raspberry Pi and Home Assistant. Communications in Computer and Information Science, 2021, , 246-258.	0.4	1
28	Segmentation of Thermography Image of Solar Cells and Panels. Communications in Computer and Information Science, 2020, , 1-8.	0.4	4
29	Low-temperature multiple-effect desalination/organic Rankine cycle system with a novel integration for fresh water and electrical energy production. Desalination, 2020, 477, 114269.	4.0	33
30	Potential for Thermal Water Desalination Using Microgrid and Solar Thermal Field Energy Surpluses in an Isolated Community. Communications in Computer and Information Science, 2020, , 162-175.	0.4	3
31	Techno-economic analysis of hybrid PV/T systems under different climate scenarios and energy tariffs. Solar Energy, 2020, 212, 191-202.	2.9	20
32	Infrared Thermography for the Detection and Characterization of Photovoltaic Defects: Comparison between Illumination and Dark Conditions. Sensors, 2020, 20, 4395.	2.1	15
33	Degradation analysis of 5-year field exposed photovoltaic modules using low-cost thermography, electroluminescence and I-V curve tests in Ecuador. , 2020, , .		1
34	Study of a Hybrid Solar Absorption-Cooling and Flash-Desalination System. Energies, 2020, 13, 3943.	1.6	5
35	CITIES: Ibero-American Research Network for Sustainable, Efficient, and Integrated Smart Cities. Smart Cities, 2020, 3, 758-766.	5.5	4
36	A Review of Energy Consumption Forecasting in Smart Buildings: Methods, Input Variables, Forecasting Horizon and Metrics. Applied Sciences (Switzerland), 2020, 10, 8323.	1.3	14

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37	Fault Detection of Wind Turbine Induction Generators through Current Signals and Various Signal Processing Techniques. Applied Sciences (Switzerland), 2020, 10, 7389.	1.3	7
38	Nondestructive characterization of solar PV cells defects by means of electroluminescence, infrared thermography, I-V curves and visual tests: Experimental study and comparison. Energy, 2020, 205, 117930.	4.5	34
39	Novel Utility-Scale Photovoltaic Plant Electroluminescence Maintenance Technique by Means of Bidirectional Power Inverter Controller. Applied Sciences (Switzerland), 2020, 10, 3084.	1.3	16
40	Short Term Load Forecasting of Industrial Electricity Using Machine Learning. Communications in Computer and Information Science, 2020, , 146-161.	0.4	10
41	Detecting Hot Spots in Photovoltaic Panels Using Low-Cost Thermal Cameras. Communications in Computer and Information Science, 2020, , 38-53.	0.4	4
42	Virtual weather stations for meteorological data estimations. Neural Computing and Applications, 2020, 32, 12801-12812.	3.2	10
43	Determination of photovoltaic power by modeling solar radiation with Gamma distribution in the CEDER microgrid. Revista Facultad De Ingeniería, 2020, , 32-43.	0.5	0
44	Monthly Characterization of the Generation of Photovoltaic Arrays. Microgrid Case CEDER, Soria, Spain. Communications in Computer and Information Science, 2020, , 185-198.	0.4	1
45	General Purpose I-V Tester Developed to Measure a Wide Range of Photovoltaic Systems. Communications in Computer and Information Science, 2020, , 135-145.	0.4	0
46	IPN Sustainability Program: Solar Photovoltaic Electricity Generation and Consumption Reduction. Communications in Computer and Information Science, 2020, , 109-120.	0.4	2
47	Electric Microgrid in Smart Cities: CEDER-CIEMAT a Case Study. Communications in Computer and Information Science, 2020, , 176-184.	0.4	0
48	Analysis and characterization of PV module defects by thermographic inspection. Revista Facultad De Ingeniería, 2019, , 92-104.	0.5	13
49	Wind Resource Assessment on Puná Island. Applied Sciences (Switzerland), 2019, 9, 2923.	1.3	2
50	Quantitative failure rates and modes analysis in photovoltaic plants. Energy, 2019, 183, 825-836.	4.5	28
51	Simulation of a Solar-Assisted Air-Conditioning System Applied to a Remote School. Applied Sciences (Switzerland), 2019, 9, 3398.	1.3	12
52	A review of photovoltaic systems: Design, operation and maintenance. Solar Energy, 2019, 188, 426-440.	2.9	232
53	A Comprehensive Review of Operation and Control, Maintenance and Lifespan Management, Grid Planning and Design, and Metering in Smart Grids. Energies, 2019, 12, 1630.	1.6	18
54	Analysis and Characterization of Thermographic Defects at the PV Module Level. Communications in Computer and Information Science, 2019, , 80-93.	0.4	2

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55	The Impact of Transmission Technologies on the Evolution of the Electrical Grid. Communications in Computer and Information Science, 2019, , 94-101.	0.4	1
56	Exploratory study on Class Imbalance and solutions for Network Traffic Classification. Neurocomputing, 2019, 343, 100-119.	3.5	36
57	Diagnosis of wind turbine faults using generator current signature analysis: a review. Journal of Quality in Maintenance Engineering, 2019, 26, 431-458.	1.0	8
58	Maintenance Models Applied to Wind Turbines. A Comprehensive Overview. Energies, 2019, 12, 225.	1.6	22
59	Study of the Influence of DC-DC Optimizers on PV-Energy Generation. Communications in Computer and Information Science, 2019, , 1-17.	0.4	2
60	A New Model for Short-Term Load Forecasting in an Industrial Park. Communications in Computer and Information Science, 2019, , 29-37.	0.4	0
61	A comprehensive review of the impact of transmission technologies on the electrical grid. Revista Facultad De Ingeniería, 2019, , 82-91.	0.5	1
62	Analysis of the influence of DC optimizers on photovoltaic production. Revista Facultad De Ingeniería, 2019, , 43-55.	0.5	1
63	Spline adjustment for modelling solar intermittences. Revista Facultad De Ingeniería, 2019, , 77-86.	0.5	1
64	Image Resolution Influence in Aerial Thermographic Inspections of Photovoltaic Plants. IEEE Transactions on Industrial Informatics, 2018, 14, 5678-5686.	7.2	46
65	Microgrid Field Trials in Sweden: Expanding the Electric Infrastructure in the Village of Simris. IEEE Electrification Magazine, 2018, 6, 48-62.	1.8	9
66	Technological review of the instrumentation used in aerial thermographic inspection of photovoltaic plants. Renewable and Sustainable Energy Reviews, 2018, 93, 566-579.	8.2	99
67	WIND TURBINE MAINTENANCE. A REVIEW. Dyna (Spain), 2018, 93, 435-441.	0.1	3
68	COMPARATIVE ANALYSIS OF FAULTS FROM STALL CONTROLLED WIND TURBINES WITH ASYNCHRONOUS GENERATORS AND PITCH CONTROLLED WIND TURBINES WITH SYNCHRONOUS GENERATORS. Dyna (Spain), 2018, 93, 541-548.	0.1	0
69	Ensemble network traffic classification: Algorithm comparison and novel ensemble scheme proposal. Computer Networks, 2017, 127, 68-80.	3.2	44
70	State of the Art and Trends in the Monitoring, Detection and Diagnosis of Failures in Electric Induction Motors. Energies, 2017, 10, 1056.	1.6	66
71	SIMULACIÓN DE MICRORED EN CORRIENTE CONTINUA Y ESTUDIO DE GESTIÓN DE POTENCIA Y DE CARGA/DESCARGA DE BATERÍAS. Dyna (Spain), 2017, 92, 673-679.	0.1	3
72	Failure Rate Determination and Failure Mode, Effect and Criticality Analysis (FMECA) Based on Historical Data for Photovoltaic Plants. , 2017, , .		0

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73	Aerial Thermographic Inspection of Photovoltaic Plants: Analysis and Selection of the Equipment. , 2017, , .		4
74	State of the Art and Trends Review of Smart Metering in Electricity Grids. Applied Sciences (Switzerland), 2016, 6, 68.	1.3	135
75	Study of Unwanted Emissions in the CENELEC-A Band Generated by Distributed Energy Resources and Their Influence over Narrow Band Power Line Communications. Energies, 2016, 9, 1007.	1.6	33
76	A review on measurement techniques for non-intentional emissions above 2 kHz. , 2016, , .		19
77	Development and validation of grey-box models for forecasting the thermal response of occupied buildings. Energy and Buildings, 2016, 117, 199-207.	3.1	124
78	Smart management of a distributed generation microgrid through PLC PRIME technology. , 2015, , .		8
79	Artificial Neural Network for Short-Term Load Forecasting in Distribution Systems. Energies, 2014, 7, 1576-1598.	1.6	86
80	Reviewing Microgrids from a Multi-Agent Systems Perspective. Energies, 2014, 7, 3355-3382.	1.6	47
81	A Survey on Electric Power Demand Forecasting: Future Trends in Smart Grids, Microgrids and Smart Buildings. IEEE Communications Surveys and Tutorials, 2014, 16, 1460-1495.	24.8	387
82	Artificial neural networks for short-term load forecasting in microgrids environment. Energy, 2014, 75, 252-264.	4.5	170
83	A multi-agent system architecture for smart grid management and forecasting of energy demand in virtual power plants. , 2013, 51, 106-113.		172
84	Experimental Analysis of the Input Variablesâ€™ Relevance to Forecast Next Dayâ€™s Aggregated Electric Demand Using Neural Networks. Energies, 2013, 6, 2927-2948.	1.6	31
85	Short-Term Load Forecasting for Microgrids Based on Artificial Neural Networks. Energies, 2013, 6, 1385-1408.	1.6	121
86	Improved Short-Term Load Forecasting Based on Two-Stage Predictions with Artificial Neural Networks in a Microgrid Environment. Energies, 2013, 6, 4489-4507.	1.6	35
87	Performance Study of the Application of Artificial Neural Networks to the Completion and Prediction of Data Retrieved by Underwater Sensors. Sensors, 2012, 12, 1468-1481.	2.1	22
88	Classification and Clustering of Electricity Demand Patterns in Industrial Parks. Energies, 2012, 5, 5215-5228.	1.6	92
89	A Study of the Relationship between Weather Variables and Electric Power Demand inside a Smart Grid/Smart World Framework. Sensors, 2012, 12, 11571-11591.	2.1	139
90	Small wind turbines study and integration in a peri-urban microgrid. Revista Facultad De IngenierÃa, 0, , .	0.5	1

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91	SOFCEV: Conventional LCC reduction and NPV based on savings in fixed carbon by sugarcane. Revista Facultad De Ingeniería, 0, , .	0.5	0
92	Electric power management in a microgrid analyzing photovoltaic arrays and a turbine-generator system. Revista Facultad De Ingeniería, 0, , .	0.5	0
93	Electricity demand forecasting in industrial and residential facilities using ensemble machine learning. Revista Facultad De Ingeniería, 0, , .	0.5	9
94	Low-cost infrared thermography in aid of photovoltaic panels degradation research. Revista Facultad De Ingeniería, 0, , .	0.5	2
95	Experimental investigation of an alternative wind energy generator, particularly designed. Revista Facultad De Ingeniería, 0, , .	0.5	1
96	Optimal energy management strategies to reduce diesel consumption for a hybrid off-grid system. Revista Facultad De Ingeniería, 0, , .	0.5	6
97	Energy-ecological efficiency of dual-fuel series plug-in hybrid electric vehicle considering WTW emissions. Environmental Science and Pollution Research, 0, , .	2.7	1