

Antonio Colmenar-Santos

List of Publications by Year in descending order

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Version: 2024-02-01

120
papers

2,848
citations

212478

28
h-index

232693

48
g-index

127
all docs

127
docs citations

127
times ranked

3666
citing authors

#	ARTICLE	IF	CITATIONS
1	Adaptive model predictive control for electricity management in the household sector. International Journal of Electrical Power and Energy Systems, 2022, 137, 107831.	3.3	7
2	Economic and Environmental Benefits of Geothermal Energy in Industrial Processes. Green Energy and Technology, 2022, , 91-160.	0.4	2
3	Stress Mitigation of Conventional Water Resources in Water-Scarce Areas Through the Use of Renewable Energy Powered Desalination Plants: An Application to the Canary Islands. Green Energy and Technology, 2022, , 137-153.	0.4	0
4	Surrogate Optimization of Coupled Energy Sources in a Desalination Microgrid Based on Solar PV and Wind Energy. Green Energy and Technology, 2022, , 85-117.	0.4	0
5	A Review of the State of the Art of Industrial Microgrids Based on Renewable Energy. Electronics (Switzerland), 2022, 11, 1002.	1.8	14
6	Resilience Framework, Methods, and Metrics for the Prioritization of Critical Electrical Grid Customers. Electronics (Switzerland), 2022, 11, 2246.	1.8	2
7	Battery energy storage performance in microgrids: A scientific mapping perspective. Energy Reports, 2022, 8, 259-268.	2.5	15
8	Production Line: Process and Energy Modeling. Green Energy and Technology, 2021, , 43-95.	0.4	0
9	Introduction to Ceramic Sanitary-Ware Manufacturing. Green Energy and Technology, 2021, , 1-12.	0.4	1
10	Proposals Calculation. Green Energy and Technology, 2021, , 173-248.	0.4	0
11	Planning for Energy and Water Management. Green Energy and Technology, 2021, , 21-42.	0.4	0
12	Improvement Proposals. Green Energy and Technology, 2021, , 133-172.	0.4	0
13	Exergoeconomic Analysis. Green Energy and Technology, 2021, , 271-301.	0.4	0
14	Energy Supply Versus Energy Demand. Green Energy and Technology, 2021, , 249-259.	0.4	0
15	Analysis of Consumptions. Green Energy and Technology, 2021, , 97-131.	0.4	0
16	Challenges for the optimum penetration of photovoltaic systems. , 2021, , 411-426.		0
17	Surrogate optimization of coupled energy sources in a desalination microgrid based on solar PV and wind energy. Desalination, 2021, 500, 114882.	4.0	13
18	Reduction of water and energy consumption in the sanitary ware industry by an absorption machine operated with recovered heat. Journal of Cleaner Production, 2021, 292, 126049.	4.6	3

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19	Techno-economic analysis of a heat and power combination system based on hybrid photovoltaic-fuel cell systems using hydrogen as an energy vector. <i>Energy</i> , 2021, 224, 120110.	4.5	57
20	Contribution of Driving Efficiency to Vehicle-to-Building. <i>Energies</i> , 2021, 14, 3483.	1.6	1
21	Solar-plus-storage benefits for end-users placed at radial and meshed grids: An economic and resiliency analysis. <i>International Journal of Electrical Power and Energy Systems</i> , 2021, 128, 106675.	3.3	18
22	Can eco-routing, eco-driving and eco-charging contribute to the European Green Deal? Case Study: The City of Alcalá de Henares (Madrid, Spain). <i>Energy</i> , 2021, 228, 120532.	4.5	7
23	Pico turbines, the solution to self-supply energy to the water supply network. A case study in Las Palmas de Gran Canaria. <i>Energy</i> , 2021, 229, 120653.	4.5	3
24	Economic and environmental benefits of geothermal energy in industrial processes. <i>Renewable Energy</i> , 2021, 174, 134-146.	4.3	21
25	Teaching Using Collaborative Research Projects: Experiences with Adult Learners in Distance Education. <i>Sustainability</i> , 2021, 13, 10437.	1.6	1
26	Analysis on the electric vehicle with a hybrid storage system and the use of Superconducting magnetic energy storage (SMES). <i>Energy Reports</i> , 2021, 7, 854-873.	2.5	19
27	Thermal energy reduction in sanitary-ware industry by heat-recovering thermal engineering technologies. <i>Energy Efficiency</i> , 2021, 14, 1.	1.3	0
28	Technical challenges for the optimum penetration of grid-connected photovoltaic systems: Spain as a case study. <i>Renewable Energy</i> , 2020, 145, 2296-2305.	4.3	36
29	Application of rule-based expert systems in hardware-in-the-loop simulation case study: Software and performance validation of an engine electronic control unit. <i>Journal of Software: Evolution and Process</i> , 2020, 32, e2223.	1.2	3
30	Contribution of Driving Efficiency and Vehicle-to-Grid to Eco-Design. <i>Energies</i> , 2020, 13, 3997.	1.6	0
31	Large-scale desalination based on parabolic trough collectors and double-effect absorption heat pumps. <i>Energy Reports</i> , 2020, 6, 207-222.	2.5	4
32	Thermal desalination potential with parabolic trough collectors and geothermal energy in the Spanish southeast. <i>Applied Energy</i> , 2020, 262, 114433.	5.1	30
33	Sanitary-ware factories: heat recovery strategies to optimize energy and water consumption. <i>Energy Procedia</i> , 2019, 157, 719-736.	1.8	6
34	Optimized design method for storage systems in photovoltaic plants with delivery limitation. <i>Solar Energy</i> , 2019, 180, 468-488.	2.9	17
35	Evaluation of Supply-Demand Adaptation of Photovoltaic-Wind Hybrid Plants Integrated into an Urban Environment. <i>Energies</i> , 2019, 12, 1780.	1.6	3
36	Electric vehicle charging strategy to support renewable energy sources in Europe 2050 low-carbon scenario. <i>Energy</i> , 2019, 183, 61-74.	4.5	129

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37	Microgrids with energy storage systems as a means to increase power resilience: An application to office buildings. <i>Energy</i> , 2019, 172, 1005-1015.	4.5	86
38	Exergoeconomics in the sanitary-ware industry to reduce energy and water consumptions. AIP Conference Proceedings, 2019, . .	0.3	3
39	Reduction of water cost for an existing wind-energy-based desalination scheme: A preliminary configuration. <i>Energy</i> , 2019, 167, 548-560.	4.5	25
40	Heat recovery in sanitary-ware industry applied to water and energy saving by multi-effect distillation. <i>Journal of Cleaner Production</i> , 2019, 213, 1322-1336.	4.6	17
41	Review of wind energy technology and associated market and economic conditions in Spain. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 101, 415-427.	8.2	32
42	Technological improvements in energetic efficiency and sustainability in existing combined-cycle gas turbine (CCGT) power plants. <i>Applied Energy</i> , 2018, 223, 30-51.	5.1	20
43	A hydrogen refuelling stations infrastructure deployment for cities supported on fuel cell taxi roll-out. <i>Energy</i> , 2018, 148, 1018-1031.	4.5	46
44	Simulation of modeling of multi-megawatt photovoltaic plants with high voltage direct current grid integration. <i>Solar Energy</i> , 2018, 166, 28-41.	2.9	3
45	Legislative and economic aspects for the inclusion of energy reserve by a superconducting magnetic energy storage: Application to the case of the Spanish electrical system. <i>Renewable and Sustainable Energy Reviews</i> , 2018, 82, 2455-2470.	8.2	21
46	Measures to Remove Geothermal Energy Barriers in the European Union. <i>Energies</i> , 2018, 11, 3202.	1.6	11
47	Management tool to optimize energy and water consumption in the sanitary-ware industry. <i>Journal of Cleaner Production</i> , 2018, 197, 280-296.	4.6	21
48	Technical approach for the inclusion of superconducting magnetic energy storage in a smart city. <i>Energy</i> , 2018, 158, 1080-1091.	4.5	38
49	Sizing of Wind, Solar and Storage Facilities Associated to a Desalination Plant Using Stochastic Optimization. <i>Advances in Intelligent Systems and Computing</i> , 2018, , 172-183.	0.5	4
50	Impact assessment of electric vehicles on islands grids: A case study for Tenerife (Spain). <i>Energy</i> , 2017, 120, 385-396.	4.5	27
51	Estimating the benefits of vehicle-to-home in islands: The case of the Canary Islands. <i>Energy</i> , 2017, 134, 311-322.	4.5	29
52	Evaluation of the Cost of Using Power Plant Reject Heat in Low-Temperature District Heating and Cooling Networks. , 2017, , 71-102.		0
53	Cogeneration and District Heating Networks: Measures to Remove Institutional and Financial Barriers that Restrict Their Joint Use in the EU-28. , 2017, , 31-54.		0
54	Reconciliation of Social Discount Rate and Private Finance Initiative: Application to District Heating Networks in the EU-28. , 2017, , 55-70.		0

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55	Cogeneration and district heating networks: Measures to remove institutional and financial barriers that restrict their joint use in the EU-28. , 2016, , .		0
56	Evaluation of the cost of using power plant reject heat in low-temperature district heating and cooling networks. , 2016, , .		0
57	District heating and cogeneration in the EU-28: Current situation, potential and proposed energy strategy for its generalisation. Renewable and Sustainable Energy Reviews, 2016, 62, 621-639.	8.2	72
58	Energy-efficient three-phase bidirectional converter for grid-connected storage applications. Energy Conversion and Management, 2016, 127, 599-611.	4.4	23
59	Offshore wind energy: A review of the current status, challenges and future development in Spain. Renewable and Sustainable Energy Reviews, 2016, 64, 1-18.	8.2	86
60	An assessment of photovoltaic potential in shopping centres. Solar Energy, 2016, 135, 662-673.	2.9	11
61	Distributed generation: A review of factors that can contribute most to achieve a scenario of DG units embedded in the new distribution networks. Renewable and Sustainable Energy Reviews, 2016, 59, 1130-1148.	8.2	139
62	Water canal use for the implementation and efficiency optimization of photovoltaic facilities: Tajo-Segura transfer scenario. Solar Energy, 2016, 126, 168-194.	2.9	29
63	Thermodynamic and exergoeconomic analysis of energy recovery system of biogas from a wastewater treatment plant and use in a Stirling engine. Renewable Energy, 2016, 88, 171-184.	4.3	53
64	Performance analysis of a Superconducting Fault Current Limiter in a power distribution substation. Electric Power Systems Research, 2016, 136, 89-99.	2.1	20
65	The geothermal potential in Spain. Renewable and Sustainable Energy Reviews, 2016, 56, 865-886.	8.2	23
66	Evaluation of the cost of using power plant reject heat in low-temperature district heating and cooling networks. Applied Energy, 2016, 162, 892-907.	5.1	25
67	Novel design and development of advanced remote electronics experiments. Computer Applications in Engineering Education, 2015, 23, 327-336.	2.2	18
68	Cogeneration and district heating networks: Measures to remove institutional and financial barriers that restrict their joint use in the AEU-28. Energy, 2015, 85, 403-414.	4.5	30
69	A Methodology for Assessing Islanding of Microgrids: Between Utility Dependence and Off-Grid Systems. Energies, 2015, 8, 4436-4454.	1.6	8
70	Reliability and management of isolated smart-grid with dual mode in remote places: Application in the scope of great energetic needs. International Journal of Electrical Power and Energy Systems, 2015, 73, 805-818.	3.3	20
71	Hybridization of concentrated solar power plants with biogas production systems as an alternative to premiums: The case of Spain. Renewable and Sustainable Energy Reviews, 2015, 47, 186-197.	8.2	36
72	Geothermal source heat pumps under energy services companies finance scheme to increase energy efficiency and production in stockbreeding facilities. Energy, 2015, 88, 821-836.	4.5	26

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73	Repowering: An actual possibility for wind energy in Spain in a new scenario without feed-in-tariffs. Renewable and Sustainable Energy Reviews, 2015, 41, 319-337.	8.2	43
74	Virtual and Remote Industrial Laboratory: Integration in Learning Management Systems. IEEE Industrial Electronics Magazine, 2014, 8, 45-58.	2.3	27
75	Planning Minimum Interurban Fast Charging Infrastructure for Electric Vehicles: Methodology and Application to Spain. Energies, 2014, 7, 1207-1229.	1.6	21
76	Simplified Analysis of the Electric Power Losses for On-Shore Wind Farms Considering Weibull Distribution Parameters. Energies, 2014, 7, 6856-6885.	1.6	13
77	A learning environment for augmented reality mobile learning. , 2014, , .		12
78	Smart grid investment and technology roadmap for power system planning. Case study for a distribution system operator: EAECISA. , 2014, , .		1
79	Solar thermal systems for high rise buildings with high consumption demand: Case study for a 5 star hotel in Sao Paulo, Brazil. Energy and Buildings, 2014, 69, 481-489.	3.1	26
80	Economic evaluation of solar thermal and photovoltaic cooling systems through simulation in different climatic conditions: An analysis in three different cities in Europe. Energy and Buildings, 2014, 70, 207-223.	3.1	73
81	A simple method for studying the effect of scattering of the performance parameters of Parabolic Trough Collectors on the control of a solar field. Solar Energy, 2014, 99, 215-230.	2.9	11
82	An accurate model for simulating energetic behavior of PV grid connected inverters. Simulation Modelling Practice and Theory, 2014, 49, 57-72.	2.2	7
83	Integration of distributed generation in the power distribution network: The need for smart grid control systems, communication and equipment for a smart city " Use cases. Renewable and Sustainable Energy Reviews, 2014, 38, 223-234.	8.2	103
84	Residual heat use generated by a 12kW fuel cell in an electric vehicle heating system. Energy, 2014, 68, 182-190.	4.5	17
85	Water consumption in solar parabolic trough plants: review and analysis of the southern Spain case. Renewable and Sustainable Energy Reviews, 2014, 34, 565-577.	8.2	22
86	Macro economic impact, reduction of fee deficit and profitability of a sustainable transport model based on electric mobility. Case study: City of León (Spain). Energy, 2014, 65, 303-318.	4.5	16
87	Efficiency factors of solar collectors of parallel plates for water. Solar Energy, 2013, 94, 335-343.	2.9	5
88	Virtual Instrument Systems in Reality (VISIR) for Remote Wiring and Measurement of Electronic Circuits on Breadboard. IEEE Transactions on Learning Technologies, 2013, 6, 60-72.	2.2	131
89	Packing and reusing virtual web laboratories as Sharable Content Object in wide range of educational fields. , 2013, , .		1
90	Wind control centres: State of the art. Renewable Energy, 2013, 51, 93-100.	4.3	28

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91	Solutions to reduce energy consumption in the management of large buildings. Energy and Buildings, 2013, 56, 66-77.	3.1	77
92	The impact of different grid regulatory scenarios on the development of renewable energy on islands: A comparative study and improvement proposals. Renewable Energy, 2013, 60, 302-312.	4.3	22
93	Impact of passive techniques and clean conditioning systems on comfort and economic feasibility in low-cost shelters. Energy and Buildings, 2013, 62, 414-426.	3.1	13
94	Urban wind energy exploitation systems: Behaviour under multidirectional flow conditions – Opportunities and challenges. Renewable and Sustainable Energy Reviews, 2013, 24, 364-378.	8.2	131
95	Parallel distribution transformer loss reductions: A proposed method and experimental validation. International Journal of Electrical Power and Energy Systems, 2013, 49, 170-180.	3.3	7
96	Distributed generation: The definitive boost for renewable energy in Spain. Renewable Energy, 2013, 53, 354-364.	4.3	49
97	Passive climatization using a cool roof and natural ventilation for internally displaced persons in hot climates: Case study for Haiti. Building and Environment, 2013, 59, 116-126.	3.0	38
98	Challenges of applying online learning tools in distance learning courses. , 2012, , .		8
99	State of Art, Initiatives and New Challenges for Virtual and Remote Labs. , 2012, , .		27
100	Profitability analysis of grid-connected photovoltaic facilities for household electricity self-sufficiency. Energy Policy, 2012, 51, 749-764.	4.2	77
101	Experimental validation of a fully solar-driven triple-state absorption system in small residential buildings. Energy and Buildings, 2012, 55, 227-237.	3.1	22
102	Virtual Lab platform for distance learning courses in engineering technologies for the use of renewable energies. , 2012, , .		4
103	Sizing and simulation of a low cost flywheel based energy storage system for wind diesel hybrid systems. , 2012, , .		5
104	Potential energy savings from cool roofs in Spain and Andalusia. Energy, 2012, 38, 425-438.	4.5	85
105	Tri-generation system to couple production to demand in a combined cycle. Energy, 2012, 40, 271-290.	4.5	13
106	EU plans for renewable energy. An application to the Spanish case. Renewable Energy, 2012, 43, 322-330.	4.3	57
107	Review of flywheel based energy storage systems. , 2011, , .		88
108	Exergy efficiency analysis in buildings climatized with LiCl-H ₂ O solar cooling systems that use swimming pools as heat sinks. Energy and Buildings, 2011, 43, 3161-3172.	3.1	37

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109	Aplicaciones y seguridad en la implementación de competencias prácticas en entornos de gestión del aprendizaje. Arbor, 2011, 187, 135-151.	0.1	0
110	A Methodology to Teach Advanced A/D Converters, Combining Digital Signal Processing and Microelectronics Perspectives. IEEE Transactions on Education, 2010, 53, 471-483.	2.0	1
111	A Method Based on Petri Nets and a Matrix Model to Implement Reconfigurable Logic Controllers. IEEE Transactions on Industrial Electronics, 2010, 57, 3544-3556.	5.2	10
112	Trends of use of technology in engineering education. , 2010, , .		11
113	Future of distance education through EHEA. , 2008, , .		2
114	Interoperability and Integration of Context-Aware Services in an Ambient Intelligence Environment. , 2008, , .		2
115	Integration of Internet Based Labs and Open Source LMS. , 2008, , .		6
116	Work in progress - advanced programming through problem-based learning. , 2008, , .		2
117	Grid-connected PV buildings: analysis of future scenarios with an example of Southern Spain. Solar Energy, 2005, 79, 86-95.	2.9	41
118	Examples of distance learning projects in the European Community. IEEE Transactions on Education, 2001, 44, 406-411.	2.0	32
119	Application of Rule-Based Expert Systems and Dynamic-Link Libraries to Enhance Hardware-in-The-Loop Simulation Results. Journal of Software, 0, , 265-292.	0.6	2
120	Experience report on the application of genetic algorithms to reduce costs of the software validation process in the automotive sector during an engine control unit project. Software Quality Journal, 0, , 1.	1.4	0