Alvaro Gomes

List of Publications by Year in descending order

70 papers	1,488 citations	304368 22 h-index	344852 36 g-index
74 all docs	74 docs citations	74 times ranked	1492 citing authors

#	Article	IF	Citations
1	A multi-objective genetic approach to domestic load scheduling in an energy management system. Energy, 2014, 77, 144-152.	4.5	101
2	Categorization of residential electricity consumption as a basis for the assessment of the impacts of demand response actions. Renewable and Sustainable Energy Reviews, 2014, 30, 490-503.	8.2	97
3	Optimizing the management of smart home energy resources under different power cost scenarios. Applied Energy, 2019, 242, 351-363.	5.1	84
4	A review of empirical data of sustainability initiatives in university campus operations. Journal of Cleaner Production, 2020, 250, 119558.	4.6	84
5	A Multiple Objective Approach to Direct Load Control Using an Interactive Evolutionary Algorithm. IEEE Transactions on Power Systems, 2007, 22, 1004-1011.	4.6	80
6	Review on performance aspects of nearly zero-energy districts. Sustainable Cities and Society, 2018, 43, 406-420.	5.1	80
7	A multi-objective evolutionary algorithm for reactive power compensation in distribution networks. Applied Energy, 2009, 86, 977-984.	5.1	66
8	A Customized Evolutionary Algorithm for Multiobjective Management of Residential Energy Resources. IEEE Transactions on Industrial Informatics, 2017, 13, 492-501.	7.2	57
9	An evolutionary strategy enhanced with a local search technique for the space allocation problem in architecture, Part 1: Methodology. CAD Computer Aided Design, 2013, 45, 887-897.	1.4	54
10	A thermal performance parametric study of window type, orientation, size and shadowing effect. Sustainable Cities and Society, 2016, 26, 456-465.	5.1	49
11	A Multiple Objective Evolutionary Approach for the Design and Selection of Load Control Strategies. IEEE Transactions on Power Systems, 2004, 19, 1173-1180.	4.6	48
12	An approach to the multi-level space allocation problem in architecture using a hybrid evolutionary technique. Automation in Construction, 2013, 35, 482-498.	4.8	48
13	Thermal transmittance effect on energy consumption of Mediterranean buildings with different thermal mass. Applied Energy, 2019, 252, 113437.	5.1	46
14	Estimation of renewable energy and built environment-related variables using neural networks â€“ A review. Renewable and Sustainable Energy Reviews, 2018, 94, 959-988.	8.2	43
15	An evolutionary strategy enhanced with a local search technique for the space allocation problem in architecture, Part 2: Validation and performance tests. CAD Computer Aided Design, 2013, 45, 898-910.	1.4	34
16	Automated approach for design generation and thermal assessment of alternative floor plans. Energy and Buildings, 2014, 81, 170-181.	3.1	33
17	An integrated energy performance-driven generative design methodology to foster modular lightweight steel framed dwellings inÂhot climates. Energy for Sustainable Development, 2018, 44, 21-36.	2.0	32
18	A physically-based model for simulating inverter type air conditioners/heat pumps. Energy, 2013, 50, 110-119.	4.5	29

#	Article	IF	Citations
19	How reliable are geometry-based building indices as thermal performance indicators?. Energy Conversion and Management, 2015, 101, 561-578.	4.4	26
20	Simulation-based assessment of electric load management programs. International Journal of Energy Research, 1999, 23, 169-181.	2.2	24
21	The impact of thermal transmittance variation on building design in the Mediterranean region. Applied Energy, 2019, 239, 581-597.	5.1	24
22	Performance-based design of multi-story buildings for a sustainable urban environment: A case study. Renewable and Sustainable Energy Reviews, 2019, 113, 109243.	8.2	23
23	The Duck Curve Characteristic and Storage Requirements for Greening the Island of Porto Santo. , 2018, , .		22
24	Improving thermal performance of automatically generated floor plans using a geometric variable sequential optimization procedure. Applied Energy, 2014, 132, 200-215.	5.1	21
25	Energy Transition on Islands with the Presence of Electric Vehicles: A Case Study for Porto Santo. Energies, 2021, 14, 3439.	1.6	21
26	A comparative study of different approaches using an outranking relation in a multi-objective evolutionary algorithm. Computers and Operations Research, 2013, 40, 1602-1615.	2.4	17
27	Lessons from unsuccessful energy and buildings sustainability actions in university campus operations. Journal of Cleaner Production, 2021, 297, 126665.	4.6	15
28	An Approach to Urban Quarter Design Using Building Generative Design and Thermal Performance Optimization. Energy Procedia, 2015, 78, 2899-2904.	1.8	13
29	Clustering of architectural floor plans: A comparison of shapeÂrepresentations. Automation in Construction, 2017, 80, 48-65.	4.8	12
30	The potential impact of low thermal transmittance construction on the European design guidelines of residential buildings. Energy and Buildings, 2018, 178, 379-390.	3.1	12
31	A Comparison of MILP and Metaheuristic Approaches for Implementation of a Home Energy Management System under Dynamic Tariffs. , 2019, , .		12
32	Design of an adaptive mutation operator in an electrical load management case study. Computers and Operations Research, 2008, 35, 2925-2936.	2.4	11
33	Domestic load characterization for demand-responsive energy management systems. , 2012, , .		11
34	A PC-based simulation package for supporting end-user demand side energy management strategies. IEEE Transactions on Power Systems, 1991, 6, 897-903.	4.6	10
35	Physically-based load demand models for assessing electric load control actions. , 2009, , .		10
36	An energy management system for residential demand response based on multiobjective optimization. , 2016, , .		10

#	Article	IF	Citations
37	A Mixed-integer Linear Programming Model for Optimal Management of Residential Electrical Loads under Dynamic Tariffs. , 2018, , .		9
38	The contribution of ventilation on the energy performance of small residential buildings in the Mediterranean region. Energy, 2020, 191, 116577.	4.5	9
39	Maximum demand control: a survey and comparative evaluation of different methods. IEEE Transactions on Power Systems, 1993, 8, 1013-1019.	4.6	8
40	An automated energy management system in a smart grid context. , 2012, , .		7
41	Energy services as a tool to promote energy efficiency in the health sector. , 2009, , .		5
42	Incorporation of Preferences in an Evolutionary Algorithm Using an Outranking Relation. International Journal of Natural Computing Research, 2011, 2, 63-85.	0.5	5
43	Integration of the Electric Vehicle as a Manageable Load in a Residential Energy Management System. , 2015, , .		5
44	A contribution of demand response for the reliability of a power system. , 2016, , .		5
45	Improving the responsiveness of NSGA-II using an adaptive mutation operator: a case study. International Journal of Advanced Intelligence Paradigms, 2010, 2, 4.	0.2	4
46	Impacts of demand side management and micro-generation units on low voltage distribution radial networks. , 2011, , .		4
47	Integrated Management of Residential Energy Resources. EPJ Web of Conferences, 2012, 33, 05005.	0.1	4
48	Optimizing the Coordinated Charging of a Group of Electric Vehicles. , 2014, , .		4
49	Crowdsourced Clustering of Computer Generated Floor Plans. Lecture Notes in Computer Science, 2015, , 142-151.	1.0	4
50	Demand modeling for assessing the impacts of micro-generation in a low voltage radial distribution network. , 2011, , .		3
51	Development of an Algorithm to Control and Optimize the Coordinated Charging Process of a Group of Electric Vehicles. , 2014, , .		3
52	A hybrid multi-objective GRASP+SA algorithm with incorporation of preferences. , 2014, , .		3
53	Characterization of Aggregated Demand-side Flexibility of Small Consumers. , 2020, , .		3
54	Modelling demand flexibility and energy storage to support increased penetration of renewable energy resources on Porto Santo. , 2020, 10, 1118-1132.		3

#	Article	IF	Citations
55	Assessing the Impact of Micro Generation in Radial Low Voltage Distribution Networks Taking into Consideration the Uncertainty. , 2011, , .		3
56	A Comparative Study on Machine Learning Algorithms for Assessing Energy Efficiency of Buildings. Communications in Computer and Information Science, 2021, , 546-566.	0.4	3
57	Optimizing residential energy resources with an improved multi-objective genetic algorithm based on greedy mutations. , 2018, , .		2
58	Demand management for load smoothing in small power systems: the case of Porto Santo island. , 2019, , .		2
59	An Evolutionary Algorithm for the Optimization of Residential Energy Resources. Trends in Mathematics, 2017, , 3-16.	0.1	2
60	Integrated Management of Energy Resources in the Residential Sector Using Evolutionary Computation. Advances in Environmental Engineering and Green Technologies Book Series, 2015, , 320-347.	0.3	2
61	An Integrated Building Energy Management System. , 2017, , 191-199.		2
62	Correction to "A Multiple Objective Evolutionary Approach for the Design and Selection of Load Control Strategies". IEEE Transactions on Power Systems, 2004, 19, 2124-2124.	4.6	1
63	Energy Audits and Energy Efficiency in Small Wastewater Treatment Plants: A Case Study. , 2020, , 766-777.		1
64	A two-phase decision support approach for the selection of load control actions. , 2008, , .		0
65	Improving the Responsiveness of NSGA-II in Dynamic Environments Using an Adaptive Mutation Operator â€“ A Case Study. Lecture Notes in Computer Science, 2008, , 90-97.	1.0	0
66	A hybrid evolutionary simulated annealing algorithm with incorporation of preferences. , 2013, , .		0
67	Quantitative Assessment of Advanced Energy Efficiency Retrofitting for Hospitals in India. , 2016, , .		0
68	The Role of Demand Response in Power Systems With Low Inertia. , 2018, , .		0
69	Incorporation of Preferences in an Evolutionary Algorithm Using an Outranking Relation. , 2014, , 66-89.		0
70	CASOS DE VIOLÃŠNCIA VERBAL NO FUTEBOL E NAS REDES DE COMPUTADOR Ã€ LUZ DA TEORIA DOS ATOS DE LINGUAGEM. Cadernos De Linguagem E Sociedade, 2020, 20, 134-149.	0.1	0