

Alfonso Capozzoli

List of Publications by Year in descending order

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Version: 2024-02-01

67
papers

2,899
citations

182225

30
h-index

190340

53
g-index

70
all docs

70
docs citations

70
times ranked

2798
citing authors

#	ARTICLE	IF	CITATIONS
1	Energy Management of a Residential Heating System Through Deep Reinforcement Learning. Smart Innovation, Systems and Technologies, 2022, , 329-339.	0.5	1
2	Data-centric or algorithm-centric: Exploiting the performance of transfer learning for improving building energy predictions in data-scarce context. Energy, 2022, 240, 122775.	4.5	29
3	Comparison of online and offline deep reinforcement learning with model predictive control for thermal energy management. Automation in Construction, 2022, 135, 104128.	4.8	32
4	A predictive and adaptive control strategy to optimize the management of integrated energy systems in buildings. Energy Reports, 2022, 8, 1550-1567.	2.5	20
5	Transfer learning for smart buildings: A critical review of algorithms, applications, and future perspectives. Advances in Applied Energy, 2022, 5, 100084.	6.6	107
6	Enhancing energy management in grid-interactive buildings: A comparison among cooperative and coordinated architectures. Applied Energy, 2022, 310, 118497.	5.1	17
7	Bridging the gap between complexity and interpretability of a data analytics-based process for benchmarking energy performance of buildings. Expert Systems With Applications, 2022, 206, 117649.	4.4	14
8	Towards a self-tuned data analytics-based process for an automatic context-aware detection and diagnosis of anomalies in building energy consumption timeseries. Energy and Buildings, 2022, 270, 112302.	3.1	6
9	A data analytics-based tool for the detection and diagnosis of anomalous daily energy patterns in buildings. Building Simulation, 2021, 14, 131-147.	3.0	34
10	Online Implementation of a Soft Actor-Critic Agent to Enhance Indoor Temperature Control and Energy Efficiency in Buildings. Energies, 2021, 14, 997.	1.6	24
11	Exploring the Potentialities of Deep Reinforcement Learning for Incentive-Based Demand Response in a Cluster of Small Commercial Buildings. Energies, 2021, 14, 2933.	1.6	21
12	Coordinated energy management for a cluster of buildings through deep reinforcement learning. Energy, 2021, 229, 120725.	4.5	52
13	Enhancing energy efficiency and comfort in buildings through model predictive control for dynamic façades with electrochromic glazing. Journal of Building Engineering, 2021, 43, 102535.	1.6	15
14	Data-driven district energy management with surrogate models and deep reinforcement learning. Applied Energy, 2021, 304, 117642.	5.1	47
15	Application of a Stochastic Multicriteria Acceptability Analysis to support decision-making within a macro-scale energy model: Case study of the electrification of the road European transport sector. Energy, 2021, 236, 121444.	4.5	6
16	A Data Analytics-Based Energy Information System (EIS) Tool to Perform Meter-Level Anomaly Detection and Diagnosis in Buildings. Energies, 2021, 14, 237.	1.6	19
17	Enhancing operational performance of AHUs through an advanced fault detection and diagnosis process based on temporal association and decision rules. Energy and Buildings, 2020, 226, 110369.	3.1	38
18	A Data-Driven Energy Platform: From Energy Performance Certificates to Human-Readable Knowledge through Dynamic High-Resolution Geospatial Maps. Electronics (Switzerland), 2020, 9, 2132.	1.8	3

#	ARTICLE	IF	CITATIONS
19	Deep reinforcement learning to optimise indoor temperature control and heating energy consumption in buildings. <i>Energy and Buildings</i> , 2020, 224, 110225.	3.1	115
20	The Impact of Stakeholder Preferences in Multicriteria Evaluation for the Retrofitting of Office Buildings in Italy. <i>Smart Innovation, Systems and Technologies</i> , 2020, , 581-591.	0.5	0
21	Recognition and classification of typical load profiles in buildings with non-intrusive learning approach. <i>Applied Energy</i> , 2019, 255, 113727.	5.1	46
22	Development and evaluation of a comfort-oriented control strategy for thermal management of mixed-mode ventilated buildings. <i>Energy and Buildings</i> , 2019, 202, 109347.	3.1	32
23	Optimization and Multicriteria Evaluation of Carbon-neutral Technologies for District Heating. <i>Energies</i> , 2019, 12, 1653.	1.6	12
24	Towards an Automated, Fast and Interpretable Estimation Model of Heating Energy Demand: A Data-Driven Approach Exploiting Building Energy Certificates. <i>Energies</i> , 2019, 12, 1273.	1.6	25
25	Visualising high-resolution energy maps through the exploratory analysis of energy performance certificates. , 2019, , .		1
26	Analysis of the temperature dependence of the thermal conductivity in Vacuum Insulation Panels. <i>Energy and Buildings</i> , 2019, 183, 64-74.	3.1	32
27	Optimisation analysis of PCM-enhanced opaque building envelope components for the energy retrofiting of office buildings in Mediterranean climates. <i>Applied Energy</i> , 2018, 211, 929-953.	5.1	76
28	Automated load pattern learning and anomaly detection for enhancing energy management in smart buildings. <i>Energy</i> , 2018, 157, 336-352.	4.5	102
29	Formulation of a model predictive control algorithm to enhance the performance of a latent heat solar thermal system. <i>Energy Conversion and Management</i> , 2018, 173, 438-449.	4.4	40
30	Model Predictive Control (MPC) for Enhancing Building and HVAC System Energy Efficiency: Problem Formulation, Applications and Opportunities. <i>Energies</i> , 2018, 11, 631.	1.6	341
31	The Effect of Temperature on Thermal Performance of Fumed Silica Based Vacuum Insulation Panels for Buildings. <i>Energy Procedia</i> , 2017, 111, 490-499.	1.8	9
32	Data analytics for occupancy pattern learning to reduce the energy consumption of HVAC systems in office buildings. <i>Sustainable Cities and Society</i> , 2017, 35, 191-208.	5.1	84
33	Thermal bridges in vacuum insulation panels at building scale. <i>Proceedings of the Institution of Civil Engineers: Engineering Sustainability</i> , 2017, 170, 47-60.	0.4	15
34	Data mining for energy analysis of a large data set of flats. <i>Proceedings of the Institution of Civil Engineers: Engineering Sustainability</i> , 2017, 170, 3-18.	0.4	10
35	Mining typical load profiles in buildings to support energy management in the smart city context. <i>Energy Procedia</i> , 2017, 134, 865-874.	1.8	38
36	Exploring Energy Certificates of Buildings through Unsupervised Data Mining Techniques. , 2017, , .		5

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37	A novel methodology for energy performance benchmarking of buildings by means of Linear Mixed Effect Model: The case of space and DHW heating of out-patient Healthcare Centres. Applied Energy, 2016, 171, 592-607.	5.1	31
38	Experimental and numerical investigation of thermal bridging effects of jointed Vacuum Insulation Panels. Energy and Buildings, 2016, 111, 164-175.	3.1	38
39	Experimental Measurement and Numerical Modeling of the Creaming of mPCM Slurry. Energy Procedia, 2015, 78, 2010-2015.	1.8	2
40	Coupling VIPs and ABPs: Assessment of Overall Thermal Performance in Building Wall Insulation. Energy Procedia, 2015, 78, 2760-2765.	1.8	7
41	VIPs Thermal Conductivity Measurement: Test Methods, Limits and Uncertainty. Energy Procedia, 2015, 78, 418-423.	1.8	16
42	Vacuum Insulation Panels: Thermal Bridging Effects and Energy Performance in Real Building Applications. Energy Procedia, 2015, 83, 269-278.	1.8	18
43	Cooling Systems in Data Centers: State of Art and Emerging Technologies. Energy Procedia, 2015, 83, 484-493.	1.8	134
44	Discovering Knowledge from a Residential Building Stock through Data Mining Analysis for Engineering Sustainability. Energy Procedia, 2015, 83, 370-379.	1.8	15
45	The Overall Architecture of a Decision Support System for Public Buildings. Energy Procedia, 2015, 78, 2196-2201.	1.8	5
46	Model Predictive Control for Building Active Demand Response Systems. Energy Procedia, 2015, 83, 494-503.	1.8	22
47	Fault detection analysis using data mining techniques for a cluster of smart office buildings. Expert Systems With Applications, 2015, 42, 4324-4338.	4.4	145
48	The early design stage of a building envelope: Multi-objective search through heating, cooling and lighting energy performance analysis. Applied Energy, 2015, 154, 577-591.	5.1	237
49	Estimation models of heating energy consumption in schools for local authorities planning. Energy and Buildings, 2015, 105, 302-313.	3.1	42
50	Vacuum Insulation Panels: Analysis of the Thermal Performance of Both Single Panel and Multilayer Boards. Energies, 2015, 8, 2528-2547.	1.6	43
51	Review on Performance Metrics for Energy Efficiency in Data Center: The Role of Thermal Management. Lecture Notes in Computer Science, 2015, , 135-151.	1.0	19
52	Potentialities of a Low Temperature Solar Heating System Based on Slurry Phase Change Materials (PCS). Energy Procedia, 2014, 62, 355-363.	1.8	20
53	Building Fan Coil Electric Consumption Analysis with Fuzzy Approaches for Fault Detection and Diagnosis. Energy Procedia, 2014, 62, 411-420.	1.8	20
54	Thermal Metrics for Data Centers: A Critical Review. Energy Procedia, 2014, 62, 391-400.	1.8	29

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55	The Effect of Different Materials Joint in Vacuum Insulation Panels. Energy Procedia, 2014, 62, 374-381.	1.8	28
56	Indoor lighting fault detection and diagnosis using a data fusion approach. WIT Transactions on Ecology and the Environment, 2014, , .	0.0	2
57	Temperature Field Real-Time Diagnosis by Means of Infrared Imaging in Data Elaboration Center. Lecture Notes in Electrical Engineering, 2014, , 455-463.	0.3	0
58	Building Energy Management Through Fault Detection Analysis Using Pattern Recognition Techniques Applied on Residual Neural Networks. Communications in Computer and Information Science, 2014, , 1-12.	0.4	0
59	Fault Detection Analysis of Building Energy Consumption Using Data Mining Techniques. Energy Procedia, 2013, 42, 557-566.	1.8	78
60	A building thermal bridges sensitivity analysis. Applied Energy, 2013, 107, 229-243.	5.1	84
61	A coupled numerical approach on museum air conditioning: Energy and fluid-dynamic analysis. Applied Energy, 2013, 103, 416-427.	5.1	51
62	Desiccant wheel regenerated by thermal energy from a microcogenerator: Experimental assessment of the performances. Applied Energy, 2011, 88, 1354-1365.	5.1	75
63	USE of the ANOVA approach for sensitive building energy design. Applied Energy, 2010, 87, 3073-3083.	5.1	115
64	Energy saving strategies in air-conditioning for museums. Applied Thermal Engineering, 2009, 29, 676-686.	3.0	82
65	A comparison of HVAC systems for artwork conservation. International Journal of Refrigeration, 2007, 30, 1439-1451.	1.8	32
66	Hybrid HVAC systems with chemical dehumidification for supermarket applications. Applied Thermal Engineering, 2006, 26, 795-805.	3.0	39
67	Advanced Control Strategies For The Modulation Of Solar Radiation In Buildings: MPC-Enhanced Rule-Based Control. , 0, , .		2