Da Yan

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/8329840/publications.pdf

Version: 2024-02-01

136 papers	7,595 citations	53660 45 h-index	56606 83 g-index
140 all docs	140 docs citations	140 times ranked	3768 citing authors

#	Article	IF	Citations
1	Occupant behavior modeling for building performance simulation: Current state and future challenges. Energy and Buildings, 2015, 107, 264-278.	3.1	611
2	Advances in research and applications of energy-related occupant behavior in buildings. Energy and Buildings, 2016, 116, 694-702.	3.1	367
3	Ten questions concerning occupant behavior in buildings: The big picture. Building and Environment, 2017, 114, 518-530.	3.0	351
4	IEA EBC Annex 66: Definition and simulation of occupant behavior in buildings. Energy and Buildings, 2017, 156, 258-270.	3.1	296
5	A review of uncertainty analysis in building energy assessment. Renewable and Sustainable Energy Reviews, 2018, 93, 285-301.	8.2	265
6	A survey on energy consumption and energy usage behavior of households and residential building in urban China. Energy and Buildings, 2017, 148, 366-378.	3.1	249
7	DeST â€" An integrated building simulation toolkit Part I: Fundamentals. Building Simulation, 2008, 1, 95-110.	3.0	229
8	A review on buildings energy information: Trends, end-uses, fuels and drivers. Energy Reports, 2022, 8, 626-637.	2.5	213
9	A novel approach for building occupancy simulation. Building Simulation, 2011, 4, 149-167.	3.0	196
10	Simulation of occupancy in buildings. Energy and Buildings, 2015, 87, 348-359.	3.1	186
11	Air-conditioning usage conditional probability model for residential buildings. Building and Environment, 2014, 81, 172-182.	3.0	135
12	An occupant behavior modeling tool for co-simulation. Energy and Buildings, 2016, 117, 272-281.	3.1	134
13	Modeling occupancy and behavior for better building design and operationâ€"A critical review. Building Simulation, 2018, 11, 899-921.	3.0	131
14	Modelling of energy consumption and carbon emission from the building construction sector in China, a process-based LCA approach. Energy Policy, 2019, 134, 110949.	4.2	131
15	Introducing IEA EBC annex 79: Key challenges and opportunities in the field of occupant-centric building design and operation. Building and Environment, 2020, 178, 106738.	3.0	129
16	Advanced data analytics for enhancing building performances: From data-driven to big data-driven approaches. Building Simulation, 2021, 14, 3-24.	3.0	116
17	Non-invasive (non-contact) measurements of human thermal physiology signals and thermal comfort/discomfort poses -A review. Energy and Buildings, 2020, 224, 110261.	3.1	109
18	A systematic review of occupant behavior in building energy policy. Building and Environment, 2020, 175, 106807.	3.0	105

#	Article	IF	Citations
19	Modelling building energy consumption in China under different future scenarios. Energy, 2021, 214, 119063.	4.5	102
20	An insight into actual energy use and its drivers in high-performance buildings. Applied Energy, 2014, 131, 394-410.	5.1	101
21	Data analysis and stochastic modeling of lighting energy use in large office buildings in China. Energy and Buildings, 2015, 86, 275-287.	3.1	101
22	Stochastic modeling of overtime occupancy and its application in building energy simulation and calibration. Building and Environment, 2014, 79, 1-12.	3.0	98
23	Temporal and spatial characteristics of the urban heat island in Beijing and the impact on building design and energy performance. Energy, 2017, 130, 286-297.	4.5	96
24	A review of reinforcement learning methodologies for controlling occupant comfort in buildings. Sustainable Cities and Society, 2019, 51, 101748.	5.1	96
25	Urban residential heating in hot summer and cold winter zones of Chinaâ€”Status, modeling, and scenarios to 2030. Energy Policy, 2016, 92, 158-170.	4.2	94
26	Quantitative description and simulation of human behavior in residential buildings. Building Simulation, 2012, 5, 85-94.	3.0	92
27	Comparative study of the cooling energy performance of variable refrigerant flow systems and variable air volume systems in office buildings. Applied Energy, 2016, 183, 725-736.	5.1	87
28	Clustering and statistical analyses of air-conditioning intensity and use patterns in residential buildings. Energy and Buildings, 2018, 174, 214-227.	3.1	85
29	A novel stochastic modeling method to simulate cooling loads in residential districts. Applied Energy, 2017, 206, 134-149.	5.1	79
30	Challenges and opportunities for carbon neutrality in Chinaâ€™s building sectorâ€”Modelling and data. Building Simulation, 2022, 15, 1899-1921.	3.0	79
31	A preliminary research on the derivation of typical occupant behavior based on large-scale questionnaire surveys. Energy and Buildings, 2016, 117, 332-340.	3.1	76
32	Investigation and analyses of residential heating in the HSCW climate zone of China: Status quo and key features. Building and Environment, 2015, 94, 532-542.	3.0	70
33	Energy and behaviour at home: A review of intervention methods and practices. Energy Research and Social Science, 2019, 57, 101238.	3.0	70
34	A detailed loads comparison of three building energy modeling programs: EnergyPlus, DeST and DOE-2.1E. Building Simulation, 2013, 6, 323-335.	3.0	68
35	A generalized probabilistic formula relating occupant behavior to environmental conditions. Building and Environment, 2016, 95, 53-62.	3.0	68
36	Comparison of typical year and multiyear building simulations using a 55-year actual weather data set from China. Applied Energy, 2017, 195, 890-904.	5.1	66

#	Article	IF	Citations
37	Data mining of space heating system performance in affordable housing. Building and Environment, 2015, 89, 1-13.	3.0	65
38	Building categorization revisited: A clustering-based approach to using smart meter data for building energy benchmarking. Applied Energy, 2020, 269, 114920.	5.1	65
39	An international review of occupant-related aspects of building energy codes and standards. Building and Environment, 2020, 179, 106906.	3.0	59
40	DeST 3.0: A new-generation building performance simulation platform. Building Simulation, 2022, 15, 1849-1868.	3.0	58
41	Influence of household air-conditioning use modes on the energy performance of residential district cooling systems. Building Simulation, 2016, 9, 429-441.	3.0	54
42	Cluster analysis for occupant-behavior based electricity load patterns in buildings: A case study in Shanghai residences. Building Simulation, 2017, 10, 889-898.	3.0	52
43	A thorough assessment of Chinaâ€™s standard for energy consumption of buildings. Energy and Buildings, 2017, 143, 114-128.	3.1	52
44	Building energy use in China: Ceiling and scenario. Energy and Buildings, 2015, 102, 307-316.	3.1	49
45	Modelling urban-scale occupant behaviour, mobility, and energy in buildings: A survey. Building and Environment, 2020, 183, 106964.	3.0	48
46	Modelling and applications of annual energy-using simulation module of separated heat pipe heat exchanger. Energy and Buildings, 2013, 57, 26-33.	3.1	47
47	Energy poverty and thermal comfort in northern urban China: A household-scale typology of infrastructural inequalities. Energy and Buildings, 2018, 177, 363-374.	3.1	44
48	Occupancy data at different spatial resolutions: Building energy performance and model calibration. Applied Energy, 2021, 286, 116492.	5.1	43
49	Using bottom-up model to analyze cooling energy consumption in China's urban residential building. Energy and Buildings, 2019, 202, 109352.	3.1	42
50	Design and operation optimization of multi-chiller plants based on energy performance simulation. Energy and Buildings, 2020, 222, 110100.	3.1	42
51	Updates to the China Design Standard for Energy Efficiency in public buildings. Energy Policy, 2015, 87, 187-198.	4.2	41
52	Building occupancy forecasting: A systematical and critical review. Energy and Buildings, 2021, 251, 111345.	3.1	41
53	Assessing the potential of decarbonizing China's building construction by 2060 and synergy with industry sector. Journal of Cleaner Production, 2022, 359, 132086.	4.6	40
54	Investigation and analysis of Chinese residential building occupancy with large-scale questionnaire surveys. Energy and Buildings, 2019, 193, 289-304.	3.1	37

#	ARTICLE	IF	CITATIONS
55	Occupant behavior modeling methods for resilient building design, operation and policy at urban scale: A review. Applied Energy, 2021, 293, 116856.	5.1	37
56	Renovation strategies for the Italian public housing stock: Applying building energy simulation and occupant behaviour modelling to support decision-making process. Energy and Buildings, 2018, 167, 269-280.	3.1	35
57	Global comparison of building energy use data within the context of climate change. Energy and Buildings, 2020, 226, 110362.	3.1	34
58	Evaluation of thermal imbalance of ground source heat pump systems in residential buildings in China. Building Simulation, 2020, 13, 585-598.	3.0	33
59	A data-driven model predictive control for lighting system based on historical occupancy in an office building: Methodology development. Building Simulation, 2021, 14, 219-235.	3.0	33
60	Scientometric mapping of smart building research: Towards a framework of human-cyber-physical system (HCPS). Automation in Construction, 2021, 129, 103776.	4.8	33
61	A novel mobility-based approach to derive urban-scale building occupant profiles and analyze impacts on building energy consumption. Applied Energy, 2020, 278, 115656.	5.1	32
62	Research on a dynamic simulation method of atrium thermal environment based on neural network. Building and Environment, 2012, 50, 214-220.	3.0	31
63	Comparison of HVAC system modeling in EnergyPlus, DeST and DOE-2.1E. Building Simulation, 2014, 7, 21-33.	3.0	31
64	An action-based Markov chain modeling approach for predicting the window operating behavior in office spaces. Building Simulation, 2021, 14, 301-315.	3.0	31
65	A Global Building Occupant Behavior Database. Scientific Data, 2022, 9, .	2.4	31
66	Household appliance recognition through a Bayes classification model. Sustainable Cities and Society, 2019, 46, 101393.	5.1	30
67	Comparative study of air-conditioning energy use of four office buildings in China and USA. Energy and Buildings, 2018, 169, 344-352.	3.1	29
68	Modeling Individual's Light Switching Behavior to Understand Lighting Energy Use of Office Building. Energy Procedia, 2016, 88, 781-787.	1.8	28
69	Relative importance of factors influencing building energy in urban environment. Energy, 2016, 111, 237-250.	4.5	28
70	Survey and performance analysis of centralized domestic hot water system in China. Energy and Buildings, 2016, 133, 321-334.	3.1	27
71	Development of an adaptation table to enhance the accuracy of the predicted mean vote model. Building and Environment, 2020, 168, 106504.	3.0	25
72	Predicting open-plan office window operating behavior using the random forest algorithm. Journal of Building Engineering, 2021, 42, 102514.	1.6	24

#	Article	IF	Citations
73	Typical weekly occupancy profiles in non-residential buildings based on mobile positioning data. Energy and Buildings, 2021, 250, 111264.	3.1	24
74	Modeling occupant behaviorâ€™s influence on the energy efficiency of solar domestic hot water systems. Applied Energy, 2022, 309, 118503.	5.1	24
75	Lighting energy consumption in ultra-low energy buildings: Using a simulation and measurement methodology to model occupant behavior and lighting controls. Building Simulation, 2017, 10, 799-810.	3.0	22
76	Coupled cooling method for multiple latent heat thermal storage devices combined with pre-cooling of envelope: Model development and operation optimization. Energy, 2018, 159, 508-524.	4.5	22
77	The evaluation of stochastic occupant behavior models from an application-oriented perspective: Using the lighting behavior model as a case study. Energy and Buildings, 2018, 176, 151-162.	3.1	22
78	A novel approach for selecting typical hot-year (THY) weather data. Applied Energy, 2019, 242, 1634-1648.	5.1	22
79	Clustering-based probability distribution model for monthly residential building electricity consumption analysis. Building Simulation, 2021, 14, 149-164.	3.0	22
80	On the simulation repetition and temporal discretization of stochastic occupant behaviour models in building performance simulation. Journal of Building Performance Simulation, 2017, 10, 612-624.	1.0	21
81	Forecasting building occupancy: A temporal-sequential analysis and machine learning integrated approach. Energy and Buildings, 2021, 252, 111362.	3.1	21
82	Exploring the factors and motivations influencing heating behavioral patterns and future energy use intentions in the hot summer and cold winter climate zone of China. Energy and Buildings, 2017, 153, 99-110.	3.1	20
83	Power consumption and energy efficiency of VRF system based on large scale monitoring virtual sensors. Building Simulation, 2020, 13, 1145-1156.	3.0	20
84	Comparison of different machine learning algorithms for predicting air-conditioning operating behavior in open-plan offices. Energy and Buildings, 2021, 251, 111347.	3.1	20
85	Spatial distribution of internal heat gains: A probabilistic representation and evaluation of its influence on cooling equipment sizing in large office buildings. Energy and Buildings, 2017, 139, 407-416.	3.1	19
86	The typical hot year and typical cold year for modeling extreme events impacts on indoor environment: A generation method and case study. Building Simulation, 2020, 13, 543-558.	3.0	19
87	Systematically incorporating spectrum-selective radiative cooling into building performance simulation: Numerical integration method and experimental validation. Applied Energy, 2022, 312, 118733.	5.1	18
88	An integrated modeling tool for simultaneous analysis of thermal performance and indoor air quality in buildings. Building and Environment, 2008, 43, 287-293.	3.0	17
89	Coupled cooling method and application of latent heat thermal energy storage combined with pre-cooling of envelope: Temperature control using phase-change chair. Sustainable Cities and Society, 2018, 42, 38-51.	5.1	17
90	An improved method for direct incident solar radiation calculation from hourly solar insolation data in building energy simulation. Energy and Buildings, 2020, 227, 110425.	3.1	17

#	Article	IF	Citations
91	Exploring cooling pattern of low-income households in urban China based on a large-scale questionnaire survey: A case study in Beijing. Energy and Buildings, 2021, 236, 110783.	3.1	17
92	Review and estimation of global halocarbon emissions in the buildings sector. Energy and Buildings, 2020, 225, 110311.	3.1	16
93	Appliance use behavior modelling and evaluation in residential buildings: A case study of television energy use. Building Simulation, 2020, 13, 787-801.	3.0	16
94	Building occupant transient agent-based model â€“ Movement module. Applied Energy, 2020, 261, 114417.	5.1	15
95	A guideline to document occupant behavior models for advanced building controls. Building and Environment, 2022, 219, 109195.	3.0	15
96	Agent Based Modelling of a Local Energy Market: A Study of the Economic Interactions between Autonomous PV Owners within a Micro-Grid. Buildings, 2021, 11, 160.	1.4	14
97	Influence of asynchronous demand behavior on overcooling in multiple zone AC systems. Building and Environment, 2016, 110, 65-75.	3.0	13
98	Investigation and modelling of the centralized solar domestic hot water system in residential buildings. Building Simulation, 2017, 10, 87-96.	3.0	13
99	Building Blocks Energy Estimation (BBEE): A method for building energy estimation on district level. Energy and Buildings, 2019, 185, 137-147.	3.1	13
100	Comparative research on different air conditioning systems for residential buildings. Frontiers of Architectural Research, 2017, 6, 42-52.	1.3	12
101	Operation and performance of VRF systems: Mining a large-scale dataset. Energy and Buildings, 2021, 230, 110519.	3.1	12
102	Vertical meteorological patterns and their impact on the energy demand of tall buildings. Energy and Buildings, 2021, 232, 110624.	3.1	12
103	Generation and verification of vertical meteorological data for building energy simulation from a 325-meter Beijing meteorological tower. Energy and Buildings, 2022, 262, 111992.	3.1	11
104	A Technical Review of Modeling Techniques for Urban Solar Mobility: Solar to Buildings, Vehicles, and Storage (S2BVS). Sustainability, 2020, 12, 7035.	1.6	10
105	Co-simulation of dynamic underground heat transfer with building energy modeling based on equivalent slab method. Energy and Buildings, 2022, 256, 111728.	3.1	10
106	Extreme events, energy security and equality through micro- and macro-levels: Concepts, challenges and methods. Energy Research and Social Science, 2022, 85, 102401.	3.0	10
107	Occupant migration monitoring in residential buildings with the use of a depth registration camera. Procedia Engineering, 2017, 205, 1193-1200.	1.2	9
108	Analysis of district cooling system with chilled water thermal storage in hot summer and cold winter area of China. Building Simulation, 2020, 13, 349-361.	3.0	9

#	Article	IF	Citations
109	Exploring key factors impacting cooling usage patterns of Chinese urban household based on a large-scale questionnaire survey. Energy and Buildings, 2020, 214, 109885.	3.1	9
110	Comparative analysis of window operating behavior in three different open-plan offices in Nanjing. Energy and Built Environment, 2021, 2, 175-187.	2.9	9
111	Impact of occupant related data on identification and model predictive control for buildings. Applied Energy, 2022, 323, 119580.	5.1	8
112	Advanced data analytics for building energy modeling and management. Building Simulation, 2021, 14, 1-2.	3.0	7
113	Development of Prototype Building Model in Beijing Based on Actual Energy Consumption. Environmental Science and Engineering, 2020, , 1187-1196.	0.1	7
114	Using mobile phone big data to identify inequity of artificial light at night exposure: A case study in Tokyo. Cities, 2022, 128, 103803.	2.7	6
115	A novel stochastic model for hourly electricity load profile analysis of rural districts in Fujian, China. Science and Technology for the Built Environment, 2022, 28, 1166-1183.	0.8	4
116	Application of Lorenz Curve and Gini Index in the Analysis of Load Fea-ture in HVAC Systems. Procedia Engineering, 2015, 121, 11-18.	1.2	3
117	Demand response capability assessment for buildings based on simulation and model simplification. , 2015, , .		3
118	Influence of load feature on the water distribution system in a centralized air-conditioning system. Science and Technology for the Built Environment, 2017, 23, 277-284.	0.8	3
119	Influence of occupant behaviour on oversizing issue of heat pumps for residential district in Hot Summer and Cold Winter zone of China. Procedia Engineering, 2017, 205, 2434-2441.	1.2	3
120	Lighting System Control in Office Building Using Occupancy Prediction Based on Historical Occupied Ratio. IOP Conference Series: Earth and Environmental Science, 0, 238, 012009.	0.2	3
121	Performance of VRF systems based on large scale monitoring. IOP Conference Series: Materials Science and Engineering, 2019, 609, 052012.	0.3	3
122	Investigation and Modelling of the Centralized Solar Domestic Hot Water System in Residential Buildings. Procedia Engineering, 2016, 146, 424-430.	1.2	2
123	District household electricity consumption pattern analysis based on auto-encoder algorithm. IOP Conference Series: Materials Science and Engineering, 2019, 609, 072028.	0.3	2
124	Building Simulation to be published monthly from 2022. Building Simulation, 2022, 15, 1-1.	3.0	2
125	Field test and modeling analysis on unbalance of heat extraction and rejection of GSHP systems with different AC terminal units. IOP Conference Series: Earth and Environmental Science, 2019, 238, 012041.	0.2	1
126	Analytical Methodology of Monthly Residential Building Electricity Consumption Based on Data Mining Models. IOP Conference Series: Earth and Environmental Science, 2019, 238, 012050.	0.2	1

#	Article	IF	Citations
127	A Data-Driven Model Predictive Control for Lighting System Based on Historical Occupancy in an Office Building: Methodology Development. Sustainable Development Goals Series, 2021, , 93-114.	0.2	1
128	Real Time Measurement of Dynamic Metabolic Factor (D-MET). Springer Proceedings in Energy, 2019, , 677-688.	0.2	1
129	Adapting LT-Method for Building Energy Prediction in China. Procedia Engineering, 2017, 205, 3-10.	1.2	0
130	Study on Energy Performance of Passive Zone and Non-passive Zone in Office Buildings. IOP Conference Series: Earth and Environmental Science, 2019, 238, 012008.	0.2	0
131	Evaluation of the occupantsâ€™ exposition to the indoor environment.. IOP Conference Series: Materials Science and Engineering, 2019, 609, 042066.	0.3	0
132	Auto-tuning method for data-driven models in building energy consumption prediction: a case of cooling load prediction. IOP Conference Series: Materials Science and Engineering, 2019, 609, 052031.	0.3	0
133	Investigating the Role of Occupant Behavior in Design Energy Poverty Strategies. Insights from Energy Simulation Results. Green Energy and Technology, 2021, , 525-537.	0.4	0
134	Cluster Analysis for Occupant-Behaviour Based Electricity Load Patterns in Buildings: A Case Study in Shanghai Residences. Sustainable Development Goals Series, 2021, , 81-92.	0.2	0
135	Validation and Ground Truths. , 2018, , 239-260.		0
136	Development of a Library for Building Surface Layout Simulator. Environmental Science and Engineering, 2020, , 1137-1144.	0.1	0