

Godfried Augenbroe

List of Publications by Year in descending order

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56
papers

2,055
citations

201674

27
h-index

243625

44
g-index

57
all docs

57
docs citations

57
times ranked

1583
citing authors

#	ARTICLE	IF	CITATIONS
1	A review of uncertainty analysis in building energy assessment. <i>Renewable and Sustainable Energy Reviews</i> , 2018, 93, 285-301.	16.4	265
2	Analysis of uncertainty in building design evaluations and its implications. <i>Energy and Buildings</i> , 2002, 34, 951-958.	6.7	238
3	Exploring HVAC system sizing under uncertainty. <i>Energy and Buildings</i> , 2014, 81, 243-252.	6.7	112
4	Quantification methods of technical building performance. <i>Building Research and Information</i> , 2005, 33, 159-172.	3.9	76
5	Urban heat island effect on energy application studies of office buildings. <i>Energy and Buildings</i> , 2014, 77, 171-179.	6.7	76
6	Assessment of linear emulators in lightweight Bayesian calibration of dynamic building energy models for parameter estimation and performance prediction. <i>Energy and Buildings</i> , 2016, 124, 194-202.	6.7	70
7	Scalable methodology for large scale building energy improvement: Relevance of calibration in model-based retrofit analysis. <i>Building and Environment</i> , 2015, 87, 342-350.	6.9	68
8	Compound Climate and Infrastructure Events: How Electrical Grid Failure Alters Heat Wave Risk. <i>Environmental Science & Technology</i> , 2021, 55, 6957-6964.	10.0	66
9	Uncertainty quantification of microclimate variables in building energy models. <i>Journal of Building Performance Simulation</i> , 2014, 7, 17-32.	2.0	58
10	Calibration of a lumped simulation model for double-skin faade systems. <i>Energy and Buildings</i> , 2004, 36, 1117-1130.	6.7	56
11	Longitudinal prediction of the operational energy use of buildings. <i>Building and Environment</i> , 2011, 46, 1670-1680.	6.9	55
12	An uncertainty-based design optimization method for district cooling systems. <i>Energy</i> , 2016, 102, 516-527.	8.8	53
13	Real-time optimization of a double-skin faade based on lumped modeling and occupant preference. <i>Building and Environment</i> , 2004, 39, 939-948.	6.9	50
14	Importance analysis and meta-model construction with correlated variables in evaluation of thermal performance of campus buildings. <i>Building and Environment</i> , 2015, 92, 61-74.	6.9	47
15	Occupancy data at different spatial resolutions: Building energy performance and model calibration. <i>Applied Energy</i> , 2021, 286, 116492.	10.1	43
16	A GIS-based Energy Balance Modeling System for Urban Solar Buildings. <i>Energy Procedia</i> , 2015, 75, 2946-2952.	1.8	39
17	Robust optimal design of district cooling systems and the impacts of uncertainty and reliability. <i>Energy and Buildings</i> , 2016, 122, 11-22.	6.7	39
18	Reconstructing building stock to replicate energy consumption data. <i>Energy and Buildings</i> , 2016, 117, 301-312.	6.7	39

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19	Optimal configuration of multiple-chiller plants under cooling load uncertainty for different climate effects and building types. <i>Energy and Buildings</i> , 2018, 158, 684-697.	6.7	38
20	Quantitative risk management for energy retrofit projects. <i>Journal of Building Performance Simulation</i> , 2013, 6, 257-268.	2.0	36
21	The use of normative energy calculation beyond building performance rating. <i>Journal of Building Performance Simulation</i> , 2013, 6, 282-292.	2.0	31
22	Meta-modeling of occupancy variables and analysis of their impact on energy outcomes of office buildings. <i>Applied Energy</i> , 2016, 174, 166-180.	10.1	31
23	Uncertainty analysis of thermal comfort in a prototypical naturally ventilated office building and its implications compared to deterministic simulation. <i>Energy and Buildings</i> , 2017, 146, 283-294.	6.7	30
24	Facility Maintenance Performance Perspective to Target Strategic Organizational Objectives. <i>Journal of Performance of Constructed Facilities</i> , 2010, 24, 180-187.	2.0	29
25	Evaluating the potential of hybrid ventilation for small to medium sized office buildings with different intelligent controls and uncertainties in US climates. <i>Energy and Buildings</i> , 2018, 158, 1648-1661.	6.7	29
26	A stochastic model based energy management system for off-grid solar houses. <i>Building and Environment</i> , 2012, 50, 90-103.	6.9	28
27	On-line parameter estimation and optimal control strategy of a double-skin system. <i>Building and Environment</i> , 2011, 46, 1141-1150.	6.9	27
28	Quantifying uncertainty in outdoor air flow control and its impacts on building performance simulation and fault detection. <i>Energy and Buildings</i> , 2017, 134, 115-128.	6.7	26
29	Assessment of uncertainty and confidence in building design exploration. <i>Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM</i> , 2015, 29, 429-441.	1.1	24
30	Lighted-weighted model predictive control for hybrid ventilation operation based on clusters of neural network models. <i>Automation in Construction</i> , 2018, 89, 250-265.	9.8	24
31	Timing residential photovoltaic investments in the presence of demand uncertainties. <i>Sustainable Cities and Society</i> , 2016, 20, 109-123.	10.4	22
32	Uncertainty in developing supervisory demand-side controls in buildings: A framework and guidance. <i>Automation in Construction</i> , 2013, 35, 28-43.	9.8	21
33	Optimal demand charge reduction for commercial buildings through a combination of efficiency and flexibility measures. <i>Applied Energy</i> , 2018, 221, 180-194.	10.1	19
34	Effects of scenario uncertainty on chiller sizing method. <i>Applied Thermal Engineering</i> , 2017, 123, 187-195.	6.0	17
35	Sizing heating, ventilating, and air-conditioning systems under uncertainty in both load-demand and capacity-supply side from a life-cycle aspect. <i>Science and Technology for the Built Environment</i> , 2017, 23, 367-381.	1.7	16
36	Decision model for energy performance improvements in existing buildings. <i>Journal of Engineering, Design and Technology</i> , 2009, 7, 21-36.	1.7	15

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37	Local vs. integrated control strategies for double-skin systems. Automation in Construction, 2013, 30, 50-56.	9.8	14
38	Investigation of the ageing effect on chiller plant maximum cooling capacity using Bayesian Markov Chain Monte Carlo method. Journal of Building Performance Simulation, 2016, 9, 529-541.	2.0	14
39	A Design Methodology for Energy Infrastructures at the Campus Scale. Computer-Aided Civil and Infrastructure Engineering, 2013, 28, 753-768.	9.8	13
40	Calibration of Dynamic Building Energy Models with Multiple Responses Using Bayesian Inference and Linear Regression Models. Energy Procedia, 2015, 78, 979-984.	1.8	12
41	A new approach to performance-based building design exploration using linear inverse modeling. Journal of Building Performance Simulation, 2019, 12, 246-271.	2.0	11
42	Quantification of model form uncertainty in the calculation of solar diffuse irradiation on inclined surfaces for building energy simulation. Journal of Building Performance Simulation, 2015, 8, 253-265.	2.0	9
43	An application of normative decision theory to the valuation of energy efficiency investments under uncertainty. Automation in Construction, 2017, 73, 78-87.	9.8	9
44	A statistical model of the spatial variability of weather for use in building simulation practice. Building and Environment, 2021, 206, 108331.	6.9	8
45	Simulation-enhanced prototyping of an experimental solar house. Building Simulation, 2008, 1, 336-355.	5.6	7
46	Empowerment of decision-makers in mould remediation. Building Research and Information, 2008, 36, 486-498.	3.9	7
47	Integrating Formalized User Experience within Building Design Models. Computer-Aided Civil and Infrastructure Engineering, 2007, 22, 117-132.	9.8	6
48	The Role of Construction Detailing and Workmanship in Achieving Energy-efficient Buildings. , 2014, , .		5
49	Investigation of maximum cooling loss in a piping network using Bayesian Markov Chain Monte Carlo method. Journal of Building Performance Simulation, 2019, 12, 117-132.	2.0	5
50	A novel inverse data driven modelling approach to performance-based building design during early stages. Advanced Engineering Informatics, 2019, 41, 100925.	8.0	4
51	Effective and scalable modelling of existing non-domestic buildings with radiator system under uncertainty. Journal of Building Performance Simulation, 2020, 13, 740-759.	2.0	4
52	Determining the cost optimum among a discrete set of building technologies to satisfy stringent energy targets. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 2015, 29, 417-427.	1.1	2
53	Model Predictive Control Strategy for Hybrid Ventilation Building Operation. , 2018, , .		2
54	Quantification methods of natural ventilated building performance in preliminary design. Building Research and Information, 2020, 48, 401-414.	3.9	2

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55	Sustainable building retrofit model for high-rise, high-density city: a case in Hong Kong. Proceedings of the Institution of Civil Engineers: Engineering Sustainability, 2021, 174, 69-82.	0.7	2
56	Uncertainty Analysis for Thermal Comfort Evaluation in Naturally Ventilated Buildings. , 2017, , .		1