Christian Ghiaus

List of Publications by Citations

41 papers	1,079 citations	18 h-index	32 g-index
43 ext. papers	1,174 ext. citations	6.2 avg, IF	4.91 L-index

#	Paper	IF	Citations
41	Optimal temperature control of intermittently heated buildings using Model Predictive Control: Part I – Building modeling. *Building and Environment*, **2012**, 51, 379-387	6.5	154
40	Optimal temperature control of intermittently heated buildings using Model Predictive Control: Part II – Control algorithm. *Building and Environment*, **2012**, 51, 388-394	6.5	97
39	Experimental estimation of building energy performance by robust regression. *Energy and Buildings*, **2006**, 38, 582-587	7	81
38	Fast method to predict building heating demand based on the design of experiments. *Energy and Buildings*, **2009**, 41, 669-677	7	79
37	Urban environment influence on natural ventilation potential. *Building and Environment*, **2006**, 41, 395-406	6.5	64
36	Calculation of optimal thermal load of intermittently heated buildings. *Energy and Buildings*, **2010**, 42, 1248-1258	7	50
35	Fast simulation of temperature distribution in air conditioned rooms by using proper orthogonal decomposition. *Building and Environment*, **2009**, 44, 280-289	6.5	49
34	Modeling of water spray evaporation: Application to passive cooling of buildings. *Solar Energy*, **2006**, 80, 1540-1552	6.8	46
33	Grey-box identification of air-handling unit elements. *Control Engineering Practice*, **2007**, 15, 421-433	3.9	40
32	Causality issue in the heat balance method for calculating the design heating and cooling load. *Energy*, **2013**, 50, 292-301	7.9	39
31	Potential for free-cooling by ventilation. *Solar Energy*, **2006**, 80, 402-413	6.8	38
30	Fuzzy model and control of a fan-coil. *Energy and Buildings*, **2001**, 33, 545-551	7	34
29	Fault diagnosis of air conditioning systems based on qualitative bond graph. *Energy and Buildings*, **1999**, 30, 221-232	7	31
28	Equivalence between the load curve and the free-running temperature in energy estimating methods. *Energy and Buildings*, **2006**, 38, 429-435	7	29
27	Free-running temperature and potential for free cooling by ventilation: A case study. *Energy and Buildings*, **2011**, 43, 2705-2711	7	28
26	Model Predictive Control of thermal comfort as a benchmark for controller performance. *Automation in Construction*, **2014**, 43, 98-109	9.6	26
25	Free-running building temperature and HVAC climatic suitability. *Energy and Buildings*, **2003**, 35, 405-411	7	23

24	Physical parameters identification of walls using ARX models obtained by deduction. *Energy and Buildings*, **2015**, 108, 317-329	7	19
23	An efficient Bayesian experimental calibration of dynamic thermal models. *Energy*, **2018**, 152, 818-833	7.9	17
22	Order selection of thermal models by frequency analysis of measurements for building energy efficiency estimation. *Applied Energy*, **2015**, 139, 230-244	10.7	15
21	Optimization of multifunction multi-source solar systems by design of experiments. *Solar Energy*, **2012**, 86, 593-607	6.8	15
20	Influence of Initial and Boundary Conditions on the Accuracy of the QUB Method to Determine the Overall Heat Loss Coefficient of a Building. *Energies*, **2020**, 13, 284	3.1	12
19	Linear algebra solution to psychometric analysis of air-conditioning systems. *Energy*, **2014**, 74, 555-566	7.9	11
18	Design of experiments for Quick U-building method for building energy performance measurement. *Journal of Building Performance Simulation*, **2019**, 12, 465-479	2.8	9
17	Evaluation of the indoor temperature field using a given air velocity distribution. *Building and Environment*, **1999**, 34, 671-679	6.5	9
16	New analytical methodologies for radiative heat transfer in enclosures based on matrix formalism and network analogy. *Applied Thermal Engineering*, **2016**, 107, 1269-1286	5.8	8
15	Linear fuzzy-discriminant analysis applied to forecast ozone concentration classes in sea-breeze regime. *Atmospheric Environment*, **2005**, 39, 4691-4702	5.3	8
14	Thermal circuits assembling and state-space extraction for modelling heat transfer in buildings. *Energy*, **2020**, 195, 117019	7.9	8
13	Gray-box state-space model and parameter identification of desiccant wheels. *Applied Thermal Engineering*, **2013**, 51, 742-752	5.8	6
12	Optimal settings of residential oil burners. *Energy and Buildings*, **2002**, 34, 83-90	7	5
11	Study of Error Propagation in the Transformations of Dynamic Thermal Models of Buildings. *Journal of Control Science and Engineering*, **2017**, 2017, 1-15	1.2	4
10	Gray-box identification of thermal transfer coefficients of desiccant wheels. *Energy and Buildings*, **2014**, 70, 384-397	7	4
9	Exergy performance and optimization potential of refrigeration plants in free cooling operation. *Energy*, **2020**, 209, 118464	7.9	4
8	A blind event-based learning algorithm for non-intrusive load disaggregation. *International Journal of Electrical Power and Energy Systems*, **2021**, 129, 106834	5.1	4
7	Frequency response limitation of heat flux meters. *Building and Environment*, **2017**, 114, 233-245	6.5	3

6	Natural Ventilation Potential of Urban Buildings. *International Journal of Ventilation*, **2005**, 4, 49-56	1.1	3
5	Thermal networks from the heat equation by using the finite element method **2016**,		3
4	Optimization potential index (OPI): An evaluation method for performance assessment and optimization potential of chillers in HVAC plants. *Applied Energy*, **2020**, 259, 114111	10.7	2
3	Error Analysis of QUB Method in Non-Ideal Conditions during the Experiment. *Energies*, **2020**, 13, 3398	3.1	2
2	Dynamic Models for Energy Control of Smart Homes **2021**, 163-198		
1	Computational psychrometric analysis as a control problem: case of cooling and dehumidification systems. *Journal of Building Performance Simulation*, **2022**, 15, 21-38	2.8	