Parham A Mirzaei

List of Publications by Year
in descending order

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58 papers	2,693 citations	172457 29 h-index	182427 51 g-index
58 all docs	58 docs citations	58 times ranked	2349 citing authors

#	Article	IF	Citations
1	Approaches to study Urban Heat Island â€“ Abilities and limitations. Building and Environment, 2010, 45, 2192-2201.	6.9	533
2	Recent challenges in modeling of urban heat island. Sustainable Cities and Society, 2015, 19, 200-206.	10.4	312
3	Integration of storage and renewable energy into district heating systems: A review of modelling and optimization. Solar Energy, 2016, 136, 49-64.	6.1	180
4	Urban heat island effect of a typical valley city in China: Responds to the global warming and rapid urbanization. Sustainable Cities and Society, 2018, 38, 736-745.	10.4	80
5	Indoor thermal condition in urban heat island: Comparison of the artificial neural network and regression methods prediction. Energy and Buildings, 2014, 76, 597-604.	6.7	76
6	Improvement of k-epsilon turbulence model for CFD simulation of atmospheric boundary layer around a high-rise building using stochastic optimization and Monte Carlo Sampling technique. Journal of Wind Engineering and Industrial Aerodynamics, 2017, 171, 366-379.	3.9	73
7	Improving the CFD modelling of cross-ventilation in highly-packed urban areas. Sustainable Cities and Society, 2018, 37, 451-465.	10.4	65
8	CFD modeling of airborne pathogen transmission of COVID-19 in confined spaces under different ventilation strategies. Sustainable Cities and Society, 2022, 76, 103397.	10.4	64
9	Urban heat island, urban climate maps and urban development policies and action plans. Environmental Technology and Innovation, 2019, 14, 100341.	6.1	63
10	Modeling of phase change materials for applications in whole building simulation. Renewable and Sustainable Energy Reviews, 2012, 16, 5355-5362.	16.4	61
11	A Review of District Heating Systems: Modeling and Optimization. Frontiers in Built Environment, 2016, 2, .	2.3	55
12	Indoor thermal condition in urban heat Island â€“ Development of a predictive tool. Building and Environment, 2012, 57, 7-17.	6.9	52
13	A novel approach to enhance outdoor air quality: Pedestrian ventilation system. Building and Environment, 2010, 45, 1582-1593.	6.9	51
14	A procedure to quantify the impact of mitigation techniques on the urban ventilation. Building and Environment, 2012, 47, 410-420.	6.9	50
15	Wind tunnel experiments on cross-ventilation flow of a generic sheltered building in urban areas. Building and Environment, 2019, 158, 60-72.	6.9	47
16	Experimental and steady-RANS CFD modelling of cross-ventilation in moderately-dense urban areas. Sustainable Cities and Society, 2020, 52, 101849.	10.4	45
17	Development of a dynamic external CFD and BES coupling framework for application of urban neighbourhoods energy modelling. Building and Environment, 2018, 146, 37-49.	6.9	43
18	A review and critique of UK housing stock energy models, modelling approaches and data sources. Energy and Buildings, 2017, 151, 66-80.	6.7	42

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19	Definition of a new morphological parameter to improve prediction of urban heat island. Sustainable Cities and Society, 2020, 56, 102021.	10.4	42
20	Development of an adaptive discharge coefficient to improve the accuracy of cross-ventilation airflow calculation in building energy simulation tools. Building and Environment, 2018, 127, 277-290.	6.9	41
21	Pollution removal effectiveness of the pedestrian ventilation system. Journal of Wind Engineering and Industrial Aerodynamics, 2011, 99, 46-58.	3.9	38
22	Dynamical computational fluid dynamics modeling of the stochastic wind for application of urban studies. Building and Environment, 2013, 70, 161-170.	6.9	38
23	CFD analysis of cross-ventilation flow in a group of generic buildings: Comparison between steady RANS, LES and wind tunnel experiments. Building Simulation, 2020, 13, 1353-1372.	5.6	37
24	Urban neighborhood characteristics influence on a building indoor environment. Sustainable Cities and Society, 2015, 19, 403-413.	10.4	36
25	CFD modeling of micro and urban climates: Problems to be solved in the new decade. Sustainable Cities and Society, 2021, 69, 102839.	10.4	36
26	Investigation of the role of cavity airflow on the performance of building-integrated photovoltaic panels. Solar Energy, 2014, 107, 510-522.	6.1	34
27	Tempo-spatial thermal comfort analysis of urban heat island with coupling of CFD and building energy simulation. Energy and Buildings, 2021, 251, 111317.	6.7	33
28	Modelling enhancement of cross-ventilation in sheltered buildings using stochastic optimization. International Journal of Heat and Mass Transfer, 2018, 118, 758-772.	4.8	32
29	Developing a framework for improvement of building thermal performance modeling under urban microclimate interactions. Sustainable Cities and Society, 2019, 44, 27-39.	10.4	30
30	Prediction of the surface temperature of building-integrated photovoltaics: Development of a high accuracy correlation using computational fluid dynamics. Solar Energy, 2017, 147, 151-163.	6.1	29
31	Influence of the underneath cavity on buoyant-forced cooling of the integrated photovoltaic panels in building roof: a thermography study. Progress in Photovoltaics: Research and Applications, 2015, 23, 19-29.	8.1	28
32	A tempo-spatial modelling framework to assess outdoor thermal comfort of complex urban neighbourhoods. Urban Climate, 2020, 33, 100665.	5.7	28
33	Impact of non-uniform urban surface temperature on pollution dispersion in urban areas. Building Simulation, 2011, 4, 227-244.	5.6	27
34	Simplified model to predict the thermal demand profile of districts. Energy and Buildings, 2017, 145, 213-225.	6.7	27
35	Experimental study on cross-ventilation of a generic building in highly-dense urban areas: Impact of planar area density and wind direction. Journal of Wind Engineering and Industrial Aerodynamics, 2020, 196, 104030.	3.9	27
36	Integration of topological aspect of city terrains to predict the spatial distribution of urban heat island using GIS and ANN. Sustainable Cities and Society, 2021, 69, 102825.	10.4	27

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37	Airborne and aerosol pathogen transmission modeling of respiratory events in buildings: An overview of computational fluid dynamics. Sustainable Cities and Society, 2022, 79, 103704.	10.4	25
38	Toward design and fabrication of wind-driven vehicles: Procedure to optimize the threshold of driving forces. Applied Mathematical Modelling, 2013, 37, 50-61.	4.2	22
39	Wind-driven ventilation improvement with plan typology alteration: A CFD case study of traditional Turkish architecture. Building Simulation, 2017, 10, 239-254.	5.6	21
40	On the relationship between building energy efficiency, aesthetic features and marketability: Toward a novel policy for energy demand reduction. Energy Policy, 2019, 128, 593-606.	8.8	21
41	LES analysis of turbulent fluctuation in cross-ventilation flow in highly-dense urban areas. Journal of Wind Engineering and Industrial Aerodynamics, 2021, 209, 104494.	3.9	18
42	Optimization of a hybrid community district heating system integrated with thermal energy storage system. Journal of Energy Storage, 2019, 23, 128-137.	8.1	14
43	An open-source simulation platform to support the formulation of housing stock decarbonisation strategies. Energy and Buildings, 2018, 172, 459-477.	6.7	12
44	RANS model calibration using stochastic optimization for accuracy improvement of urban airflow CFD modeling. Journal of Building Engineering, 2020, 32, 101756.	3.4	11
45	Virtual dynamic coupling of computational fluid dynamics-building energy simulation-artificial intelligence: Case study of urban neighbourhood effect on buildingsâ€™ energy demand. Building and Environment, 2021, 195, 107728.	6.9	9
46	Validation of a Climatic CFD Model to Predict the Surface Temperature of Building Integrated Photovoltaics. Energy Procedia, 2015, 78, 1865-1870.	1.8	7
47	Development of a fish leaping framework for low-head barriers. Journal of Hydro-Environment Research, 2017, 14, 34-43.	2.2	7
48	CFD-CFD coupling: A novel method to develop a fast urban microclimate model. Journal of Building Physics, 2021, 44, 385-408.	2.4	7
49	Validation of a community district energy system model using field measured data. Energy, 2018, 144, 694-706.	8.8	6
50	Fast and dynamic urban neighbourhood energy simulation using CFDf-CFDc-BES coupling method. Sustainable Cities and Society, 2021, 66, 102545.	10.4	6
51	A CFD Approach for Risk Assessment Based on Airborne Pathogen Transmission. Atmosphere, 2021, 12, 986.	2.3	6
52	A new regression model to predict BIPV cell temperature for various climates using a high-resolution CFD microclimate model. Advances in Building Energy Research, 2020, 14, 527-549.	2.3	5
53	The Hot Climate of the Middle East. Advances in 21st Century Human Settlements, 2021, , 205-234.	0.4	4
54	Using Machine Learning Techniques to Predict Esthetic Features of Buildings. Journal of Architectural Engineering, 2021, 27, .	1.6	3

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55	Monitoring thermal field, humidity field and energy balance over heterogeneous surfaces in the typical valley-city. Journal of Chinese Geography, 2020, 30, 2015-2032.	3.9	3
56	A novel mathematical model to measure individualsâ€™ perception of the symmetry level of building facades. Architectural Engineering and Design Management, 0, , 1-18.	1.7	2
57	Dynamic simulation of cross-ventilated buildings with night-flush cooling in neighbourhood environment using integrated CFD-CFD-BES strategy. IOP Conference Series: Materials Science and Engineering, 2019, 609, 072023.	0.6	1
58	A systematic methodology for energy modeling improvement of cross-ventilated buildings in dense urban areas. IOP Conference Series: Materials Science and Engineering, 2019, 609, 072014.	0.6	1