John K Calautit

List of Publications by Year in descending order

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143 papers 5,067 citations

108046 37 h-index 65 g-index

146 all docs

146 docs citations

times ranked

146

4485 citing authors

#	Article	IF	CITATIONS
1	CFD investigation of a natural ventilation wind tower system with solid tube banks heat recovery for mild-cold climate. Journal of Building Engineering, 2022, 45, 103570.	1.6	6
2	A coupled deep learning-based internal heat gains detection and prediction method for energy-efficient office building operation. Journal of Building Engineering, 2022, 47, 103778.	1.6	10
3	Real-time monitoring of occupancy activities and window opening within buildings using an integrated deep learning-based approach for reducing energy demand. Applied Energy, 2022, 308, 118336.	5.1	18
4	Analysis of the performance of an integrated multistage helical coil heat transfer device and passive cooling windcatcher for buildings in hot climates. Journal of Building Engineering, 2022, 48, 103899.	1.6	0
5	Real-time building heat gains prediction and optimization of HVAC setpoint: An integrated framework. Journal of Building Engineering, 2022, 49, 104103.	1.6	7
6	Development and evaluation of a vision-based transfer learning approach for indoor fire and smoke detection. Building Services Engineering Research and Technology, 2022, 43, 319-332.	0.9	7
7	Evaluating urban heat island mitigation strategies for a subtropical city centre (a case study in Osaka,) Tj ETQq1 🛚	1 0.78431 4.5	4 rgBT /Over
8	Deep learning and computer vision based occupancy CO2 level prediction for demand-controlled ventilation (DCV). Journal of Building Engineering, 2022, 56, 104715.	1.6	9
9	Structural response analysis of road pavement solar collector (RPSC) with serpentine heat pipes under validated temperature field. Construction and Building Materials, 2021, 268, 121110.	3.2	13
10	Numerical analysis of an urban road pavement solar collector (U-RPSC) for heat island mitigation: Impact on the urban environment. Renewable Energy, 2021, 164, 618-641.	4.3	22
11	A state-of-the-art review of the application of phase change materials (PCM) in Mobilized-Thermal Energy Storage (M-TES) for recovering low-temperature industrial waste heat (IWH) for distributed heat supply. Renewable Energy, 2021, 168, 1040-1057.	4.3	117
12	Potential of Bioenergy in Rural Ghana. Sustainability, 2021, 13, 381.	1.6	16
13	Evaluation of the Integration of the Traditional Architectural Element Mashrabiya into the Ventilation Strategy for Buildings in Hot Climates. Energies, 2021, 14, 530.	1.6	18
14	A Coupled Modelling Method for the Evaluation of the Impact of Pavement Solar Collector on Urban Air Temperature and Thermal Collection. Future Cities and Environment, 2021, 7, .	0.6	3
15	Comprehensive energy, economic and thermal comfort assessments for the passive energy retrofit of historical buildings - A case study of a late nineteenth-century Victorian house renovation in the UK. Energy, 2021, 220, 119646.	4.5	49
16	Vision-based human activity recognition for reducing building energy demand. Building Services Engineering Research and Technology, 2021, 42, 691-713.	0.9	9
17	Investigating the impact of surroundings on a high-rise residential block's performance. Proceedings of the Institution of Civil Engineers: Engineering Sustainability, 2021, 174, 131-144.	0.4	1
18	Effect of Roof Cooling and Air Curtain Gates on Thermal and Wind Conditions in Stadiums for Hot Climates. Energies, 2021, 14, 3941.	1.6	5

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19	The impact of deep learning–based equipment usage detection on building energy demand estimation. Building Services Engineering Research and Technology, 2021, 42, 545-557.	0.9	2
20	Numerical Investigation of the Influence of Vegetation on the Aero-Thermal Performance of Buildings with Courtyards in Hot Climates. Energies, 2021, 14, 5388.	1.6	3
21	Passive cooling and natural ventilation by the windcatcher (Badgir): An experimental and simulation study of indoor air quality, thermal comfort and passive cooling power. Journal of Building Engineering, 2021, 41, 102436.	1.6	17
22	Impact of Ventilation Strategy on the Transmission of Outdoor Pollutants into Indoor Environment Using CFD. Sustainability, 2021, 13, 10343.	1.6	9
23	The correlation of energy performance and building age in UK schools. Journal of Building Engineering, 2021, 43, 103141.	1.6	6
24	Sustainability and structural resilience of building integrated photovoltaics subjected to typhoon strength winds. Applied Energy, 2021, 301, 117437.	5.1	7
25	A deep learning approach towards the detection and recognition of opening of windows for effective management of building ventilation heat losses and reducing space heating demand. Renewable Energy, 2021, 177, 603-625.	4.3	37
26	Overheating and indoor air quality in primary schools in the UK. Energy and Buildings, 2021, 250, 111291.	3.1	26
27	The impact of a passive wall combining natural ventilation and evaporative cooling on schools' thermal conditions in a hot climate. Journal of Building Engineering, 2021, 44, 102624.	1.6	11
28	Solar self-powered wireless charging pavement—a review on photovoltaic pavement and wireless charging for electric vehicles. Sustainable Energy and Fuels, 2021, 5, 5139-5159.	2.5	15
29	Development of deep learningâ€based equipment heat load detection for energy demand estimation and investigation of the impact of illumination. International Journal of Energy Research, 2021, 45, 7204-7221.	2.2	9
30	A Computer Vision-Based Occupancy and Equipment Usage Detection Approach for Reducing Building Energy Demand. Energies, 2021, 14, 156.	1.6	24
31	Investigation of the impact of roof configurations on the wind and thermal environment in football stadiums in hot climates. International Journal of Ventilation, 2020, 19, 260-279.	0.2	3
32	Numerical and experimental investigation of the indoor air quality and thermal comfort performance of a low energy cooling windcatcher with heat pipes and extended surfaces. Renewable Energy, 2020, 145, 744-756.	4.3	46
33	Multi-criteria assessment approach for a residential building retrofit in Norway. Energy and Buildings, 2020, 215, 109668.	3.1	44
34	Analysis of the influence of cooling jets on the wind and thermal environment in football stadiums in hot climates. Building Services Engineering Research and Technology, 2020, 41, 561-585.	0.9	9
35	Influence of Wind Buffers on the Aero-Thermal Performance of Skygardens. Fluids, 2020, 5, 160.	0.8	10
36	A vision-based deep learning approach for the detection and prediction of occupancy heat emissions for demand-driven control solutions. Energy and Buildings, 2020, 226, 110386.	3.1	46

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37	Natural ventilation by windcatcher (Badgir): A review on the impacts of geometry, microclimate and macroclimate. Energy and Buildings, 2020, 226, 110396.	3.1	43
38	Performance comparison of two solar cooking storage pots combined with wonderbag slow cookers for off-sunshine cooking. Solar Energy, 2020, 208, 1166-1180.	2.9	40
39	Analysis of passive downdraught evaporative cooling windcatcher for greenhouses in hot climatic conditions: Parametric study and impact of neighbouring structures. Biosystems Engineering, 2020, 197, 105-121.	1.9	27
40	Indoor Environmental Quality (IEQ) Analysis of a Two-Sided Windcatcher Integrated with Anti-Short-Circuit Device for Low Wind Conditions. Processes, 2020, 8, 840.	1.3	18
41	Vision-based detection and prediction of equipment heat gains in commercial office buildings using a deep learning method. Applied Energy, 2020, 277, 115506.	5.1	41
42	Experimental field study of the integration of passive and evaporative cooling techniques with Mashrabiya in hot climates. Energy and Buildings, 2020, 225, 110325.	3.1	25
43	An Integrated Cooling Jet and Air Curtain System for Stadiums in Hot Climates. Atmosphere, 2020, 11, 546.	1.0	4
44	Urban road and pavement solar collector system for heat island mitigation: assessing the beneficial impact on outdoor temperature. IOP Conference Series: Earth and Environmental Science, 2020, 463, 012038.	0.2	3
45	Design of a Passive Downdraught Evaporative Cooling Windcatcher (PDEC-WC) System for Greenhouses in Hot Climates. Energies, 2020, 13, 2934.	1.6	22
46	A fluid-structure interaction (FSI) and energy generation modelling for roof mounted renewable energy installations in buildings for extreme weather and typhoon resilience. Renewable Energy, 2020, 160, 770-787.	4.3	12
47	Development of a natural ventilation windcatcher with passive heat recovery wheel for mild-cold climates: CFD and experimental analysis. Renewable Energy, 2020, 160, 465-482.	4.3	39
48	Toward a Sustainable Decentralized Water Supply: Review of Adsorption Desorption Desalination (ADD) and Current Technologies: Saudi Arabia (SA) as a Case Study. Water (Switzerland), 2020, 12, 1111.	1.2	28
49	A deep learning framework for energy management and optimisation of HVAC systems. IOP Conference Series: Earth and Environmental Science, 2020, 463, 012026.	0.2	6
50	Spatial estimation of outdoor NO2 levels in Central London using deep neural networks and a wavelet decomposition technique. Ecological Modelling, 2020, 424, 109017.	1.2	29
51	Analysis of the Thermal Comfort and Energy Performance of a Thermal Chair for Open Plan Office. Journal of Sustainable Development of Energy, Water and Environment Systems, 2020, 8, 373-395.	0.9	13
52	Occupancy heat gain detection and prediction using deep learning approach for reducing building energy demand. Journal of Sustainable Development of Energy, Water and Environment Systems, 2020, N/A, 0-0.	0.9	6
53	A review of artificial neural network models for ambient air pollution prediction. Environmental Modelling and Software, 2019, 119, 285-304.	1.9	261
54	Patterns of thermal preference and Visual Thermal Landscaping model in the workplace. Applied Energy, 2019, 255, 113674.	5.1	16

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55	Visual Thermal Landscaping (VTL) Model: A Qualitative Thermal Comfort Approach based on the Context to Balance Energy and Comfort. Energy Procedia, 2019, 158, 3119-3124.	1.8	6
56	Numerical and experimental analysis of a natural ventilation windcatcher with passive heat recovery for mild-cold climates. Energy Procedia, 2019, 158, 3125-3130.	1.8	10
57	Development of a multi-criteria decision making approach for sustainable seawater desalination technologies of medium and large-scale plants: a case study for Saudi Arabia's vision 2030. Energy Procedia, 2019, 158, 4274-4279.	1.8	8
58	Greenhouse design and cooling technologies for sustainable food cultivation in hot climates: Review of current practice and future status. Biosystems Engineering, 2019, 183, 121-150.	1.9	85
59	Numerical Investigation of the Wind and Thermal Conditions in Sky Gardens in High-Rise Buildings. Energies, 2019, 12, 1380.	1.6	11
60	Numerical analysis of the wind and thermal comfort in courtyards "skycourts―in high rise buildings. Journal of Building Engineering, 2019, 24, 100735.	1.6	15
61	A novel Fluid-Structure Interaction modelling and optimisation of roofing designs of buildings for typhoon resilience. IOP Conference Series: Materials Science and Engineering, 2019, 556, 012057.	0.3	1
62	Does a neutral thermal sensation determine thermal comfort?. Building Services Engineering Research and Technology, 2018, 39, 183-195.	0.9	45
63	A review of the applications of phase change materials in cooling, heating and power generation in different temperature ranges. Applied Energy, 2018, 220, 242-273.	5.1	434
64	Advanced personal comfort system (APCS) for the workplace: A review and case study. Energy and Buildings, 2018, 173, 689-709.	3.1	55
65	A review of sustainable solar irrigation systems for Sub-Saharan Africa. Renewable and Sustainable Energy Reviews, 2018, 81, 1206-1225.	8.2	77
66	Climatic analysis of ventilation and thermal performance of a dome building with roof vent. Proceedings of the Institution of Civil Engineers: Engineering Sustainability, 2018, 171, 411-424.	0.4	1
67	Application of Wind as a Renewable Energy Source for Passive Cooling through Windcatchers Integrated with Wing Walls. Energies, 2018, 11, 2536.	1.6	25
68	Improving Thermal and Electrical Efficiency in Photovoltaic Thermal Systems for Sustainable Cooling System Integration. Journal of Sustainable Development of Energy, Water and Environment Systems, 2018, 6, 305-322.	0.9	30
69	A framework for producing gbXML building geometry from Point Clouds for accurate and efficient Building Energy Modelling. Applied Energy, 2018, 224, 527-537.	5.1	27
70	A Review of Numerical Modelling of Multi-Scale Wind Turbines and Their Environment. Computation, 2018, 6, 24.	1.0	14
71	Design and performance analysis of a regenerative evaporative cooler for cooling of buildings in arid climates. Building and Environment, 2018, 142, 1-10.	3.0	35
72	Numerical and experimental analysis of a multi-directional wind tower integrated with vertically-arranged heat transfer devices (VHTD). Applied Energy, 2017, 185, 1120-1135.	5.1	21

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73	A CFD analysis of several design parameters of a road pavement solar collector (RPSC) for urban application. Applied Energy, 2017, 186, 436-449.	5.1	41
74	Energy and comfort in contemporary open plan and traditional personal offices. Applied Energy, 2017, 185, 1542-1555.	5.1	36
75	Climatic analysis of a passive cooling technology for the built environment in hot countries. Applied Energy, 2017, 186, 321-335.	5.1	43
76	Optimisation and analysis of a heat pipe assisted low-energy passive cooling system. Energy and Buildings, 2017, 143, 220-233.	3.1	10
77	Influence of urban form on the performance of road pavement solar collector system: Symmetrical and asymmetrical heights. Energy Conversion and Management, 2017, 149, 904-917.	4.4	26
78	Thermal Comfort and Indoor air Quality Analysis of a Low-energy Cooling Windcatcher. Energy Procedia, 2017, 105, 2865-2870.	1.8	11
79	Numerical investigation of roof heating impacts on thermal comfort and air quality in urban canyons. Applied Thermal Engineering, 2017, 123, 310-326.	3.0	13
80	A user-controlled thermal chair for an open plan workplace: CFD and field studies of thermal comfort performance. Applied Energy, 2017, 207, 283-293.	5.1	25
81	Computational and Field Test Analysis of Thermal Comfort Performance of User-controlled Thermal Chair in an Open Plan Office. Energy Procedia, 2017, 105, 2635-2640.	1.8	3
82	Integration of aero-elastic belt into the built environment for low-energy wind harnessing: Current status and a case study. Energy Conversion and Management, 2017, 149, 830-850.	4.4	15
83	A review of solar driven absorption cooling with photovoltaic thermal systems. Renewable and Sustainable Energy Reviews, 2017, 76, 728-742.	8.2	100
84	A review on windcatcher for passive cooling and natural ventilation in buildings, Part 1: Indoor air quality and thermal comfort assessment. Renewable and Sustainable Energy Reviews, 2017, 70, 736-756.	8.2	151
85	Urban Integration of Aeroelastic Belt for Low-Energy Wind Harvesting. Energy Procedia, 2017, 105, 738-743.	1.8	4
86	Effect of Urban Street Canyon Aspect Ratio on Thermal Performance of Road Pavement Solar Collectors (RPSC). Energy Procedia, 2017, 105, 4414-4419.	1.8	9
87	Evaluation of the integration of the Wind-Induced Flutter Energy Harvester (WIFEH) into the built environment: Experimental and numerical analysis. Applied Energy, 2017, 207, 61-77.	5.1	46
88	A study of the impact of individual thermal control on user comfort in the workplace: Norwegian cellular vs. British open plan offices. Architectural Science Review, 2017, 60, 49-61.	1.1	12
89	Solar Driven Irrigation Systems for Remote Rural Farms. Energy Procedia, 2017, 142, 184-191.	1.8	24
90	Indoor environmental quality (IEQ) analysis of a low energy wind catcher with horizontally-arranged heat transfer devices. Energy Procedia, 2017, 142, 2095-2101.	1.8	6

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91	A Study on the Wind-Induced Flutter Energy Harvester (WIFEH) Integration into Buildings. Energy Procedia, 2017, 142, 321-327.	1.8	12
92	Hybrid Artificial Neural Network Models for Effective Prediction and Mitigation of Urban Roadside NO 2 Pollution. Energy Procedia, 2017, 142, 3524-3530.	1.8	44
93	Neutral thermal sensation or dynamic thermal comfort? Numerical and field test analysis of a thermal chair. Energy Procedia, 2017, 142, 2189-2194.	1.8	8
94	Geometry Extraction for High Resolution Building Energy Modelling Applications from Point Cloud Data: A Case Study of a Factory Facility. Energy Procedia, 2017, 142, 1805-1810.	1.8	3
95	A novel design of a rotary desiccant system for reduced dehumidification regeneration air temperature. Energy Procedia, 2017, 142, 253-258.	1.8	4
96	About the Light Dimensions. American Journal of Applied Sciences, 2016, 13, 321-325.	0.1	16
97	Editorial for the "FRP Structures" Special Issue. American Journal of Engineering and Applied Sciences, 2016, 9, 439-441.	0.3	5
98	Sustainable Buildings: opportunities, challenges, aims and vision. Sustainable Buildings, 2016, 1, E1.	0.7	1
99	Something about the Mechanical Moment of Inertia. American Journal of Applied Sciences, 2016, 13, 1085-1090.	0.1	13
100	About Nano Fusion and Dynamic Fusion. American Journal of Applied Sciences, 2016, 13, 261-266.	0.1	19
101	Computational Analysis of Natural Ventilation Flows in Geodesic Dome Building in Hot Climates. Computation, 2016, 4, 31.	1.0	18
102	Building-Related Symptoms, Energy, and Thermal Control in the Workplace: Personal and Open Plan Offices. Sustainability, 2016, 8, 331.	1.6	22
103	A novel design of a desiccant rotary wheel for passive ventilation applications. Applied Energy, 2016, 179, 99-109.	5.1	56
104	Evaluation of a two-sided windcatcher integrated with wing wall (as a new design) and comparison with a conventional windcatcher. Energy and Buildings, 2016, 126, 287-300.	3.1	47
105	Anti-short-circuit device: A new solution for short-circuiting in windcatcher and improvement of natural ventilation performance. Building and Environment, 2016, 105, 24-39.	3.0	39
106	A review on phase change material (PCM) for sustainable passive cooling in building envelopes. Renewable and Sustainable Energy Reviews, 2016, 60, 1470-1497.	8.2	706
107	Data on the natural ventilation performance of windcatcher with anti-short-circuit device (ASCD). Data in Brief, 2016, 9, 252-256.	0.5	4
108	Wind tunnel and numerical data on the ventilation performance of windcatcher with wing wall. Data in Brief, 2016, 9, 448-452.	0.5	7

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109	Design and aerodynamic investigation of dynamic architecture. Innovative Infrastructure Solutions, 2016, $1,1.$	1.1	1
110	Towards an integrated computational method to determine internal spaces for optimum environmental conditions. Computers and Fluids, 2016, 127, 146-160.	1.3	23
111	CFD and experimental data of closed-loop wind tunnel flow. Data in Brief, 2016, 7, 216-220.	0.5	5
112	A review of heat recovery technology for passive ventilation applications. Renewable and Sustainable Energy Reviews, 2016, 54, 1481-1493.	8.2	100
113	A passive cooling wind catcher with heat pipe technology: CFD, wind tunnel and field-test analysis. Applied Energy, 2016, 162, 460-471.	5.1	45
114	A natural ventilation wind tower with heat pipe heat recovery for cold climates. Renewable Energy, 2016, 87, 1088-1104.	4.3	47
115	Effect of Rotation Speed of a Rotary Thermal Wheel on Ventilation Supply Rates of Wind Tower System. Energy Procedia, 2015, 75, 1705-1710.	1.8	12
116	Energy Efficiency and User Comfort in the Workplace: Norwegian Cellular vs. British Open Plan Workplaces. Energy Procedia, 2015, 75, 807-812.	1.8	13
117	Structural Dynamics of the Distribution Mechanism with Rocking Tappet with Roll. American Journal of Engineering and Applied Sciences, 2015, 8, 589-601.	0.3	2
118	CFD Simulation and Optimisation of a Low Energy Ventilation and Cooling System. Computation, 2015, 3, 128-149.	1.0	26
119	CFD and Experimental Study on the Effect of Progressive Heating on Fluid Flow inside a Thermal Wind Tunnel. Computation, 2015, 3, 509-527.	1.0	3
120	Computational Analysis to Factor Wind into the Design of an Architectural Environment. Modelling and Simulation in Engineering, 2015, 2015, 1-10.	0.4	4
121	Wind tunnel data of the analysis of heat pipe and wind catcher technology for the built environment. Data in Brief, 2015, 5, 424-428.	0.5	2
122	A study of the impact of building geometry on the thermal performance of road pavement solar collectors. Energy, 2015, 93, 2614-2630.	4.5	29
123	Computational analysis of a wind tower assisted passive cooling technology for the built environment. Journal of Building Engineering, 2015, 1, 63-71.	1.6	25
124	CFD and wind tunnel study of the performance of a uni-directional wind catcher with heat transfer devices. Renewable Energy, 2015, 83, 85-99.	4.3	35
125	CFD and Wind Tunnel Study of the Performance of a Multi-Directional Wind Tower with Heat Transfer Devices. Energy Procedia, 2015, 75, 1692-1697.	1.8	14
126	Qatar 2022: Facing the FIFA World Cup climatic and legacy challenges. Sustainable Cities and Society, 2015, 14, 16-30.	5.1	48

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127	Performance Investigation of a Commercial Wind Catcher with Horizontally-arranged Heat Transfer Devices (HHTD)., 2015,,.		1
128	Numerical Analysis of the Integration of Wind Turbines into the Design of the Built Environment. American Journal of Engineering and Applied Sciences, 2014, 7, 363-373.	0.3	4
129	Integration and application of passive cooling within a wind tower for hot climates. HVAC and R Research, 2014, 20, 722-730.	0.9	28
130	Passive energy recovery from natural ventilation air streams. Applied Energy, 2014, 113, 127-140.	5.1	70
131	A validated design methodology for a closed-loop subsonic wind tunnel. Journal of Wind Engineering and Industrial Aerodynamics, 2014, 125, 180-194.	1.7	61
132	Determining the optimum spacing and arrangement for commercial wind towers for ventilation performance. Building and Environment, 2014, 82, 274-287.	3.0	58
133	Measurement and prediction of the indoor airflow in a room ventilated with a commercial wind tower. Energy and Buildings, 2014, 84, 367-377.	3.1	71
134	Wind tunnel and CFD study of the natural ventilation performance ofÂa commercial multi-directional wind tower. Building and Environment, 2014, 80, 71-83.	3.0	93
135	A study of passive ventilation integrated with heat recovery. Energy and Buildings, 2014, 82, 799-811.	3.1	44
136	The Influence of Structural Morphology on the Efficiency of Building Integrated Wind Turbines (BIWT). AIMS Energy, 2014, 2, 219-236.	1.1	13
137	CFD analysis of a heat transfer device integrated wind tower system for hot and dry climate. Applied Energy, 2013, 112, 576-591.	5.1	69
138	A numerical investigation into the feasibility of integrating green building technologies into row houses in the Middle East. Architectural Science Review, 2013, 56, 279-296.	1.1	41
139	Comparison between evaporative cooling and a heat pipe assisted thermal loop for a commercial wind tower in hot and dry climatic conditions. Applied Energy, 2013, 101, 740-755.	5.1	80
140	THE EFFECT OF HEAT PIPE TRANSVERSE SPACING UNDER FORCED-CONVECTION TO NATURAL-CONVECTION FLOW CONDITIONS. Heat Pipe Science and Technology an International Journal, 2013, 4, 197-216.	0.2	1
141	The development of commercial wind towers for natural ventilation: A review. Applied Energy, 2012, 92, 606-627.	5.1	209
142	Development of Stirling Pump mechanism for Irrigation in remote rural farms. WEENTECH Proceedings in Energy, 0, , 26-36.	0.0	0
143	Enhancing the detection performance of a vision-based occupancy detector for buildings. Proceedings of the Institution of Civil Engineers: Engineering Sustainability, 0, , 1-10.	0.4	2