Les Norford

List of Publications by Year
in descending order

93 papers	**6,053** citations	81839 **39** h-index	71651 **76** g-index
99 all docs	**99** docs citations	**99** times ranked	**6260** citing authors

#	Article	IF	Citations
1	Power Line Communication for Low-Bandwidth Control and Sensing. IEEE Transactions on Power Delivery, 2022, 37, 2172-2181.	2.9	13
2	Numerical analysis of the impact of anthropogenic emissions on the urban environment of Singapore. Science of the Total Environment, 2022, 806, 150534.	3.9	18
3	Evaluating the Meteorological Effects on the Urban Form–Air Quality Relationship Using Mobile Monitoring. Environmental Science & Technology, 2022, 56, 7328-7336.	4.6	6
4	Distributed Peak Shaving for Small Aggregations of Cyclic Loads. IEEE Transactions on Power Delivery, 2022, 37, 4315-4325.	2.9	7
5	Measuring and comparing thermal comfort in outdoor and semi-outdoor spaces in tropical Singapore. Urban Climate, 2022, 42, 101122.	2.4	17
6	Distributed Load Control Using Reliable Low-Data-Rate Power Line Communication. IEEE Access, 2022, 10, 50242-50253.	2.6	4
7	Analyzing Thermal Comfort Sensations in Semi-Outdoor Space on a University Campus: On-Site Measurements in Tehran's Hot and Cold Seasons. Atmosphere, 2022, 13, 1034.	1.0	8
8	Interaction between heat wave and urban heat island: A case study in a tropical coastal city, Singapore. Atmospheric Research, 2021, 247, 105134.	1.8	62
9	Urban Weather Generator: Physics-Based Microclimate Simulation for Performance-Oriented Urban Planning. , 2021, , 241-263.		2
10	Reply to Comment by Velasco on "High‐Resolution, Multilayer Modeling of Singapore's Urban Climate Incorporating Local Climate Zones". Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD034160.	1.2	2
11	Project Coolbit: can your watch predict heat stress and thermal comfort sensation?. Environmental Research Letters, 2021, 16, 034031.	2.2	44
12	The Vertical City Weather Generator (VCWG v1.3.2). Geoscientific Model Development, 2021, 14, 961-984.	1.3	20
13	Modelling the influence of high-rise urban geometry on outdoor thermal comfort in Singapore. Urban Climate, 2021, 36, 100775.	2.4	30
14	Climate-informed decision-making for urban design: Assessing the impact of urban morphology on urban heat island. Urban Climate, 2021, 36, 100776.	2.4	19
15	Scaling characteristics of modelled tropical oceanic rain clusters. Quarterly Journal of the Royal Meteorological Society, 2021, 147, 1055-1069.	1.0	1
16	Outdoor performance of the black globe temperature sensor on a hot and humid tropical region. Environmental Technology (United Kingdom), 2021, , 1-13.	1.2	7
17	Case study results: fault detection in air-handling units in buildings. Advances in Building Energy Research, 2020, 14, 305-321.	1.1	20
18	Demand Smoothing in Military Microgrids Through Coordinated Direct Load Control. IEEE Transactions on Smart Grid, 2020, 11, 1917-1927.	6.2	14

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19	Indoor air quality among Mumbai's resettled populations: Comparing Dharavi slum to nearby rehabilitation sites. Building and Environment, 2020, 167, 106419.	3.0	38
20	Clustering weather types for urban outdoor thermal comfort evaluation in a tropical area. Theoretical and Applied Climatology, 2020, 139, 659-675.	1.3	18
21	Transfer learning with deep neural networks for model predictive control of HVAC and natural ventilation in smart buildings. Journal of Cleaner Production, 2020, 254, 119866.	4.6	147
22	Atmospheric and emissivity corrections for ground-based thermography using 3D radiative transfer modelling. Remote Sensing of Environment, 2020, 237, 111524.	4.6	18
23	Non-intrusive cooling tower model validation: Results from a case study. Science and Technology for the Built Environment, 2020, 26, 1204-1215.	0.8	0
24	Nonintrusive Load Monitoring of Variable Speed Drive Cooling Systems. IEEE Access, 2020, 8, 211451-211463.	2.6	6
25	Large global variations in measured airborne metal concentrations driven by anthropogenic sources. Scientific Reports, 2020, 10, 21817.	1.6	17
26	Multilayer urban canopy modelling and mapping for traffic pollutant dispersion at high density urban areas. Science of the Total Environment, 2019, 647, 255-267.	3.9	36
27	High‐Resolution, Multilayer Modeling of Singapore's Urban Climate Incorporating Local Climate Zones. Journal of Geophysical Research D: Atmospheres, 2019, 124, 7764-7785.	1.2	56
28	Validation of UWG and ENVI-Met Models in an Abu Dhabi District, Based on Site Measurements. Sustainability, 2019, 11, 4378.	1.6	44
29	Climate-Conscious Urban Growth Mitigates Urban Warming: Evidence from Shenzhen, China. Environmental Science & Technology, 2019, 53, 11960-11968.	4.6	13
30	An intrinsically stretchable humidity sensor based on anti-drying, self-healing and transparent organohydrogels. Materials Horizons, 2019, 6, 595-603.	6.4	297
31	Effectiveness of cool walls on cooling load and urban temperature in a tropical climate. Energy and Buildings, 2019, 187, 144-162.	3.1	31
32	Thermal impact of the orientation and height of vertical greenery on pedestrians in a tropical area. Building Simulation, 2019, 12, 973-984.	3.0	40
33	Outdoor thermal comfort autonomy: Performance metrics for climate-conscious urban design. Building and Environment, 2019, 155, 145-160.	3.0	52
34	Pedestrian-level wind speed enhancement with void decks in three-dimensional urban street canyons. Building and Environment, 2019, 155, 399-407.	3.0	29
35	Extremely Deformable, Transparent, and High-Performance Gas Sensor Based on Ionic Conductive Hydrogel. ACS Applied Materials & Interfaces, 2019, 11, 2364-2373.	4.0	180
36	Achieving natural ventilation potential in practice: Control schemes and levels of automation. Applied Energy, 2019, 235, 1141-1152.	5.1	71

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37	Spatiotemporal patterns of street-level solar radiation estimated using Google Street View in a high-density urban environment. Building and Environment, 2019, 148, 547-566.	3.0	66
38	Evaluating approaches for district-wide energy model calibration considering the Urban Heat Island effect. Applied Energy, 2018, 215, 31-40.	5.1	24
39	Mapping sky, tree, and building view factors of street canyons in a high-density urban environment. Building and Environment, 2018, 134, 155-167.	3.0	193
40	Investigating the association of healthcare-seeking behavior with the freshness of indoor spaces in low-income tenement housing in Mumbai. Habitat International, 2018, 71, 156-168.	2.3	32
41	Numerical modeling of outdoor thermal comfort in 3D. Urban Climate, 2018, 26, 212-230.	2.4	34
42	Pedestrian-level wind speed enhancement in urban street canyons with void decks. Building and Environment, 2018, 146, 64-76.	3.0	39
43	Buoyant flows in street canyons: Comparison of RANS and LES at reduced and full scales. Building and Environment, 2018, 146, 77-87.	3.0	50
44	Flows across high aspect ratio street canyons: Reynolds number independence revisited. Environmental Fluid Mechanics, 2018, 18, 1275-1291.	0.7	60
45	Highly Stretchable and Transparent Thermistor Based on Self-Healing Double Network Hydrogel. ACS Applied Materials & Interfaces, 2018, 10, 19097-19105.	4.0	168
46	Impacts of Realistic Urban Heating. Part II: Air Quality and City Breathability. Boundary-Layer Meteorology, 2018, 168, 321-341.	1.2	22
47	Optimization-aided calibration of an urban microclimate model under uncertainty. Building and Environment, 2018, 143, 390-403.	3.0	15
48	Analysis and Experimental Implementation of Grid Frequency Regulation Using Behind-the-Meter Batteries Compensating for Fast Load Demand Variations. IEEE Transactions on Power Systems, 2017, 32, 484-498.	4.6	51
49	Predicting outdoor thermal comfort in urban environments: A 3D numerical model for standard effective temperature. Urban Climate, 2017, 20, 251-267.	2.4	65
50	Effects of Roof-Edge Roughness on Air Temperature and Pollutant Concentration in Urban Canyons. Boundary-Layer Meteorology, 2017, 164, 249-279.	1.2	42
51	The universal scaling characteristics of tropical oceanic rain clusters. Journal of Geophysical Research D: Atmospheres, 2017, 122, 5582-5599.	1.2	9
52	A semi-empirical model for the effect of trees on the urban wind environment. Landscape and Urban Planning, 2017, 168, 84-93.	3.4	60
53	Global sensitivity analysis of an urban microclimate system under uncertainty: Design and case study. Building and Environment, 2017, 124, 153-170.	3.0	51
54	Pedestrian-Level Urban Wind Flow Enhancement with Wind Catchers. Atmosphere, 2017, 8, 159.	1.0	44

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55	Recent advances of modeling lidar data using dart and radiometric calibration coefficient from LVIS waveforms comparison. , 2017, , .		0
56	Evaluating Urban Forms for Comparison Studies in the Massing Design Stage. Sustainability, 2017, 9, 987.	1.6	17
57	Price-based demand response of energy storage resources in commercial buildings. , 2016, , .		2
58	A novel multi-market optimization problem for commercial heating, ventilation, and air-conditioning systems providing ancillary services using multi-zone inverse comprehensive room transfer functions. Science and Technology for the Built Environment, 2016, 22, 783-797.	0.8	20
59	Facile Synthesis of 3D Graphene Flowers for Ultrasensitive and Highly Reversible Gas Sensing. Advanced Functional Materials, 2016, 26, 7462-7469.	7.8	149
60	Impact of urbanization patterns on the local climate of a tropical city, Singapore: An ensemble study. Journal of Geophysical Research D: Atmospheres, 2016, 121, 4386-4403.	1.2	81
61	Technologies and Magnitude of Ancillary Services Provided by Commercial Buildings. Proceedings of the IEEE, 2016, 104, 758-779.	16.4	34
62	Evaluation of cool roof and vegetations in mitigating urban heat island in a tropical city, Singapore. Urban Climate, 2016, 16, 59-74.	2.4	147
63	Demonstration of HVAC chiller control for power grid frequency regulation—Part 2: Discussion of results and considerations for broader deployment. Science and Technology for the Built Environment, 2015, 21, 1143-1153.	0.8	23
64	Estimation of urban temperature and humidity using a lumped parameter model coupled with an EnergyPlus model. Energy and Buildings, 2015, 96, 221-235.	3.1	27
65	Demonstration of HVAC chiller control for power grid frequency regulation—Part 1: Controller development and experimental results. Science and Technology for the Built Environment, 2015, 21, 1134-1142.	0.8	34
66	The rise of low-cost sensing for managing air pollution in cities. Environment International, 2015, 75, 199-205.	4.8	597
67	Transport processes in and above two-dimensional urban street canyons under different stratification conditions: results from numerical simulation. Environmental Fluid Mechanics, 2015, 15, 399-417.	0.7	34
68	On thermally forced flows in urban street canyons. Environmental Fluid Mechanics, 2014, 14, 1427-1441.	0.7	28
69	Variable speed heat pump design for frequency regulation through direct load control. , 2014, , .		11
70	Improving air quality in high-density cities by understanding the relationship between air pollutant dispersion and urban morphologies. Building and Environment, 2014, 71, 245-258.	3.0	225
71	Ultrafine particles in cities. Environment International, 2014, 66, 1-10.	4.8	483
72	Modeling environment for model predictive control of buildings. Energy and Buildings, 2014, 85, 549-559.	3.1	51

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73	Computationally efficient prediction of canopy level urban air temperature at the neighbourhood scale. Urban Climate, 2014, 9, 35-53.	2.4	91
74	Conditions for thermal circulation in urban street canyons. Building and Environment, 2014, 80, 184-191.	3.0	56
75	Dynamic simulation and analysis of ancillary service demand response strategies for variable air volume HVAC systems. HVAC and R Research, 2014, 20, 908-921.	0.9	22
76	Analysis of a building power system with a rooftop PV array and phevs as an aggregator. , 2013, , .		0
77	A multiâ€resolution ensemble study of a tropical urban environment and its interactions with the background regional atmosphere. Journal of Geophysical Research D: Atmospheres, 2013, 118, 9804-9818.	1.2	96
78	High Sensitivity, Miniature, Full 2-D Anemometer Based on MEMS Hot-Film Sensors. IEEE Sensors Journal, 2013, 13, 1914-1920.	2.4	50
79	Calculation of Air Temperatures above the Urban Canopy Layer from Measurements at a Rural Operational Weather Station. Journal of Applied Meteorology and Climatology, 2013, 52, 472-483.	0.6	38
80	The urban weather generator. Journal of Building Performance Simulation, 2013, 6, 269-281.	1.0	230
81	Flow and Pollutant Transport in Urban Street Canyons of Different Aspect Ratios with Ground Heating: Large-Eddy Simulation. Boundary-Layer Meteorology, 2012, 142, 289-304.	1.2	77
82	Combining a Detailed Building Energy Model with a Physically-Based Urban Canopy Model. Boundary-Layer Meteorology, 2011, 140, 471-489.	1.2	71
83	An interactive expert system for daylighting design exploration. Building and Environment, 2011, 46, 2351-2364.	3.0	36
84	An aerodynamically efficient sphere anemometer with integrated hot-film sensors for 2-D environmental airflow monitoring. , 2011, , .		10
85	Large-Eddy Simulation of Flow and Pollutant Transport in Urban Street Canyons with Ground Heating. Boundary-Layer Meteorology, 2010, 137, 187-204.	1.2	88
86	Hair-like airflow sensing with piezoelectric vibrating diaphragm. , 2010, , .		4
87	A two-step method for estimating the parameters of induction machine models. , 2009, , .		5
88	Naturally ventilated and mixed-mode buildingsâ€"Part II: Optimal control. Building and Environment, 2009, 44, 750-761.	3.0	63
89	Naturally ventilated and mixed-mode buildingsâ€"Part I: Thermal modeling. Building and Environment, 2009, 44, 736-749.	3.0	43
90	Nonintrusive Load Monitoring and Diagnostics in Power Systems. IEEE Transactions on Instrumentation and Measurement, 2008, 57, 1445-1454.	2.4	207

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91	Affordable, safe housing based on expanded polystyrene (EPS) foam and a cementitious coating. Journal of Materials Science, 2006, 41, 6908-6916.	1.7	8
92	Power signature analysis. IEEE Power and Energy Magazine, 2003, 1, 56-63.	1.6	452
93	Shape Generation Using Pareto Genetic Algorithms: Integrating Conflicting Design Objectives in Low-Energy Architecture. International Journal of Architectural Computing, 2003, 1, 503-515.	0.9	12