Cheng Fan

List of Publications by Year
in descending order

63 papers	3,777 citations	186209 28 h-index	155592 55 g-index
64 all docs	64 docs citations	64 times ranked	2331 citing authors

#	ARTICLE	IF	CITATIONS
1	A short-term building cooling load prediction method using deep learning algorithms. Applied Energy, 2017, 195, 222-233.	5.1	481
2	Development of prediction models for next-day building energy consumption and peak power demand using data mining techniques. Applied Energy, 2014, 127, 1-10.	5.1	414
3	Assessment of deep recurrent neural network-based strategies for short-term building energy predictions. Applied Energy, 2019, 236, 700-710.	5.1	220
4	Data mining in building automation system for improving building operational performance. Energy and Buildings, 2014, 75, 109-118.	3.1	210
5	Analytical investigation of autoencoder-based methods for unsupervised anomaly detection in building energy data. Applied Energy, 2018, 211, 1123-1135.	5.1	183
6	Deep learning-based feature engineering methods for improved building energy prediction. Applied Energy, 2019, 240, 35-45.	5.1	180
7	A framework for knowledge discovery in massive building automation data and its application in building diagnostics. Automation in Construction, 2015, 50, 81-90.	4.8	173
8	Unsupervised data analytics in mining big building operational data for energy efficiency enhancement: A review. Energy and Buildings, 2018, 159, 296-308.	3.1	146
9	Statistical investigations of transfer learning-based methodology for short-term building energy predictions. Applied Energy, 2020, 262, 114499.	5.1	130
10	Temporal knowledge discovery in big BAS data for building energy management. Energy and Buildings, 2015, 109, 75-89.	3.1	118
11	Advanced data analytics for enhancing building performances: From data-driven to big data-driven approaches. Building Simulation, 2021, 14, 3-24.	3.0	116
12	A Review on Data Preprocessing Techniques Toward Efficient and Reliable Knowledge Discovery From Building Operational Data. Frontiers in Energy Research, 2021, 9, .	1.2	105
13	A novel methodology to explain and evaluate data-driven building energy performance models based on interpretable machine learning. Applied Energy, 2019, 235, 1551-1560.	5.1	103
14	Attention-based interpretable neural network for building cooling load prediction. Applied Energy, 2021, 299, 117238.	5.1	92
15	A model for simulating schedule risks in prefabrication housing production: A case study of six-day cycle assembly activities in Hong Kong. Journal of Cleaner Production, 2018, 185, 366-381.	4.6	69
16	A hybrid building thermal modeling approach for predicting temperatures in typical, detached, two-story houses. Applied Energy, 2019, 236, 101-116.	5.1	60
17	An explainable one-dimensional convolutional neural networks based fault diagnosis method for building heating, ventilation and air conditioning systems. Building and Environment, 2021, 203, 108057.	3.0	58
18	Development of an ANN-based building energy model for information-poor buildings using transfer learning. Building Simulation, 2021, 14, 89-101.	3.0	57

#	ARTICLE	IF	CITATIONS
19	An uncertainty-based design optimization method for district cooling systems. Energy, 2016, 102, 516-527.	4.5	53
20	Schedule delay analysis of prefabricated housing production: A hybrid dynamic approach. Journal of Cleaner Production, 2018, 195, 1533-1545.	4.6	47
21	Discovering gradual patterns in building operations for improving building energy efficiency. Applied Energy, 2018, 224, 116-123.	5.1	43
22	Statistical characterization of semi-supervised neural networks for fault detection and diagnosis of air handling units. Energy and Buildings, 2021, 234, 110733.	3.1	43
23	A study on semi-supervised learning in enhancing performance of AHU unseen fault detection with limited labeled data. Sustainable Cities and Society, 2021, 70, 102874.	5.1	39
24	Building energy savings: Analysis of research trends based on text mining. Automation in Construction, 2018, 96, 398-410.	4.8	38
25	A collaborative control optimization of grid-connected net zero energy buildings for performance improvements at building group level. Energy, 2018, 164, 536-549.	4.5	36
26	A generic prediction interval estimation method for quantifying the uncertainties in ultra-short-term building cooling load prediction. Applied Thermal Engineering, 2020, 173, 115261.	3.0	36
27	An experimental study on time-based start defrosting control strategy optimization for an air source heat pump unit with frost evenly distributed and melted frost locally drained. Energy and Buildings, 2018, 178, 26-37.	3.1	35
28	Data-driven model predictive control for power demand management and fast demand response of commercial buildings using support vector regression. Building Simulation, 2022, 15, 317-331.	3.0	29
29	Data-centric or algorithm-centric: Exploiting the performance of transfer learning for improving building energy predictions in data-scarce context. Energy, 2022, 240, 122775.	4.5	29
30	A novel deep generative modeling-based data augmentation strategy for improving short-term building energy predictions. Building Simulation, 2022, 15, 197-211.	3.0	28
31	A novel image-based transfer learning framework for cross-domain HVAC fault diagnosis: From multi-source data integration to knowledge sharing strategies. Energy and Buildings, 2022, 262, 111995.	3.1	27
32	A hierarchical coordinated demand response control for buildings with improved performances at building group. Applied Energy, 2019, 242, 684-694.	5.1	25
33	A proactive fault detection and diagnosis method for variable-air-volume terminals in building air conditioning systems. Energy and Buildings, 2019, 183, 527-537.	3.1	25
34	Mining big building operational data for improving building energy efficiency: A case study. Building Services Engineering Research and Technology, 2018, 39, 117-128.	0.9	24
35	Data Driven Chiller Sequencing for Reducing HVAC Electricity Consumption in Commercial Buildings. , 2018, , .		24
36	A graph mining-based methodology for discovering and visualizing high-level knowledge for building energy management. Applied Energy, 2019, 251, 113395.	5.1	24

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37	Assessment of long short-term memory and its modifications for enhanced short-term building energy predictions. Journal of Building Engineering, 2021, 43, 103182.	1.6	20
38	Probabilistic electrical load forecasting for buildings using Bayesian deep neural networks. Journal of Building Engineering, 2022, 46, 103853.	1.6	20
39	Assessment of Building Operational Performance Using Data Mining Techniques: A Case Study. Energy Procedia, 2017, 111, 1070-1078.	1.8	19
40	Model predictive control for thermal energy storage assisted large central cooling systems. Energy, 2019, 179, 916-927.	4.5	19
41	Urban Traffic Prediction through the Second Use of Inexpensive Big Data from Buildings. , 2016, , .		18
42	Cooling load disaggregation using a NILM method based on random forest for smart buildings. Sustainable Cities and Society, 2021, 74, 103202.	5.1	18
43	Quantitative assessments on advanced data synthesis strategies for enhancing imbalanced AHU fault diagnosis performance. Energy and Buildings, 2021, 252, 111423.	3.1	16
44	An Improved Cooling Load Prediction Method for Buildings with the Estimation of Prediction Intervals. Procedia Engineering, 2017, 205, 2422-2428.	1.2	15
45	Mining Gradual Patterns in Big Building Operational Data for Building Energy Efficiency Enhancement. Energy Procedia, 2017, 143, 119-124.	1.8	12
46	An Edge Based Data-Driven Chiller Sequencing Framework for HVAC Electricity Consumption Reduction in Commercial Buildings. IEEE Transactions on Sustainable Computing, 2022, 7, 487-498.	2.2	12
47	Distance measures in building informatics: An in-depth assessment through typical tasks in building energy management. Energy and Buildings, 2022, 258, 111817.	3.1	11
48	Research and Applications of Data Mining Techniques for Improving Building Operational Performance. Current Sustainable/Renewable Energy Reports, 2018, 5, 181-188.	1.2	9
49	A Thematic Network-Based Methodology for the Research Trend Identification in Building Energy Management. Energies, 2020, 13, 4621.	1.6	9
50	Retrofitting building fire service water tanks as chilled water storage for power demand limiting. Building Services Engineering Research and Technology, 2017, 38, 47-63.	0.9	8
51	Discovering Complex Knowledge in Massive Building Operational Data Using Graph Mining for Building Energy Management. Energy Procedia, 2019, 158, 2481-2487.	1.8	8
52	DAST Optical Damage Tolerance Enhancement and Robust Lasing via Supramolecular Strategy. ACS Photonics, 2020, 7, 2132-2138.	3.2	7
53	Advanced data analytics for building energy modeling and management. Building Simulation, 2021, 14, 1-2.	3.0	7
54	Hierarchical structure and transfer mechanism to assess the scheduling-related risk inÂconstruction of prefabricated buildings: an integrated ISMâ€"MICMAC approach. Engineering, Construction and Architectural Management, 2023, 30, 2991-3013.	1.8	7

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55	Evaluation of Complexity Issues in Building Information Modeling Diffusion Research. Sustainability, 2022, 14, 3005.	1.6	6
56	Towards a self-tuned data analytics-based process for an automatic context-aware detection and diagnosis of anomalies in building energy consumption timeseries. Energy and Buildings, 2022, 270, 112302.	3.1	6
57	Mining Big Building Operational Data for Building Cooling Load Prediction and Energy Efficiency Improvement. , 2017, , .		4
58	One-Drop Self-Assembly of Ultra-Fine Second-Order Organic Nonlinear Optical Crystal Nanowires. Nanoscale Research Letters, 2019, 14, 269.	3.1	3
59	Model predictive control applied toward the building indoor climate. , 2020, , 457-492.		2
60	A Deep Recurrent Neural Network-Based Method for Automated Building System Fault Diagnosis. , 2021, , 613-624.		1
61	Developing associations between building occupancy and traffic congestion. , 2015, , .		0
62	Research on Energy Consumption Analysis and Optimization of Dormitory Buildings Based on Data Mining. , 2021, , 1695-1710.		0
63	Performance Assessments of Clustering-Based Methods for Smart Data-Driven Building Energy Anomaly Diagnosis. , 2021, , 601-611.		0