

Fu Xiao

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

128
papers

5,491
citations

43
h-index

70
g-index

132
ext. papers

6,687
ext. citations

6.7
avg, IF

6.52
L-index

#	Paper	IF	Citations
128	Real-time forecast of compartment fire and flashover based on deep learning. <i>Fire Safety Journal</i> , 2022 , 103579	3.3	1
127	Study on heat and mass transfer characteristics of internally-cooled hollow fiber membrane-based liquid desiccant dehumidifiers. <i>Applied Thermal Engineering</i> , 2022 , 118525	5.8	0
126	A data analytics-based tool for the detection and diagnosis of anomalous daily energy patterns in buildings. <i>Building Simulation</i> , 2021 , 14, 131-147	3.9	13
125	Smart Detection of Fire Source in Tunnel Based on the Numerical Database and Artificial Intelligence. <i>Fire Technology</i> , 2021 , 57, 657-682	3	20
124	Neighborhood-level coordination and negotiation techniques for managing demand-side flexibility in residential microgrids. <i>Renewable and Sustainable Energy Reviews</i> , 2021 , 135, 110248	16.2	19
123	Perspectives of big experimental database and artificial intelligence in tunnel fire research. <i>Tunnelling and Underground Space Technology</i> , 2021 , 108, 103691	5.7	13
122	Advanced data analytics for enhancing building performances: From data-driven to big data-driven approaches. <i>Building Simulation</i> , 2021 , 14, 3-24	3.9	53
121	Development of an ANN-based building energy model for information-poor buildings using transfer learning. <i>Building Simulation</i> , 2021 , 14, 89-101	3.9	24
120	Attention-based interpretable neural network for building cooling load prediction. <i>Applied Energy</i> , 2021 , 299, 117238	10.7	14
119	A novel modified LiCl solution for three-phase absorption thermal energy storage and its thermal and physical properties. <i>International Journal of Refrigeration</i> , 2021 , 130, 44-55	3.8	0
118	Experimental and theoretical analysis of functional controllability for multi-condenser heat pumps. <i>Applied Thermal Engineering</i> , 2020 , 171, 115093	5.8	
117	Statistical investigations of transfer learning-based methodology for short-term building energy predictions. <i>Applied Energy</i> , 2020 , 262, 114499	10.7	65
116	Quantifying uncertainty in the aggregate energy flexibility of high-rise residential building clusters considering stochastic occupancy and occupant behavior. <i>Energy</i> , 2020 , 194, 116838	7.9	29
115	Energy-efficient decentralized control method with enhanced robustness for multi-evaporator air conditioning systems. <i>Applied Energy</i> , 2020 , 279, 115732	10.7	4
114	Generation of typical meteorological year for integrated climate based daylight modeling and building energy simulation. <i>Renewable Energy</i> , 2020 , 160, 721-729	8.1	4
113	Identification of simplified energy performance models of variable-speed air conditioners using likelihood ratio test method. <i>Science and Technology for the Built Environment</i> , 2020 , 26, 75-88	1.8	2
112	Performance analysis of absorption thermal energy storage for distributed energy systems. <i>Energy Procedia</i> , 2019 , 158, 3152-3157	2.3	3

111	Performance intensification of regeneration process for non-corrosive plastic plate vertical falling film tower. <i>Applied Thermal Engineering</i> , 2019 , 162, 114301	5.8	2
110	Discovering Complex Knowledge in Massive Building Operational Data Using Graph Mining for Building Energy Management. <i>Energy Procedia</i> , 2019 , 158, 2481-2487	2.3	4
109	A graph mining-based methodology for discovering and visualizing high-level knowledge for building energy management. <i>Applied Energy</i> , 2019 , 251, 113395	10.7	12
108	Frequency control of air conditioners in response to real-time dynamic electricity prices in smart grids. <i>Applied Energy</i> , 2019 , 242, 92-106	10.7	32
107	A proactive-adaptive monthly peak demand-limiting strategy for buildings with small-scale thermal storages considering load uncertainty. <i>Science and Technology for the Built Environment</i> , 2019 , 25, 1456-1466	10.8	18
106	An adaptive optimal monthly peak building demand limiting strategy considering load uncertainty. <i>Applied Energy</i> , 2019 , 253, 113582	10.7	5
105	Price-responsive model predictive control of floor heating systems for demand response using building thermal mass. <i>Applied Thermal Engineering</i> , 2019 , 153, 316-329	5.8	44
104	A hybrid building thermal modeling approach for predicting temperatures in typical, detached, two-story houses. <i>Applied Energy</i> , 2019 , 236, 101-116	10.7	27
103	A novel methodology to explain and evaluate data-driven building energy performance models based on interpretable machine learning. <i>Applied Energy</i> , 2019 , 235, 1551-1560	10.7	50
102	Research and Applications of Data Mining Techniques for Improving Building Operational Performance. <i>Current Sustainable/Renewable Energy Reports</i> , 2018 , 5, 181-188	2.8	6
101	Analytical investigation of autoencoder-based methods for unsupervised anomaly detection in building energy data. <i>Applied Energy</i> , 2018 , 211, 1123-1135	10.7	107
100	Price-responsive model-based optimal demand response control of inverter air conditioners using genetic algorithm. <i>Applied Energy</i> , 2018 , 219, 151-164	10.7	48
99	Mining big building operational data for improving building energy efficiency: A case study. <i>Building Services Engineering Research and Technology</i> , 2018 , 39, 117-128	2.3	20
98	Lattice Boltzmann Simulation of Falling Film Flow under Low Reynolds Number. <i>Heat Transfer Engineering</i> , 2018 , 39, 1528-1539	1.7	1
97	Discovering gradual patterns in building operations for improving building energy efficiency. <i>Applied Energy</i> , 2018 , 224, 116-123	10.7	32
96	Unsupervised data analytics in mining big building operational data for energy efficiency enhancement: A review. <i>Energy and Buildings</i> , 2018 , 159, 296-308	7	103
95	Probabilistic approach for uncertainty-based optimal design of chiller plants in buildings. <i>Applied Energy</i> , 2017 , 185, 1613-1624	10.7	29
94	Diagnostic Bayesian networks for diagnosing air handling units faults [part I: Faults in dampers, fans, filters and sensors. <i>Applied Thermal Engineering</i> , 2017 , 111, 1272-1286	5.8	84

93	A dynamic dehumidifier model for simulations and control of liquid desiccant hybrid air conditioning systems. <i>Energy and Buildings</i> , 2017 , 140, 418-429	7	20
92	Assessment of Building Operational Performance Using Data Mining Techniques: A Case Study. <i>Energy Procedia</i> , 2017 , 111, 1070-1078	2.3	12
91	Retrofitting building fire service water tanks as chilled water storage for power demand limiting. <i>Building Services Engineering Research and Technology</i> , 2017 , 38, 47-63	2.3	8
90	Mining Big Building Operational Data for Building Cooling Load Prediction and Energy Efficiency Improvement 2017 ,		3
89	Investigation of demand response potentials of residential air conditioners in smart grids using grey-box room thermal model. <i>Applied Energy</i> , 2017 , 207, 324-335	10.7	53
88	District cooling systems and individual cooling systems: Comparative analysis and impacts of key factors. <i>Science and Technology for the Built Environment</i> , 2017 , 23, 241-250	1.8	5
87	A short-term building cooling load prediction method using deep learning algorithms. <i>Applied Energy</i> , 2017 , 195, 222-233	10.7	317
86	Model-based optimal design of active cool thermal energy storage for maximal life-cycle cost saving from demand management in commercial buildings. <i>Applied Energy</i> , 2017 , 201, 382-396	10.7	38
85	Investigation of the Demand Response Potentials of Residential Air Conditioners Using Grey-box Room Thermal Model. <i>Energy Procedia</i> , 2017 , 105, 2759-2765	2.3	5
84	Experimental investigation of maldistribution in vertical plate falling film tower. <i>Chemical Engineering Communications</i> , 2017 , 204, 1237-1245	2.2	4
83	Experimental study of dynamic characteristics of liquid desiccant dehumidification processes. <i>Science and Technology for the Built Environment</i> , 2017 , 23, 91-104	1.8	3
82	Model-based optimal load control of inverter-driven air conditioners responding to dynamic electricity pricing. <i>Energy Procedia</i> , 2017 , 142, 1953-1959	2.3	2
81	The influence of exterior obstruction on the integrated evaluation of daylight utilization during initial design stage. <i>Procedia Engineering</i> , 2017 , 205, 2785-2792		
80	Analysis of Typical Meteorological Year selection for energy simulation of building with daylight utilization. <i>Procedia Engineering</i> , 2017 , 205, 3080-3087		8
79	Mining Gradual Patterns in Big Building Operational Data for Building Energy Efficiency Enhancement. <i>Energy Procedia</i> , 2017 , 143, 119-124	2.3	9
78	District cooling systems: Technology integration, system optimization, challenges and opportunities for applications. <i>Renewable and Sustainable Energy Reviews</i> , 2016 , 53, 253-264	16.2	75
77	Wetting enhancement of polypropylene plate for falling film tower application. <i>Chemical Engineering and Processing: Process Intensification</i> , 2016 , 108, 1-9	3.7	14
76	An experimental study on the dehumidification performance of a counter flow liquid desiccant dehumidifier. <i>International Journal of Refrigeration</i> , 2016 , 70, 289-301	3.8	48

75	Urban Traffic Prediction through the Second Use of Inexpensive Big Data from Buildings 2016 ,		16
74	Building demand response and control methods for smart grids: A review. <i>Science and Technology for the Built Environment</i> , 2016 , 22, 692-704	1.8	24
73	A model-based adaptive method for evaluating the energy impact of low delta-T syndrome in complex HVAC systems using support vector regression. <i>Building Services Engineering Research and Technology</i> , 2016 , 37, 573-596	2.3	3
72	An uncertainty-based design optimization method for district cooling systems. <i>Energy</i> , 2016 , 102, 516-527	7.9	38
71	Development and validation of an effective and robust chiller sequence control strategy using data-driven models. <i>Automation in Construction</i> , 2016 , 65, 78-85	9.6	28
70	Cooling Supply-based HVAC System Control for Fast Demand Response of Buildings to Urgent Requests of Smart Grids. <i>Energy Procedia</i> , 2016 , 103, 34-39	2.3	13
69	Optimal Design of Active Cool Thermal Energy Storage Concerning Life-cycle Cost Saving for Demand Management in Non-residential Building. <i>Energy Procedia</i> , 2016 , 103, 64-69	2.3	2
68	Robust optimal design of district cooling systems and the impacts of uncertainty and reliability. <i>Energy and Buildings</i> , 2016 , 122, 11-22	7	29
67	A framework for knowledge discovery in massive building automation data and its application in building diagnostics. <i>Automation in Construction</i> , 2015 , 50, 81-90	9.6	139
66	A multi-level energy performance diagnosis method for energy information poor buildings. <i>Energy</i> , 2015 , 83, 189-203	7.9	35
65	The practical performance forecast and analysis of thermoelectric module from macro to micro. <i>Energy Conversion and Management</i> , 2015 , 100, 23-29	10.6	13
64	Temporal knowledge discovery in big BAS data for building energy management. <i>Energy and Buildings</i> , 2015 , 109, 75-89	7	94
63	Robust optimal design of building cooling systems considering cooling load uncertainty and equipment reliability. <i>Applied Energy</i> , 2015 , 159, 265-275	10.7	45
62	Performance Assessment of District Cooling System Coupled with Different Energy Technologies in Subtropical Area. <i>Energy Procedia</i> , 2015 , 75, 1235-1241	2.3	12
61	Robust optimal design of building cooling systems concerning uncertainties using mini-max regret theory. <i>Science and Technology for the Built Environment</i> , 2015 , 21, 789-799	1.8	12
60	Performance assessment of district cooling systems for a new development district at planning stage. <i>Applied Energy</i> , 2015 , 140, 33-43	10.7	35
59	A semi-dynamic model of active pipe-embedded building envelope for thermal performance evaluation. <i>International Journal of Thermal Sciences</i> , 2015 , 88, 170-179	4.1	25
58	Conjugate heat and mass transfer in a total heat exchanger with cross-corrugated triangular ducts and one-step made asymmetric membranes. <i>International Journal of Heat and Mass Transfer</i> , 2015 , 84, 390-400	4.9	28

57	The step-change cooling performance of miniature thermoelectric module for pulse laser. <i>Energy Conversion and Management</i> , 2014 , 80, 39-45	10.6	29
56	Development of prediction models for next-day building energy consumption and peak power demand using data mining techniques. <i>Applied Energy</i> , 2014 , 127, 1-10	10.7	299
55	Data mining in building automation system for improving building operational performance. <i>Energy and Buildings</i> , 2014 , 75, 109-118	7	171
54	Effects of different inlet vent positions on the uniformity of humidity inside a building chamber. <i>Energy and Buildings</i> , 2014 , 76, 565-571	7	6
53	An interactive building power demand management strategy for facilitating smart grid optimization. <i>Applied Energy</i> , 2014 , 116, 297-310	10.7	115
52	Bayesian network based FDD strategy for variable air volume terminals. <i>Automation in Construction</i> , 2014 , 41, 106-118	9.6	71
51	A robust pattern recognition-based fault detection and diagnosis (FDD) method for chillers. <i>HVAC and R Research</i> , 2014 , 20, 798-809		41
50	A Fault Detection and Diagnosis Method for Low Delta-T Syndrome in a Complex Air-conditioning System. <i>Energy Procedia</i> , 2014 , 61, 2514-2517	2.3	1
49	Development of dynamic simplified thermal models of active pipe-embedded building envelopes using genetic algorithm. <i>International Journal of Thermal Sciences</i> , 2014 , 76, 258-272	4.1	44
48	A statistical fault detection and diagnosis method for centrifugal chillers based on exponentially-weighted moving average control charts and support vector regression. <i>Applied Thermal Engineering</i> , 2013 , 51, 560-572	5.8	66
47	In situ performance comparison and evaluation of three chiller sequencing control strategies in a super high-rise building. <i>Energy and Buildings</i> , 2013 , 61, 333-343	7	28
46	Peak load shifting control using different cold thermal energy storage facilities in commercial buildings: A review. <i>Energy Conversion and Management</i> , 2013 , 71, 101-114	10.6	205
45	An intelligent chiller fault detection and diagnosis methodology using Bayesian belief network. <i>Energy and Buildings</i> , 2013 , 57, 278-288	7	130
44	Development and validation of a simplified online cooling load prediction strategy for a super high-rise building in Hong Kong. <i>Energy Conversion and Management</i> , 2013 , 68, 20-27	10.6	34
43	Investigation of a novel thermoelectric radiant air-conditioning system. <i>Energy and Buildings</i> , 2013 , 59, 123-132	7	81
42	Pattern recognition-based chillers fault detection method using Support Vector Data Description (SVDD). <i>Applied Energy</i> , 2013 , 112, 1041-1048	10.7	131
41	An online adaptive optimal control strategy for complex building chilled water systems involving intermediate heat exchangers. <i>Applied Thermal Engineering</i> , 2013 , 50, 614-628	5.8	39
40	Investigation on capacity matching in liquid desiccant and heat pump hybrid air-conditioning systems. <i>International Journal of Refrigeration</i> , 2012 , 35, 160-170	3.8	62

39	Numerical and experimental analysis of transient supercooling effect of voltage pulse on thermoelectric element. <i>International Journal of Refrigeration</i> , 2012 , 35, 1156-1165	3.8	43
38	Neural network based prediction method for preventing condensation in chilled ceiling systems. <i>Energy and Buildings</i> , 2012 , 45, 290-298	7	37
37	Research and application of evaporative cooling in China: A review (I) [Research. <i>Renewable and Sustainable Energy Reviews</i> , 2012 , 16, 3535-3546	16.2	98
36	Research and applications of evaporative cooling in China: A review (II) Systems and equipment. <i>Renewable and Sustainable Energy Reviews</i> , 2012 , 16, 3523-3534	16.2	34
35	Quantitative energy performance assessment methods for existing buildings. <i>Energy and Buildings</i> , 2012 , 55, 873-888	7	187
34	A simplified energy performance assessment method for existing buildings based on energy bill disaggregation. <i>Energy and Buildings</i> , 2012 , 55, 563-574	7	49
33	Comparison study of air mixing modes in liquid desiccant based all-air air conditioning systems. <i>Building Services Engineering Research and Technology</i> , 2012 , 33, 423-435	2.3	2
32	Diagnosis of the low temperature difference syndrome in the chilled water system of a super high-rise building: A case study. <i>Applied Energy</i> , 2012 , 98, 597-606	10.7	19
31	Performance study of a constant temperature and humidity air-conditioning system with temperature and humidity independent control device. <i>Energy and Buildings</i> , 2012 , 49, 640-646	7	14
30	Optimization of a liquid desiccant based dedicated outdoor air-chilled ceiling system serving multi-zone spaces. <i>Building Simulation</i> , 2012 , 5, 257-266	3.9	8
29	Effects of initial mist conditions on simulation accuracy of humidity distribution in an environmental chamber. <i>Building and Environment</i> , 2012 , 47, 217-222	6.5	11
28	Effects of discharge recirculation in cooling towers on energy efficiency and visible plume potential of chilling plants. <i>Applied Thermal Engineering</i> , 2012 , 39, 37-44	5.8	7
27	A museum storeroom air-conditioning system employing the temperature and humidity independent control device in the cooling coil. <i>Applied Thermal Engineering</i> , 2011 , 31, 3653-3657	5.8	19
26	A fault detection and diagnosis strategy with enhanced sensitivity for centrifugal chillers. <i>Applied Thermal Engineering</i> , 2011 , 31, 3963-3970	5.8	41
25	Model-based optimal control of a dedicated outdoor air-chilled ceiling system using liquid desiccant and membrane-based total heat recovery. <i>Applied Energy</i> , 2011 , 88, 4180-4190	10.7	54
24	Experimental study on the effect of magnetic field on the heat conductivity and viscosity of ammonia-water. <i>Energy and Buildings</i> , 2011 , 43, 1164-1168	7	18
23	Control strategies for a liquid desiccant air-conditioning system. <i>Energy and Buildings</i> , 2011 , 43, 1499-1507		59
22	Control performance of a dedicated outdoor air system adopting liquid desiccant dehumidification. <i>Applied Energy</i> , 2011 , 88, 143-149	10.7	93

21	Experimental study on ammonia-water falling film absorption in external magnetic fields. <i>International Journal of Refrigeration</i> , 2010 , 33, 686-694	3.8	21
20	A system-level fault detection and diagnosis strategy for HVAC systems involving sensor faults. <i>Energy and Buildings</i> , 2010 , 42, 477-490	7	88
19	Active pipe-embedded structures in buildings for utilizing low-grade energy sources: A review. <i>Energy and Buildings</i> , 2010 , 42, 1567-1581	7	63
18	Performance analysis of liquid desiccant based air-conditioning system under variable fresh air ratios. <i>Energy and Buildings</i> , 2010 , 42, 2457-2464	7	43
17	A Novel Strategy for the Fault Detection and Diagnosis of Centrifugal Chiller Systems. <i>HVAC and R Research</i> , 2009 , 15, 57-75		32
16	An isolation enhanced PCA method with expert-based multivariate decoupling for sensor FDD in air-conditioning systems. <i>Applied Thermal Engineering</i> , 2009 , 29, 712-722	5.8	58
15	Progress and methodologies of lifecycle commissioning of HVAC systems to enhance building sustainability. <i>Renewable and Sustainable Energy Reviews</i> , 2009 , 13, 1144-1149	16.2	51
14	A model-based optimal ventilation control strategy of multi-zone VAV air-conditioning systems. <i>Applied Thermal Engineering</i> , 2009 , 29, 91-104	5.8	76
13	A data fusion scheme for building automation systems of building central chilling plants. <i>Automation in Construction</i> , 2009 , 18, 302-309	9.6	27
12	Evaluation of alternative arrangements of a heat pump system for plume abatement in a large-scale chiller plant in a subtropical region. <i>Energy and Buildings</i> , 2009 , 41, 596-606	7	3
11	Online performance evaluation of alternative control strategies for building cooling water systems prior to in situ implementation. <i>Applied Energy</i> , 2009 , 86, 712-721	10.7	30
10	A supervisory control strategy for building cooling water systems for practical and real time applications. <i>Energy Conversion and Management</i> , 2008 , 49, 2324-2336	10.6	63
9	A grey-box model of next-day building thermal load prediction for energy-efficient control. <i>International Journal of Energy Research</i> , 2008 , 32, 1418-1431	4.5	88
8	Enhanced chiller sensor fault detection, diagnosis and estimation using wavelet analysis and principal component analysis methods. <i>Applied Thermal Engineering</i> , 2008 , 28, 226-237	5.8	78
7	Simultaneous heat and moisture transfer through a composite supported liquid membrane. <i>International Journal of Heat and Mass Transfer</i> , 2008 , 51, 2179-2189	4.9	41
6	Sensor Fault Detection and Diagnosis of Air-Handling Units Using a Condition-Based Adaptive Statistical Method. <i>HVAC and R Research</i> , 2006 , 12, 127-150		25
5	A diagnostic tool for online sensor health monitoring in air-conditioning systems. <i>Automation in Construction</i> , 2006 , 15, 489-503	9.6	48
4	Detection and diagnosis of AHU sensor faults using principal component analysis method. <i>Energy Conversion and Management</i> , 2004 , 45, 2667-2686	10.6	67

3	AHU sensor fault diagnosis using principal component analysis method. <i>Energy and Buildings</i> , 2004 , 36, 147-160	7	147
2	Commissioning of AHU sensors using principal component analysis method. <i>Building Services Engineering Research and Technology</i> , 2003 , 24, 179-189	2.3	2
1	A real-time forecast of tunnel fire based on numerical database and artificial intelligence. <i>Building Simulation</i> ,1	3.9	8