

# Jiayu Chen

## List of Publications by Year in descending order

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Version: 2024-02-01

108  
papers

2,904  
citations

159525

30  
h-index

189801

50  
g-index

109  
all docs

109  
docs citations

109  
times ranked

2355  
citing authors

#	ARTICLE	IF	CITATIONS
1	Modeling energy consumption in residential buildings: A bottom-up analysis based on occupant behavior pattern clustering and stochastic simulation. <i>Energy and Buildings</i> , 2017, 147, 47-66.	3.1	155
2	Revealing the "Invisible Gorilla" in construction: Estimating construction safety through mental workload assessment. <i>Automation in Construction</i> , 2016, 63, 173-183.	4.8	129
3	Construction worker's awkward posture recognition through supervised motion tensor decomposition. <i>Automation in Construction</i> , 2017, 77, 67-81.	4.8	129
4	Piezoelectric materials for sustainable building structures: Fundamentals and applications. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 101, 14-25.	8.2	115
5	Modeling building occupant network energy consumption decision-making: The interplay between network structure and conservation. <i>Energy and Buildings</i> , 2012, 47, 515-524.	3.1	114
6	Monitoring workers' attention and vigilance in construction activities through a wireless and wearable electroencephalography system. <i>Automation in Construction</i> , 2017, 82, 122-137.	4.8	112
7	Occupancy prediction through Markov based feedback recurrent neural network (M-FRNN) algorithm with WiFi probe technology. <i>Building and Environment</i> , 2018, 138, 160-170.	3.0	92
8	Occupancy prediction through machine learning and data fusion of environmental sensing and Wi-Fi sensing in buildings. <i>Automation in Construction</i> , 2018, 94, 233-243.	4.8	90
9	Linking energy-cyber-physical systems with occupancy prediction and interpretation through WiFi probe-based ensemble classification. <i>Applied Energy</i> , 2019, 236, 55-69.	5.1	85
10	Modeling and predicting occupancy profile in office space with a Wi-Fi probe-based Dynamic Markov Time-Window Inference approach. <i>Building and Environment</i> , 2017, 124, 130-142.	3.0	70
11	Assessing occupants' energy load variation through existing wireless network infrastructure in commercial and educational buildings. <i>Energy and Buildings</i> , 2014, 82, 540-549.	3.1	64
12	Study on properties of phase change foam concrete block mixed with paraffin / fumed silica composite phase change material. <i>Renewable Energy</i> , 2020, 150, 1127-1135.	4.3	63
13	Public transportation and the spatial inequality of urban park accessibility: New evidence from Hong Kong. <i>Transportation Research, Part D: Transport and Environment</i> , 2019, 76, 111-122.	3.2	62
14	Rethinking urban green space accessibility: Evaluating and optimizing public transportation system through social network analysis in megacities. <i>Landscape and Urban Planning</i> , 2015, 143, 150-159.	3.4	60
15	A foamed cement blocks with paraffin/expanded graphite composite phase change solar thermal absorption material. <i>Solar Energy Materials and Solar Cells</i> , 2019, 200, 110038.	3.0	59
16	Pre-service fatigue screening for construction workers through wearable EEG-based signal spectral analysis. <i>Automation in Construction</i> , 2019, 106, 102851.	4.8	57
17	Energy efficient HVAC control for an IPS-enabled large space in commercial buildings through dynamic spatial occupancy distribution. <i>Applied Energy</i> , 2017, 207, 305-323.	5.1	55
18	Forecasting district-scale energy dynamics through integrating building network and long short-term memory learning algorithm. <i>Applied Energy</i> , 2019, 248, 217-230.	5.1	54

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19	Detecting and measuring construction workers' vigilance through hybrid kinematic-EEG signals. <i>Automation in Construction</i> , 2019, 100, 11-23.	4.8	53
20	Preparation and thermal energy storage properties of LiNO <sub>3</sub> -KCl-NaNO <sub>3</sub> /expanded graphite composite phase change material. <i>Solar Energy Materials and Solar Cells</i> , 2017, 169, 215-221.	3.0	51
21	Improving thermal management of electronic apparatus with paraffin (PA)/expanded graphite (EG)/graphene (GN) composite material. <i>Applied Thermal Engineering</i> , 2018, 140, 13-22.	3.0	50
22	Incorporating machine learning with building network analysis to predict multi-building energy use. <i>Energy and Buildings</i> , 2019, 186, 80-97.	3.1	49
23	Assessing Task Mental Workload in Construction Projects: A Novel Electroencephalography Approach. <i>Journal of Construction Engineering and Management - ASCE</i> , 2017, 143, .	2.0	49
24	Monitoring distraction of construction workers caused by noise using a wearable Electroencephalography (EEG) device. <i>Automation in Construction</i> , 2021, 125, 103598.	4.8	48
25	A GA-based system sizing method for net-zero energy buildings considering multi-criteria performance requirements under parameter uncertainties. <i>Energy and Buildings</i> , 2016, 129, 524-534.	3.1	46
26	Multi-zone outdoor air coordination through Wi-Fi probe-based occupancy sensing. <i>Energy and Buildings</i> , 2018, 159, 495-507.	3.1	46
27	Linking building energy consumption with occupants' energy-consuming behaviors in commercial buildings: Non-intrusive occupant load monitoring (NIOLM). <i>Energy and Buildings</i> , 2018, 172, 317-327.	3.1	44
28	Modeling occupancy distribution in large spaces with multi-feature classification algorithm. <i>Building and Environment</i> , 2018, 137, 108-117.	3.0	39
29	Measuring the cognitive loads of construction safety sign designs during selective and sustained attention. <i>Safety Science</i> , 2018, 105, 9-21.	2.6	35
30	A review of occupant energy feedback research: Opportunities for methodological fusion at the intersection of experimentation, analytics, surveys and simulation. <i>Applied Energy</i> , 2018, 218, 304-316.	5.1	35
31	Rethinking bus-to-metro accessibility in new town development: Case studies in Shanghai. <i>Cities</i> , 2019, 94, 211-224.	2.7	33
32	Block Configuration Modeling: A novel simulation model to emulate building occupant peer networks and their impact on building energy consumption. <i>Applied Energy</i> , 2013, 105, 358-368.	5.1	30
33	A novel model based on multi-grained cascade forests with wavelet denoising for indoor occupancy estimation. <i>Building and Environment</i> , 2020, 167, 106461.	3.0	30
34	Collecting building occupancy data of high resolution based on WiFi and BLE network. <i>Automation in Construction</i> , 2019, 102, 183-194.	4.8	29
35	A behavior-based decision-making model for energy performance contracting in building retrofit. <i>Energy and Buildings</i> , 2017, 156, 315-326.	3.1	27
36	Heuristic optimization for grid-interactive net-zero energy building design through the glowworm swarm algorithm. <i>Energy and Buildings</i> , 2020, 208, 109644.	3.1	25

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37	Energy conservation through flexible HVAC management in large spaces: An IPS-based demand-driven control (IDC) system. <i>Automation in Construction</i> , 2017, 83, 91-107.	4.8	24
38	Cross-source sensing data fusion for building occupancy prediction with adaptive lasso feature filtering. <i>Building and Environment</i> , 2019, 162, 106280.	3.0	22
39	Understanding innovation diffusion and adoption strategies in megaproject networks through a fuzzy system dynamic model. <i>Frontiers of Engineering Management</i> , 2021, 8, 32-47.	3.3	22
40	Super absorbent polymer as support for shape-stabilized composite phase change material containing Na <sub>2</sub> HPO <sub>4</sub> ·12H <sub>2</sub> O and K <sub>2</sub> HPO <sub>4</sub> ·3H <sub>2</sub> O eutectic hydrated salt. <i>Solar Energy Materials and Solar Cells</i> , 2021, 231, 111334.	3.0	22
41	Estimation of soil and grout thermal properties for ground-coupled heat pump systems: Development and application. <i>Applied Thermal Engineering</i> , 2018, 143, 112-122.	3.0	21
42	Parallel computational building-chain model for rapid urban-scale energy simulation. <i>Energy and Buildings</i> , 2019, 201, 37-52.	3.1	19
43	Optimal Design of Energy Storage System to Buffer Charging Infrastructure in Smart Cities. <i>Journal of Management in Engineering - ASCE</i> , 2020, 36, .	2.6	19
44	Development and thermal properties of a novel sodium acetate trihydrate-Acetamide-micron/nano aluminum nitride composite phase change material. <i>Materials and Design</i> , 2020, 196, 109113.	3.3	19
45	Urban micro-climate prediction through long short-term memory network with long-term monitoring for on-site building energy estimation. <i>Sustainable Cities and Society</i> , 2021, 74, 103227.	5.1	19
46	Preparation and thermal properties of low melting point alloy/expanded graphite composite phase change materials used in solar water storage system. <i>Solar Energy Materials and Solar Cells</i> , 2019, 201, 110112.	3.0	17
47	Modeling urban energy dynamics under clustered urban heat island effect with local-weather extended distributed adjacency blocks. <i>Sustainable Cities and Society</i> , 2020, 56, 102099.	5.1	17
48	An elastic urban morpho-blocks (EUM) modeling method for urban building morphological analysis and feature clustering. <i>Building and Environment</i> , 2021, 192, 107646.	3.0	17
49	Accessibility Inequality in Houston. , 2019, 3, 1-4.		16
50	Parametric bifurcation of a viscoelastic column subject to axial harmonic force and time-delayed control. <i>Computers and Structures</i> , 2014, 136, 47-55.	2.4	15
51	Detecting the Hazards of Lifting and Carrying in Construction through a Coupled 3D Sensing and IMUs Sensing System. , 2014, , .		14
52	Self-Assembly Synthesis of Silver Nanowires/Graphene Nanocomposite and Its Effects on the Performance of Electrically Conductive Adhesive. <i>Materials</i> , 2018, 11, 2028.	1.3	13
53	Single Leg Gait Tracking of Lower Limb Exoskeleton Based on Adaptive Iterative Learning Control. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 2251.	1.3	13
54	Tuning urban microclimate: A morpho-patch approach for multi-scale building group energy simulation. <i>Sustainable Cities and Society</i> , 2022, 76, 103516.	5.1	13

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55	Optimal operation strategy of green supply chain based on waste heat recovery quality. <i>Energy</i> , 2019, 183, 599-605.	4.5	12
56	Framework for Benchmarking green building movement: A case of Brazil. <i>Sustainable Cities and Society</i> , 2019, 48, 101545.	5.1	12
57	Unveiling complex relational behavior in megaprojects: A qualitative-quantitative network approach. <i>International Journal of Project Management</i> , 2021, 39, 738-749.	2.7	12
58	Urban building energy prediction at neighborhood scale. <i>Energy and Buildings</i> , 2021, 251, 111307.	3.1	12
59	Identifying Effective Collaborative Behaviors in Building Information Modeling-Enabled Construction Projects. <i>Journal of Construction Engineering and Management - ASCE</i> , 2022, 148, .	2.0	12
60	Modeling city-scale building energy dynamics through inter-connected distributed adjacency blocks. <i>Energy and Buildings</i> , 2019, 202, 109391.	3.1	11
61	A Novel Robust Finite-Time Trajectory Control With the High-Order Sliding Mode for Human-Robot Cooperation. <i>IEEE Access</i> , 2019, 7, 130874-130882.	2.6	11
62	UNDERSTANDING THE EFFECT OF CO-WORKER SUPPORT ON CONSTRUCTION SAFETY PERFORMANCE FROM THE PERSPECTIVE OF RISK THEORY: AN AGENT-BASED MODELING APPROACH. <i>Journal of Civil Engineering and Management</i> , 2019, 25, 132-144.	1.9	11
63	Spatio-temporal heterogeneity analysis of energy use in residential buildings. <i>Journal of Cleaner Production</i> , 2022, 352, 131422.	4.6	11
64	Development of An Innovation Diffusion Model for Renewable Energy Deployment. <i>Energy Procedia</i> , 2018, 152, 959-964.	1.8	10
65	Gait trajectory-based interactive controller for lower limb exoskeletons for construction workers. <i>Computer-Aided Civil and Infrastructure Engineering</i> , 2022, 37, 558-572.	6.3	10
66	A new multiplexed optimization with enhanced performance for complex air conditioning systems. <i>Energy and Buildings</i> , 2017, 156, 85-95.	3.1	9
67	Hydrophobicity of Polyacrylate Emulsion Film Enhanced by Introduction of Nano-SiO <sub>2</sub> and Fluorine. <i>Polymers</i> , 2019, 11, 255.	2.0	9
68	Trajectory-Tracking-Based Adaptive Neural Network Sliding Mode Controller for Robot Manipulators. <i>Journal of Computing and Information Science in Engineering</i> , 2020, 20, .	1.7	9
69	Study on preparation and thermal performance improvements of composite phase change material for asphalt steel bridge deck. <i>Construction and Building Materials</i> , 2021, 310, 125255.	3.2	9
70	Planning control over rural land transformation in Hong Kong: A remote sensing analysis of spatio-temporal land use change patterns. <i>Land Use Policy</i> , 2022, 119, 106159.	2.5	9
71	Layering residential peer networks and geospatial building networks to model change in energy saving behaviors. <i>Energy and Buildings</i> , 2013, 58, 151-162.	3.1	8
72	Modeling occupancy distribution in large building spaces for HVAC energy efficiency. <i>Energy Procedia</i> , 2018, 152, 1230-1235.	1.8	7

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73	Investigating the economic returns of mobile heat storage devices in the multi-stage closed-loop supply chain. <i>Energy Reports</i> , 2020, 6, 181-189.	2.5	7
74	An oligarchy game model for the mobile waste heat recovery energy supply chain. <i>Energy</i> , 2020, 210, 118548.	4.5	7
75	Cost performance optimization of waste heat recovery supply chain by mobile heat storage vehicles. <i>Energy Reports</i> , 2020, 6, 137-146.	2.5	7
76	Revealing the 'Invisible Gorilla' in Construction: Assessing Mental Workload through Time-Frequency Analysis. , 2015, , .		7
77	Preparation and thermal properties of a novel pseudo ionic liquid phase change material for solar water heating system. <i>Solar Energy Materials and Solar Cells</i> , 2022, 236, 111507.	3.0	7
78	A data-driven framework for abnormally high building energy demand detection with weather and block morphology at community scale. <i>Journal of Cleaner Production</i> , 2022, 354, 131602.	4.6	7
79	Preparation and Hydrogen Storage Characteristics of Surfactant-Modified Graphene. <i>Polymers</i> , 2018, 10, 1220.	2.0	6
80	Developing Construction Workersâ€™ Mental Vigilance Indicators through Wavelet Packet Decomposition on EEG Signals. , 2018, , .		6
81	Collaboration strategy selection in BIM-enabled construction projects: a perspective through typical collaboration profiles. <i>Engineering, Construction and Architectural Management</i> , 2021, ahead-of-print, .	1.8	6
82	Experimental study on preparation of a novel foamed cement with paraffin/ expanded graphite composite phase change thermal energy storage material. <i>Energy Procedia</i> , 2019, 158, 4799-4804.	1.8	5
83	On the kinematic design of anthropomorphic lower limb exoskeletons and their matching movement. <i>International Journal of Advanced Robotic Systems</i> , 2019, 16, 172988141987590.	1.3	5
84	Ontology-Based Representations of User Activity and Flexible Space Information: Towards an Automated Space-Use Analysis in Buildings. <i>Advances in Civil Engineering</i> , 2019, 2019, 1-15.	0.4	5
85	A Gait Trajectory Control Scheme Through Successive Approximation Based on Radial Basis Function Neural Networks for the Lower Limb Exoskeleton Robot. <i>Journal of Computing and Information Science in Engineering</i> , 2020, 20, .	1.7	5
86	Short-term building occupancy prediction based on deep forest with multi-order transition probability. <i>Energy and Buildings</i> , 2022, 255, 111684.	3.1	5
87	A Novel Nonlinear Disturbance Observer embedded Second-Order Finite Time Tracking-based Controller for Robotic Manipulators. <i>Journal of Computing and Information Science in Engineering</i> , 0, , 1-27.	1.7	4
88	A design approach based on a correlative relationship between maintainability and functional construction. <i>Eksplatacja I Niezawodnosc</i> , 2018, 20, 115-124.	1.1	4
89	Promoting Energy Efficiency of HVAC Operation in Large Office Spaces with a Wi-Fi Probe enabled Markov Time Window Occupancy Detection Approach. <i>Energy Procedia</i> , 2017, 143, 204-209.	1.8	3
90	Simulating humanâ€™machine coupled model for gait trajectory optimization of the lower limb exoskeleton system based on genetic algorithm. <i>International Journal of Advanced Robotic Systems</i> , 2020, 17, 172988141989349.	1.3	3

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91	Toward a building occupant network agent-based model to simulate peer induced energy conservation behavior. , 2011, , .		2
92	Modeling Retention Loss in Project Networks: Untangling the Combined Effect of Skill Decay and Turnover on Learning. Journal of Management in Engineering - ASCE, 2014, 30, 04014017.	2.6	2
93	HVAC Energy Saving in IPS-enabled Large Space: An Occupancy Distribution Based Demand-driven Control Approach. Energy Procedia, 2017, 105, 2083-2088.	1.8	2
94	Investigating the hydrogen storage capacity of surfactant modified graphene. Energy Procedia, 2019, 158, 2112-2117.	1.8	2
95	Investigation on correlation of energy consumption of multi-buildings on campus area. Energy Procedia, 2019, 158, 3559-3564.	1.8	2
96	Simulating the effect of learning decay on adaptation performance in project networks. , 2009, , .		1
97	A Hybrid Control Mechanism for Stabilizing a Crane Load under Environmental Wind on a Construction Site. , 2015, , .		1
98	Analysis of Delay Interval and Energy-Load Variation for Non-Intrusively Extracting Occupant Energy-Use Information in Commercial Buildings. , 2017, , .		1
99	Optimum Network of Battery Storage to Support Electric Vehicle Charging Infrastructure in Smart Cities. , 2019, , .		1
100	Assessing Construction Workers' Vigilance Level Through Wearable Electroencephalography System. , 0, , .		1
101	Classification and Prospects of Chinese International Contractors' Industry Integration. , 2010, , .		0
102	Assessing Occupants' Energy-load Variation in Commercial and Educational Buildings: Occupancy Detecting Approach Based on Existing Wireless Network Infrastructure. , 2014, , .		0
103	Brain-Computer Interface in Construction Safety Management: A Quantitative Framework. , 2016, , .		0
104	An IPS-calibrated Outdoor Air Flow Control Strategy in Multizone Commercial Space. Energy Procedia, 2017, 142, 1842-1847.	1.8	0
105	Simulating Urban Building Energy Dynamic with Inter-Building-Effects (Ibes) Linked Building Networks. , 2021, , 1647-1654.		0
106	Simulating Energy-Saving and Consuming Behaviours in the Design and Manufacturing Process with Adjacent Networks. Communications in Computer and Information Science, 2021, , 441-451.	0.4	0
107	Distributed Adjacent Block Modeling (DAB): A Rapid Urban Building Energy Dynamics Simulation with Urban Building Digital Model. , 2020, , .		0
108	Pre-Service Fatigue Screening for Construction Labor through Hybrid Kinematic-EEG Signal Processing and Workload Assessments. , 2020, , .		0