Jack C P Cheng

List of Publications by Year
in descending order

104	6,510	50566	78623
papers	citations	48 h-index	77 g-index

106	106	106	4761
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Physics-based, data-driven approach for predicting natural ventilation of residential high-rise buildings. Building Simulation, 2022, 15, 129-148.	3.0	25
2	Enriched and discriminative convolutional neural network features for pedestrian reâ€identification and trajectory modeling. Computer-Aided Civil and Infrastructure Engineering, 2022, 37, 573-592.	6.3	6
3	Online geometry monitoring during directed energy deposition additive manufacturing using laser line scanning. Precision Engineering, 2022, 73, 104-114.	1.8	28
4	A knowledge model-based BIM framework for automatic code-compliant quantity take-off. Automation in Construction, 2022, 133, 104024.	4.8	16
5	A blockchain-based integrated document management framework for construction applications. Automation in Construction, 2022, 133, 104001.	4.8	49
6	Smart construction sites: A promising approach to improving on-site HSE management performance. Journal of Building Engineering, 2022, 49, 104007.	1.6	12
7	Digital Twins for Construction Sites: Concepts, LoD Definition, and Applications. Journal of Management in Engineering - ASCE, 2022, 38, .	2.6	46
8	Long-time gap crowd prediction using time series deep learning models with two-dimensional single attribute inputs. Advanced Engineering Informatics, 2022, 51, 101482.	4.0	14
9	Automatic relative humidity optimization in underground heritage sites through ventilation system based on digital twins. Building and Environment, 2022, 216, 108999.	3.0	22
10	A framework for synthetic image generation and augmentation for improving automatic sewer pipe defect detection. Automation in Construction, 2022, 137, 104213.	4.8	17
11	Impact of shaft design to thermal comfort and indoor air quality of floors using BIM technology. Journal of Building Engineering, 2022, 51, 104326.	1.6	7
12	BIM-Based Dynamic Construction Safety Rule Checking Using Ontology and Natural Language Processing. Buildings, 2022, 12, 564.	1.4	13
13	Digital modelling layer: two digital modelling methodsPART 1: SCAN-TO-BIM APPROACHES: REVIEW IN A HOLISTIC WORKFLOWPART 2: REVIEW OF GEOMETRIC DIGITAL TWINNING APPROACHES BASED ON PHOTOGRAMMETRY. , 2022, , 101-159.		0
14	Graph-based network generation and CCTV processing techniques for fire evacuation. Building Research and Information, 2021, 49, 179-196.	2.0	14
15	Sensitivity analysis of influence factors on multi-zone indoor airflow CFD simulation. Science of the Total Environment, 2021, 761, 143298.	3.9	13
16	Cost and environmental impact estimation methodology and potential impact factors in offshore oil and gas platform decommissioning: A review. Environmental Impact Assessment Review, 2021, 87, 106536.	4.4	15
17	Automated sewer pipe defect tracking in CCTV videos based on defect detection and metric learning. Automation in Construction, 2021, 121, 103438.	4.8	33
18	A BIM-based framework for automated generation of fabrication drawings for faÃ§ade panels. Computers in Industry, 2021, 126, 103395.	5.7	10

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19	Towards an automated condition assessment framework of underground sewer pipes based on closed-circuit television (CCTV) images. Tunnelling and Underground Space Technology, 2021, 110, 103840.	3.0	37
20	BIM-BVBS integration with openBIM standards for automatic prefabrication of steel reinforcement. Automation in Construction, 2021, 125, 103654.	4.8	22
21	BIM security: A critical review and recommendations using encryption strategy and blockchain. Automation in Construction, 2021, 126, 103682.	4.8	67
22	Automated clash-free optimization of steel reinforcement in RC frame structures using building information modeling and two-stage genetic algorithm. Automation in Construction, 2021, 126, 103676.	4.8	15
23	Recognition of pedestrian trajectories and attributes with computer vision and deep learning techniques. Advanced Engineering Informatics, 2021, 49, 101356.	4.0	23
24	DfMA-oriented design optimization for steel reinforcement using BIM and hybrid metaheuristic algorithms. Journal of Building Engineering, 2021, 44, 103310.	1.6	9
25	Enriched and Discriminative Human Features for Person Re-Identification Based on Explainable Behaviors of Convolutional Neural Networks. Lecture Notes in Civil Engineering, 2021, , 41-53.	0.3	2
26	A Secure and Distributed Construction Document Management System Using Blockchain. Lecture Notes in Civil Engineering, 2021, , 850-862.	0.3	15
27	Automating the Generation of 3D Multiple Pipe Layout Design Using BIM and Heuristic Search Methods. Lecture Notes in Civil Engineering, 2021, , 54-72.	0.3	4
28	Integrated Data Model and Mapping for Interoperable Information Exchange Between BIM and Energy Simulation Tools. Lecture Notes in Civil Engineering, 2021, , 496-506.	0.3	0
29	Study of IMU Installation Position for Posture Estimation of Excavators. Lecture Notes in Civil Engineering, 2021, , 980-991.	0.3	2
30	Vision-Based Pose Forecasting of Construction Equipment for Monitoring Construction Site Safety. Lecture Notes in Civil Engineering, 2021, , 1127-1138.	0.3	2
31	Deep Learningâ€“Based Automated Detection of Sewer Defects in CCTV Videos. Journal of Computing in Civil Engineering, 2020, 34, .	2.5	87
32	Identification of high impact factors of air quality on a national scale using big data and machine learning techniques. Journal of Cleaner Production, 2020, 244, 118955.	4.6	87
33	A unified convolutional neural network integrated with conditional random field for pipe defect segmentation. Computer-Aided Civil and Infrastructure Engineering, 2020, 35, 162-177.	6.3	87
34	Multi-zone indoor CFD under limited information: An approach coupling solar analysis and BIM for improved accuracy. Journal of Cleaner Production, 2020, 244, 118912.	4.6	12
35	Air quality prediction at new stations using spatially transferred bi-directional long short-term memory network. Science of the Total Environment, 2020, 705, 135771.	3.9	104
36	Soft detection of 5-day BOD with sparse matrix in city harbor water using deep learning techniques. Water Research, 2020, 170, 115350.	5.3	53

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37	State-of-the-Art Review on Mixed Reality Applications in the AECO Industry. Journal of Construction Engineering and Management - ASCE, 2020, 146, .	2.0	54
38	Full body pose estimation of construction equipment using computer vision and deep learning techniques. Automation in Construction, 2020, 110, 103016.	4.8	98
39	Developing Efficient Mechanisms for BIM-to-AR/VR Data Transfer. Journal of Computing in Civil Engineering, 2020, 34, .	2.5	19
40	Identification of the most influential areas for air pollution control using XGBoost and Grid Importance Rank. Journal of Cleaner Production, 2020, 274, 122835.	4.6	47
41	A Lag-FLSTM deep learning network based on Bayesian Optimization for multi-sequential-variant PM2.5 prediction. Sustainable Cities and Society, 2020, 60, 102237.	5.1	68
42	Top 10 technologies for indoor positioning on construction sites. Automation in Construction, 2020, 118, 103309.	4.8	51
43	Real-time detection of wildfire risk caused by powerline vegetation faults using advanced machine learning techniques. Advanced Engineering Informatics, 2020, 44, 101070.	4.0	27
44	Analyzing driving factors of land values in urban scale based on big data and non-linear machine learning techniques. Land Use Policy, 2020, 94, 104537.	2.5	59
45	Transfer learning enhanced AR spatial registration for facility maintenance management. Automation in Construction, 2020, 113, 103135.	4.8	13
46	Semi-automated generation of parametric BIM for steel structures based on terrestrial laser scanning data. Automation in Construction, 2020, 112, 103037.	4.8	79
47	A bi-directional missing data imputation scheme based on LSTM and transfer learning for building energy data. Energy and Buildings, 2020, 216, 109941.	3.1	96
48	Transfer learning for long-interval consecutive missing values imputation without external features in air pollution time series. Advanced Engineering Informatics, 2020, 44, 101092.	4.0	50
49	Data-driven predictive maintenance planning framework for MEP components based on BIM and IoT using machine learning algorithms. Automation in Construction, 2020, 112, 103087.	4.8	237
50	Ontology-Based Data Integration and Sharing for Facility Maintenance Management. , 2020, , .		3
51	Improving air quality prediction accuracy at larger temporal resolutions using deep learning and transfer learning techniques. Atmospheric Environment, 2019, 214, 116885.	1.9	154
52	A temporal-spatial interpolation and extrapolation method based on geographic Long Short-Term Memory neural network for PM2.5. Journal of Cleaner Production, 2019, 237, 117729.	4.6	133
53	Analyzing the Leading Causes of Traffic Fatalities Using XGBoost and Grid-Based Analysis: A City Management Perspective. IEEE Access, 2019, 7, 148059-148072.	2.6	65
54	An integrated underground utility management and decision support based on BIM and GIS. Automation in Construction, 2019, 107, 102931.	4.8	66

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55	Automatic generation of fabrication drawings for faÃ§ade mullions and transoms through BIM models. Advanced Engineering Informatics, 2019, 42, 100964.	4.0	12
56	Simulation-based evolutionary optimization for energy-efficient layout plan design of high-rise residential buildings. Journal of Cleaner Production, 2019, 231, 1375-1388.	4.6	52
57	A comprehensive approach to mitigation of embodied carbon in reinforced concrete buildings. Journal of Cleaner Production, 2019, 229, 582-597.	4.6	31
58	Integrating 4D BIM and GIS for Construction Supply Chain Management. Journal of Construction Engineering and Management - ASCE, 2019, 145, .	2.0	89
59	BIM-supported 4D acoustics simulation approach to mitigating noise impact on maintenance workers on offshore oil and gas platforms. Automation in Construction, 2019, 100, 1-10.	4.8	18
60	Developing an evacuation evaluation model for offshore oil and gas platforms using BIM and agent-based model. Automation in Construction, 2018, 89, 214-224.	4.8	51
61	Automatic As-Built BIM Creation of Precast Concrete Bridge Deck Panels Using Laser Scan Data. Journal of Computing in Civil Engineering, 2018, 32, .	2.5	55
62	BIM-based framework for automatic scheduling of facility maintenance work orders. Automation in Construction, 2018, 91, 15-30.	4.8	160
63	Automated optimization of steel reinforcement in RC building frames using building information modeling and hybrid genetic algorithm. Automation in Construction, 2018, 90, 39-57.	4.8	63
64	Spatial and temporal variations of spatial population accessibility to public hospitals: a case study of ruralâ€“urban comparison. GIScience and Remote Sensing, 2018, 55, 718-744.	2.4	53
65	Development of social sustainability assessment method and a comparative case study on assessing recycled construction materials. International Journal of Life Cycle Assessment, 2018, 23, 1654-1674.	2.2	63
66	Critical Success and Failure Factors for Managing Green Building Projects. Journal of Architectural Engineering, 2018, 24, .	0.8	35
67	Optimizing lift operations and vessel transport schedules for disassembly of multiple offshore platforms using BIM and GIS. Automation in Construction, 2018, 94, 328-339.	4.8	25
68	Automated detection of sewer pipe defects in closed-circuit television images using deep learning techniques. Automation in Construction, 2018, 95, 155-171.	4.8	224
69	Holistic BIM framework for sustainable low carbon design of high-rise buildings. Journal of Cleaner Production, 2018, 195, 1091-1104.	4.6	95
70	Towards an Ontology-based Approach for Information Interoperability Between BIM and Facility Management. Lecture Notes in Computer Science, 2018, , 447-469.	1.0	12
71	Identifying potential opportunities of building information modeling for construction and demolition waste management and minimization. Automation in Construction, 2017, 79, 3-18.	4.8	134
72	A comparative analysis of embodied carbon in high-rise buildings regarding different design parameters. Journal of Cleaner Production, 2017, 161, 663-675.	4.6	85

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73	Selection of target LEED credits based on project information and climatic factors using data mining techniques. Advanced Engineering Informatics, 2017, 32, 224-236.	4.0	49
74	A BIM-based framework for lift planning in topsides disassembly of offshore oil and gas platforms. Automation in Construction, 2017, 79, 19-30.	4.8	45
75	Automated Estimation of Reinforced Precast Concrete Rebar Positions Using Colored Laser Scan Data. Computer-Aided Civil and Infrastructure Engineering, 2017, 32, 787-802.	6.3	93
76	A semi-automated approach to generate 4D/5D BIM models for evaluating different offshore oil and gas platform decommissioning options. Visualization in Engineering, 2017, 5, .	8.8	17
77	Sustainability analyses of embodied carbon and construction cost in high-rise buildings using different materials and structural forms. HKIE Transactions, 2017, 24, 216-227.	1.9	12
78	A State-of-the-Art Review on the Integration of Building Information Modeling (BIM) and Geographic Information System (GIS). ISPRS International Journal of Geo-Information, 2017, 6, 53.	1.4	248
79	Trends and Opportunities of BIM-GIS Integration in the Architecture, Engineering and Construction Industry: A Review from a Spatio-Temporal Statistical Perspective. ISPRS International Journal of Geo-Information, 2017, 6, 397.	1.4	145
80	Analytical review and evaluation of civil information modeling. Automation in Construction, 2016, 67, 31-47.	4.8	100
81	Mapping between BIM and 3D GIS in different levels of detail using schema mediation and instance comparison. Automation in Construction, 2016, 67, 1-21.	4.8	199
82	Identifying the influential features on the regional energy use intensity of residential buildings based on Random Forests. Applied Energy, 2016, 183, 193-201.	5.1	113
83	Estimation of the building energy use intensity in the urban scale by integrating GIS and big data technology. Applied Energy, 2016, 183, 182-192.	5.1	151
84	Integrating life cycle assessment and multi-objective optimization for economical and environmentally sustainable supply of aggregate. Journal of Cleaner Production, 2016, 113, 76-85.	4.6	19
85	A framework for 3D traffic noise mapping using data from BIM and GIS integration. Structure and Infrastructure Engineering, 2016, 12, 1267-1280.	2.0	71
86	Comparative environmental evaluation of aggregate production from recycled waste materials and virgin sources by LCA. Resources, Conservation and Recycling, 2016, 109, 67-77.	5.3	320
87	Data-driven study on the achievement of LEED credits using percentage of average score and association rule analysis. Building and Environment, 2016, 98, 121-132.	3.0	57
88	Quantification of construction waste prevented by BIM-based design validation: Case studies in South Korea. Waste Management, 2016, 49, 170-180.	3.7	130
89	Evaluation of environmental friendliness of concrete paving eco-blocks using LCA approach. International Journal of Life Cycle Assessment, 2016, 21, 70-84.	2.2	63
90	A financial decision making framework for construction projects based on 5D Building Information Modeling (BIM). International Journal of Project Management, 2016, 34, 3-21.	2.7	124

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91	Automatic Transformation of Different Levels of Detail in 3D GIS City Models in CityGML. International Journal of 3-D Information Modeling, 2015, 4, 1-21.	0.2	2
92	An ontology-based web service framework for construction supply chain collaboration and management. Engineering, Construction and Architectural Management, 2015, 22, 551-572.	1.8	44
93	Formulation and analysis of dynamic supply chain of backfill in construction waste management using agent-based modeling. Advanced Engineering Informatics, 2015, 29, 878-888.	4.0	45
94	A non-linear case-based reasoning approach for retrieval of similar cases and selection of target credits in LEED projects. Building and Environment, 2015, 93, 349-361.	3.0	80
95	A data-driven study of important climate factors on the achievement of LEED-EB credits. Building and Environment, 2015, 90, 232-244.	3.0	42
96	A BIM-based automated site layout planning framework for congested construction sites. Automation in Construction, 2015, 59, 24-37.	4.8	142
97	A framework for dimensional and surface quality assessment of precast concrete elements using BIM and 3D laser scanning. Automation in Construction, 2015, 49, 225-238.	4.8	175
98	Evaluation of IFC4 for the GIS and Green Building Domains. , 2014, , .		4
99	Life cycle carbon footprint measurement of Portland cement and ready mix concrete for a city with local scarcity of resources like Hong Kong. International Journal of Life Cycle Assessment, 2014, 19, 745-757.	2.2	51
100	A BIM-based system for demolition and renovation waste estimation and planning. Waste Management, 2013, 33, 1539-1551.	3.7	289
101	Modeling and monitoring of construction supply chains. Advanced Engineering Informatics, 2010, 24, 435-455.	4.0	66
102	MINOE: A Software Tool to Analyze Ocean Management Efforts in the Context of Ecosystems. Coastal Management, 2010, 38, 457-473.	1.0	10
103	Comparison of Marker-Based and Markerless AR: A Case Study of An Indoor Decoration System. , 0, , .		41
104	A Study of the Relationship between Credits in the LEED-EB&OM Green Building Rating System. International Journal of Engineering and Technology, 0, , 438-442.	0.1	9