Jiansong Zhang

List of Publications by Year
in descending order

73 papers	1,086 citations	566801 15 h-index	433756 31 g-index
75 all docs	75 docs citations	75 times ranked	397 citing authors

#	Article	IF	Citations
1	Semantic NLP-Based Information Extraction from Construction Regulatory Documents for Automated Compliance Checking. Journal of Computing in Civil Engineering, 2016, 30, .	2.5	203
2	Integrating semantic NLP and logic reasoning into a unified system for fully-automated code checking. Automation in Construction, 2017, 73, 45-57.	4.8	145
3	Automated Information Transformation for Automated Regulatory Compliance Checking in Construction. Journal of Computing in Civil Engineering, 2015, 29, .	2.5	95
4	Extending Building Information Models Semiautomatically Using Semantic Natural Language Processing Techniques. Journal of Computing in Civil Engineering, 2016, 30, .	2.5	67
5	New Automated BIM Object Classification Method to Support BIM Interoperability. Journal of Computing in Civil Engineering, 2019, 33, .	2.5	53
6	Electrical load prediction of healthcare buildings through single and ensemble learning. Energy Reports, 2020, 6, 2751-2767.	2.5	41
7	Semantic-Based Logic Representation and Reasoning for Automated Regulatory Compliance Checking. Journal of Computing in Civil Engineering, 2017, 31, .	2.5	30
8	Preparation and properties of novel superabsorbent polymer (SAP) composites for cementitious materials based on modified metakaolin. Construction and Building Materials, 2020, 258, 119575.	3.2	29
9	Invariant Signatures of Architecture, Engineering, and Construction Objects to Support BIM Interoperability between Architectural Design and Structural Analysis. Journal of Construction Engineering and Management - ASCE, 2021, 147, .	2.0	29
10	Design information extraction from construction specifications to support cost estimation. Automation in Construction, 2021, 131, 103835.	4.8	27
11	Data-Driven Reverse Engineering Algorithm Development Method for Developing Interoperable Quantity Takeoff Algorithms Using IFC-Based BIM. Journal of Computing in Civil Engineering, 2020, 34, .	2.5	24
12	Semantic N-Gram Feature Analysis and Machine Learning–Based Classification of Drivers' Hazardous Actions at Signal-Controlled Intersections. Journal of Computing in Civil Engineering, 2020, 34, .	2.5	22
13	Part-of-speech tagging of building codes empowered by deep learning and transformational rules. Advanced Engineering Informatics, 2021, 47, 101235.	4.0	21
14	Preparation and Evaluation of Exhaust-Purifying Cement Concrete Employing Titanium Dioxide. Materials, 2019, 12, 2182.	1.3	19
15	BIM-based simulation of construction robotics in the assembly process of wood frames. Automation in Construction, 2022, 137, 104194.	4.8	16
16	Building Codes Part-of-Speech Tagging Performance Improvement by Error-Driven Transformational Rules. Journal of Computing in Civil Engineering, 2020, 34, .	2.5	15
17	Logic representation and reasoning for automated BIM analysis to support automation in offsite construction. Automation in Construction, 2021, 129, 103756.	4.8	14
18	Semantic Rule-Based Construction Procedural Information Extraction to Guide Jobsite Sensing and Monitoring. Journal of Computing in Civil Engineering, 2021, 35, .	2.5	14

#	Article	IF	Citations
19	Constructing Invariant Signatures for AEC Objects to Support BIM-Based Analysis Automation through Object Classification. Journal of Computing in Civil Engineering, 2022, 36, .	2.5	14
20	Automated BIM Object Classification to Support BIM Interoperability. , 2018, , .		12
21	BIM Interoperability for Structure Analysis. , 2018, , .		12
22	Automated Regulatory Information Extraction from Building Codes : Leveraging Syntactic and Semantic Information. , 2012, , .		11
23	A New Framework to Address BIM Interoperability in the AEC Domain from Technical and Process Dimensions. Advances in Civil Engineering, 2021, 2021, 1-17.	0.4	10
24	Semiautomated Generation of Logic Rules for Tabular Information in Building Codes to Support Automated Code Compliance Checking. Journal of Computing in Civil Engineering, 2022, 36, .	2.5	10
25	Towards Systematic Understanding of Geometric Representations in BIM Standard: An Empirical Data-Driven Approach. , 2018, , .		9
26	Model Information Checking to Support Interoperable BIM Usage in Structural Analysis. , 2019, , .		9
27	Automated Design Information Extraction from Construction Specifications to Support Wood Construction Cost Estimation. , 2020, , .		8
28	Framework for Developing IFC-Based 3D Documentation from 2D Bridge Drawings. Journal of Computing in Civil Engineering, 2022, 36, .	2.5	8
29	Model Validation Using Invariant Signatures and Logic-Based Inference for Automated Building Code Compliance Checking. Journal of Computing in Civil Engineering, 2022, 36, .	2.5	8
30	Introducing Geometric Signatures of Architecture, Engineering, and Construction Objects and a New BIM Dataset. , 2019, , .		7
31	A logic-based representation and tree-based visualization method for building regulatory requirements. Visualization in Engineering, 2017, 5, .	8.8	6
32	Generation of Entity-Based Integrated Model View Definition Modules for the Development of New BIM Data Exchange Standards. Journal of Computing in Civil Engineering, 2020, 34, 04020011.	2.5	6
33	Regulatory information transformation ruleset expansion to support automated building code compliance checking. Automation in Construction, 2022, 138, 104230.	4.8	6
34	Automated Hazardous Action Classification Using Natural Language Processing and Machine-Learning Techniques. , 2016, , .		5
35	Automated Wood Construction Cost Estimation. , 2017, , .		5
36	Building Accessibility Code Compliance Verification Using Game Simulations in Virtual Reality. , 2017, , .		5

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37	Case Study of Building Information Modeling Implementation in Infrastructure Projects. Transportation Research Record, 2022, 2676, 663-679.	1.0	5
38	Infrastructure assessment post-disaster: Remotely sensing bridge structural damage by unmanned aerial vehicle in low-light conditions. Journal of Emergency Management, 2020, 18, 27-41.	0.2	5
39	Semi-Automated Generation of 3D Bridge Models from 2D PDF Bridge Drawings. , 2022, , .		5
40	A Comparative Analysis of Five Rule-Based Model Checking Platforms. , 2020, , .		4
41	Energy Benchmarking in Healthcare Facilities: A Comparative Study. Journal of Construction Engineering and Management - ASCE, 2021, 147, .	2.0	4
42	Issues in Bi-Directional Interoperability between BIM and BEM. , 2022, , .		4
43	An Automated Relationship Classification to Support Semi-Automated IFC Extension. , 2016, , .		3
44	Entity-Based MVD Concept Module Generation for Development of New BIM Data Exchange Standards. , 2019, , .		3
45	New Automated Activity-on-Node Calculation Grading Method for Construction Management Education Innovation. Journal of Civil Engineering Education, 2021, 147, .	0.8	3
46	Integration of BIM Processes in Architectural Design, Structural Analysis, and Detailing: Current Status and Limitations. , 2020, , .		3
47	Named entity recognition for Chinese construction documents based on conditional random field. Frontiers of Engineering Management, 2023, 10, 237-249.	3.3	3
48	Notice of Retraction: Study on Construction Management System for Villages and Small Towns Based on Dissipative Structure. , 2009, , .		2
49	Extending Building Information Models Semi-Automatically Using Semantic Natural Language Processing Techniques. , 2014, , .		2
50	An Ontology to Support the Move towards Sustainable Construction in Saudi Arabia. , 2017, , .		2
51	Automated Item Matching and Pricing (IMP) for Wood Building Elements to Support BIM-Based Wood Construction Cost Estimation. , 2019, , .		2
52	An Automated Grading Method for Activity-on-Node Calculations to Support Construction Management Education. , 2020, , .		2
53	On Intelligent Fire Drawings Review Based on Building Information Modeling and Knowledge Graph. , 2020, , .		2
54	Interactive Visual Representation of Inter-Connected Requirements in Building Codes. , 2022, , .		2

#	Article	IF	Citations
55	Semi-Automated Conversion of 2D Orthographic Views of Wood Building Components to 3D Information Models. , 2022, , .		2
56	Interoperability between BIM and BEM Using IFC. , 2022, , .		2
57	Maintainability Assessment of Light Design Using Game Simulation, Virtual Reality, and Brain Sensing Technologies. , 2018, , .		1
58	Global Building Information Modeling Maturity. , 2019, , .		1
59	Evaluation of Seven Part-of-Speech Taggers in Tagging Building Codes: Identifying the Best Performing Tagger and Common Sources of Errors. , 2020, , .		1
60	Cartesian Points Visualization in Game Simulation for Analyzing Geometric Representations of AEC Objects in IFC. , 2019, , .		1
61	Comparison of BIM Interoperability Applications at Different Structural Analysis Stages. , 2020, , .		1
62	Analysis of Gender Perception in the Construction Sector: Colombian Case. , 2022, , .		1
63	Model Validation for Automated Building Code Compliance Checking. , 2022, , .		1
64	An Integrated Framework to Support Construction Monitoring Automation Using Natural Language Processing and Sensing Technologies. , 2022, , .		1
65	Characterizing Perceived Data Sharing Barriers and Promotion Strategies in Civil Engineering. , 2022, , .		1
66	A Robotic System Method and Rebar Construction with Off-the-Shelf Robots. , 2022, , .		1
67	A Survey of Trends of Building Fire Simulation in the Architecture, Engineering, and Construction (AEC) Domains. , 2022, , .		0
68	Reducing Harassment for Women in the Professional Construction Workplace with Zero-Tolerance and Interventionist Policies. , 2022, , .		0
69	A BIM Information Processing Framework to Facilitate Enriched BIM Applications. , 2022, , .		0
70	Computer Vision-Based Geometry Mapping and Matching of Building Elements for Construction Robotic Applications. , 2022, , .		0
71	Construction Procedural Information Extraction from Textual Sources to Support Scheduling. , 2022, , .		0
72	Impacts of the COVID-19 Pandemic on Services Utilization and Energy Consumption in Healthcare Facilities: Evidence from Shanghai Municipal Hospitals. , 2022, , .		0

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73	Development of an Energy-Oriented Layout Planning Framework for Healthcare Facilities. , 2022, , .		0