

Hubo Cai

List of Publications by Year in descending order

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54
papers

1,310
citations

288859

22
h-index

356229

35
g-index

55
all docs

55
docs citations

55
times ranked

1297
citing authors

#	ARTICLE	IF	CITATIONS
1	Risk assessment and management via multi-source information fusion for undersea tunnel construction. <i>Automation in Construction</i> , 2020, 111, 103050.	10.0	105
2	WBS-based dynamic multi-dimensional BIM database for total construction as-built documentation. <i>Automation in Construction</i> , 2017, 77, 15-23.	10.0	94
3	Automatic Pavement-Crack Detection and Segmentation Based on Steerable Matched Filtering and an Active Contour Model. <i>Journal of Computing in Civil Engineering</i> , 2017, 31, .	4.9	77
4	Integrated Processing of Image and GPR Data for Automated Pothole Detection. <i>Journal of Computing in Civil Engineering</i> , 2016, 30, .	4.9	67
5	Uncertainty-aware geospatial system for mapping and visualizing underground utilities. <i>Automation in Construction</i> , 2015, 53, 105-119.	10.0	65
6	Integrating Natural Language Processing and Spatial Reasoning for Utility Compliance Checking. <i>Journal of Construction Engineering and Management - ASCE</i> , 2016, 142, .	4.0	62
7	Government incentive impacts on private investment behaviors under demand uncertainty. <i>Transportation Research, Part E: Logistics and Transportation Review</i> , 2017, 101, 115-129.	7.5	55
8	Semantic approach to compliance checking of underground utilities. <i>Automation in Construction</i> , 2020, 109, 103006.	10.0	55
9	Classification of construction hazard-related perceptions using: Wearable electroencephalogram and virtual reality. <i>Automation in Construction</i> , 2021, 132, 103975.	10.0	53
10	GIS-based dynamic construction site material layout evaluation for building renovation projects. <i>Automation in Construction</i> , 2012, 27, 40-49.	10.0	46
11	Infrastructure financing with project bond and credit default swap under public-private partnerships. <i>International Journal of Project Management</i> , 2017, 35, 406-419.	6.1	45
12	Two-step long short-term memory method for identifying construction activities through positional and attentional cues. <i>Automation in Construction</i> , 2019, 106, 102886.	10.0	40
13	Ontology and rule-based natural language processing approach for interpreting textual regulations on underground utility infrastructure. <i>Advanced Engineering Informatics</i> , 2021, 48, 101288.	8.3	36
14	Correlating Intelligent Compaction Data to In Situ Soil Compaction Quality Measurements. <i>Journal of Construction Engineering and Management - ASCE</i> , 2017, 143, .	4.0	35
15	Impact of COVID-19 on the US Construction Industry as Revealed in the Purdue Index for Construction. <i>Journal of Management in Engineering - ASCE</i> , 2022, 38, .	4.8	35
16	Camera marker networks for articulated machine pose estimation. <i>Automation in Construction</i> , 2018, 96, 148-160.	10.0	34
17	GPR Signature Detection and Decomposition for Mapping Buried Utilities with Complex Spatial Configuration. <i>Journal of Computing in Civil Engineering</i> , 2018, 32, .	4.9	33
18	Government contracting with monopoly in infrastructure provision: Regulation or deregulation?. <i>Transportation Research, Part E: Logistics and Transportation Review</i> , 2019, 122, 506-523.	7.5	28

#	ARTICLE	IF	CITATIONS
19	Robust Hybrid Approach of Vision-Based Tracking and Radio-Based Identification and Localization for 3D Tracking of Multiple Construction Workers. Journal of Computing in Civil Engineering, 2020, 34, .	4.9	25
20	Life Cycle Approach to Construction Workspace Modeling and Planning. Journal of Construction Engineering and Management - ASCE, 2014, 140, .	4.0	24
21	Bringing Information to the Field: Automated Photo Registration and 4D BIM. Journal of Computing in Civil Engineering, 2018, 32, .	4.9	24
22	Multi-class classification of construction hazards via cognitive states assessment using wearable EEG. Advanced Engineering Informatics, 2022, 53, 101646.	8.3	24
23	Ontology-Based Knowledge Management System for Digital Highway Construction Inspection. Transportation Research Record, 2019, 2673, 52-65.	1.8	23
24	Approach to Determine Extent and Depth of Highway Flooding. Journal of Infrastructure Systems, 2007, 13, 157-167.	1.9	20
25	Empirical Analysis of Capital Structure Determinants in Infrastructure Projects under Public-Private Partnerships. Journal of Construction Engineering and Management - ASCE, 2019, 145, .	4.0	20
26	Assessment of the Computing Component of Civil Engineering Education. Journal of Computing in Civil Engineering, 2004, 18, 187-195.	4.9	18
27	Transportation Distance Measurement Data Quality. Journal of Computing in Civil Engineering, 2003, 17, 75-87.	4.9	13
28	A field theory based model for identifying the effect of organizational structure on the formation of organizational culture in construction projects. KSCE Journal of Civil Engineering, 2017, 21, 45-53.	1.9	13
29	Automating Utility Permitting within Highway Right-of-Way via a Generic UML/OCL Model and Natural Language Processing. Journal of Construction Engineering and Management - ASCE, 2020, 146, .	4.0	11
30	Spatial Autocorrelation in Soil Compaction and Its Impact on Earthwork Acceptance Testing. Transportation Research Record, 2019, 2673, 332-342.	1.8	10
31	Extraction of Construction Quality Requirements from Textual Specifications via Natural Language Processing. Transportation Research Record, 2021, 2675, 222-237.	1.8	10
32	Identification of Metrics for the Purdue Index for Construction Using Latent Dirichlet Allocation. Journal of Management in Engineering - ASCE, 2021, 37, .	4.8	10
33	Infrastructure privatization analysis: A public-private duopoly game. Transport Policy, 2019, 83, 80-87.	6.7	8
34	Accuracy Assessment of Interstate Highway Length Using Digital Elevation Model. Journal of Surveying Engineering, - ASCE, 2004, 130, 142-150.	1.8	7
35	Geographic Information Systems/National Elevation Data Route Mileage Verification. Journal of Surveying Engineering, - ASCE, 2006, 132, 40-49.	1.8	7
36	Towards Sensor-Based Health Monitoring Systems for Bridge Decks: A Full-Depth Precast Deck Panels Case Study. Advances in Civil Engineering, 2010, 2010, 1-14.	0.7	7

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37	Enabling Construction 4D Topological Analysis for Effective Construction Planning. Journal of Computing in Civil Engineering, 2016, 30, .	4.9	7
38	Real option-based optimization for financial incentive allocation in infrastructure projects under public-private partnerships. Frontiers of Engineering Management, 2020, 7, 413-425.	5.9	7
39	Spatial reasoning mechanism to enable automated adaptive trajectory planning in ground penetrating radar survey. Automation in Construction, 2020, 114, 103157.	10.0	7
40	Domain Ontology for Utility Infrastructure: Coupling the Semantics of CityGML Utility Network ADE and Domain Glossaries. Journal of Computing in Civil Engineering, 2021, 35, .	4.9	7
41	Verification and Validation Framework for Purdue Index for Construction. Journal of Management in Engineering - ASCE, 2021, 37, .	4.8	6
42	Cost-Efficient Image Semantic Segmentation for Indoor Scene Understanding Using Weakly Supervised Learning and BIM. Journal of Computing in Civil Engineering, 2023, 37, .	4.9	6
43	Quantifying Time and User Cost Savings for Rapid Bridge Construction Technique. Transportation Research Record, 2010, 2151, 11-20.	1.8	5
44	Automatic Generation of Customized Checklists for Digital Construction Inspection. Transportation Research Record, 0, , 036119812199582.	1.8	5
45	Integrating GIS and Microscopic Traffic Simulation to Analyze Impacts of Transportation Infrastructure Construction. Journal of Computing in Civil Engineering, 2012, 26, 478-487.	4.9	4
46	Modeling 3D Spatial Constraints to Support Utility Compliance Checking. , 2019, , .		4
47	A Framework for EEG-Based Ubiquitous Hazard Identification and Proactive Safety Management. , 2022, , .		3
48	Toward Integrated Human-Machine Intelligence for Civil Engineering: An Interdisciplinary Perspective. , 2022, , .		3
49	Enhanced visual SLAM for construction robots by efficient integration of dynamic object segmentation and scene semantics. Advanced Engineering Informatics, 2024, 59, 102313.	8.3	3
50	Framework of Dynamic Daily 4D BIM for Tracking Construction Progress through a Web Environment. , 2017, , .		2
51	An Ontology Approach to Utility Knowledge Representation. , 2018, , .		1
52	From Scans to Parametric BIM: An Enhanced Framework Using Synthetic Data Augmentation and Parametric Modeling for Highway Bridges. Journal of Computing in Civil Engineering, 2024, 38, .	4.9	1
53	Life-Cycle Cost-Based Decision Framework for Failed Portland Cement Concrete Pavement Materials in Indiana. Transportation Research Record, 2015, 2524, 33-41.	1.8	0
54	Risk Breakdown Matrix for Risk-Based Inspection of Transportation Infrastructure Projects. Journal of Construction Engineering and Management - ASCE, 2023, 149, .	4.0	0