Zhenhua Zhu

List of Publications by Year
in descending order

59 papers	2,014 citations	236612 25 h-index	243296 44 g-index
59 all docs	59 docs citations	59 times ranked	1316 citing authors

#	ARTICLE	IF	CITATIONS
1	Visual retrieval of concrete crack properties for automated post-earthquake structural safety evaluation. Automation in Construction, 2011, 20, 874-883.	4.8	152
2	Hardhat-Wearing Detection for Enhancing On-Site Safety of Construction Workers. Journal of Construction Engineering and Management - ASCE, 2015, 141, .	2.0	150
3	Achievements and Challenges in Machine Vision-Based Inspection of Large Concrete Structures. Advances in Structural Engineering, 2014, 17, 303-318.	1.2	106
4	Automated excavators activity recognition and productivity analysis from construction site surveillance videos. Automation in Construction, 2020, 110, 103045.	4.8	100
5	Predicting movements of onsite workers and mobile equipment for enhancing construction site safety. Automation in Construction, 2016, 68, 95-101.	4.8	97
6	Machine vision-based model for spalling detection and quantification in subway networks. Automation in Construction, 2017, 81, 149-160.	4.8	96
7	Comparison of Optical Sensor-Based Spatial Data Collection Techniques for Civil Infrastructure Modeling. Journal of Computing in Civil Engineering, 2009, 23, 170-177.	2.5	78
8	Concrete Column Recognition in Images and Videos. Journal of Computing in Civil Engineering, 2010, 24, 478-487.	2.5	77
9	Detection of large-scale concrete columns for automated bridge inspection. Automation in Construction, 2010, 19, 1047-1055.	4.8	76
10	Integrated detection and tracking of workforce and equipment from construction jobsite videos. Automation in Construction, 2017, 81, 161-171.	4.8	74
11	Skeleton estimation of excavator by detecting its parts. Automation in Construction, 2017, 82, 1-15.	4.8	71
12	Machine Vision-Based Concrete Surface Quality Assessment. Journal of Construction Engineering and Management - ASCE, 2010, 136, 210-218.	2.0	66
13	Exoskeletons for manual material handling â€" A review and implication for construction applications. Automation in Construction, 2021, 122, 103493.	4.8	65
14	Framework for Location Data Fusion and Pose Estimation of Excavators Using Stereo Vision. Journal of Computing in Civil Engineering, 2018, 32, .	2.5	63
15	Automated annotation for visual recognition of construction resources using synthetic images. Automation in Construction, 2016, 62, 14-23.	4.8	62
16	Parameter optimization for automated concrete detection in image data. Automation in Construction, 2010, 19, 944-953.	4.8	52
17	Machine Vision-Enhanced Postearthquake Inspection. Journal of Computing in Civil Engineering, 2013, 27, 622-634.	2.5	51
18	Visual Tracking of Construction Jobsite Workforce and Equipment with Particle Filtering. Journal of Computing in Civil Engineering, 2016, 30, .	2.5	51

#	Article	IF	Citations
19	Image dataset development for measuring construction equipment recognition performance. Automation in Construction, 2014, 48, 1-10.	4.8	48
20	Automated Data Acquisition in Construction with Remote Sensing Technologies. Applied Sciences (Switzerland), 2020, 10, 2846.	1.3	39
21	Data-Fusion Approaches and Applications for Construction Engineering. Journal of Construction Engineering and Management - ASCE, 2011, 137, 863-869.	2.0	38
22	Interoperability from building design to building energy modeling. Journal of Building Engineering, 2015, 1, 33-41.	1.6	33
23	Two-Dimensional Visual Tracking in Construction Scenarios: A Comparative Study. Journal of Computing in Civil Engineering, 2018, 32, .	2.5	33
24	Deterioration mapping in subway infrastructure using sensory data of GPR. Tunnelling and Underground Space Technology, 2020, 103, 103487.	3.0	29
25	Monocular Vision–Based Framework for Biomechanical Analysis or Ergonomic Posture Assessment in Modular Construction. Journal of Computing in Civil Engineering, 2020, 34, .	2.5	29
26	Visual Pattern Recognition Models for Remote Sensing of Civil Infrastructure. Journal of Computing in Civil Engineering, 2011, 25, 388-393.	2.5	24
27	Automatic matching of construction onsite resources under camera views. Automation in Construction, 2018, 91, 206-215.	4.8	24
28	Computer Vision–Based Model for Moisture Marks Detection and Recognition in Subway Networks. Journal of Computing in Civil Engineering, 2018, 32, .	2.5	24
29	Providing proximity alerts to workers on construction sites using Bluetooth Low Energy RTLS. Automation in Construction, 2021, 132, 103928.	4.8	20
30	Vision–based framework for automatic interpretation of construction workers' hand gestures. Automation in Construction, 2021, 130, 103872.	4.8	19
31	Vision-based hand signal recognition in construction: A feasibility study. Automation in Construction, 2021, 125, 103625.	4.8	16
32	BIM-based model for quantifying the design change time ripple effect. Canadian Journal of Civil Engineering, 2017, 44, 626-642.	0.7	15
33	Critical Review and Road Map of Automated Methods for Earthmoving Equipment Productivity Monitoring. Journal of Computing in Civil Engineering, 2022, 36, .	2.5	13
34	Spatial and visual data fusion for capturing, retrieval, and modeling of as-built building geometry and features. Visualization in Engineering, 2013, 1, .	8.8	12
35	Assessment and management of air emissions and environmental impacts from the construction industry. Journal of Environmental Planning and Management, 2018, 61, 2421-2444.	2.4	11
36	Real-Time Concrete Damage Visual Assessment for First Responders. , 2009, , .		10

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37	An integrated life cycle inventory and artificial neural network model for mining air pollution management. International Journal of Environmental Science and Technology, 2019, 16, 1847-1856.	1.8	10
38	Automatic Identification of Idling Reasons in Excavation Operations Based on Excavator–Truck Relationships. Journal of Computing in Civil Engineering, 2021, 35, .	2.5	10
39	Automated Detection of Concrete Columns from Visual Data. , 2009, , .		8
40	Smart Sensing Technologies and Their Applications in Civil Infrastructures 2016. Journal of Sensors, 2016, 2016, 1-2.	0.6	7
41	Designing LiDAR-equipped UAV Platform for Structural Inspection. , 2018, , .		7
42	Potentials of RGB-D Cameras in As-Built Indoor Environment Modeling. , 2013, , .		6
43	Interoperability between Building Design and Building Energy Analysis. , 2014, , .		6
44	Comparison of Local Visual Feature Detectors and Descriptors for the Registration of 3D Building Scenes. Journal of Computing in Civil Engineering, 2015, 29, 04014071.	2.5	6
45	Comparison of Civil Infrastructure Optical-Based Spatial Data Acquisition Techniques. , 2007, , .		4
46	Line Segment Grouping and Linking: A Key Step Toward Automated Photogrammetry for Non-Contact Site Surveying. Journal of Intelligent and Robotic Systems: Theory and Applications, 2015, 79, 371-384.	2.0	4
47	Smart Sensing Technologies and Their Applications in Civil Infrastructures. Journal of Sensors, 2015, 2015, 1-1.	0.6	3
48	Project Related Entities Tracking on Construction Sites by Particle Filtering. , 2016, , .		3
49	Machine Vision Enhanced Post-Earthquake Inspection. , 2011, , .		2
50	Towards Part-Based Construction Equipment Pose Estimation Using Synthetic Images. , 2016, , .		2
51	Design Change Time Ripple Effect Analysis Using a BIM-Based Quantification Model. , 2016, , .		2
52	3D Thermal and Spatial Modeling of a Subway Tunnel: A Case Study. , 2017, , .		2
53	GPR-Based Deterioration Mapping in Subway Networks. , 2018, , .		2
54	A worker posture coding scheme to link automatic and manual coding. Automation in Construction, 2021, 125, 103630.	4.8	2

#	Article	IF	Citations
55	Machine Vision Techniques for Condition Assessment of Civil Infrastructure. Advances in Computer Vision and Pattern Recognition, 2015, , 351-375.	0.9	2
56	Data fusion of multiple machine intelligent systems for the condition assessment of subway structures. Tunnelling and Underground Space Technology, 2022, 126, 104512.	3.0	2
57	Multi-View Matching for Onsite Construction Resources with Combinatorial Optimization. , 2018, , .		0
58	Vision-Based Recognition of Construction Workersâ€™ Hand Signals. , 2022, , .		0
59	Hand Signal Recognition of Workers on Construction Sites Using Deep Learning Networks. , 2022, , .		0