Pingbo Tang, å”å¹³æ³¢

List of Publications by Year
in descending order

70 papers	2,052 citations	393982 19 h-index	344852 36 g-index
70 all docs	70 docs citations	70 times ranked	1456 citing authors

#	Article	IF	Citations
1	Automatic reconstruction of as-built building information models from laser-scanned point clouds: A review of related techniques. Automation in Construction, 2010, 19, 829-843.	4.8	805
2	Deviation analysis method for the assessment of the quality of the as-is Building Information Models generated from point cloud data. Automation in Construction, 2013, 35, 507-516.	4.8	137
3	Characterization of Laser Scanners and Algorithms for Detecting Flatness Defects on Concrete Surfaces. Journal of Computing in Civil Engineering, 2011, 25, 31-42.	2.5	106
4	Quantification of edge loss of laser scanned data at spatial discontinuities. Automation in Construction, 2009, 18, 1070-1083.	4.8	103
5	Rapid data quality oriented laser scan planning for dynamic construction environments. Advanced Engineering Informatics, 2016, 30, 218-232.	4.0	68
6	Planning for terrestrial laser scanning in construction: A review. Automation in Construction, 2021, 125, 103551.	4.8	66
7	Comparative analysis of machine learning and point-based algorithms for detecting 3D changes in buildings over time using bi-temporal lidar data. Automation in Construction, 2019, 105, 102841.	4.8	61
8	Automatic building information model reconstruction in high-density urban areas: Augmenting multi-source data with architectural knowledge. Automation in Construction, 2018, 93, 22-34.	4.8	60
9	Sensing and Field Data Capture for Construction and Facility Operations. Journal of Construction Engineering and Management - ASCE, 2011, 137, 870-881.	2.0	50
10	Automatic execution of workflows on laser-scanned data for extracting bridge surveying goals. Advanced Engineering Informatics, 2012, 26, 889-903.	4.0	40
11	Formalization of workflows for extracting bridge surveying goals from laser-scanned data. Automation in Construction, 2012, 22, 306-319.	4.8	40
12	Using laser scanners for modeling and analysis in architecture, engineering, and construction. , 2010, , .		36
13	Bridge Scour Identification and Field Application Based on Ambient Vibration Measurements of Superstructures. Journal of Marine Science and Engineering, 2019, 7, 121.	1.2	29
14	A Comparative Analysis of Depth-Discontinuity and Mixed-Pixel Detection Algorithms. International Conference on 3-D Digital Imaging and Modeling, Proceedings, 2007, , .	0.0	28
15	Human-centered automation for resilient nuclear power plant outage control. Automation in Construction, 2017, 82, 179-192.	4.8	28
16	Crowdsourced reliable labeling of safety-rule violations on images of complex construction scenes for advanced vision-based workplace safety. Advanced Engineering Informatics, 2019, 42, 101001.	4.0	27
17	Augmenting a deep-learning algorithm with canal inspection knowledge for reliable water leak detection from multispectral satellite images. Advanced Engineering Informatics, 2020, 46, 101161.	4.0	27
18	Pose guided anchoring for detecting proper use of personal protective equipment. Automation in Construction, 2021, 130, 103828.	4.8	24

#	Article	IF	Citations
19	Assessment of the quality of as-is building information models generated from point clouds using deviation analysis. Proceedings of SPIE, 2011, , .	0.8	23
20	Target-Focused Local Workspace Modeling for Construction Automation Applications. Journal of Computing in Civil Engineering, 2012, 26, 661-670.	2.5	23
21	Use of Value Engineering to Develop Creative Design Solutions for Marine Construction Projects. Practice Periodical on Structural Design and Construction, 2014, 19, 129-136.	0.7	20
22	Toward Automated Spatial Change Analysis of MEP Components Using 3D Point Clouds and As-Designed BIM Models. , 2014, , .		19
23	Sensor Modeling of Laser Scanners for Automated Scan Planning on Construction Jobsites. , 2012, , .		17
24	Computationally efficient change analysis of piece-wise cylindrical building elements for proactive project control. Automation in Construction, 2017, 81, 300-312.	4.8	14
25	Reliable Bridge Scour Simulation Using Eulerian Two-Phase Flow Theory. Journal of Computing in Civil Engineering, 2016, 30, .	2.5	13
26	Characterization of three algorithms for detecting surface flatness defects from dense point clouds. Proceedings of SPIE, 2009, , .	0.8	12
27	A multi-level 3D data registration approach for supporting reliable spatial change classification of single-pier bridges. Advanced Engineering Informatics, 2018, 38, 187-202.	4.0	11
28	Surveying, Geomatics, and 3D Reconstruction. , 2020, , 13-64.		11
29	Machine learning using synthetic images for detecting dust emissions on construction sites. Smart and Sustainable Built Environment, 2021, 10, 487-503.	2.2	11
30	Data Quality-oriented 3D Laser Scan Planning. , 2014, , .		10
31	Adaptive 3D Imaging and Tolerance Analysis of Prefabricated Components for Accelerated Construction. Procedia Engineering, 2015, 118, 1060-1067.	1.2	10
32	Identification of Bridge Scour Depth by Tracing Dynamic Behaviors of Superstructures. KSCE Journal of Civil Engineering, 2018, 22, 1316-1327.	0.9	10
33	A Spatialâ€Contextâ€Based Approach for Automated Spatial Change Analysis of Pieceâ€Wise Linear Building Elements. Computer-Aided Civil and Infrastructure Engineering, 2016, 31, 65-80.	6.3	9
34	Computational Simulation of Live-Bed Bridge Scour Considering Suspended Sediment Loads. Journal of Computing in Civil Engineering, 2017, 31, .	2.5	9
35	MER Spirit rover localization: Comparison of ground imageâ€“ and orbital imageâ€“based methods and science applications. Journal of Geophysical Research, 2011, 116, .	3.3	8
36	Grand Challenges in Data and Information Visualization for the Architecture, Engineering, Construction, and Facility Management Industries. , 2013, , .		8

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37	Modeling and simulating the impact of forgetting and communication errors on delays in civil infrastructure shutdowns. Frontiers of Engineering Management, 2021, 8, 109-121.	3.3	8
38	Predictive nuclear power plant outage control through computer vision and data-driven simulation. Progress in Nuclear Energy, 2020, 127, 103448.	1.3	7
39	Human reliability for safe and efficient civil infrastructure operation and maintenance â€“ A review. Developments in the Built Environment, 2020, 4, 100028.	2.0	7
40	Extracting Surveying Goals from Point Clouds to Support Construction and Infrastructure Inspection. , 2009, , .		6
41	Semi-Automated As-Built Modeling of Light Rail System Guide Beams. , 2010, , .		6
42	Automated Monitoring of Pilot Tube Microtunneling Installations through Pattern Recognition in Time-Series Data of Hydraulic Pressure. , 2013, , .		5
43	Geometry-Based Optimized Point Cloud Compression Methodology for Construction and Infrastructure Management. , 2017, , .		4
44	Bayesian-entropy Network for Information Fusion and Reliability Assessment of National Airspace Systems. Proceedings of the Annual Conference of the Prognostics and Health Management Society Prognostics and Health Management Society Conference, 2018, 10, .	0.2	4
45	Simulation for characterizing a progressive registration algorithm aligning as-built 3D point clouds against as-designed models. , 2013, , .		3
46	Automatic Communication Error Detection Using Speech Recognition and Linguistic Analysis for Proactive Control of Loss of Separation. Transportation Research Record, 0, , 036119812098300.	1.0	3
47	Defining Factors That Support or Hinder Commercially Available Augmented Reality (AR) Devices for Construction Communication. , 2022, , .		3
48	Frequency Analysis of Bridge Condition Explanatory Data Items for Customized Data Collection and Bridge Management. , 2012, , .		2
49	Automated Productivity Analysis of Pilot Tube Microtunneling Installations through Workflow Recognition in the Time-Series Data of Hydraulic Pressure. , 2014, , .		2
50	A Multisensor Integration Approach toward Astronaut Navigation for Landed Lunar Missions. Journal of Field Robotics, 2014, 31, 245-262.	3.2	2
51	Characterizing Point Cloud Data Density for Spatial Change-Based Maintenance Planning of Civil Infrastructure Systems. , 2018, , .		2
52	A spatial orientation and information system for indoor spatial awareness. , 2010, , .		2
53	Augmented Reality Communication on Active Construction Sites: A Pilot Study Exploring Non-Technological Factors. , 2022, , .		2
54	Automating and Optimizing Spatial Data Processing Workflows for Civil Infrastructure Inspection. , 2012, , .		1

#	Article	IF	Citations
55	Automatic Correlated Vibration Pattern Analysis for a Rapid Remote Scour Assessment of Civil Infrastructure. , 2016, , .		1
56	Automated Change Diagnosis of Single-Column-Pier Bridges Based on 3D Imagery Data. , 2017, , .		1
57	Integrated Analysis of Aerial and Terrestrial Imagery Data for Efficient and Effective Water Loss Mapping of a Canal System. , 2017, , .		1
58	Simulation-Based Optimization of Communication Protocols for Reducing Delays during Nuclear Power Plant Outages. , 2018, , .		1
59	Visual-Semantic Alignments for Automated Interpretation of 3D Imagery Data of High-Pier Bridges. , 2019, , .		1
60	Water Chlorophyll Estimation in an Urban Canal System With High-Resolution Remote Sensing Data. IEEE Geoscience and Remote Sensing Letters, 2021, , 1-5.	1.4	1
61	Toward Integrated Human-Machine Intelligence for Civil Engineering: An Interdisciplinary Perspective. , 2022, , .		1
62	Human Reliability Analysis and Prediction for Visual Inspection in Bridge Maintenance. , 2022, , .		1
63	Mining Observation and Cognitive Behavior Process Patterns of Bridge Inspectors. , 2022, , .		1
64	Characterizing Perceived Data Sharing Barriers and Promotion Strategies in Civil Engineering. , 2022, , .		1
65	Time-Quality Analysis of Spatial Data Processing for Bridge Management. , 2014, , .		0
66	Data-driven Spatiotemporal Simulation of Ground Movements of Aircraft for Preventive Airport Safety. , 2019, , .		0
67	A Computational Framework for Characterizing Multiple Object Tracking Methods in Construction Field Applications. , 2019, , .		0
68	Information Fusion and Finite Element Model Simulations for Bridge Condition Prognosis with Conflicting Data. , 2022, , .		0
69	Sensitivity Analysis of Missing Data Imputation Methods for Reliable Bridge Condition Assessment. , 2022, , .		0
70	Evaluating Operatorsâ€™ Real-Time Mental Workload with Eye Movement Analysis in Nuclear Power Plantsâ€™ Operations. , 2022, , .		0