

Jochen Teizer

List of Publications by Year in descending order

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Version: 2024-02-01

140
papers

8,107
citations

61857

43
h-index

69108

77
g-index

143
all docs

143
docs citations

143
times ranked

3863
citing authors

#	ARTICLE	IF	CITATIONS
1	Mobile 3D mapping for surveying earthwork projects using an Unmanned Aerial Vehicle (UAV) system. Automation in Construction, 2014, 41, 1-14.	4.8	619
2	Building Information Modeling (BIM) and Safety: Automatic Safety Checking of Construction Models and Schedules. Automation in Construction, 2013, 29, 183-195.	4.8	562
3	Autonomous pro-active real-time construction worker and equipment operator proximity safety alert system. Automation in Construction, 2010, 19, 630-640.	4.8	335
4	BIM-based fall hazard identification and prevention in construction safety planning. Safety Science, 2015, 72, 31-45.	2.6	311
5	Evaluation of image-based modeling and laser scanning accuracy for emerging automated performance monitoring techniques. Automation in Construction, 2011, 20, 1143-1155.	4.8	299
6	Real-time resource location data collection and visualization technology for construction safety and activity monitoring applications. Automation in Construction, 2013, 34, 3-15.	4.8	283
7	Ontology-based semantic modeling of construction safety knowledge: Towards automated safety planning for job hazard analysis (JHA). Automation in Construction, 2015, 52, 29-41.	4.8	267
8	Real-time construction worker posture analysis for ergonomics training. Advanced Engineering Informatics, 2012, 26, 439-455.	4.0	222
9	Location tracking and data visualization technology to advance construction ironworkers' education and training in safety and productivity. Automation in Construction, 2013, 35, 53-68.	4.8	206
10	Performance evaluation of ultra wideband technology for construction resource location tracking in harsh environments. Automation in Construction, 2011, 20, 1173-1184.	4.8	198
11	Automatic spatio-temporal analysis of construction site equipment operations using GPS data. Automation in Construction, 2013, 29, 107-122.	4.8	187
12	Visibility-related fatalities related to construction equipment. Safety Science, 2011, 49, 709-718.	2.6	172
13	Human Factors Analysis Classification System Relating to Human Error Awareness Taxonomy in Construction Safety. Journal of Construction Engineering and Management - ASCE, 2009, 135, 754-763.	2.0	167
14	Quadrature Amplitude Modulated Backscatter in Passive and Semipassive UHF RFID Systems. IEEE Transactions on Microwave Theory and Techniques, 2012, 60, 1175-1182.	2.9	163
15	Mobile passive Radio Frequency Identification (RFID) portal for automated and rapid control of Personal Protective Equipment (PPE) on construction sites. Automation in Construction, 2013, 36, 38-52.	4.8	157
16	Real-Time Three-Dimensional Occupancy Grid Modeling for the Detection and Tracking of Construction Resources. Journal of Construction Engineering and Management - ASCE, 2007, 133, 880-888.	2.0	156
17	Personnel tracking on construction sites using video cameras. Advanced Engineering Informatics, 2009, 23, 452-462.	4.0	151
18	Toward automated generation of parametric BIMs based on hybrid video and laser scanning data. Advanced Engineering Informatics, 2010, 24, 456-465.	4.0	151

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19	Automated task-level activity analysis through fusion of real time location sensors and worker's thoracic posture data. <i>Automation in Construction</i> , 2013, 29, 24-39.	4.8	145
20	Semantics of model views for information exchanges using the industry foundation class schema. <i>Advanced Engineering Informatics</i> , 2012, 26, 411-428.	4.0	142
21	Data Fusion of Real-Time Location Sensing and Physiological Status Monitoring for Ergonomics Analysis of Construction Workers. <i>Journal of Computing in Civil Engineering</i> , 2013, 27, 320-335.	2.5	141
22	Tracking multiple workers on construction sites using video cameras. <i>Advanced Engineering Informatics</i> , 2010, 24, 428-434.	4.0	130
23	Status quo and open challenges in vision-based sensing and tracking of temporary resources on infrastructure construction sites. <i>Advanced Engineering Informatics</i> , 2015, 29, 225-238.	4.0	128
24	Automatic design and planning of scaffolding systems using building information modeling. <i>Advanced Engineering Informatics</i> , 2014, 28, 66-80.	4.0	116
25	Workforce location tracking to model, visualize and analyze workspace requirements in building information models for construction safety planning. <i>Automation in Construction</i> , 2015, 60, 74-86.	4.8	115
26	Vision-Based Tower Crane Tracking for Understanding Construction Activity. <i>Journal of Computing in Civil Engineering</i> , 2014, 28, 103-112.	2.5	108
27	Leveraging passive RFID technology for construction resource field mobility and status monitoring in a high-rise renovation project. <i>Automation in Construction</i> , 2012, 24, 1-15.	4.8	100
28	A case study on automated safety compliance checking to assist fall protection design and planning in building information models. <i>Construction Management and Economics</i> , 2013, 31, 661-674.	1.8	100
29	Heat map generation for predictive safety planning: Preventing struck-by and near miss interactions between workers-on-foot and construction equipment. <i>Automation in Construction</i> , 2016, 71, 99-115.	4.8	100
30	Automating the blind spot measurement of construction equipment. <i>Automation in Construction</i> , 2010, 19, 491-501.	4.8	93
31	Ultrawideband for Automated Real-Time Three-Dimensional Location Sensing for Workforce, Equipment, and Material Positioning and Tracking. <i>Transportation Research Record</i> , 2008, 2081, 56-64.	1.0	89
32	Proximity hazard indicator for workers-on-foot near miss interactions with construction equipment and geo-referenced hazard areas. <i>Automation in Construction</i> , 2015, 60, 58-73.	4.8	89
33	Geotechnical and safety protective equipment planning using range point cloud data and rule checking in building information modeling. <i>Automation in Construction</i> , 2015, 49, 250-261.	4.8	88
34	Fusion of Photogrammetry and Video Analysis for Productivity Assessment of Earthwork Processes. <i>Computer-Aided Civil and Infrastructure Engineering</i> , 2017, 32, 107-123.	6.3	83
35	Method for testing proximity detection and alert technology for safe construction equipment operation. <i>Construction Management and Economics</i> , 2013, 31, 636-646.	1.8	76
36	Modeling Tower Crane Operator Visibility to Minimize the Risk of Limited Situational Awareness. <i>Journal of Computing in Civil Engineering</i> , 2014, 28, .	2.5	71

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37	Nanotechnology and Its Impact on Construction: Bridging the Gap between Researchers and Industry Professionals. Journal of Construction Engineering and Management - ASCE, 2012, 138, 594-604.	2.0	69
38	Benefits and Barriers of Construction Project Monitoring Using High-Resolution Automated Cameras. Journal of Construction Engineering and Management - ASCE, 2010, 136, 632-640.	2.0	64
39	SmartSite: Intelligent and autonomous environments, machinery, and processes to realize smart road construction projects. Automation in Construction, 2016, 71, 21-33.	4.8	61
40	An ontology-based analysis of the industry foundation class schema for building information model exchanges. Advanced Engineering Informatics, 2015, 29, 940-957.	4.0	59
41	Applying rule-based model-checking to construction site layout planning tasks. Automation in Construction, 2019, 97, 205-219.	4.8	57
42	Rapid Automated Monitoring of Construction Site Activities Using Ultra-Wide Band. , 2007, , .		57
43	Static and dynamic performance evaluation of a commercially-available ultra wideband tracking system. Automation in Construction, 2011, 20, 519-530.	4.8	52
44	A performance evaluation of vision and radio frequency tracking methods for interacting workforce. Advanced Engineering Informatics, 2011, 25, 736-747.	4.0	47
45	Automated Trajectory and Path Planning Analysis Based on Ultra Wideband Data. Journal of Computing in Civil Engineering, 2012, 26, 151-160.	2.5	42
46	Internet of Things (IoT) for Integrating Environmental and Localization Data in Building Information Modeling (BIM). , 2017, , .		39
47	Data-Fusion Approaches and Applications for Construction Engineering. Journal of Construction Engineering and Management - ASCE, 2011, 137, 863-869.	2.0	38
48	Computing 3D blind spots of construction equipment: Implementation and evaluation of an automated measurement and visualization method utilizing range point cloud data. Automation in Construction, 2013, 36, 95-107.	4.8	38
49	Virtual environments for safety learning in construction and engineering: seeking evidence and identifying gaps for future research. Visualization in Engineering, 2017, 5, .	8.8	38
50	Fusing passive RFID and BIM for increased accuracy in indoor localization. Visualization in Engineering, 2015, 3, .	8.8	37
51	Right-time vs real-time pro-active construction safety and health system architecture. Construction Innovation, 2016, 16, 253-280.	1.5	36
52	First Person Virtual Reality for Evaluation and Learning of Construction Site Safety. , 2016, , .		34
53	Coarse head pose estimation of construction equipment operators to formulate dynamic blind spots. Advanced Engineering Informatics, 2012, 26, 117-130.	4.0	33
54	Laser Scanning for Safe Equipment Design That Increases Operator Visibility by Measuring Blind Spots. Journal of Construction Engineering and Management - ASCE, 2013, 139, 1006-1014.	2.0	33

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55	Construction resource efficiency improvement by Long Range Wide Area Network tracking and monitoring. Automation in Construction, 2020, 116, 103245.	4.8	33
56	Integration of Safety Risk Factors in BIM for Scaffolding Construction. , 2014, , .		26
57	Determining the Relationship between Direct Work and Construction Labor Productivity in North America: Four Decades of Insights. Journal of Construction Engineering and Management - ASCE, 2020, 146, .	2.0	25
58	Dynamic blindspots measurement for construction equipment operators. Safety Science, 2016, 85, 139-151.	2.6	24
59	An information fusion approach for filtering GNSS data sets collected during construction operations. Advanced Engineering Informatics, 2014, 28, 297-310.	4.0	23
60	Algorithm for quantitative analysis of close call events and personalized feedback in construction safety. Automation in Construction, 2019, 99, 206-222.	4.8	23
61	Pro-Active-Real-Time Personnel Warning System. , 2009, , .		22
62	Capturing the Return on Investment of All-In Building Information Modeling: Structured Approach. Practice Periodical on Structural Design and Construction, 2015, 20, .	0.7	21
63	Cell-based construction site simulation model for earthmoving operations using real-time equipment location data. Visualization in Engineering, 2015, 3, .	8.8	20
64	Active personalized construction safety training using run-time data collection in physical and virtual reality work environments. Construction Innovation, 2022, 22, 531-553.	1.5	20
65	Proximity Sensing and Warning Technology for Heavy Construction Equipment Operation. , 2012, , .		19
66	Passive RFID and BIM for Real-time Visualization and Location Tracking. , 2014, , .		18
67	Large Scale 3D Printing of Complex Geometric Shapes in Construction. , 2016, , .		18
68	A Framework for Developing an As-built Virtual Environment to Advance Training of Crane Operators. , 2014, , .		17
69	Range Imaging as Emerging Optical Three-Dimension Measurement Technology. Transportation Research Record, 2007, 2040, 19-29.	1.0	16
70	Methods for improving visibility measurement standards of powered industrial vehicles. Safety Science, 2014, 62, 257-270.	2.6	16
71	Human Motion Analysis Using 3D Range Imaging Technology. , 2009, , .		16
72	A Serious Gaming Approach to Integrate BIM, IoT, and Lean Construction in Construction Education. , 2020, , .		14

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73	Application of Last Planner System to Modular Offshore Wind Construction. Journal of Construction Engineering and Management - ASCE, 2020, 146, .	2.0	14
74	Framework for Real-Time Three-Dimensional Modeling of Infrastructure. , 0, .		14
75	Framework for Real-Time Three-Dimensional Modeling of Infrastructure. Transportation Research Record, 2005, 1913, 177-186.	1.0	13
76	Ontology-Based Semantic Modeling of Safety Management Knowledge. , 2014, , .		13
77	Rapid Human-Assisted, Obstacle Avoidance System using Sparse Range Point Clouds. , 2004, , 115.		12
78	Application of Sensing Technology to Safety Management. , 2010, , .		12
79	Learning to see value-adding and non-value-adding work time in renovation production systems. Production Planning and Control, 2022, 33, 790-802.	5.8	12
80	Deep Learning in Construction: Review of Applications and Potential Avenues. Journal of Computing in Civil Engineering, 2022, 36, .	2.5	12
81	BIM for 3D Printing in Construction. , 2018, , 421-446.		11
82	Towards autonomous cloud-based close call data management for construction equipment safety. Automation in Construction, 2021, 132, 103962.	4.8	11
83	Magnetic Field Proximity Detection and Alert Technology for Safe Heavy Construction Equipment Operation. , 2015, , .		11
84	BIM Applications of Rule-Based Checking in Construction Site Layout Planning Tasks. , 2016, , .		11
85	Visual tracking and segmentation using Time-of-Flight sensor. , 2010, , .		10
86	Automatic Identification of Unsafe Bending Behavior of Construction Workers Using Real-Time Location Sensing and Physiological Status Monitoring. , 2012, , .		10
87	A Multi-User Virtual 3D Training Environment to Advance Collaboration Among Crane Operator and Ground Personnel in Blind Lifts. , 2014, , .		10
88	Towards a unifying domain model of construction safety, health and well-being: SafeConDM. Advanced Engineering Informatics, 2022, 51, 101487.	4.0	10
89	SmartHat: A battery-free worker safety device employing passive UHF RFID technology. , 2011, , .		9
90	Automated activity and progress analysis based on non-monotonic reasoning of construction operations. Smart and Sustainable Built Environment, 2021, ahead-of-print, .	2.2	9

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91	Non-monotonic Spatial Reasoning for Safety Analysis in Construction. , 2020, , .		9
92	Benefits and Barriers of Monitoring Construction Activities Using Hi-Resolution Automated Cameras. , 2009, , .		8
93	Real-Time Resource Location Tracking in Building Information Models (BIM). Lecture Notes in Computer Science, 2012, , 41-48.	1.0	8
94	Combined Ultra-Wideband Positioning and Range Imaging Sensing for Productivity and Safety Monitoring in Building Construction. , 2007, , .		7
95	Real-Time Data Collection and Visualization Technology in Construction. , 2010, , .		7
96	Safety 360: Surround-View Sensing to Comply with Changesto the ISO 5006 Earth-Moving Machinery - Operator's Fieldof View - Test Method and Performance Criteria. , 2015, , .		7
97	Experiments in Real-Time Spatial Data Acquisition for Obstacle Detection. , 2005, , 1.		6
98	A GIS Framework for Reducing GHG Emissions in Concrete Transportation. , 2010, , .		6
99	Improving the Robustness of Model Exchanges Using Product Modeling "Concepts" for IFC Schema. , 2011, , .		6
100	A Framework for Automatic Safety Checking of Building Information Models. , 2012, , .		6
101	Real-Time, Three-Dimensional Object Detection and Modeling in Construction. , 2005, , .		6
102	Electromagnetic Energy Harvesting for Sensing, Communication, and Actuation. , 2010, , .		6
103	Automated Collection, Identification, Localization, and Analysis of Worker-Related Proximity Hazard Events in Heavy Construction Equipment Operation. , 2015, , .		6
104	Construction Worker Detection and Tracking in Bird's-Eye View Camera Images. , 2018, , .		5
105	Causes of delay in offshore wind turbine construction projects. Production Planning and Control, 2023, 34, 1513-1526.	5.8	5
106	Analysis of spatial data structures for proximity detection. Tsinghua Science and Technology, 2008, 13, 102-107.	4.1	4
107	Advanced Real-Time Monitoring Models for Temporary Structures in Construction. , 2009, , .		4
108	An Ontological Approach to Building Information Model Exchanges in the Precast/Pre-Stressed Concrete Industry. , 2012, , .		4

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109	Spatio-Temporal Safety Analysis of Construction Site Operations Using GPS Data. , 2012, , .		4
110	Potential of Time-of-Flight Range Imaging for Object Identification and Manipulation in Construction. Journal of Computing in Civil Engineering, 2014, 28, 06014005.	2.5	4
111	Lean Production Controlling and Tracking Using Digital Methods. , 0, , .		4
112	What can be learned from variability in offshore wind projects. Energy Strategy Reviews, 2022, 39, 100794.	3.3	4
113	Learning Factory for Construction to Provide Future Engineering Skills beyond Technical Education and Training. , 2022, , .		4
114	Modeling job sites in real time to improve safety during equipment operation. , 2006, , .		3
115	GPS-based framework towards more realistic and real-time construction equipment operation simulation. , 2012, , .		3
116	BIM for Construction Safety and Health. , 2018, , 349-365.		3
117	BIM im präventiven Arbeits- und Gesundheitsschutz. , 2015, , 305-320.		3
118	Improving Indoor Location Tracking Quality for Construction and Facility Management. , 2017, , .		3
119	Towards a Holistic, Self-Organised Safety Framework for Construction. , 2021, , .		3
120	Simplified Emissions Measurement System for Construction Equipment. , 2022, , .		3
121	A Probabilistic Contour Observer for Online Visual Tracking. SIAM Journal on Imaging Sciences, 2010, 3, 835-855.	1.3	2
122	Digitalisierung der Arbeitssicherheit auf Baustellen. , 2021, , 399-414.		2
123	Towards Digital Twins for Knowledge-Driven Construction Progress and Predictive Safety Analysis on a Construction Site. Lecture Notes in Computer Science, 2021, , 153-174.	1.0	2
124	Automatic Fall Risk Identification Using Point Cloud Data in Construction Excavation. , 2014, , .		2
125	Tracking and Classifying Objects on a Conveyor Belt Using Time-of-Flight Camera. , 2010, , .		2
126	Mobile Point Cloud Assessment for Trench Safety Audits. , 2017, , .		2

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127	Improved Methods for Evaluation of Visibility for Industrial Vehicles Towards Safety Standards. , 2013, , .		2
128	A probabilistic shape filter for online contour tracking. , 2009, , .		1
129	Blind Spot Measurements for Real-Time Pro-Active Safety in Construction. , 2010, , .		1
130	A probabilistic observer for visual tracking. , 2010, , .		1
131	Real-Time Spatial Location Tracking of Construction Resources in Lay Down Yards. , 2010, , .		1
132	Real-Time Posture Analysis of Construction Workers for Ergonomics Training. , 2012, , .		1
133	Development of a Cell-based Simulation Model for Earthmoving Operation using Real-time Location Data. , 2014, , .		1
134	Off-Site Guarding: Look-Ahead Supply Scheduling for Risk Indication With BIM. , 0, , .		1
135	Nanotechnology: Benefits, Barriers, and Impact on Construction. , 2009, , .		0
136	Visual monitoring of airport ground operations. , 2009, , .		0
137	Automatic Cave-in Safety Risk Identification in Construction Excavation. , 2014, , .		0
138	BIM at STRABAG. , 2018, , 555-568.		0
139	Quantitative Analysis of Close Call Events. Lecture Notes in Computer Science, 2018, , 359-384.	1.0	0
140	BIM im Arbeitsschutz. VDI-Buch, 2021, , 577-595.	0.1	0