Jochen Teizer

List of Publications by Year in descending order

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| # | 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. | 9.8 | 619 |
| 2 | Building Information Modeling (BIM) and Safety: Automatic Safety Checking of Construction Models and Schedules. Automation in Construction, 2013, 29, 183-195. | 9.8 | 562 |
| 3 | Autonomous pro-active real-time construction worker and equipment operator proximity safety alert system. Automation in Construction, 2010, 19, 630-640. | 9.8 | 335 |
| 4 | BIM-based fall hazard identification and prevention in construction safety planning. Safety Science, 2015, 72, 31-45. | 4.9 | 311 |
| 5 | Evaluation of image-based modeling and laser scanning accuracy for emerging automated performance monitoring techniques. Automation in Construction, 2011, 20, 1143-1155. | 9.8 | 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. | 9.8 | 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. | 9.8 | 267 |
| 8 | Real-time construction worker posture analysis for ergonomics training. Advanced Engineering Informatics, 2012, 26, 439-455. | 8.0 | 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. | 9.8 | 206 |
| 10 | Performance evaluation of ultra wideband technology for construction resource location tracking in harsh environments. Automation in Construction, 2011, 20, 1173-1184. | 9.8 | 198 |
| 11 | Automatic spatio-temporal analysis of construction site equipment operations using GPS data. Automation in Construction, 2013, 29, 107-122. | 9.8 | 187 |
| 12 | Visibility-related fatalities related to construction equipment. Safety Science, 2011, 49, 709-718. | 4.9 | 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. | 3.8 | 167 |
| 14 | Quadrature Amplitude Modulated Backscatter in Passive and Semipassive UHF RFID Systems. IEEE Transactions on Microwave Theory and Techniques, 2012, 60, 1175-1182. | 4.6 | 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. | 9.8 | 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. | 3.8 | 156 |
| 17 | Personnel tracking on construction sites using video cameras. Advanced Engineering Informatics, 2009, 23, 452-462. | 8.0 | 151 |
| 18 | Toward automated generation of parametric BIMs based on hybrid video and laser scanning data. Advanced Engineering Informatics, 2010, 24, 456-465. | 8.0 | 151 |

| # | Article | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | Automated task-level activity analysis through fusion of real time location sensors and worker's thoracic posture data. Automation in Construction, 2013, 29, 24-39. | 9.8 | 145 |
| 20 | Semantics of model views for information exchanges using the industry foundation class schema. Advanced Engineering Informatics, 2012, 26, 411-428. | 8.0 | 142 |
| 21 | Data Fusion of Real-Time Location Sensing and Physiological Status Monitoring for Ergonomics Analysis of Construction Workers. Journal of Computing in Civil Engineering, 2013, 27, 320-335. | 4.7 | 141 |
| 22 | Tracking multiple workers on construction sites using video cameras. Advanced Engineering Informatics, 2010, 24, 428-434. | 8.0 | 130 |
| 23 | Status quo and open challenges in vision-based sensing and tracking of temporary resources on infrastructure construction sites. Advanced Engineering Informatics, 2015, 29, 225-238. | 8.0 | 128 |
| 24 | Automatic design and planning of scaffolding systems using building information modeling. Advanced Engineering Informatics, 2014, 28, 66-80. | 8.0 | 116 |
| 25 | Workforce location tracking to model, visualize and analyze workspace requirements in building information models for construction safety planning. Automation in Construction, 2015, 60, 74-86. | 9.8 | 115 |
| 26 | Vision-Based Tower Crane Tracking for Understanding Construction Activity. Journal of Computing in Civil Engineering, 2014, 28, 103-112. | 4.7 | 108 |
| 27 | Leveraging passive RFID technology for construction resource field mobility and status monitoring in a high-rise renovation project. Automation in Construction, 2012, 24, 1-15. | 9.8 | 100 |
| 28 | A case study on automated safety compliance checking to assist fall protection design and planning in building information models. Construction Management and Economics, 2013, 31, 661-674. | 3.0 | 100 |
| 29 | Heat map generation for predictive safety planning: Preventing struck-by and near miss interactions between workers-on-foot and construction equipment. Automation in Construction, 2016, 71, 99-115. | 9.8 | 100 |
| 30 | Automating the blind spot measurement of construction equipment. Automation in Construction, 2010, 19, 491-501. | 9.8 | 93 |
| 31 | Ultrawideband for Automated Real-Time Three-Dimensional Location Sensing for Workforce, Equipment, and Material Positioning and Tracking. Transportation Research Record, 2008, 2081, 56-64. | 1.9 | 89 |
| 32 | Proximity hazard indicator for workers-on-foot near miss interactions with construction equipment and geo-referenced hazard areas. Automation in Construction, 2015, 60, 58-73. | 9.8 | 89 |
| 33 | Geotechnical and safety protective equipment planning using range point cloud data and rule checking in building information modeling. Automation in Construction, 2015, 49, 250-261. | 9.8 | 88 |
| 34 | Fusion of Photogrammetry and Video Analysis for Productivity Assessment of Earthwork Processes. Computer-Aided Civil and Infrastructure Engineering, 2017, 32, 107-123. | 9.8 | 83 |
| 35 | Method for testing proximity detection and alert technology for safe construction equipment operation. Construction Management and Economics, 2013, 31, 636-646. | 3.0 | 76 |
| 36 | Modeling Tower Crane Operator Visibility to Minimize the Risk of Limited Situational Awareness. Journal of Computing in Civil Engineering, 2014, 28, . | 4.7 | 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. | 3.8 | 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. | 3.8 | 64 |
| 39 | SmartSite: Intelligent and autonomous environments, machinery, and processes to realize smart road construction projects. Automation in Construction, 2016, 71, 21-33. | 9.8 | 61 |
| 40 | An ontology-based analysis of the industry foundation class schema for building information model exchanges. Advanced Engineering Informatics, 2015, 29, 940-957. | 8.0 | 59 |
| 41 | Applying rule-based model-checking to construction site layout planning tasks. Automation in Construction, 2019, 97, 205-219. | 9.8 | 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. | 9.8 | 52 |
| 44 | A performance evaluation of vision and radio frequency tracking methods for interacting workforce. Advanced Engineering Informatics, 2011, 25, 736-747. | 8.0 | 47 |
| 45 | Automated Trajectory and Path Planning Analysis Based on Ultra Wideband Data. Journal of Computing in Civil Engineering, 2012, 26, 151-160. | 4.7 | 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. | 3.8 | 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. | 9.8 | 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. | 2.7 | 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. | 8.0 | 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. | 3.8 | 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. | 9.8 | 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, . | 3.8 | 25 |
| 58 | Dynamic blindspots measurement for construction equipment operators. Safety Science, 2016, 85, 139-151. | 4.9 | 24 |
| 59 | An information fusion approach for filtering GNSS data sets collected during construction operations. Advanced Engineering Informatics, 2014, 28, 297-310. | 8.0 | 23 |
| 60 | Algorithm for quantitative analysis of close call events and personalized feedback in construction safety. Automation in Construction, 2019, 99, 206-222. | 9.8 | 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, . | 1.3 | 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. | 2.7 | 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. | 1.9 | 16 |
| 70 | Methods for improving visibility measurement standards of powered industrial vehicles. Safety Science, 2014, 62, 257-270. | 4.9 | 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, . | 3.8 | 14 |
| 74 | Framework for Real-Time Three-Dimensional Modeling of Infrastructure. Transportation Research Record, 2005, 1913, 177-186. | 1.9 | 14 |
| 75 | Framework for Real-Time Three-Dimensional Modeling of Infrastructure. Transportation Research Record, 2005, 1913, 177-186. | 1.9 | 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. | 8.8 | 12 |
| 80 | Deep Learning in Construction: Review of Applications and Potential Avenues. Journal of Computing in Civil Engineering, 2022, 36, . | 4.7 | 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. | 9.8 | 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. | 8.0 | 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, . | 4.0 | 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. | 1.3 | 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 CHG 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. | 8.8 | 5 |
| 106 | Analysis of spatial data structures for proximity detection. Tsinghua Science and Technology, 2008, 13, 102-107. | 6.1 | 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. | 4.7 | 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. | 7.3 | 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 prÃ v entiven 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. | 2.2 | 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. | 1.3 | 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 |
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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, , . | | Ο |
| 136 | Visual monitoring of airport ground operations. , 2009, , . | | 0 |
| 137 | Automatic Cave-in Safety Risk Identification in Construction Excavation. , 2014, , . | | Ο |
| 138 | BIM at STRABAG. , 2018, , 555-568. | | 0 |
| 139 | Quantitative Analysis of Close Call Events. Lecture Notes in Computer Science, 2018, , 359-384. | 1.3 | 0 |
| 140 | BIM im Arbeitsschutz. VDI-Buch, 2021, , 577-595. | 0.1 | 0 |