Christian Koch

List of Publications by Year
in descending order

37 papers	2,403 citations	430442 18 h-index	433756 31 g-index
41 all docs	41 docs citations	41 times ranked	1992 citing authors

#	Article	IF	Citations
1	A review on computer vision based defect detection and condition assessment of concrete and asphalt civil infrastructure. Advanced Engineering Informatics, 2015, 29, 196-210.	4.0	648
2	Pothole detection in asphalt pavement images. Advanced Engineering Informatics, 2011, 25, 507-515.	4.0	402
3	Building information modelling based building energy modelling: A review. Applied Energy, 2019, 238, 320-343.	5.1	199
4	Automated Pothole Distress Assessment Using Asphalt Pavement Video Data. Journal of Computing in Civil Engineering, 2013, 27, 370-378.	2.5	123
5	Natural markers for augmented reality-based indoor navigation and facility maintenance. Automation in Construction, 2014, 48, 18-30.	4.8	121
6	Achievements and Challenges in Machine Vision-Based Inspection of Large Concrete Structures. Advances in Structural Engineering, 2014, 17, 303-318.	1.2	106
7	Interior construction state recognition with 4D BIM registered image sequences. Automation in Construction, 2018, 86, 11-32.	4.8	102
8	Predicting movements of onsite workers and mobile equipment for enhancing construction site safety. Automation in Construction, 2016, 68, 95-101.	4.8	97
9	Three-Dimensional Tracking of Construction Resources Using an On-Site Camera System. Journal of Computing in Civil Engineering, 2012, 26, 541-549.	2.5	91
10	A tunnel information modelling framework to support management, simulations and visualisations in mechanised tunnelling projects. Automation in Construction, 2017, 83, 78-90.	4.8	69
11	Combining visual natural markers and IMU for improved AR based indoor navigation. Advanced Engineering Informatics, 2017, 31, 18-31.	4.0	65
12	Assessment and weighting of meteorological ensemble forecast members based on supervised machine learning with application to runoff simulations and flood warning. Advanced Engineering Informatics, 2017, 33, 427-439.	4.0	39
13	An approach to distributed building modeling on the basis of versions and changes. Advanced Engineering Informatics, 2011, 25, 297-310.	4.0	32
14	An integrated platform for design and numerical analysis of shield tunnelling processes on different levels of detail. Advances in Engineering Software, 2017, 112, 165-179.	1.8	30
15	Computationally Efficient Simulation in Urban Mechanized Tunneling Based on Multilevel BIM Models. Journal of Computing in Civil Engineering, 2019, 33, .	2.5	29
16	Integrated parametric multi-level information and numerical modelling of mechanised tunnelling projects. Advanced Engineering Informatics, 2020, 43, 101011.	4.0	29
17	Scalable real-time parking lot classification: An evaluation of image features and supervised learning algorithms. , 2015, , .		24
18	Radar interferometry based settlement monitoring in tunnelling: Visualisation and accuracy analyses. Visualization in Engineering, 2016, 4, .	8.8	21

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19	State of the art in damage information modeling for RC bridges â€“ A literature review. Advanced Engineering Informatics, 2020, 46, 101171.	4.0	21
20	Intelligent BIM-based construction scheduling using discrete event simulation. , 2012, , .		18
21	From digital models to numerical analysis for mechanised tunnelling: A fully automated design-through-analysis workflow. Tunnelling and Underground Space Technology, 2021, 107, 103622.	3.0	18
22	Hybrid Ground Data Model for Interacting Simulations in Mechanized Tunneling. Journal of Computing in Civil Engineering, 2013, 27, 708-718.	2.5	14
23	GPU-Enabled Pavement Distress Image Classification in Real Time. Journal of Computing in Civil Engineering, 2017, 31, .	2.5	13
24	An interaction platform for mechanized tunnelling. Application on the Wehrhahnâ€Łine in DÃ¼sseldorf (Germany) / Eine Interaktionsplattform fÃ¼r maschinelle Tunnelvortriebe. Anwendung am Beispiel der Wehrhahnâ€Łinie in DÃ¼sseldorf. Geomechanik Und Tunnelbau, 2014, 7, 72-86.	0.2	12
25	A Framework for Automated Pavement Condition Monitoring. , 2016, , .		11
26	Corrigendum to â€œA review on computer vision based defect detection and condition assessment of concrete and asphalt civil infrastructureâ€•[Advanced Engineering Informatics 29(2) (2015) 196â€“210]. Advanced Engineering Informatics, 2016, 30, 208-210.	4.0	10
27	Implementing textural features on GPUs for improved real-time pavement distress detection. Journal of Real-Time Image Processing, 2019, 16, 1383-1394.	2.2	10
28	Quality assessment of coupled civil engineering applications. Advanced Engineering Informatics, 2011, 25, 625-639.	4.0	9
29	Advancement simulation of tunnel boring machines. , 2012, , .		9
30	Computer Vision and Deep Learning for Real-Time Pavement Distress Detection. , 2019, , 601-607.		8
31	Drywall State Detection in Image Data for Automatic Indoor Progress Monitoring. , 2014, , .		6
32	A BIM Based Framework for Damage Segmentation, Modeling, and Visualization Using IFC. Applied Sciences (Switzerland), 2022, 12, 2772.	1.3	6
33	Meta Models for Real-Time Design Assessment Within an Integrated Information and Numerical Modelling Framework. Lecture Notes in Computer Science, 2018, , 201-218.	1.0	3
34	Machine Vision Techniques for Condition Assessment of Civil Infrastructure. Advances in Computer Vision and Pattern Recognition, 2015, , 351-375.	0.9	2
35	Discrete-Event Simulation and Building Information Modelling Based Animation of Construction Activities. Lecture Notes in Civil Engineering, 2021, , 285-294.	0.3	2
36	Design Principles Affecting Motivational and Cognitive Requirements for VR Learning Environments in Engineering Education. Lecture Notes in Civil Engineering, 2021, , 1175-1186.	0.3	0

#	Article	IF	Citations
37	Modeling Physical Damages Using the Industry Foundation Classes â€“ A Software Evaluation. Lecture Notes in Civil Engineering, 2021, , 507-518.	0.3	0