Christian Koch

List of Publications by Year
in descending order

37 papers	2,403 citations	430874 18 h-index	434195 31 g-index
41 all docs	41 docs citations	41 times ranked	1992 citing authors

#	Article	IF	Citations
1	A BIM Based Framework for Damage Segmentation, Modeling, and Visualization Using IFC. Applied Sciences (Switzerland), 2022, 12, 2772.	2.5	6
2	From digital models to numerical analysis for mechanised tunnelling: A fully automated design-through-analysis workflow. Tunnelling and Underground Space Technology, 2021, 107, 103622.	6.2	18
3	Discrete-Event Simulation and Building Information Modelling Based Animation of Construction Activities. Lecture Notes in Civil Engineering, 2021, , 285-294.	0.4	2
4	Design Principles Affecting Motivational and Cognitive Requirements for VR Learning Environments in Engineering Education. Lecture Notes in Civil Engineering, 2021, , 1175-1186.	0.4	0
5	Modeling Physical Damages Using the Industry Foundation Classes â€“ A Software Evaluation. Lecture Notes in Civil Engineering, 2021, , 507-518.	0.4	0
6	Integrated parametric multi-level information and numerical modelling of mechanised tunnelling projects. Advanced Engineering Informatics, 2020, 43, 101011.	8.0	29
7	State of the art in damage information modeling for RC bridges â€“ A literature review. Advanced Engineering Informatics, 2020, 46, 101171.	8.0	21
8	Building information modelling based building energy modelling: A review. Applied Energy, 2019, 238, 320-343.	10.1	199
9	Computationally Efficient Simulation in Urban Mechanized Tunneling Based on Multilevel BIM Models. Journal of Computing in Civil Engineering, 2019, 33, .	4.7	29
10	Implementing textural features on GPUs for improved real-time pavement distress detection. Journal of Real-Time Image Processing, 2019, 16, 1383-1394.	3.5	10
11	Computer Vision and Deep Learning for Real-Time Pavement Distress Detection. , 2019, , 601-607.		8
12	Interior construction state recognition with 4D BIM registered image sequences. Automation in Construction, 2018, 86, 11-32.	9.8	102
13	Meta Models for Real-Time Design Assessment Within an Integrated Information and Numerical Modelling Framework. Lecture Notes in Computer Science, 2018, , 201-218.	1.3	3
14	Combining visual natural markers and IMU for improved AR based indoor navigation. Advanced Engineering Informatics, 2017, 31, 18-31.	8.0	65
15	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.	3.8	30
16	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.	8.0	39
17	A tunnel information modelling framework to support management, simulations and visualisations in mechanised tunnelling projects. Automation in Construction, 2017, 83, 78-90.	9.8	69
18	GPU-Enabled Pavement Distress Image Classification in Real Time. Journal of Computing in Civil Engineering, 2017, 31, .	4.7	13

#	Article	IF	Citations
19	A Framework for Automated Pavement Condition Monitoring. , 2016, , .		11
20	Predicting movements of onsite workers and mobile equipment for enhancing construction site safety. Automation in Construction, 2016, 68, 95-101.	9.8	97
21	Radar interferometry based settlement monitoring in tunnelling: Visualisation and accuracy analyses. Visualization in Engineering, 2016, 4, .	8.8	21
22	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.	8.0	10
23	Scalable real-time parking lot classification: An evaluation of image features and supervised learning algorithms. , 2015, , .		24
24	A review on computer vision based defect detection and condition assessment of concrete and asphalt civil infrastructure. Advanced Engineering Informatics, 2015, 29, 196-210.	8.0	648
25	Machine Vision Techniques for Condition Assessment of Civil Infrastructure. Advances in Computer Vision and Pattern Recognition, 2015, , 351-375.	1.3	2
26	Achievements and Challenges in Machine Vision-Based Inspection of Large Concrete Structures. Advances in Structural Engineering, 2014, 17, 303-318.	2.4	106
27	An interaction platform for mechanized tunnelling. Application on the Wehrhahnâ€Line in DÃ¼sseldorf (Germany) / Eine Interaktionsplattform fÃ¼r maschinelle Tunnelvortriebe. Anwendung am Beispiel der Wehrhahnâ€Linie in DÃ¼sseldorf. Geomechanik Und Tunnelbau, 2014, 7, 72-86.	0.3	12
28	Natural markers for augmented reality-based indoor navigation and facility maintenance. Automation in Construction, 2014, 48, 18-30.	9.8	121
29	Drywall State Detection in Image Data for Automatic Indoor Progress Monitoring. , 2014, , .		6
30	Hybrid Ground Data Model for Interacting Simulations in Mechanized Tunneling. Journal of Computing in Civil Engineering, 2013, 27, 708-718.	4.7	14
31	Automated Pothole Distress Assessment Using Asphalt Pavement Video Data. Journal of Computing in Civil Engineering, 2013, 27, 370-378.	4.7	123
32	Intelligent BIM-based construction scheduling using discrete event simulation. , 2012, , .		18
33	Advancement simulation of tunnel boring machines. , 2012, , .		9
34	Three-Dimensional Tracking of Construction Resources Using an On-Site Camera System. Journal of Computing in Civil Engineering, 2012, 26, 541-549.	4.7	91
35	Quality assessment of coupled civil engineering applications. Advanced Engineering Informatics, 2011, 25, 625-639.	8.0	9
36	Pothole detection in asphalt pavement images. Advanced Engineering Informatics, 2011, 25, 507-515.	8.0	402

#	Article	IF	Citations
37	An approach to distributed building modeling on the basis of versions and changes. Advanced Engineering Informatics, 2011, 25, 297-310.	8.0	32