Changwan Kim

List of Publications by Year
in descending order

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58 papers	3,255 citations	117453 34 h-index	174990 52 g-index
58 all docs	58 docs citations	58 times ranked	2401 citing authors

#	Article	IF	Citations
1	Automated construction progress measurement using a 4D building information model and 3D data. Automation in Construction, 2013, 31, 75-82.	4.8	227
2	Automatic BIM component extraction from point clouds of existing buildings for sustainability applications. Automation in Construction, 2015, 56, 1-13.	4.8	213
3	Toward an understanding of construction professionals' acceptance of mobile computing devices in South Korea: An extension of the technology acceptance model. Automation in Construction, 2012, 28, 82-90.	4.8	163
4	What drives the adoption of building information modeling in design organizations? An empirical investigation of the antecedents affecting architects' behavioral intentions. Automation in Construction, 2015, 49, 92-99.	4.8	158
5	Investigating the determinants of construction professionals' acceptance of web-based training: An extension of the technology acceptance model. Automation in Construction, 2012, 22, 377-386.	4.8	130
6	A structural equation analysis of the QSL relationship with passenger riding experience on high speed rail: An empirical study of Taiwan and Korea. Expert Systems With Applications, 2009, 36, 6945-6955.	4.4	121
7	As-built data acquisition and its use in production monitoring and automated layout of civil infrastructure: A survey. Advanced Engineering Informatics, 2015, 29, 172-183.	4.0	116
8	3D structural component recognition and modeling method using color and 3D data for construction progress monitoring. Automation in Construction, 2010, 19, 844-854.	4.8	114
9	Fully automated registration of 3D data to a 3D CAD model for project progress monitoring. Automation in Construction, 2013, 35, 587-594.	4.8	104
10	Trends of Fall Accidents in the U.S. Construction Industry. Journal of Construction Engineering and Management - ASCE, 2017, 143, .	2.0	102
11	Implementing sustainable development in the construction industry: constructors' perspectives in the US and Korea. Sustainable Development, 2011, 19, 337-347.	6.9	100
12	Fitting range data to primitives for rapid local 3D modeling using sparse range point clouds. Automation in Construction, 2004, 13, 67-81.	4.8	93
13	Short-term forecasting of electricity demand for the residential sector using weather and social variables. Resources, Conservation and Recycling, 2017, 123, 200-207.	5.3	89
14	Detection of construction workers under varying poses and changing background in image sequences via very deep residual networks. Automation in Construction, 2019, 99, 27-38.	4.8	89
15	Skeleton-based 3D reconstruction of as-built pipelines from laser-scan data. Automation in Construction, 2013, 35, 199-207.	4.8	83
16	Automated Color Modelâ€“Based Concrete Detection in Construction-Site Images by Using Machine Learning Algorithms. Journal of Computing in Civil Engineering, 2012, 26, 421-433.	2.5	78
17	Deploying effective service strategy in the operations stage of high-speed rail. Transportation Research, Part E: Logistics and Transportation Review, 2011, 47, 507-519.	3.7	72
18	3D reconstruction of as-built industrial instrumentation models from laser-scan data and a 3D CAD database based on prior knowledge. Automation in Construction, 2015, 49, 193-200.	4.8	72

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19	Real-Time Vision-Based Warning System for Prevention of Collisions between Workers and Heavy Equipment. Journal of Computing in Civil Engineering, 2019, 33, .	2.5	64
20	Predicting financial distress of contractors in the construction industry using ensemble learning. Expert Systems With Applications, 2018, 110, 1-10.	4.4	59
21	Fully Automated As-Built 3D Pipeline Extraction Method from Laser-Scanned Data Based on Curvature Computation. Journal of Computing in Civil Engineering, 2015, 29, .	2.5	58
22	Classification of major construction materials in construction environments using ensemble classifiers. Advanced Engineering Informatics, 2014, 28, 1-10.	4.0	57
23	Hybrid principal component analysis and support vector machine model for predicting the cost performance of commercial building projects using pre-project planning variables. Automation in Construction, 2012, 27, 60-66.	4.8	54
24	Trend analysis of research and development on automation and robotics technology in the construction industry. KSCE Journal of Civil Engineering, 2010, 14, 131-139.	0.9	51
25	Automated Schedule Updates Using As-Built Data and a 4D Building Information Model. Journal of Management in Engineering - ASCE, 2017, 33, .	2.6	49
26	Cross-country review of smart grid adoption in residential buildings. Renewable and Sustainable Energy Reviews, 2015, 48, 192-213.	8.2	48
27	Rapid and automated determination of rusted surface areas of a steel bridge for robotic maintenance systems. Automation in Construction, 2014, 42, 13-24.	4.8	47
28	Comparison of Preproject Planning for Green and Conventional Buildings. Journal of Construction Engineering and Management - ASCE, 2013, 139, .	2.0	46
29	An investigation of the applicability of sustainability and lean concepts to small construction projects. KSCE Journal of Civil Engineering, 2012, 16, 699-707.	0.9	42
30	Principal Axes Descriptor for Automated Construction-Equipment Classification from Point Clouds. Journal of Computing in Civil Engineering, 2017, 31, .	2.5	40
31	Developing a technology roadmap for construction R&D through interdisciplinary research efforts. Automation in Construction, 2009, 18, 330-337.	4.8	38
32	Semantic as-built 3D modeling of structural elements of buildings based on local concavity and convexity. Advanced Engineering Informatics, 2017, 34, 114-124.	4.0	38
33	Integrated worker detection and tracking for the safe operation of construction machinery. Automation in Construction, 2021, 126, 103670.	4.8	36
34	Ubiquitous Sensor Network for Construction Material Monitoring. Journal of Construction Engineering and Management - ASCE, 2011, 137, 158-165.	2.0	35
35	Early prediction of the performance of green building projects using pre-project planning variables: data mining approaches. Journal of Cleaner Production, 2015, 109, 144-151.	4.6	35
36	Human-Assisted Obstacle Avoidance System Using 3D Workspace Modeling for Construction Equipment Operation. Journal of Computing in Civil Engineering, 2006, 20, 177-186.	2.5	34

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37	Evolutionary many-objective optimization for retrofit planning in public buildings: A comparative study. Journal of Cleaner Production, 2018, 190, 403-410.	4.6	31
38	Rapid, on-site spatial information acquisition and its use for infrastructure operation and maintenance. Automation in Construction, 2005, 14, 666-684.	4.8	30
39	A Deep Learning Approach to Forecasting Monthly Demand for Residentialâ€“Sector Electricity. Sustainability, 2020, 12, 3103.	1.6	27
40	Automatic segmentation and 3D modeling of pipelines into constituent parts from laser-scan data of the built environment. Automation in Construction, 2016, 68, 203-211.	4.8	26
41	A Comparative Study of Machine Learning Classification for Color-based Safety Vest Detection on Construction-Site Images. KSCE Journal of Civil Engineering, 2018, 22, 4254-4262.	0.9	26
42	Deep-Learning-Based Classification of Point Clouds for Bridge Inspection. Remote Sensing, 2020, 12, 3757.	1.8	25
43	Rapid 3D object detection and modeling using range data from 3D range imaging camera for heavy equipment operation. Automation in Construction, 2010, 19, 898-906.	4.8	24
44	3D as-built modeling from incomplete point clouds using connectivity relations. Automation in Construction, 2021, 130, 103855.	4.8	15
45	Framework for Real-Time Three-Dimensional Modeling of Infrastructure. , 0, .		14
46	Framework for Real-Time Three-Dimensional Modeling of Infrastructure. Transportation Research Record, 2005, 1913, 177-186.	1.0	13
47	Recycling Construction and Demolition Waste for Construction in Kansas City Metropolitan Area, Kansas and Missouri. Transportation Research Record, 2007, 2011, 193-200.	1.0	12
48	Applicability of flash laser distance and ranging to three-dimensional spatial information acquisition and modeling on a construction site. Canadian Journal of Civil Engineering, 2008, 35, 1331-1341.	0.7	12
49	Multiimaging Sensor Data Fusion-Based Enhancement for 3D Workspace Representation for Remote Machine Operation. Journal of Construction Engineering and Management - ASCE, 2013, 139, 434-444.	2.0	12
50	Evolutionary Multi-objective Optimization in Building Retrofit Planning Problem. Procedia Engineering, 2016, 145, 565-570.	1.2	8
51	Longitudinal assessment of high-speed rail service delivery, satisfaction and operations: A study of Taiwan and Korea systems. KSCE Journal of Civil Engineering, 2017, 21, 2413-2428.	0.9	6
52	High-quality as-is 3D thermal modeling in MEP systems using a deep convolutional network. Advanced Engineering Informatics, 2019, 42, 100999.	4.0	6
53	Semantic AsBuilt 3D Modeling of Buildings Under Construction from Laser-Scan Data Based on Local Convexity without an As-Planned Model. , 2015, , .		5
54	Automatic 3D Reconstruction of As-built Pipeline Based on Curvature Computations from Laser-Scanned Data. , 2014, , .		4

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55	Construction professionalsâ€™ perceived benefits of PMIS: The effects of PMIS quality and computer self-efficacy. KSCE Journal of Civil Engineering, 2016, 20, 564-570.	0.9	2
56	Detection of Nearby Obstacles with Monocular Vision for Earthmoving Operations. , 2017, , .		2
57	Satisfaction Index for a BOT Project: Continuous Quality Improvement in the Operations Stage. , 2009, , .		0
58	Editorial: ISARC 2013. Automation in Construction, 2015, 49, 175.	4.8	0