

# Hyoungkwan Kim

## List of Publications by Year in descending order

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74  
papers

3,618  
citations

117453

34  
h-index

133063

59  
g-index

74  
all docs

74  
docs citations

74  
times ranked

2467  
citing authors

#	ARTICLE	IF	CITATIONS
1	Computer vision techniques for construction safety and health monitoring. <i>Advanced Engineering Informatics</i> , 2015, 29, 239-251.	4.0	349
2	Encoder-decoder network for pixel-level road crack detection in black-box images. <i>Computer-Aided Civil and Infrastructure Engineering</i> , 2019, 34, 713-727.	6.3	298
3	Detecting Construction Equipment Using a Region-Based Fully Convolutional Network and Transfer Learning. <i>Journal of Computing in Civil Engineering</i> , 2018, 32, .	2.5	160
4	Image-based construction hazard avoidance system using augmented reality in wearable device. <i>Automation in Construction</i> , 2017, 83, 390-403.	4.8	132
5	Real options analysis for renewable energy investment decisions in developing countries. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 75, 918-926.	8.2	129
6	Using Hue, Saturation, and Value Color Space for Hydraulic Excavator Idle Time Analysis. <i>Journal of Computing in Civil Engineering</i> , 2007, 21, 238-246.	2.5	126
7	On-site construction management using mobile computing technology. <i>Automation in Construction</i> , 2013, 35, 415-423.	4.8	123
8	Vision-Based Object-Centric Safety Assessment Using Fuzzy Inference: Monitoring Struck-By Accidents with Moving Objects. <i>Journal of Computing in Civil Engineering</i> , 2016, 30, .	2.5	120
9	Integrating 3D visualization and simulation for tower crane operations on construction sites. <i>Automation in Construction</i> , 2006, 15, 554-562.	4.8	107
10	4D CAD model updating using image processing-based construction progress monitoring. <i>Automation in Construction</i> , 2013, 35, 44-52.	4.8	106
11	Patch-Based Crack Detection in Black Box Images Using Convolutional Neural Networks. <i>Journal of Computing in Civil Engineering</i> , 2019, 33, .	2.5	96
12	Augmented reality system for facility management using image-based indoor localization. <i>Automation in Construction</i> , 2019, 99, 18-26.	4.8	95
13	Image retrieval using BIM and features from pretrained VGG network for indoor localization. <i>Building and Environment</i> , 2018, 140, 23-31.	3.0	90
14	UAV-based automatic generation of high-resolution panorama at a construction site with a focus on preprocessing for image stitching. <i>Automation in Construction</i> , 2017, 84, 70-80.	4.8	80
15	Structuring the prediction model of project performance for international construction projects: A comparative analysis. <i>Expert Systems With Applications</i> , 2009, 36, 1961-1971.	4.4	78
16	Predicting Profit Performance for Selecting Candidate International Construction Projects. <i>Journal of Construction Engineering and Management - ASCE</i> , 2007, 133, 425-436.	2.0	73
17	Analyzing context and productivity of tunnel earthmoving processes using imaging and simulation. <i>Automation in Construction</i> , 2018, 92, 188-198.	4.8	68
18	Causes of Bad Profit in Overseas Construction Projects. <i>Journal of Construction Engineering and Management - ASCE</i> , 2007, 133, 932-943.	2.0	64

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19	Image augmentation to improve construction resource detection using generative adversarial networks, cut-and-paste, and image transformation techniques. Automation in Construction, 2020, 115, 103198.	4.8	64
20	Greenhouse Gas Emissions from Onsite Equipment Usage in Road Construction. Journal of Construction Engineering and Management - ASCE, 2012, 138, 982-990.	2.0	62
21	Object Recognition in Construction-Site Images Using 3D CAD-Based Filtering. Journal of Computing in Civil Engineering, 2010, 24, 56-64.	2.5	61
22	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
23	Vision-based nonintrusive context documentation for earthmoving productivity simulation. Automation in Construction, 2019, 102, 135-147.	4.8	50
24	Critical Issues and Possible Solutions for Motivating Foreign Construction Workers. Journal of Management in Engineering - ASCE, 2008, 24, 217-226.	2.6	46
25	Stakeholder Management in Long-Term Complex Megaconstruction Projects: The Saemangeum Project. Journal of Management in Engineering - ASCE, 2017, 33, .	2.6	46
26	Discriminant Analysis for Predicting Ranges of Cost Variance in International Construction Projects. Journal of Construction Engineering and Management - ASCE, 2008, 134, 398-410.	2.0	44
27	Data-driven scene parsing method for recognizing construction site objects in the whole image. Automation in Construction, 2016, 71, 271-282.	4.8	44
28	Framework for Estimating Greenhouse Gas Emissions Due to Asphalt Pavement Construction. Journal of Construction Engineering and Management - ASCE, 2012, 138, 1312-1321.	2.0	42
29	Context-based information generation for managing UAV-acquired data using image captioning. Automation in Construction, 2020, 112, 103116.	4.8	40
30	Developing a technology roadmap for construction R&D through interdisciplinary research efforts. Automation in Construction, 2009, 18, 330-337.	4.8	38
31	Interactive Modeler for Construction Equipment Operation Using Augmented Reality. Journal of Computing in Civil Engineering, 2012, 26, 331-341.	2.5	38
32	3D/4D CAD Applicability for Life-Cycle Facility Management. Journal of Computing in Civil Engineering, 2011, 25, 129-138.	2.5	37
33	Automated Quality Assessment of Stone Aggregates Based on Laser Imaging and a Neural Network. Journal of Computing in Civil Engineering, 2004, 18, 58-64.	2.5	36
34	Dimensional Ratios for Stone Aggregates from Three-Dimensional Laser Scans. Journal of Computing in Civil Engineering, 2002, 16, 175-183.	2.5	35
35	Assessing Residual Value of Heavy Construction Equipment Using Predictive Data Mining Model. Journal of Computing in Civil Engineering, 2008, 22, 181-191.	2.5	35
36	Ubiquitous Sensor Network for Construction Material Monitoring. Journal of Construction Engineering and Management - ASCE, 2011, 137, 158-165.	2.0	35

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37	Using real options for urban infrastructure adaptation under climate change. <i>Journal of Cleaner Production</i> , 2017, 143, 40-50.	4.6	32
38	3D reconstruction of a concrete mixer truck for training object detectors. <i>Automation in Construction</i> , 2018, 88, 23-30.	4.8	32
39	Determining the Value of Governmental Subsidies for the Installation of Clean Energy Systems Using Real Options. <i>Journal of Construction Engineering and Management - ASCE</i> , 2012, 138, 422-430.	2.0	30
40	Applicability of 4D CAD in Civil Engineering Construction: Case Study of a Cable-Stayed Bridge Project. <i>Journal of Computing in Civil Engineering</i> , 2011, 25, 98-107.	2.5	27
41	Proactive proximity monitoring with instance segmentation and unmanned aerial vehicleâ€acquired videoâ€frame prediction. <i>Computer-Aided Civil and Infrastructure Engineering</i> , 2021, 36, 800-816.	6.3	25
42	Synthetic data generation using building information models. <i>Automation in Construction</i> , 2021, 130, 103871.	4.8	24
43	A data warehouse-based decision support system for sewer infrastructure management. <i>Automation in Construction</i> , 2013, 30, 37-49.	4.8	23
44	A real option-based model to valuate CDM projects under uncertain energy policies for emission trading. <i>Applied Energy</i> , 2014, 131, 288-296.	5.1	23
45	RFID and CCTV-Based Material Delivery Monitoring for Cable-Stayed Bridge Construction. <i>Journal of Computing in Civil Engineering</i> , 2012, 26, 183-190.	2.5	21
46	Valuation of Drainage Infrastructure Improvement Under Climate Change Using Real Options. <i>Water Resources Management</i> , 2014, 28, 445-457.	1.9	21
47	Computer Visionâ€Based Estimation of Flood Depth in Flooded-Vehicle Images. <i>Journal of Computing in Civil Engineering</i> , 2021, 35, .	2.5	21
48	A real option-based model for promoting sustainable energy projects under the clean development mechanism. <i>Energy Policy</i> , 2013, 54, 360-368.	4.2	19
49	Wavelet-Based Three-Dimensional Descriptors of Aggregate Particles. <i>Transportation Research Record</i> , 2002, 1787, 109-116.	1.0	18
50	Interactive 3D CAD for Effective Derrick Crane Operation in a Cable-Stayed Bridge Construction. <i>Journal of Construction Engineering and Management - ASCE</i> , 2009, 135, 1261-1270.	2.0	18
51	Exploring wavelet applications in civil engineering. <i>KSCE Journal of Civil Engineering</i> , 2017, 21, 1076-1086.	0.9	17
52	Investment timing decisions in hydropower adaptation projects using climate scenarios: A case study of South Korea. <i>Journal of Cleaner Production</i> , 2017, 142, 1827-1836.	4.6	16
53	Real Options-Based Framework for Hydropower Plant Adaptation to Climate Change. <i>Journal of Management in Engineering - ASCE</i> , 2017, 33, 04016049.	2.6	15
54	A decision-making model for the analysis of offshore wind farm projects under climate uncertainties: A case study of South Korea. <i>Renewable and Sustainable Energy Reviews</i> , 2018, 94, 853-860.	8.2	14

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55	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
56	Investment decision for coastal urban development projects considering the impact of climate change: Case study of the Great Garuda Project in Indonesia. Journal of Cleaner Production, 2018, 178, 507-514.	4.6	12
57	Data warehousing for construction equipment management. Canadian Journal of Civil Engineering, 2006, 33, 1480-1489.	0.7	11
58	Field Study of Concrete Maturity Methodology in Cold Weather. Journal of Construction Engineering and Management - ASCE, 2007, 133, 827-835.	2.0	10
59	Impact of Deterioration and Negotiation on Sewer System O&M Contracts from the Real Option Perspective. Water Resources Management, 2012, 26, 2973-2989.	1.9	9
60	Estimation of Greenhouse Gas Emissions from Land-Use Changes due to Road Construction in the Republic of Korea. Journal of Construction Engineering and Management - ASCE, 2013, 139, 339-346.	2.0	9
61	A Real Option Perspective to Value the Multi-Stage Construction of Rainwater Harvesting Systems Reusing Septic Tank. Water Resources Management, 2014, 28, 2279-2291.	1.9	9
62	Real options analysis for photovoltaic project under climate uncertainty. IOP Conference Series: Earth and Environmental Science, 2016, 40, 012080.	0.2	8
63	Vision-Based 2D Map Generation for Monitoring Construction Sites Using UAV videos. , 2017, , .		8
64	Conditional Generative Adversarial Networks with Adversarial Attack and Defense for Generative Data Augmentation. Journal of Computing in Civil Engineering, 2022, 36, .	2.5	8
65	Error-Correction Methods for Construction Site Image Processing under Changing Illumination Conditions. Journal of Computing in Civil Engineering, 2013, 27, 99-109.	2.5	6
66	On-Site Safety Management Using Image Processing and Fuzzy Inference. , 2014, , .		5
67	Algorithm for Economic Assessment of Infrastructure Adaptation to Climate Change. Natural Hazards Review, 2017, 18, 04017007.	0.8	4
68	A framework for pricing the loss of regulating ecosystem services caused by road construction. KSCE Journal of Civil Engineering, 2016, 20, 2624-2631.	0.9	3
69	Computing as Reflected in the Technology Roadmap for Center for Technology Fusion. Journal of Computing in Civil Engineering, 2008, 22, 69-70.	2.5	2
70	An automated system for the creation of an urban infrastructure 3D model using image processing techniques. KSCE Journal of Civil Engineering, 2012, 16, 9-17.	0.9	2
71	Optimization Procedure for Climate Change Adaptation Investment Planning: Case of Flood Disaster Prevention in Seoul. Journal of Water Resources Planning and Management - ASCE, 2020, 146, 04019077.	1.3	2
72	Innovative Testing System of Construction Aggregate Using Laser Profiling. , 2000, , .		2

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73	Image Processing For Construction Equipment Idle Time Analysis. , 2005, , .		2
74	Use Cases for Contractors. , 2020, , 267-313.		0