Sanghyun Lee

List of Publications by Year in descending order

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SANCHVUN LEE

#	Article	IF	CITATIONS
1	Computer vision techniques for construction safety and health monitoring. Advanced Engineering Informatics, 2015, 29, 239-251.	8.0	349
2	A vision-based motion capture and recognition framework for behavior-based safety management. Automation in Construction, 2013, 35, 131-141.	9.8	266
3	EEG-based workers' stress recognition at construction sites. Automation in Construction, 2018, 93, 315-324.	9.8	207
4	Visualization of Construction Progress Monitoring with 4D Simulation Model Overlaid on Time-Lapsed Photographs. Journal of Computing in Civil Engineering, 2009, 23, 391-404.	4.7	203
5	What drives construction workers' acceptance of wearable technologies in the workplace?: Indoor localization and wearable health devices for occupational safety and health. Automation in Construction, 2017, 84, 31-41.	9.8	172
6	Remote proximity monitoring between mobile construction resources using camera-mounted UAVs. Automation in Construction, 2019, 99, 168-182.	9.8	166
7	RFID-Based Real-Time Locating System for Construction Safety Management. Journal of Computing in Civil Engineering, 2012, 26, 366-377.	4.7	143
8	Wearable Sensing Technology Applications in Construction Safety and Health. Journal of Construction Engineering and Management - ASCE, 2019, 145, .	3.8	142
9	Generating construction schedules through automatic data extraction using open BIM (building) Tj ETQq1 1 C	.784314 rgE	BT /Qyerlock
10	Toward an understanding of the impact of production pressure on safety performance in construction operations. Accident Analysis and Prevention, 2014, 68, 106-116.	5.7	131
11	Measuring Workers' Emotional State during Construction Tasks Using Wearable EEG. Journal of Construction Engineering and Management - ASCE, 2018, 144, .	3.8	129
12	Vision-Based Detection of Unsafe Actions of a Construction Worker: Case Study of Ladder Climbing. Journal of Computing in Civil Engineering, 2013, 27, 635-644.	4.7	120
13	Recognizing Diverse Construction Activities in Site Images via Relevance Networks of Construction-Related Objects Detected by Convolutional Neural Networks. Journal of Computing in Civil Engineering, 2018, 32, .	4.7	116
14	Enhancing perceived safety in human–robot collaborative construction using immersive virtual environments. Automation in Construction, 2018, 96, 161-170.	9.8	110
15	EEG Signal-Processing Framework to Obtain High-Quality Brain Waves from an Off-the-Shelf Wearable EEG Device. Journal of Computing in Civil Engineering, 2018, 32, .	4.7	107
16	Wristband-type wearable health devices to measure construction workers' physical demands. Automation in Construction, 2017, 83, 330-340.	9.8	106
17	Visualization, Information Modeling, and Simulation: Grand Challenges in the Construction Industry. Journal of Computing in Civil Engineering, 2016, 30, .	4.7	102
18	Feasibility analysis of heart rate monitoring of construction workers using a photoplethysmography (PPG) sensor embedded in a wristband-type activity tracker. Automation in Construction, 2016, 71, 372-381.	9.8	95

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19	Automated Action Recognition Using an Accelerometer-Embedded Wristband-Type Activity Tracker. Journal of Construction Engineering and Management - ASCE, 2019, 145, .	3.8	89
20	Quality and Change Management Model for Large Scale Concurrent Design and Construction Projects. Journal of Construction Engineering and Management - ASCE, 2005, 131, 890-902.	3.8	85
21	Feasibility analysis of electrodermal activity (EDA) acquired from wearable sensors to assess construction workers' perceived risk. Safety Science, 2019, 115, 110-120.	4.9	84
22	Strategic-Operational Construction Management: Hybrid System Dynamics and Discrete Event Approach. Journal of Construction Engineering and Management - ASCE, 2008, 134, 701-710.	3.8	82
23	Application of dynamic time warping to the recognition of mixed equipment activities in cycle time measurement. Automation in Construction, 2018, 87, 225-234.	9.8	81
24	Digital Twin for Supply Chain Coordination in Modular Construction. Applied Sciences (Switzerland), 2021, 11, 5909.	2.5	81
25	Longitudinal analysis of normative energy use feedback on dormitory occupants. Applied Energy, 2017, 189, 623-639.	10.1	80
26	An Automated Biomechanical Simulation Approach to Ergonomic Job Analysis for Workplace Design. Journal of Construction Engineering and Management - ASCE, 2015, 141, .	3.8	76
27	Construction Workers' Group Norms and Personal Standards Regarding Safety Behavior: Social Identity Theory Perspective. Journal of Management in Engineering - ASCE, 2017, 33, .	4.8	76
28	Modeling Framework and Architecture of Hybrid System Dynamics and Discrete Event Simulation for Construction. Computer-Aided Civil and Infrastructure Engineering, 2011, 26, 77-91.	9.8	73
29	Application of Wearable Biosensors to Construction Sites. I: Assessing Workers' Stress. Journal of Construction Engineering and Management - ASCE, 2019, 145, .	3.8	69
30	A vision-based marker-less pose estimation system for articulated construction robots. Automation in Construction, 2019, 104, 80-94.	9.8	69
31	Motion Data-Driven Biomechanical Analysis during Construction Tasks on Sites. Journal of Computing in Civil Engineering, 2015, 29, .	4.7	68
32	Application of Low-Cost Accelerometers for Measuring the Operational Efficiency of a Construction Equipment Fleet. Journal of Computing in Civil Engineering, 2015, 29, .	4.7	59
33	An Empirically Based Agent-Based Model of the Sociocognitive Process of Construction Workers' Safety Behavior. Journal of Construction Engineering and Management - ASCE, 2018, 144, .	3.8	59
34	Exploratory Study on the Effectiveness of Interface-Management Practices in Dealing with Project Complexity in Large-Scale Engineering and Construction Projects. Journal of Management in Engineering - ASCE, 2017, 33, .	4.8	56
35	Empirical assessment of a RGB-D sensor on motion capture and action recognition for construction worker monitoring. Visualization in Engineering, 2013, 1, .	8.8	55
36	A framework for an automated and integrated project monitoring and control system for steel fabrication projects. Automation in Construction, 2011, 20, 88-97.	9.8	52

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37	Role of Social Norms and Social Identifications in Safety Behavior of Construction Workers. I: Theoretical Model of Safety Behavior under Social Influence. Journal of Construction Engineering and Management - ASCE, 2017, 143, .	3.8	52
38	A Continuously Updated, Computationally Efficient Stress Recognition Framework Using Electroencephalogram (EEG) by Applying Online Multitask Learning Algorithms (OMTL). IEEE Journal of Biomedical and Health Informatics, 2019, 23, 1928-1939.	6.3	52
39	Identification and Quantification of Non-Value-Adding Effort from Errors and Changes in Design and Construction Projects. Journal of Construction Engineering and Management - ASCE, 2012, 138, 98-109.	3.8	50
40	Impact of Social Network Type and Structure on Modeling Normative Energy Use Behavior Interventions. Journal of Computing in Civil Engineering, 2014, 28, 30-39.	4.7	50
41	Comparative Study of Motion Features for Similarity-Based Modeling and Classification of Unsafe Actions in Construction. Journal of Computing in Civil Engineering, 2014, 28, .	4.7	49
42	Importance of Operational Efficiency to Achieve Energy Efficiency and Exhaust Emission Reduction of Construction Operations. Journal of Construction Engineering and Management - ASCE, 2013, 139, 404-413.	3.8	48
43	Tracking-based 3D human skeleton extraction from stereo video camera toward an on-site safety and ergonomic analysis. Construction Innovation, 2016, 16, 348-367.	2.7	48
44	Off-Site Construction Planning Using Discrete Event Simulation. Journal of Architectural Engineering, 2012, 18, 114-122.	1.6	47
45	Dynamics of Working Hours in Construction. Journal of Construction Engineering and Management - ASCE, 2012, 138, 66-77.	3.8	45
46	Simulation-Based Assessment of Workers' Muscle Fatigue and Its Impact on Construction Operations. Journal of Construction Engineering and Management - ASCE, 2016, 142, .	3.8	44
47	Feasibility Study of a Wristband-Type Wearable Sensor to Understand Construction Workers' Physical and Mental Status. , 2018, , .		44
48	Predicting hourly energy consumption in buildings using occupancy-related characteristics of end-user groups. Energy and Buildings, 2017, 156, 121-133.	6.7	43
49	Mobile EEG-Based Workers' Stress Recognition by Applying Deep Neural Network. , 2019, , 173-180.		43
50	Reliability and Stability Buffering Approach: Focusing on the Issues of Errors and Changes in Concurrent Design and Construction Projects. Journal of Construction Engineering and Management - ASCE, 2006, 132, 452-464.	3.8	42
51	Experience, Productivity, and Musculoskeletal Injury among Masonry Workers. Journal of Construction Engineering and Management - ASCE, 2017, 143, .	3.8	39
52	Assessing occupational risk of heat stress at construction: A worker-centric wearable sensor-based approach. Safety Science, 2021, 142, 105395.	4.9	39
53	Effects of Workers' Social Learning: Focusing on Absence Behavior. Journal of Construction Engineering and Management - ASCE, 2013, 139, 1015-1025.	3.8	37
54	Integrating Construction Operation and Context in Large-Scale Construction Using Hybrid Computer Simulation. Journal of Computing in Civil Engineering, 2009, 23, 75-83.	4.7	36

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55	Proximity Prediction of Mobile Objects to Prevent Contact-Driven Accidents in Co-Robotic Construction. Journal of Computing in Civil Engineering, 2020, 34, .	4.7	36
56	Wearable Biosensor and Hotspot Analysis–Based Framework to Detect Stress Hotspots for Advancing Elderly's Mobility. Journal of Management in Engineering - ASCE, 2020, 36, .	4.8	36
57	Assessment of construction workers' perceived risk using physiological data from wearable sensors: A machine learning approach. Journal of Building Engineering, 2021, 42, 102824.	3.4	36
58	Toward Environmentally Sustainable Construction Processes: The U.S. and Canada's Perspective on Energy Consumption and GHG/CAP Emissions. Sustainability, 2010, 2, 354-370.	3.2	35
59	Understanding and managing iterative error and change cycles in construction. System Dynamics Review, 2007, 23, 35-60.	1.9	33
60	A Supervised Learning-Based Construction Workers' Stress Recognition Using a Wearable Electroencephalography (EEG) Device. , 2018, , .		33
61	Web-Enabled System Dynamics Model for Error and Change Management on Concurrent Design and Construction Projects. Journal of Computing in Civil Engineering, 2006, 20, 290-300.	4.7	31
62	An empirically grounded model for simulating normative energy use feedback interventions. Applied Energy, 2016, 173, 272-282.	10.1	31
63	Application of Wearable Biosensors to Construction Sites. II: Assessing Workers' Physical Demand. Journal of Construction Engineering and Management - ASCE, 2019, 145, .	3.8	30
64	Automated postural ergonomic risk assessment using vision-based posture classification. Automation in Construction, 2021, 128, 103725.	9.8	30
65	Hybrid Simulation Framework for Immediate Facility Restoration Planning after a Catastrophic Disaster. Journal of Construction Engineering and Management - ASCE, 2016, 142, .	3.8	29
66	Conceptual Framework to Optimize Building Energy Consumption by Coupling Distributed Energy Simulation and Occupancy Models. Journal of Computing in Civil Engineering, 2014, 28, 50-62.	4.7	28
67	Feasibility of Field Measurement of Construction Workers' Valence Using a Wearable EEG Device. , 2017, , .		28
68	Postdisaster Interdependent Built Environment Recovery Efforts and the Effects of Governmental Plans: Case Analysis Using System Dynamics. Journal of Construction Engineering and Management - ASCE, 2015, 141, .	3.8	27
69	Integrated Framework for Estimating, Benchmarking, and Monitoring Pollutant Emissions of Construction Operations. Journal of Construction Engineering and Management - ASCE, 2013, 139, .	3.8	26
70	Construction Workers' Perceptions and Attitudes toward Social Norms as Predictors of Their Absence Behavior. Journal of Construction Engineering and Management - ASCE, 2014, 140, 04013069.	3.8	26
71	Feasibility of Wearable Electromyography (EMG) to Assess Construction Workers' Muscle Fatigue. , 2019, , 181-187		26
72	Energy consumption in households while unoccupied: Evidence from dormitories. Energy and Buildings, 2015, 87, 335-341.	6.7	25

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73	How to Improve Interface Management Behaviors in EPC Projects: Roles of Formal Practices and Social Norms. Journal of Management in Engineering - ASCE, 2018, 34, .	4.8	25
74	Methodology for Creating Empirically Supported Agent-Based Simulation with Survey Data for Studying Group Behavior of Construction Workers. Journal of Construction Engineering and Management - ASCE, 2015, 141, .	3.8	24
75	An integrated ergonomics framework for evaluation and design of construction operations. Automation in Construction, 2018, 95, 72-85.	9.8	23
76	Wearable Biosensor and Collective Sensing–Based Approach for Detecting Older Adults' Environmental Barriers. Journal of Computing in Civil Engineering, 2020, 34, .	4.7	23
77	Carbon Footprints Analysis for Tunnel Construction Processes in the Preplanning Phase Using Collaborative Simulation. , 2010, , .		22
78	Paving the Way for Future EEG Studies in Construction: Dependent Component Analysis for Automatic Ocular Artifact Removal from Brainwave Signals. Journal of Construction Engineering and Management - ASCE, 2021, 147, .	3.8	22
79	Computer Vision Techniques for Worker Motion Analysis to Reduce Musculoskeletal Disorders in Construction. , 2011, , .		20
80	Social network analysis of change management processes for communication assessment. Automation in Construction, 2020, 118, 103292.	9.8	20
81	Hybrid System Dynamics and Discrete Event Simulation for Construction Management. , 2007, , .		19
82	Dynamics of workforce skill evolution in construction projects ¹ This paper is one of a selection of papers in this Special Issue on Construction Engineering and Management Canadian Journal of Civil Engineering, 2012, 39, 1005-1017.	1.3	19
83	A comparative study of in-field motion capture approaches for body kinematics measurement in construction. Robotica, 2019, 37, 928-946.	1.9	19
84	Vision-Based Motion Detection for Safety Behavior Analysis in Construction. , 2012, , .		17
85	Consideration of the Environmental Cost in Construction Contracting for Public Works: A+C and A+B+C Bidding Methods. Journal of Management in Engineering - ASCE, 2013, 29, 86-94.	4.8	17
86	Understanding construction workforce absenteeism in industrial construction. Canadian Journal of Civil Engineering, 2011, 38, 849-858.	1.3	16
87	Monitoring System for Operational Efficiency and Environmental Performance of Construction Operations Using Vibration Signal Analysis. , 2012, , .		16
88	Action Recognition Using a Wristband-Type Activity Tracker: Case Study of Masonry Work. , 2016, , .		16
89	Acceleromter-Based Measurement of Construction Equipment Operating Efficiency for Monitoring Environmental Performance. , 2013, , .		15
90	Role of Social Norms and Social Identifications in Safety Behavior of Construction Workers. II: Group Analyses for the Effects of Cultural Backgrounds and Organizational Structures on Social Influence Process. Journal of Construction Engineering and Management - ASCE, 2017, 143, .	3.8	15

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91	An energy-cyber-physical system for personalized normative messaging interventions: Identification and classification of behavioral reference groups. Applied Energy, 2020, 260, 114237.	10.1	15
92	Grand Challenges in Simulation for the Architecture, Engineering, Construction, and Facility Management Industries. , 2013, , .		14
93	Automated Postural Ergonomic Assessment Using a Computer Vision-Based Posture Classification. , 2016, , .		13
94	Implementing Remote-Sensing Methodologies for Construction Research: An Unoccupied Airborne System Perspective. Journal of Construction Engineering and Management - ASCE, 2022, 148, .	3.8	13
95	Application of Dimension Reduction Techniques for Motion Recognition: Construction Worker Behavior Monitoring. , 2011, , .		12
96	Applying Basic Control Theory Principles to Project Control: Case Study of Off-Site Construction Shops. Journal of Computing in Civil Engineering, 2012, 26, 681-690.	4.7	12
97	Distributed and interoperable simulation for comprehensive disaster response management in facilities. Automation in Construction, 2018, 93, 12-21.	9.8	12
98	Noise Reference Signal–Based Denoising Method for EDA Collected by Multimodal Biosensor Wearable in the Field. Journal of Computing in Civil Engineering, 2020, 34, .	4.7	12
99	Ocular Artifacts Reduction in EEG Signals Acquired at Construction Sites by Applying a Dependent Component Analysis (DCA). , 2020, , .		12
100	The psychological mechanism of construction workers' safety participation: The social identity theory perspective. Journal of Safety Research, 2022, 82, 194-206.	3.6	12
101	Effect of social network type on building occupant energy use. , 2012, , .		10
102	A Stereo Vision-Based Approach to Marker-Less Motion Capture for On-Site Kinematic Modeling of Construction Worker Tasks. , 2014, , .		10
103	Development of a computerized risk management system for international NPP EPC projects. KSCE Journal of Civil Engineering, 2017, 21, 11-26.	1.9	10
104	Assessing exposure to slip, trip, and fall hazards based on abnormal gait patterns predicted from confidence interval estimation. Automation in Construction, 2022, 139, 104253.	9.8	10
105	Quality and Change Management Framework for Concurrent Design and Construction. , 2003, , 1.		9
106	A Real Option Perspective to Value the Multi-Stage Construction of Rainwater Harvesting Systems Reusing Septic Tank. Water Resources Management, 2014, 28, 2279-2291.	3.9	9
107	Potential of Convolutional Neural Network-Based 2D Human Pose Estimation for On-Site Activity Analysis of Construction Workers. , 2017, , .		9
108	Effect of Dynamic Emergency Cues on Fire Evacuation Performance in Public Buildings. Journal of Infrastructure Systems, 2018, 24, .	1.8	9

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109	How Social Norms Influence Construction Workers' Safety Behavior: A Social Identity Perspective. , 2016, , .		8
110	Silhouette-Based On-Site Human Action Recognition in Single-View Video. , 2016, , .		8
111	Effective Green-Ampt Parameters for Two-Layered Soils. Journal of Hydrologic Engineering - ASCE, 2020, 25, .	1.9	8
112	Conditional Generative Adversarial Networks with Adversarial Attack and Defense for Generative Data Augmentation. Journal of Computing in Civil Engineering, 2022, 36, .	4.7	8
113	Wearable Insole Pressure Sensors for Automated Detection and Classification of Slip-Trip-Loss of Balance Events in Construction Workers. , 2018, , .		7
114	Lessons learned from utilizing discrete-event simulation modeling for quantifying construction emissions in pre-planning phase. , 2010, , .		6
115	System Dynamics Modeling of a Safety Culture Based on Resilience Engineering. , 2010, , .		6
116	Dynamic Feasibility Analysis of the Housing Supply Strategies in a Recession: Korean Housing Market. Journal of Construction Engineering and Management - ASCE, 2013, 139, 148-160.	3.8	6
117	Challenges and Opportunities of Understanding Construction Workers' Physical Demands through Field Energy Expenditure Measurements Using a Wearable Activity Tracker. , 2016, , .		6
118	Semantic Relation Detection between Construction Entities to Support Safe Human-Robot Collaboration in Construction. , 2019, , .		6
119	Reference Signal-Based Method to Remove Respiration Noise in Electrodermal Activity (EDA) Collected from the Field. , 2019, , .		6
120	Multi-Level Assessment of Occupational Stress in the Field Using a Wearable EEG Headset. , 2020, , .		6
121	Feasibility of a Mobile Electroencephalogram (EEG) Sensor-Based Stress Type Classification for Construction Workers. , 2022, , .		6
122	A robust positioning architecture for construction resources localization using wireless sensor networks. , 2011, , .		5
123	Importance of Testing with Independent Subjects and Contexts for Machine-Learning Models to Monitor Construction Workers' Psychophysiological Responses. Journal of Construction Engineering and Management - ASCE, 2022, 148, .	3.8	5
124	Human-centric robotic manipulation in construction: generative adversarial networks based physiological computing mechanism to enable robots to perceive workers' cognitive load. Canadian Journal of Civil Engineering, 2023, 50, 224-238.	1.3	5
125	Discussion Panel on Computer Vision and Occupational Ergonomics. Proceedings of the Human Factors and Ergonomics Society, 2016, 60, 958-960.	0.3	4
126	High Level Architecture (HLA) compliant distributed simulation platform for disaster preparedness and response in facility management. , 2016, , .		4

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127	Resource Performance Indicators in Controlling Industrial Steel Projects. , 2010, , .		3
128	Modeling occupant energy use interventions in evolving social networks. , 2013, , .		3
129	On-line simulation of building energy processes: Need and research requirements. , 2013, , .		3
130	Dynamic Project Management: An Application of System Dynamics in Construction Engineering and Management. Intelligent Systems, Control and Automation: Science and Engineering, 2014, , 219-231.	0.5	3
131	Modeling the Effect of a Socio-Psychological Process on Construction Workers' Safety Behavior. , 2017, , .		3
132	Monitoring Excavation Slope Stability Using Drones. , 2018, , .		3
133	Enhancing Deep Neural Network-Based Trajectory Prediction: Fine-Tuning and Inherent Movement-Driven Post-Processing. , 2020, , .		3
134	Non-Invasive Behavioral Reference Group Categorization Considering Temporal Granularity and Aggregation Level of Energy Use Data. Energies, 2020, 13, 3678.	3.1	3
135	Training a Visual Scene Understanding Model Only with Synthetic Construction Images. , 2022, , .		3
136	Modeling and representation of non-value adding activities due to errors and changes in design and construction projects. , 2007, , .		2
137	Development of model of workers' mental processes related to absence norm as behavior rule in agent-based simulation. , 2011, , .		2
138	Exploring Absenteeism Control Policies with Awareness of the Effect of Group Norms on Absence Behavior, Using Agent-Based Modeling. , 2012, , .		2
139	Integrated evaluation of cost, schedule and emission performance on rock-filled concrete dam construction operation using discrete event simulation. , 2013, , .		2
140	Fast Dataset Collection Approach for Articulated Equipment Pose Estimation. , 2019, , .		2
141	Agent-embedded system dynamics (aeSD) modeling approach for analyzing worker policies: a research case on construction worker absenteeism. Construction Innovation, 2021, 21, 379-397.	2.7	2
142	Enhancing the Credibility of Agent-Based Model for the Study of Workers' Group Behavior by Comparing Simulation Data with Survey Data. , 2014, , .		2
143	Evaluation of Construction Workers' Emotional States during Virtual Reality-Based Safety Training. , 2022, , .		2
144	Meaningful Level of Change in hybrid simulation for construction analysis. , 2009, , .		1

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145	Exploring the Effects of Context Level Factors on the Structural Steel Fabrication Shop Operation. , 2010, , .		1
146	Understanding Withdrawal Behavior in the Construction Industry. , 2010, , .		1
147	Integrated Simulation-Based Look-Ahead Scheduling for Steel Fabrication Projects. , 2010, , .		1
148	Social Learning's Effect on Absenteeism: The Effect of Project Turnover. , 2014, , .		1
149	Longitudinal Analysis of Normative Energy Use Feedback on Dormitory Occupants. SSRN Electronic Journal, 2015, , .	0.4	1
150	Understanding the Role of Dynamic Risk Perception during Fire Evacuations Using Agent-Based Modeling. , 2016, , .		1
151	Synthetic Training Image Dataset for Vision-Based 3D Pose Estimation of Construction Workers. , 2022, , .		1
152	Assessing Exposure to Slip, Trip, and Fall Hazards by Measuring Construction Worker Loss of Balance. , 2022, , .		1
153	System Dynamics Approach for Error and Change Management in Concurrent Design and Construction. , 0, , .		0
154	Carbon Emissions Quantification and Verification Strategies for Large-Scale Construction Projects. , 2012, , .		0
155	Exploration of the effect of workers' influence network on their absence behavior using agent-based modeling and simulation. , 2013, , .		0
156	Special Issue on the 2013 International Workshop on Computing in Civil Engineering. Journal of Computing in Civil Engineering, 2015, 29, .	4.7	0
157	3D Excavator Pose Estimation: Direct Optimization from 2D Pose Using Kinematic Constraints. , 2022, , .		Ο
158	Impact of the Dynamicity of Workgroup Changes on Social Influence of Construction Workers' Safety Behaviors. , 2022, , .		0
159	Toward Empathetic Construction Robotics. , 2022, 1, 16-21.		0