Khaled El-Rayes

List of Publications by Year
in descending order

92 papers	2,507 citations	172386 29 h-index	214721 47 g-index
92 all docs	92 docs citations	92 times ranked	1224 citing authors

#	Article	IF	Citations
1	Time-Cost-Quality Trade-Off Analysis for Highway Construction. Journal of Construction Engineering and Management - ASCE, 2005, 131, 477-486.	2.0	259
2	Optimizing Resource Utilization for Repetitive Construction Projects. Journal of Construction Engineering and Management - ASCE, 2001, 127, 18-27.	2.0	131
3	Optimal Planning and Scheduling for Repetitive Construction Projects. Journal of Management in Engineering - ASCE, 2006, 22, 11-19.	2.6	130
4	Trade-off between Safety and Cost in Planning Construction Site Layouts. Journal of Construction Engineering and Management - ASCE, 2005, 131, 1186-1195.	2.0	119
5	Optimizing Resource Leveling in Construction Projects. Journal of Construction Engineering and Management - ASCE, 2009, 135, 1172-1180.	2.0	83
6	Resource-driven scheduling of repetitive activities. Construction Management and Economics, 1998, 16, 433-446.	1.8	82
7	Parallel Genetic Algorithms for Optimizing Resource Utilization in Large-Scale Construction Projects. Journal of Construction Engineering and Management - ASCE, 2006, 132, 491-498.	2.0	67
8	Optimizing Material Procurement and Storage on Construction Sites. Journal of Construction Engineering and Management - ASCE, 2011, 137, 421-431.	2.0	67
9	Dynamic Site Layout Planning Using Approximate Dynamic Programming. Journal of Computing in Civil Engineering, 2009, 23, 119-127.	2.5	66
10	Automated multi-objective construction logistics optimization system. Automation in Construction, 2014, 43, 110-122.	4.8	59
11	Optimizing Postdisaster Reconstruction Planning for Damaged Transportation Networks. Journal of Construction Engineering and Management - ASCE, 2009, 135, 1039-1048.	2.0	58
12	Optimizing Resource Utilization during the Recovery of Civil Infrastructure Systems. Journal of Management in Engineering - ASCE, 2010, 26, 237-246.	2.6	56
13	Multiobjective Optimization of Resource Leveling and Allocation during Construction Scheduling. Journal of Construction Engineering and Management - ASCE, 2011, 137, 1080-1088.	2.0	56
14	Optimization Research: Enhancing the Robustness of Large-Scale Multiobjective Optimization in Construction. Journal of Construction Engineering and Management - ASCE, 2010, 136, 17-25.	2.0	54
15	Performance of global optimization models for dynamic site layout planning of construction projects. Automation in Construction, 2013, 36, 71-78.	4.8	54
16	An automated system for optimizing post-disaster temporary housing allocation. Automation in Construction, 2009, 18, 983-993.	4.8	42
17	Automated multi-objective optimization system for airport site layouts. Automation in Construction, 2011, 20, 313-320.	4.8	42
18	Optimal utilization of interior building spaces for material procurement and storage in congested construction sites. Automation in Construction, 2013, 31, 292-306.	4.8	42

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19	Maximizing the Sustainability of Integrated Housing Recovery Efforts. Journal of Construction Engineering and Management - ASCE, 2010, 136, 794-802.	2.0	41
20	Optimizing Large-Scale Temporary Housing Arrangements after Natural Disasters. Journal of Computing in Civil Engineering, 2009, 23, 110-118.	2.5	39
21	Minimizing Construction-Related Security Risks during Airport Expansion Projects. Journal of Construction Engineering and Management - ASCE, 2008, 134, 40-48.	2.0	38
22	Optimum Planning of Highway Construction under A + B Bidding Method. Journal of Construction Engineering and Management - ASCE, 2001, 127, 261-269.	2.0	37
23	Scan2BIM-NET: Deep Learning Method for Segmentation of Point Clouds for Scan-to-BIM. Journal of Construction Engineering and Management - ASCE, 2021, 147, .	2.0	37
24	MACROS: Multiobjective Automated Construction Resource Optimization System. Journal of Management in Engineering - ASCE, 2006, 22, 126-134.	2.6	35
25	Multiobjective Optimization Model for Maximizing Sustainability of Existing Buildings. Journal of Management in Engineering - ASCE, 2016, 32, .	2.6	34
26	Segmentation of point clouds via joint semantic and geometric features for 3D modeling of the built environment. Automation in Construction, 2021, 125, 103584.	4.8	33
27	Multi-Objective Optimization of Temporary Housing for the 1994 Northridge Earthquake. Journal of Earthquake Engineering, 2008, 12, 81-91.	1.4	32
28	Time-Profit Trade-Off Analysis for Construction Projects. Journal of Construction Engineering and Management - ASCE, 2009, 135, 718-725.	2.0	31
29	Optimizing the Scheduling of Repetitive Construction to Minimize Interruption Cost. Journal of Construction Engineering and Management - ASCE, 2018, 144, .	2.0	31
30	Parallel Computing Framework for Optimizing Construction Planning in Large-Scale Projects. Journal of Computing in Civil Engineering, 2005, 19, 304-312.	2.5	30
31	Optimizing the planning of construction site security for critical infrastructure projects. Automation in Construction, 2010, 19, 221-234.	4.8	30
32	Optimizing the utilization of multiple labor shifts in construction projects. Automation in Construction, 2010, 19, 109-119.	4.8	29
33	Optimizing tradeoffs among housing sustainability objectives. Automation in Construction, 2015, 53, 83-94.	4.8	27
34	Object-Oriented Model for Repetitive Construction Scheduling. Journal of Construction Engineering and Management - ASCE, 2001, 127, 199-205.	2.0	26
35	Fast and Accurate Risk Evaluation for Scheduling Large-Scale Construction Projects. Journal of Computing in Civil Engineering, 2011, 25, 407-417.	2.5	26
36	Maximizing Temporary Housing Safety after Natural Disasters. Journal of Infrastructure Systems, 2010, 16, 138-148.	1.0	25

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37	Minimizing duration and crew work interruptions of repetitive construction projects. Automation in Construction, 2018, 88, 59-72.	4.8	25
38	Optimal Lighting Arrangements for Nighttime Highway Construction Projects. Journal of Construction Engineering and Management - ASCE, 2005, 131, 1292-1300.	2.0	24
39	Minimization of socioeconomic disruption for displaced populations following disasters. Disasters, 2010, 34, 865-883.	1.1	24
40	Optimizing the Planning of Highway Work Zones to Maximize Safety and Mobility. Journal of Management in Engineering - ASCE, 2018, 34, .	2.6	23
41	Discrete Markov Approach for Building Component Condition, Reliability, and Service-Life Prediction Modeling. Journal of Performance of Constructed Facilities, 2016, 30, .	1.0	22
42	Minimizing Construction-Related Hazards in Airport Expansion Projects. Journal of Construction Engineering and Management - ASCE, 2006, 132, 562-572.	2.0	21
43	Optimizing Airport Construction Site Layouts to Minimize Wildlife Hazards. Journal of Management in Engineering - ASCE, 2006, 22, 176-185.	2.6	20
44	Optimizing the selection of building upgrade measures to minimize the operational negative environmental impacts of existing buildings. Building and Environment, 2015, 84, 32-43.	3.0	17
45	Optimizing the integration of renewable energy in existing buildings. Energy and Buildings, 2021, 238, 110851.	3.1	16
46	Multiobjective Optimization Model for Planning Repetitive Construction Projects. Journal of Construction Engineering and Management - ASCE, 2021, 147, .	2.0	15
47	Optimal Trade-Offs between Construction Cost and Traffic Delay for Highway Work Zones. Journal of Construction Engineering and Management - ASCE, 2016, 142, .	2.0	13
48	Minimizing Energy Consumption and Carbon Emissions of Aging Buildings. Procedia Engineering, 2015, 118, 886-893.	1.2	12
49	Multiobjective Optimization of Reality Capture Plans for Computer Vision–Driven Construction Monitoring with Camera-Equipped UAVs. Journal of Computing in Civil Engineering, 2022, 36, .	2.5	12
50	Optimal Trade-Offs between Social Quality of Life and Life-Cycle Cost in Housing Units. Journal of Construction Engineering and Management - ASCE, 2014, 140, 04014058.	2.0	11
51	Optimizing the Rehabilitation Efforts of Aging Transportation Networks. Journal of Construction Engineering and Management - ASCE, 2012, 138, 529-539.	2.0	10
52	Operational Performance of Sustainable Measures in Public Buildings. Journal of Construction Engineering and Management - ASCE, 2013, 139, .	2.0	9
53	Optimizing the selection of sustainability measures to minimize life-cycle cost of existing buildings. Canadian Journal of Civil Engineering, 2016, 43, 151-163.	0.7	9
54	Economic and GHG Emission Analysis of Implementing Sustainable Measures in Existing Public Buildings. Journal of Performance of Constructed Facilities, 2016, 30, .	1.0	9

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55	Optimizing the scheduling of crew deployments in repetitive construction projects under uncertainty. Engineering, Construction and Architectural Management, 2021, 28, 1615-1634.	1.8	9
56	Least cost scheduling for repetitive projects. Canadian Journal of Civil Engineering, 1993, 20, 834-843.	0.7	8
57	An object-oriented model for planning and control of housing construction. Construction Management and Economics, 2002, 20, 201-210.	1.8	8
58	CONLIGHT: Lighting Design Model for Nighttime Highway Construction. Journal of Construction Engineering and Management - ASCE, 2005, 131, 467-476.	2.0	8
59	Optimal Selection of Sustainability Measures to Minimize Building Operational Costs. , 2014, , .		8
60	Quantifying the interruption impact of activity delays in non-serial repetitive construction projects. Construction Management and Economics, 2020, 38, 515-533.	1.8	8
61	Work Optimization with Association Rule Mining of Accelerated Deterioration in Building Components. Journal of Performance of Constructed Facilities, 2020, 34, .	1.0	8
62	Automated generation of optimal thematic architectural layouts using image processing. Automation in Construction, 2020, 117, 103255.	4.8	8
63	Optimizing Material Logistics Planning in Construction Projects. , 2010, , .		7
64	Optimizing the Planning of Remote Construction Sites to Minimize Facility Destruction from Explosive Attacks. Journal of Construction Engineering and Management - ASCE, 2018, 144, 04018020.	2.0	7
65	Metrics and methods for evaluating modelâ€driven reality capture plans. Computer-Aided Civil and Infrastructure Engineering, 2022, 37, 55-72.	6.3	7
66	Optimizing the modularization of floor plans in modular construction projects. Journal of Building Engineering, 2021, 39, 102316.	1.6	7
67	Lighting Design Requirements for Highway Nighttime Construction. , 2003, , 1.		6
68	Optimal Material Logistics Planning in Congested Construction Sites. , 2012, , .		6
69	Optimizing the Renovation Scheduling of Leased Residential Buildings to Minimize Total Project Cost. Journal of Construction Engineering and Management - ASCE, 2021, 147, .	2.0	6
70	Field Experiments to Evaluate and Control Light Tower Glare in Nighttime Work Zones. Journal of Construction Engineering and Management - ASCE, 2009, 135, 911-919.	2.0	5
71	Planning Post-Disaster Reconstruction Efforts of Damaged Transportation Networks. , 2009, , .		5
72	Minimizing Upgrade Cost to Achieve LEED Certification for Existing Buildings. Journal of Construction Engineering and Management - ASCE, 2016, 142, .	2.0	5

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73	Lighting Requirements for Nighttime Highway Construction. Journal of Construction Engineering and Management - ASCE, 2006, 132, 435-443.	2.0	4
74	New Approach to Compare Glare and Light Characteristics of Conventional and Balloon Lighting Systems. Journal of Construction Engineering and Management - ASCE, 2011, 137, 39-44.	2.0	4
75	Semantic-Rich 3D CAD Models for Built Environments from Point Clouds: An End-to-End Procedure. , 2017, , .		4
76	Compliance analysis of pedestrian facilities with accessibility requirements. Canadian Journal of Civil Engineering, 2018, 45, 366-376.	0.7	4
77	Measurement of Pavement Surface Reflectance for a Balloon Lighting System. Journal of Transportation Engineering, 2008, 134, 432-437.	0.9	3
78	Maximizing sustainability of existing buildings within limited upgrade budgets. Canadian Journal of Civil Engineering, 2018, 45, 705-716.	0.7	3
79	Optimizing the Planning of Pedestrian Facilities Upgrade Projects to Maximize Accessibility for People with Disabilities. Journal of Construction Engineering and Management - ASCE, 2020, 146, 04019088.	2.0	3
80	Stochastic scheduling optimization of repetitive construction projects to minimize project duration and cost. International Journal of Construction Management, 2023, 23, 1447-1456.	2.2	3
81	Global Optimization of Dynamic Site Layout Planning in Construction Projects. , 2009, , .		2
82	Optimal Trade-Offs between Housing Cost and Environmental Performance. Journal of Architectural Engineering, 2016, 22, 04015018.	0.8	2
83	Parallel Computing Framework for Optimizing Environmental and Economic Performances of Housing Units. Journal of Computing in Civil Engineering, 2016, 30, .	2.5	2
84	Cost Benefit Analysis of Best Practices for Expediting Utility Relocations on Highway Projects. , 2018, , .		2
85	Optimizing the use of acoustic materials in office buildings. Scientific Reports, 2021, 11, 20652.	1.6	2
86	Automated framework for extracting sidewalk dimensions from images using deep learning. Canadian Journal of Civil Engineering, 2022, 49, 1049-1058.	0.7	2
87	Minimizing Consequences of Explosive Attacks on Remote Construction Sites. Journal of Performance of Constructed Facilities, 2020, 34, 04019099.	1.0	1
88	Optimizing Labor Utilization in Multiple Shifts for Construction Projects. , 2010, , .		0
89	Preparing for a New Madrid Earthquake: Accelerating and Optimizing Temporary Housing Decisions for Shelby County, TN. , 2011, , .		0
90	Closure to â€œTime-Profit Trade-Off Analysis for Construction Projectsâ€•by Ahmed Senouci and Khaled El-Rayes. Journal of Construction Engineering and Management - ASCE, 2011, 137, 97-98.	2.0	0

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91	QUANTIFYING PHYSICAL AND PSYCHOLOGICAL IMPACTS OF EXPLOSIVE ATTACKS ON BUILDING OCCUPANTS. WIT Transactions on the Built Environment, 2019, , .	0.0	0
92	Optimal Planning of Hotel Renovation Projects. Buildings, 2021, 11, 658.	1.4	0