

Aminah Robinson Fayek

List of Publications by Year in descending order

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123
papers

2,790
citations

201674

27
h-index

214800

47
g-index

123
all docs

123
docs citations

123
times ranked

1637
citing authors

#	ARTICLE	IF	CITATIONS
1	A Differential Evolution-Based Consistency Improvement Method in AHP With an Optimal Allocation of Information Granularity. <i>IEEE Transactions on Cybernetics</i> , 2022, 52, 6733-6744.	9.5	19
2	Digitalization Opportunities Road Mapping Tool (DORMTÂ©): A framework to assess digitalization opportunities in construction organizations. <i>Canadian Journal of Civil Engineering</i> , 2022, 49, 171-182.	1.3	4
3	Modeling earthmoving operations in real time using hybrid fuzzy simulation. <i>Canadian Journal of Civil Engineering</i> , 2022, 49, 627-635.	1.3	3
4	Applications of fuzzy hybrid techniques in construction engineering and management research. <i>Automation in Construction</i> , 2022, 134, 104064.	9.8	18
5	New Modes of Operating for Construction Organizations during the COVID-19 Pandemic: Challenges, Actions, and Future Best Practices. <i>Journal of Management in Engineering - ASCE</i> , 2022, 38, .	4.8	17
6	Hybrid GA-MANFIS Model for Organizational Competencies and Performance in Construction. <i>Journal of Construction Engineering and Management - ASCE</i> , 2022, 148, .	3.8	7
7	Predictive model for construction labour productivity using hybrid feature selection and principal component analysis. <i>Canadian Journal of Civil Engineering</i> , 2022, 49, 1366-1378.	1.3	6
8	Identifying Multilevel Metrics for Construction Competency and Performance Measures. , 2022, , .		1
9	A Sensor-Based Empirical Framework to Measure Construction Labor Productivity. , 2022, , .		0
10	Framework for Simulating Crew Motivation Impact on Productivityâ€”A Hybrid Modeling Approach. , 2022, , .		2
11	Granular Aggregation of Fuzzy Rule-Based Models in Distributed Data Environment. <i>IEEE Transactions on Fuzzy Systems</i> , 2021, 29, 1297-1310.	9.8	10
12	Competency and performance measures for organizations in the construction industry. <i>Canadian Journal of Civil Engineering</i> , 2021, 48, 716-728.	1.3	3
13	Identifying Actions to Control and Mitigate the Effects of the COVID-19 Pandemic on Construction Organizations: Preliminary Findings. <i>Public Works Management Policy</i> , 2021, 26, 47-55.	1.2	25
14	Hybrid fuzzy system dynamics model for analyzing the impacts of interrelated risk and opportunity events on project contingency. <i>Canadian Journal of Civil Engineering</i> , 2021, 48, 979-992.	1.3	12
15	Hybrid fuzzy Monte Carlo agent-based modeling of workforce motivation and performance in construction. <i>Construction Innovation</i> , 2021, 21, 398-416.	2.7	3
16	Hybrid Artificial Intelligence HFS-RF-PSO Model for Construction Labor Productivity Prediction and Optimization. <i>Algorithms</i> , 2021, 14, 214.	2.1	7
17	Developing a risk breakdown matrix for onshore wind farm projects using fuzzy case-based reasoning. <i>Journal of Cleaner Production</i> , 2021, 311, 127572.	9.3	11
18	Prioritizing Construction Labor Productivity Improvement Strategies Using Fuzzy Multi-Criteria Decision Making and Fuzzy Cognitive Maps. <i>Algorithms</i> , 2021, 14, 254.	2.1	4

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19	How to Improve Crew Motivation and Performance on Construction Sites. Journal of Construction Engineering and Management - ASCE, 2021, 147, 02521001.	3.8	0
20	An Adaptive Hybrid Model for Determining Subjective Causal Relationships in Fuzzy System Dynamics Models for Analyzing Construction Risks. CivilEng, 2021, 2, 747-764.	1.4	7
21	Framework for identification of performance metrics for research and development collaborations: Construction Innovation Centre. Built Environment Project and Asset Management, 2021, ahead-of-print, .	1.6	1
22	A fuzzy clustering algorithm for developing predictive models in construction applications. Applied Soft Computing Journal, 2020, 96, 106679.	7.2	9
23	Neuro-fuzzy systems in construction engineering and management research. Automation in Construction, 2020, 119, 103348.	9.8	35
24	An Interval Type-2 Fuzzy Risk Analysis Model (IT2FRAM) for Determining Construction Project Contingency Reserve. Algorithms, 2020, 13, 163.	2.1	5
25	Fuzzy Agent-Based Multicriteria Decision-Making Model for Analyzing Construction Crew Performance. Journal of Management in Engineering - ASCE, 2020, 36, .	4.8	16
26	Neuro-fuzzy system dynamics technique for modeling construction systems. Applied Soft Computing Journal, 2020, 93, 106400.	7.2	18
27	Fuzzy Monte Carlo Agent-Based Simulation of Construction Crew Performance. Journal of Construction Engineering and Management - ASCE, 2020, 146, .	3.8	23
28	Framework for Risk Identification of Renewable Energy Projects Using Fuzzy Case-Based Reasoning. Sustainability, 2020, 12, 5231.	3.2	15
29	Fuzzy Logic and Fuzzy Hybrid Techniques for Construction Engineering and Management. Journal of Construction Engineering and Management - ASCE, 2020, 146, .	3.8	44
30	Framework to Analyze Construction Labor Productivity Using Fuzzy Data Clustering and Multi-Criteria Decision-Making. , 2020, , .		2
31	Framework for Integrating an Artificial Neural Network and a Genetic Algorithm to Develop a Predictive Model for Construction Labor Productivity. , 2020, , .		3
32	Determining Project Contingency Reserve Using a Fuzzy Arithmetic-Based Risk Analysis Method. , 2020, , .		2
33	Risk Identification and Common Risks in Construction: Literature Review and Content Analysis. Journal of Construction Engineering and Management - ASCE, 2019, 145, .	3.8	143
34	A framework to assess the costs and benefits of advanced work packaging in industrial construction. Canadian Journal of Civil Engineering, 2019, 46, 216-229.	1.3	4
35	Integrating Fuzzy Agent-Based Modeling and Multi-Criteria Decision-Making for Analyzing Construction Crew Performance. , 2019, , .		1
36	A framework for total productivity measurement of industrial construction projects. Canadian Journal of Civil Engineering, 2019, 46, 195-206.	1.3	15

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37	Factors influencing multifactor productivity of equipment-intensive activities. International Journal of Productivity and Performance Management, 2019, 69, 2021-2045.	3.7	15
38	Feature Selection for Construction Organizational Competencies Impacting Performance. , 2019, , .		5
39	Consensus Building in Group Decision-Making for the Risk Assessment of Wind Farm Projects. , 2019, , .		2
40	Aggregation-Based Framework for Construction Risk Assessment with Heterogeneous Groups of Experts. Journal of Construction Engineering and Management - ASCE, 2019, 145, .	3.8	16
41	Computational method for fuzzy arithmetic operations on triangular fuzzy numbers by extension principle. International Journal of Approximate Reasoning, 2019, 106, 172-193.	3.3	59
42	Evaluating Risk Response Strategies on Construction Projects Using a Fuzzy Rule-Based System. , 2019, , .		5
43	A Framework for Modeling Construction Organizational Competencies and Performance. , 2018, , .		5
44	Key Moderators of the Relationship between Construction Crew Motivation and Performance. Journal of Construction Engineering and Management - ASCE, 2018, 144, .	3.8	16
45	Fuzzy Simulation Techniques in Construction Engineering and Management. , 2018, , 149-178.		6
46	Fuzzy Consensus and Fuzzy Aggregation Processes for Multi-criteria Group Decision-making Problems in Construction Engineering and Management. , 2018, , 229-275.		0
47	Overview of Fuzzy Hybrid Techniques in Construction Engineering and Management. , 2018, , 37-107.		4
48	Introduction to Fuzzy Logic in Construction Engineering and Management. , 2018, , 3-35.		6
49	Context Adaptation of Fuzzy Inference System-Based Construction Labor Productivity Models. Advances in Fuzzy Systems, 2018, 2018, 1-16.	0.9	6
50	Fuzzy Agent-Based Modeling of Construction Crew Motivation and Performance. Journal of Computing in Civil Engineering, 2018, 32, .	4.7	47
51	Framework for Identification of Factors Affecting Construction Crew Motivation and Performance. Journal of Construction Engineering and Management - ASCE, 2018, 144, .	3.8	18
52	Dynamic Modeling of Multifactor Construction Productivity for Equipment-Intensive Activities. Journal of Construction Engineering and Management - ASCE, 2018, 144, .	3.8	42
53	A guided evaluation of the impact of research and development partnerships on university, industry, and government. Canadian Journal of Civil Engineering, 2017, 44, 253-263.	1.3	28
54	Stochastic Modeling for Assessment of Human Perception and Motion Sensing Errors in Ergonomic Analysis. Journal of Computing in Civil Engineering, 2017, 31, 04017010.	4.7	18

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55	The University of Alberta's School of Construction Engineering: 25 Years of Impact and Innovation. <i>Journal of Construction Engineering and Management - ASCE</i> , 2017, 143, 02517001.	3.8	0
56	A Topsis-Based Approach for Prioritized Aggregation in Multi-Criteria Decision-Making Problems. <i>Journal of Multi-Criteria Decision Analysis</i> , 2016, 23, 197-209.	1.9	22
57	Overview of fuzzy simulation techniques in construction engineering and management. , 2016, , .		11
58	A combined fuzzy aggregation and consensus process for Multi-Criteria Group Decision Making problems. , 2016, , .		1
59	System model for analysing construction labour productivity. <i>Construction Innovation</i> , 2016, 16, 203-228.	2.7	29
60	A Fuzzy Topsis Method for Prioritized Aggregation in Multi-Criteria Decision Making Problems. <i>Journal of Multi-Criteria Decision Analysis</i> , 2016, 23, 242-256.	1.9	10
61	Framework for Assessing the Impact of Construction Research and Development on the Construction Industry and Academia. , 2016, , .		2
62	A Fuzzy Aggregation Method for Measuring Construction Crew Motivation. , 2016, , .		2
63	Fuzzy Arithmetic Risk Analysis Approach to Determine Construction Project Contingency. <i>Journal of Construction Engineering and Management - ASCE</i> , 2016, 142, .	3.8	43
64	A Fuzzy Discrete Event Simulation Framework for Construction Applications: Improving the Simulation Time Advancement. <i>Journal of Construction Engineering and Management - ASCE</i> , 2016, 142, .	3.8	18
65	Fuzzy System Dynamics for Modeling Construction Risk Management. , 2016, , .		4
66	Modeling and evaluating construction project competencies and their relationship to project performance. <i>Automation in Construction</i> , 2016, 69, 115-130.	9.8	38
67	A fuzzy logic approach to posture-based ergonomic analysis for field observation and assessment of construction manual operations. <i>Canadian Journal of Civil Engineering</i> , 2016, 43, 294-303.	1.3	42
68	Developing and Optimizing Context-Specific Fuzzy Inference System-Based Construction Labor Productivity Models. <i>Journal of Construction Engineering and Management - ASCE</i> , 2016, 142, .	3.8	25
69	Development and Optimization of Artificial Intelligence-Based Concrete Compressive Strength Predictive Models. <i>International Journal of Structural and Civil Engineering Research</i> , 2016, , .	0.1	4
70	Long lead forecasting of spring peak runoff using Mamdani-type fuzzy logic systems at Hay River, NWT. <i>Canadian Journal of Civil Engineering</i> , 2015, 42, 665-674.	1.3	15
71	Integrating Fuzzy Logic and agent-based modeling for assessing construction crew behavior. , 2015, , .		6
72	Career paths of tradespeople in the construction industry. <i>Canadian Journal of Civil Engineering</i> , 2015, 42, 44-56.	1.3	2

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73	Queue performance measures in construction simulation models containing subjective uncertainty. <i>Automation in Construction</i> , 2015, 60, 1-11.	9.8	21
74	Fuzzy Contingency Determinator<sup>©</sup> a fuzzy arithmetic-based risk analysis tool for construction projects. , 2015, , .		5
75	IMPROVING CONSISTENCY EVALUATION IN FUZZY MULTI-ATTRIBUTE PAIRWISE COMPARISON-BASED DECISION-MAKING METHODS. <i>Asia-Pacific Journal of Operational Research</i> , 2014, 31, 1450024.	1.3	3
76	A Framework for Identifying and Measuring Competencies and Performance Indicators for Construction Projects. , 2014, , .		4
77	Identification and comparative analysis of key parameters influencing construction labour productivity in building and industrial projects. <i>Canadian Journal of Civil Engineering</i> , 2014, 41, 878-891.	1.3	24
78	Adaptive Learning of Contractor Default Prediction Model for Surety Bonding. <i>Journal of Construction Engineering and Management - ASCE</i> , 2013, 139, 694-704.	3.8	12
79	Adaptation of WorkFace Planning for construction contexts. <i>Canadian Journal of Civil Engineering</i> , 2013, 40, 980-987.	1.3	8
80	A Research Framework for Work Sampling and Its Application in Developing Comparative Direct and Support Activity Proportions for Different Trades. , 2012, , .		3
81	Simulation-Based Approach for Estimating Project Completion Time of Stochastic Resourceâ€œConstrained Project Networks. <i>Journal of Computing in Civil Engineering</i> , 2012, 26, 558-560.	4.7	3
82	Modeling construction labour productivity using fuzzy logic and exploring the use of fuzzy hybrid techniques. , 2012, , .		4
83	Introduction to the Special Issue on Construction Engineering and Management. <i>Canadian Journal of Civil Engineering</i> , 2012, 39, v.	1.3	0
84	Development and implementation of a benchmarking and metrics program for construction performance and productivity improvement1This paper is one of a selection of papers in this Special Issue on Construction Engineering and Management.. <i>Canadian Journal of Civil Engineering</i> , 2012, 39, 957-967.	1.3	26
85	Contractor default prediction model for surety bonding1This paper is one of a selection of papers in this Special Issue on Construction Engineering and Management.. <i>Canadian Journal of Civil Engineering</i> , 2012, 39, 1027-1042.	1.3	9
86	Applicability of multilayer feed-forward neural networks to model the onset of river breakup. <i>Cold Regions Science and Technology</i> , 2012, 70, 32-42.	3.5	30
87	Comprehensive Hybrid Framework for Risk Analysis in the Construction Industry Using Combined Failure Mode and Effect Analysis, Fault Trees, Event Trees, and Fuzzy Logic. <i>Journal of Construction Engineering and Management - ASCE</i> , 2012, 138, 642-651.	3.8	47
88	A decision support system for contractor prequalification for surety bonding. <i>Automation in Construction</i> , 2012, 21, 89-98.	9.8	33
89	Factors Affecting Productivity of Pipe Spool Fabrication. <i>International Journal of Architecture Engineering and Construction</i> , 2012, 1, 30-36.	0.0	1
90	Understanding construction workforce absenteeism in industrial construction. <i>Canadian Journal of Civil Engineering</i> , 2011, 38, 849-858.	1.3	16

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91	Fuzzy Reliability Analyzer: Quantitative Assessment of Risk Events in the Construction Industry Using Fuzzy Fault-Tree Analysis. Journal of Construction Engineering and Management - ASCE, 2011, 137, 294-302.	3.8	59
92	Fuzzy Similarity Consensus Model for Early Alignment of Construction Project Teams on the Extent of Their Roles and Responsibilities. Journal of Construction Engineering and Management - ASCE, 2011, 137, 432-440.	3.8	23
93	Fuzzy Preference Relations Consensus Approach to Reduce Conflicts on Shared Responsibilities in the Owner Managing Contractor Delivery System. Journal of Construction Engineering and Management - ASCE, 2011, 137, 609-618.	3.8	14
94	Fuzzy Monte Carlo Simulation and Risk Assessment in Construction. Computer-Aided Civil and Infrastructure Engineering, 2010, 25, 238-252.	9.8	167
95	Assessment of Responsibilities of Project Teams for Owner Managing Contractor Tasks-A Fuzzy Consensus Approach. , 2010, , .		2
96	SuretyAssist: Fuzzy Expert System to Assist Surety Underwriters in Evaluating Construction Contractors for Bonding. Journal of Construction Engineering and Management - ASCE, 2010, 136, 1219-1226.	3.8	19
97	An HLA-based bidding game with intelligent virtual player. , 2010, , .		1
98	A multi-criteria optimization framework for industrial shop scheduling using fuzzy set theory. Integrated Computer-Aided Engineering, 2010, 17, 175-196.	4.6	34
99	Risk Management in the Construction Industry Using Combined Fuzzy FMEA and Fuzzy AHP. Journal of Construction Engineering and Management - ASCE, 2010, 136, 1028-1036.	3.8	254
100	Quantitative Assessment of Horizontal Directional Drilling Project Risk Using Fuzzy Fault Tree Analysis. , 2010, , .		4
101	Application of fuzzy logic to quality assessment of infrastructure projects at conceptual cost estimating stage. Canadian Journal of Civil Engineering, 2010, 37, 1137-1147.	1.3	16
102	Client Driven Performance Improvement Strategies for the Construction Industry: Development and Implementation Challenges. , 2009, , 201-215.		1
103	Methodology for integrating fuzzy expert systems and discrete event simulation in construction engineering. Canadian Journal of Civil Engineering, 2009, 36, 1478-1490.	1.3	29
104	Predicting and Evaluating Construction Trades Foremen Performance: Fuzzy Logic Approach. Journal of Construction Engineering and Management - ASCE, 2009, 135, 920-929.	3.8	20
105	Initial metrics and pilot program results for measuring the performance of the Canadian construction industry. Canadian Journal of Civil Engineering, 2008, 35, 894-907.	1.3	58
106	Soft computing approach to construction performance prediction and diagnosis. Canadian Journal of Civil Engineering, 2008, 35, 764-776.	1.3	18
107	A framework for simulating industrial construction processes. , 2008, , .		8
108	Transferability of a neuro-fuzzy river ice jam flood forecasting model. Cold Regions Science and Technology, 2007, 48, 188-201.	3.5	27

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109	Fuzzy Numbers in Cost Range Estimating. Journal of Construction Engineering and Management - ASCE, 2007, 133, 325-334.	3.8	82
110	Neuro-fuzzy river ice breakup forecasting system. Cold Regions Science and Technology, 2006, 46, 100-112.	3.5	46
111	Forecasting breakup water levels at Fort McMurray, Alberta, using multiple linear regression. Canadian Journal of Civil Engineering, 2006, 33, 1227-1238.	1.3	26
112	Workforce training initiatives for megaproject success. Canadian Journal of Civil Engineering, 2006, 33, 1561-1570.	1.3	10
113	Predicting Industrial Construction Labor Productivity Using Fuzzy Expert Systems. Journal of Construction Engineering and Management - ASCE, 2005, 131, 938-941.	3.8	85
114	Fuzzy Logic Approach for Activity Delay Analysis and Schedule Updating. Journal of Construction Engineering and Management - ASCE, 2005, 131, 42-51.	3.8	61
115	Developing a standard methodology for measuring and classifying construction field rework. Canadian Journal of Civil Engineering, 2004, 31, 1077-1089.	1.3	84
116	Application of fuzzy logic to forecast seasonal runoff. Hydrological Processes, 2003, 17, 3749-3762.	2.6	77
117	Results of a pilot study to examine the effective integration of apprentices into the industrial construction sector. Canadian Journal of Civil Engineering, 2003, 30, 391-405.	1.3	8
118	Use of Fuzzy Logic for Predicting Design Cost Overruns on Building Projects. Journal of Construction Engineering and Management - ASCE, 2002, 128, 503-512.	3.8	76
119	A fuzzy expert system for design performance prediction and evaluation. Canadian Journal of Civil Engineering, 2001, 28, 1-25.	1.3	36
120	A preliminary study of the factors affecting the cost escalation of construction projects. Canadian Journal of Civil Engineering, 2000, 27, 73-83.	1.3	20
121	An Activity-Based Data Acquisition and Job Costing Model: A Case Study. , 2000, , 30.		1
122	Competitive Bidding Strategy Model and Software System for Bid Preparation. Journal of Construction Engineering and Management - ASCE, 1998, 124, 1-10.	3.8	82
123	Automated Corrective Action Selection Assistant. Journal of Construction Engineering and Management - ASCE, 1994, 120, 11-33.	3.8	26