Aminah Robinson Fayek

List of Publications by Year
in descending order

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	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
2	Fuzzy Monte Carlo Simulation and Risk Assessment in Construction. Computer-Aided Civil and Infrastructure Engineering, 2010, 25, 238-252.	9.8	167
3	Risk Identification and Common Risks in Construction: Literature Review and Content Analysis. Journal of Construction Engineering and Management - ASCE, 2019, 145, .	3.8	143
4	Predicting Industrial Construction Labor Productivity Using Fuzzy Expert Systems. Journal of Construction Engineering and Management - ASCE, 2005, 131, 938-941.	3.8	85
5	Developing a standard methodology for measuring and classifying construction field rework. Canadian Journal of Civil Engineering, 2004, 31, 1077-1089.	1.3	84
6	Competitive Bidding Strategy Model and Software System for Bid Preparation. Journal of Construction Engineering and Management - ASCE, 1998, 124, 1-10.	3.8	82
7	Fuzzy Numbers in Cost Range Estimating. Journal of Construction Engineering and Management - ASCE, 2007, 133, 325-334.	3.8	82
8	Application of fuzzy logic to forecast seasonal runoff. Hydrological Processes, 2003, 17, 3749-3762.	2.6	77
9	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
10	Fuzzy Logic Approach for Activity Delay Analysis and Schedule Updating. Journal of Construction Engineering and Management - ASCE, 2005, 131, 42-51.	3.8	61
11	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
12	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
13	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
14	Comprehensive Hybrid Framework for Risk Analysis in the Construction Industry Using Combined Failure Mode and Effect Analysis, Fault Trees, Event Trees, and Fuzzy Logic. Journal of Construction Engineering and Management - ASCE, 2012, 138, 642-651.	3.8	47
15	Fuzzy Agent-Based Modeling of Construction Crew Motivation and Performance. Journal of Computing in Civil Engineering, 2018, 32, .	4.7	47
16	Neuro-fuzzy river ice breakup forecasting system. Cold Regions Science and Technology, 2006, 46, 100-112.	3.5	46
17	Fuzzy Logic and Fuzzy Hybrid Techniques for Construction Engineering and Management. Journal of Construction Engineering and Management - ASCE, 2020, 146, .	3.8	44
18	Fuzzy Arithmetic Risk Analysis Approach to Determine Construction Project Contingency. Journal of Construction Engineering and Management - ASCE, 2016, 142, .	3.8	43

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19	A fuzzy logic approach to posture-based ergonomic analysis for field observation and assessment of construction manual operations. Canadian Journal of Civil Engineering, 2016, 43, 294-303.	1.3	42
20	Dynamic Modeling of Multifactor Construction Productivity for Equipment-Intensive Activities. Journal of Construction Engineering and Management - ASCE, 2018, 144, .	3.8	42
21	Modeling and evaluating construction project competencies and their relationship to project performance. Automation in Construction, 2016, 69, 115-130.	9.8	38
22	A fuzzy expert system for design performance prediction and evaluation. Canadian Journal of Civil Engineering, 2001, 28, 1-25.	1.3	36
23	Neuro-fuzzy systems in construction engineering and management research. Automation in Construction, 2020, 119, 103348.	9.8	35
24	A multi-criteria optimization framework for industrial shop scheduling using fuzzy set theory. Integrated Computer-Aided Engineering, 2010, 17, 175-196.	4.6	34
25	A decision support system for contractor prequalification for surety bonding. Automation in Construction, 2012, 21, 89-98.	9.8	33
26	Applicability of multilayer feed-forward neural networks to model the onset of river breakup. Cold Regions Science and Technology, 2012, 70, 32-42.	3.5	30
27	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
28	System model for analysing construction labour productivity. Construction Innovation, 2016, 16, 203-228.	2.7	29
29	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
30	Transferability of a neuro-fuzzy river ice jam flood forecasting model. Cold Regions Science and Technology, 2007, 48, 188-201.	3.5	27
31	Automated Corrective Action Selection Assistant. Journal of Construction Engineering and Management - ASCE, 1994, 120, 11-33.	3.8	26
32	Forecasting breakup water levels at Fort McMurray, Alberta, using multiple linear regression. Canadian Journal of Civil Engineering, 2006, 33, 1227-1238.	1.3	26
33	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.. Canadian Journal of Civil Engineering, 2012, 39, 957-967.	1.3	26
34	Developing and Optimizing Context-Specific Fuzzy Inference System-Based Construction Labor Productivity Models. Journal of Construction Engineering and Management - ASCE, 2016, 142, .	3.8	25
35	Identifying Actions to Control and Mitigate the Effects of the COVID-19 Pandemic on Construction Organizations: Preliminary Findings. Public Works Management Policy, 2021, 26, 47-55.	1.2	25
36	Identification and comparative analysis of key parameters influencing construction labour productivity in building and industrial projects. Canadian Journal of Civil Engineering, 2014, 41, 878-891.	1.3	24

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37	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
38	Fuzzy Monte Carlo Agent-Based Simulation of Construction Crew Performance. Journal of Construction Engineering and Management - ASCE, 2020, 146, .	3.8	23
39	A Topsis‐Based Approach for Prioritized Aggregation in Multi‐Criteria Decision‐Making Problems. Journal of Multi-Criteria Decision Analysis, 2016, 23, 197-209.	1.9	22
40	Queue performance measures in construction simulation models containing subjective uncertainty. Automation in Construction, 2015, 60, 1-11.	9.8	21
41	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
42	Predicting and Evaluating Construction Trades Foremen Performance: Fuzzy Logic Approach. Journal of Construction Engineering and Management - ASCE, 2009, 135, 920-929.	3.8	20
43	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
44	A Differential Evolution-Based Consistency Improvement Method in AHP With an Optimal Allocation of Information Granularity. IEEE Transactions on Cybernetics, 2022, 52, 6733-6744.	9.5	19
45	Soft computing approach to construction performance prediction and diagnosis. Canadian Journal of Civil Engineering, 2008, 35, 764-776.	1.3	18
46	A Fuzzy Discrete Event Simulation Framework for Construction Applications: Improving the Simulation Time Advancement. Journal of Construction Engineering and Management - ASCE, 2016, 142, .	3.8	18
47	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
48	Framework for Identification of Factors Affecting Construction Crew Motivation and Performance. Journal of Construction Engineering and Management - ASCE, 2018, 144, .	3.8	18
49	Neuro-fuzzy system dynamics technique for modeling construction systems. Applied Soft Computing Journal, 2020, 93, 106400.	7.2	18
50	Applications of fuzzy hybrid techniques in construction engineering and management research. Automation in Construction, 2022, 134, 104064.	9.8	18
51	New Modes of Operating for Construction Organizations during the COVID-19 Pandemic: Challenges, Actions, and Future Best Practices. Journal of Management in Engineering - ASCE, 2022, 38, .	4.8	17
52	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
53	Understanding construction workforce absenteeism in industrial construction. Canadian Journal of Civil Engineering, 2011, 38, 849-858.	1.3	16
54	Key Moderators of the Relationship between Construction Crew Motivation and Performance. Journal of Construction Engineering and Management - ASCE, 2018, 144, .	3.8	16

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55	Aggregation-Based Framework for Construction Risk Assessment with Heterogeneous Groups of Experts. Journal of Construction Engineering and Management - ASCE, 2019, 145, .	3.8	16
56	Fuzzy Agent-Based Multicriteria Decision-Making Model for Analyzing Construction Crew Performance. Journal of Management in Engineering - ASCE, 2020, 36, .	4.8	16
57	Long lead forecasting of spring peak runoff using Mamdani-type fuzzy logic systems at Hay River, NWT. Canadian Journal of Civil Engineering, 2015, 42, 665-674.	1.3	15
58	A framework for total productivity measurement of industrial construction projects. Canadian Journal of Civil Engineering, 2019, 46, 195-206.	1.3	15
59	Factors influencing multifactor productivity of equipment-intensive activities. International Journal of Productivity and Performance Management, 2019, 69, 2021-2045.	3.7	15
60	Framework for Risk Identification of Renewable Energy Projects Using Fuzzy Case-Based Reasoning. Sustainability, 2020, 12, 5231.	3.2	15
61	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
62	Adaptive Learning of Contractor Default Prediction Model for Surety Bonding. Journal of Construction Engineering and Management - ASCE, 2013, 139, 694-704.	3.8	12
63	Hybrid fuzzy system dynamics model for analyzing the impacts of interrelated risk and opportunity events on project contingency. Canadian Journal of Civil Engineering, 2021, 48, 979-992.	1.3	12
64	Overview of fuzzy simulation techniques in construction engineering and management. , 2016, , .		11
65	Developing a risk breakdown matrix for onshore wind farm projects using fuzzy case-based reasoning. Journal of Cleaner Production, 2021, 311, 127572.	9.3	11
66	Workforce training initiatives for megaproject success. Canadian Journal of Civil Engineering, 2006, 33, 1561-1570.	1.3	10
67	A Fuzzy Topsis Method for Prioritized Aggregation in Multiâ€Criteria Decision Making Problems. Journal of Multi-Criteria Decision Analysis, 2016, 23, 242-256.	1.9	10
68	Granular Aggregation of Fuzzy Rule-Based Models in Distributed Data Environment. IEEE Transactions on Fuzzy Systems, 2021, 29, 1297-1310.	9.8	10
69	Contractor default prediction model for surety bonding1This paper is one of a selection of papers in this Special Issue on Construction Engineering and Management.. Canadian Journal of Civil Engineering, 2012, 39, 1027-1042.	1.3	9
70	A fuzzy clustering algorithm for developing predictive models in construction applications. Applied Soft Computing Journal, 2020, 96, 106679.	7.2	9
71	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
72	A framework for simulating industrial construction processes. , 2008, , .		8

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73	Adaptation of WorkFace Planning for construction contexts. Canadian Journal of Civil Engineering, 2013, 40, 980-987.	1.3	8
74	Hybrid Artificial Intelligence HFS-RF-PSO Model for Construction Labor Productivity Prediction and Optimization. Algorithms, 2021, 14, 214.	2.1	7
75	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
76	Hybrid GA-MANFIS Model for Organizational Competencies and Performance in Construction. Journal of Construction Engineering and Management - ASCE, 2022, 148, .	3.8	7
77	Integrating Fuzzy Logic and agent-based modeling for assessing construction crew behavior. , 2015, , .		6
78	Fuzzy Simulation Techniques in Construction Engineering and Management. , 2018, , 149-178.		6
79	Introduction to Fuzzy Logic in Construction Engineering and Management. , 2018, , 3-35.		6
80	Context Adaptation of Fuzzy Inference System-Based Construction Labor Productivity Models. Advances in Fuzzy Systems, 2018, 2018, 1-16.	0.9	6
81	Predictive model for construction labour productivity using hybrid feature selection and principal component analysis. Canadian Journal of Civil Engineering, 2022, 49, 1366-1378.	1.3	6
82	Fuzzy Contingency Determinator<sup>&#x00A9;</sup> a fuzzy arithmetic-based risk analysis tool for construction projects. , 2015, , .		5
83	A Framework for Modeling Construction Organizational Competencies and Performance. , 2018, , .		5
84	Feature Selection for Construction Organizational Competencies Impacting Performance. , 2019, , .		5
85	An Interval Type-2 Fuzzy Risk Analysis Model (IT2FRAM) for Determining Construction Project Contingency Reserve. Algorithms, 2020, 13, 163.	2.1	5
86	Evaluating Risk Response Strategies on Construction Projects Using a Fuzzy Rule-Based System. , 2019, , .		5
87	Quantitative Assessment of Horizontal Directional Drilling Project Risk Using Fuzzy Fault Tree Analysis. , 2010, , .		4
88	Modeling construction labour productivity using fuzzy logic and exploring the use of fuzzy hybrid techniques. , 2012, , .		4
89	A Framework for Identifying and Measuring Competencies and Performance Indicators for Construction Projects. , 2014, , .		4
90	Fuzzy System Dynamics for Modeling Construction Risk Management. , 2016, , .		4

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91	Overview of Fuzzy Hybrid Techniques in Construction Engineering and Management. , 2018, , 37-107.		4
92	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
93	Digitalization Opportunities Road Mapping Tool (DORMTÂ©): A framework to assess digitalization opportunities in construction organizations. Canadian Journal of Civil Engineering, 2022, 49, 171-182.	1.3	4
94	Prioritizing Construction Labor Productivity Improvement Strategies Using Fuzzy Multi-Criteria Decision Making and Fuzzy Cognitive Maps. Algorithms, 2021, 14, 254.	2.1	4
95	Development and Optimization of Artificial Intelligence-Based Concrete Compressive Strength Predictive Models. International Journal of Structural and Civil Engineering Research, 2016, , .	0.1	4
96	A Research Framework for Work Sampling and Its Application in Developing Comparative Direct and Support Activity Proportions for Different Trades. , 2012, , .		3
97	Simulation-Based Approach for Estimating Project Completion Time of Stochastic Resourceâ€"Constrained Project Networks. Journal of Computing in Civil Engineering, 2012, 26, 558-560.	4.7	3
98	IMPROVING CONSISTENCY EVALUATION IN FUZZY MULTI-ATTRIBUTE PAIRWISE COMPARISON-BASED DECISION-MAKING METHODS. Asia-Pacific Journal of Operational Research, 2014, 31, 1450024.	1.3	3
99	Competency and performance measures for organizations in the construction industry. Canadian Journal of Civil Engineering, 2021, 48, 716-728.	1.3	3
100	Hybrid fuzzy Monte Carlo agent-based modeling of workforce motivation and performance in construction. Construction Innovation, 2021, 21, 398-416.	2.7	3
101	Modeling earthmoving operations in real time using hybrid fuzzy simulation. Canadian Journal of Civil Engineering, 2022, 49, 627-635.	1.3	3
102	Framework for Integrating an Artificial Neural Network and a Genetic Algorithm to Develop a Predictive Model for Construction Labor Productivity. , 2020, , .		3
103	Assessment of Responsibilities of Project Teams for Owner Managing Contractor Tasks-A Fuzzy Consensus Approach. , 2010, , .		2
104	Career paths of tradespeople in the construction industry. Canadian Journal of Civil Engineering, 2015, 42, 44-56.	1.3	2
105	Framework for Assessing the Impact of Construction Research and Development on the Construction Industry and Academia. , 2016, , .		2
106	A Fuzzy Aggregation Method for Measuring Construction Crew Motivation. , 2016, , .		2
107	Consensus Building in Group Decision-Making for the Risk Assessment of Wind Farm Projects. , 2019, , .		2
108	Framework to Analyze Construction Labor Productivity Using Fuzzy Data Clustering and Multi-Criteria Decision-Making. , 2020, , .		2

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109	Determining Project Contingency Reserve Using a Fuzzy Arithmetic-Based Risk Analysis Method. , 2020, , .		2
110	Framework for Simulating Crew Motivation Impact on Productivityâ€"A Hybrid Modeling Approach. , 2022, , .		2
111	An Activity-Based Data Acquisition and Job Costing Model: A Case Study. , 2000, , 30.		1
112	Client Driven Performance Improvement Strategies for the Construction Industry: Development and Implementation Challenges. , 2009, , 201-215.		1
113	An HLA-based bidding game with intelligent virtual player. , 2010, , .		1
114	A combined fuzzy aggregation and consensus process for Multi-Criteria Group Decision Making problems. , 2016, , .		1
115	Integrating Fuzzy Agent-Based Modeling and Multi-Criteria Decision-Making for Analyzing Construction Crew Performance. , 2019, , .		1
116	Factors Affecting Productivity of Pipe Spool Fabrication. International Journal of Architecture Engineering and Construction, 2012, 1, 30-36.	0.0	1
117	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
118	Identifying Multilevel Metrics for Construction Competency and Performance Measures. , 2022, , .		1
119	Introduction to the Special Issue on Construction Engineering and Management. Canadian Journal of Civil Engineering, 2012, 39, v.	1.3	0
120	The University of Albertaâ€™s Hole School of Construction Engineering: 25 Years of Impact and Innovation. Journal of Construction Engineering and Management - ASCE, 2017, 143, 02517001.	3.8	0
121	Fuzzy Consensus and Fuzzy Aggregation Processes for Multi-criteria Group Decision-making Problems in Construction Engineering and Management. , 2018, , 229-275.		0
122	How to Improve Crew Motivation and Performance on Construction Sites. Journal of Construction Engineering and Management - ASCE, 2021, 147, 02521001.	3.8	0
123	A Sensor-Based Empirical Framework to Measure Construction Labor Productivity. , 2022, , .		0