

# Mohamed Ahmed

## List of Publications by Year in Descending Order

**Source:** <https://exaly.com/author-pdf/3315487/mohamed-ahmed-publications-by-year.pdf>

**Version:** 2024-04-27

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

84  
papers

1,679  
citations

22  
h-index

37  
g-index

92  
ext. papers

2,112  
ext. citations

3.2  
avg, IF

5.96  
L-index

#	Paper	IF	Citations
84	Adjustment of key lane change parameters to develop microsimulation models for representative assessment of safety and operational impacts of adverse weather using SHRP2 naturalistic driving data.. <i>Journal of Safety Research</i> , <b>2022</b> , 81, 9-20	4	1
83	Global lessons learned from naturalistic driving studies to advance traffic safety and operation research: A systematic review.. <i>Accident Analysis and Prevention</i> , <b>2022</b> , 167, 106568	6.1	2
82	Bayesian extreme value analysis of kinematic-based surrogate measure of safety to detect crash-prone conditions in connected vehicles environment: A driving simulator experiment. <i>Transportation Research Part C: Emerging Technologies</i> , <b>2022</b> , 136, 103539	8.4	10
81	Coping with endogeneity and unobserved heterogeneity in real-time clustering critical crash occurrences nested within weather and road surface conditions. <i>International Journal of Injury Control and Safety Promotion</i> , <b>2021</b> , 28, 208-221	1.8	8
80	The safety performance of connected vehicles on slippery horizontal curves through enhancing truck drivers' situational awareness: A driving simulator experiment. <i>Transportation Research Part F: Traffic Psychology and Behaviour</i> , <b>2021</b> , 79, 118-138	4.5	10
79	Weather and surface condition detection based on road-side webcams utilizing AlexNet, GoogleLeNet, and ResNet: Application of pre-trained Convolutional Neural Network. <i>International Journal of Transportation Science and Technology</i> , <b>2021</b> ,	3.3	6
78	Investigating factors affecting severity of large truck-involved crashes: Comparison of the SVM and random parameter logit model. <i>Journal of Safety Research</i> , <b>2021</b> , 77, 151-160	4	19
77	Multilevel weather detection based on images: a machine learning approach with histogram of oriented gradient and local binary pattern-based features. <i>Journal of Intelligent Transportation Systems: Technology, Planning, and Operations</i> , <b>2021</b> , 25, 513-532	3.2	4
76	Utilizing black-box visualization tools to interpret non-parametric real-time risk assessment models. <i>Transportmetrica A: Transport Science</i> , <b>2021</b> , 17, 739-765	2.5	11
75	Normal and risky driving patterns identification in clear and rainy weather on freeway segments using vehicle kinematics trajectories and time series cluster analysis. <i>IATSS Research</i> , <b>2021</b> , 45, 137-152	4.2	3
74	Practical advantage of crossed random intercepts under Bayesian hierarchical modeling to tackle unobserved heterogeneity in clustering critical versus non-critical crashes. <i>Accident Analysis and Prevention</i> , <b>2021</b> , 149, 105855	6.1	19
73	Exploring the effect of fog on lane-changing characteristics utilizing the SHRP2 naturalistic driving study data. <i>Journal of Transportation Safety and Security</i> , <b>2021</b> , 13, 477-502	1.7	13
72	Charging Station Allocation for Electric Vehicle Network Using Stochastic Modeling and Grey Wolf Optimization. <i>Sustainability</i> , <b>2021</b> , 13, 3314	3.6	4
71	Accounting for human-related unobserved heterogeneity in the safety performance of connected vehicles: An incorporation of Bayesian hierarchical negative binomial into simulated work zone warning application. <i>IATSS Research</i> , <b>2021</b> , 45, 539-539	4.2	7
70	Connected vehicle real-time traveler information messages for freeway speed harmonization under adverse weather conditions: Trajectory level analysis using driving simulator. <i>Accident Analysis and Prevention</i> , <b>2020</b> , 146, 105707	6.1	11
69	Detecting lane change maneuvers using SHRP2 naturalistic driving data: A comparative study machine learning techniques. <i>Accident Analysis and Prevention</i> , <b>2020</b> , 142, 105578	6.1	34
68	Evaluating the Effects of Connected Vehicle Weather and Work Zone Warnings on Truck Drivers' Workload and Distraction using Eye Glance Behavior. <i>Transportation Research Record</i> , <b>2020</b> , 2674, 293-304	1.7	6

67	Assessment of the effectiveness of connected vehicle weather and work zone warnings in improving truck driver safety. <i>IATSS Research</i> , <b>2020</b> , 44, 230-237	4.2	13
66	Exploration of Hazardous Material Truck Crashes on Wyoming Interstate Roads using a Novel Hamiltonian Monte Carlo Markov Chain Bayesian Inference. <i>Transportation Research Record</i> , <b>2020</b> , 2674, 661-675	1.7	12
65	Investigating in-vehicle distracting activities and crash risks for young drivers using structural equation modeling. <i>PLoS ONE</i> , <b>2020</b> , 15, e0235325	3.7	18
64	Nonparametric Multivariate Adaptive Regression Splines Models for Investigating Lane-Changing Gap Acceptance Behavior Utilizing Strategic Highway Research Program 2 Naturalistic Driving Data. <i>Transportation Research Record</i> , <b>2020</b> , 2674, 223-238	1.7	9
63	Trajectory-level fog detection based on in-vehicle video camera with TensorFlow deep learning utilizing SHRP2 naturalistic driving data. <i>Accident Analysis and Prevention</i> , <b>2020</b> , 142, 105521	6.1	11
62	Distraction of Connected Vehicle Human Machine Interface for Truck Drivers. <i>Transportation Research Record</i> , <b>2020</b> , 2674, 438-449	1.7	5
61	Connected Vehicle Training Framework and Lessons Learned to Improve Safety of Highway Patrol Troopers. <i>Transportation Research Record</i> , <b>2020</b> , 2674, 447-463	1.7	1
60	Assessment of Drivers' Perceptions of Connected Vehicle-Human Machine Interface for Driving Under Adverse Weather Conditions: Preliminary Findings From Wyoming. <i>Frontiers in Psychology</i> , <b>2020</b> , 11, 1889	3.4	6
59	Non-Parametric Association Rules Mining and Parametric Ordinal Logistic Regression for an In-Depth Investigation of Driver Speed Selection Behavior in Adverse Weather using SHRP2 Naturalistic Driving Study Data. <i>Transportation Research Record</i> , <b>2020</b> , 2674, 101-119	1.7	11
58	An Integrated Microsimulation Approach for Safety Performance Assessment of the Wyoming Connected Vehicle Pilot Deployment Program. <i>Accident Analysis and Prevention</i> , <b>2020</b> , 146, 105714	6.1	9
57	Evaluating the safety effectiveness of a weather-based variable speed limit for a rural mountainous freeway in Wyoming. <i>Journal of Transportation Safety and Security</i> , <b>2020</b> , 12, 1205-1230	1.7	8
56	A Preliminary Investigation into the Impact of Connected Vehicle Human-Machine Interface on Driving Behavior. <i>IFAC-PapersOnLine</i> , <b>2019</b> , 51, 227-229	0.7	8
55	Using trajectory-level SHRP2 naturalistic driving data for investigating driver lane-keeping ability in fog: An association rules mining approach. <i>Accident Analysis and Prevention</i> , <b>2019</b> , 129, 250-262	6.1	26
54	Complementary parametric probit regression and nonparametric classification tree modeling approaches to analyze factors affecting severity of work zone weather-related crashes. <i>Journal of Modern Transportation</i> , <b>2019</b> , 27, 129-140	3.7	3
53	Snow Detection using In-Vehicle Video Camera with Texture-Based Image Features Utilizing K-Nearest Neighbor, Support Vector Machine, and Random Forest. <i>Transportation Research Record</i> , <b>2019</b> , 2673, 221-232	1.7	18
52	Toward the Development of Weather-Dependent Microsimulation Models. <i>Transportation Research Record</i> , <b>2019</b> , 2673, 143-156	1.7	9
51	Impact of Variable Speed Limit in a Connected Vehicle Environment on Truck Driver Behavior under Adverse Weather Conditions: Driving Simulator Study. <i>Transportation Research Record</i> , <b>2019</b> , 2673, 132-142	1.7	17
50	Exploring factors contributing to injury severity at work zones considering adverse weather conditions. <i>IATSS Research</i> , <b>2019</b> , 43, 131-138	4.2	12

49	Complementary methodologies to identify weather conditions in naturalistic driving study trips: Lessons learned from the SHRP2 naturalistic driving study & roadway information database. <i>Safety Science</i> , <b>2019</b> , 119, 21-28	5.8	11
48	Detection of critical safety events on freeways in clear and rainy weather using SHRP2 naturalistic driving data: Parametric and non-parametric techniques. <i>Safety Science</i> , <b>2019</b> , 119, 141-149	5.8	23
47	Quantifying regional heterogeneity effect on drivers' speeding behavior using SHRP2 naturalistic driving data: A multilevel modeling approach. <i>Transportation Research Part C: Emerging Technologies</i> , <b>2019</b> , 106, 29-40	8.4	15
46	Development and Assessment of a Connected Vehicle Training Program for Truck Drivers. <i>Transportation Research Record</i> , <b>2019</b> , 2673, 113-126	1.7	11
45	Performance evaluation framework of Wyoming connected vehicle pilot deployment program: summary of Phase 2 pre-deployment efforts and lessons learned. <i>Journal of Intelligent and Connected Vehicles</i> , <b>2019</b> , 2, 41-54	1.2	5
44	Analyzing the effect of fog weather conditions on driver lane-keeping performance using the SHRP2 naturalistic driving study data. <i>Journal of Safety Research</i> , <b>2019</b> , 68, 71-80	4	37
43	Developing crash prediction models using parametric and nonparametric approaches for rural mountainous freeways: A case study on Wyoming Interstate 80. <i>Accident Analysis and Prevention</i> , <b>2019</b> , 123, 176-189	6.1	25
42	Characteristics and mitigation strategies for cell phone use while driving among young drivers in Qatar. <i>Journal of Transport and Health</i> , <b>2018</b> , 8, 6-14	3	27
41	Utilizing naturalistic driving data for in-depth analysis of driver lane-keeping behavior in rain: Non-parametric MARS and parametric logistic regression modeling approaches. <i>Transportation Research Part C: Emerging Technologies</i> , <b>2018</b> , 90, 379-392	8.4	44
40	Parametric Ordinal Logistic Regression and Non-Parametric Decision Tree Approaches for Assessing the Impact of Weather Conditions on Driver Speed Selection Using Naturalistic Driving Data. <i>Transportation Research Record</i> , <b>2018</b> , 2672, 137-147	1.7	32
39	Effects of truck traffic on crash injury severity on rural highways in Wyoming using Bayesian binary logit models. <i>Accident Analysis and Prevention</i> , <b>2018</b> , 117, 106-113	6.1	63
38	Identifying the Causes of Drivers' Hazardous States Using Driver Characteristics, Vehicle Kinematics, and Physiological Measurements. <i>Frontiers in Neuroscience</i> , <b>2018</b> , 12, 568	5.1	14
37	Investigating the Impact of Fog on Freeway Speed Selection using the SHRP2 Naturalistic Driving Study Data. <i>Transportation Research Record</i> , <b>2018</b> , 2672, 93-104	1.7	30
36	<b>2018</b> ,		1
35	<b>2018</b> ,		1
34	Exploring the Use of Driver Attributes to Characterize Heterogeneity in Naturalistic Driving Behavior <b>2018</b> ,		1
33	Evaluation of weather-related freeway car-following behavior using the SHRP2 naturalistic driving study database. <i>Transportation Research Part F: Traffic Psychology and Behaviour</i> , <b>2018</b> , 59, 244-259	4.5	20
32	The impacts of heavy rain on speed and headway Behaviors: An investigation using the SHRP2 naturalistic driving study data. <i>Transportation Research Part C: Emerging Technologies</i> , <b>2018</b> , 91, 371-384	8.4	44

31	Policy considerations for evaluating the safety effectiveness of passing lanes on rural two-lane highways with lower traffic volumes: Wyoming 59 case study. <i>Journal of Transportation Safety and Security</i> , <b>2017</b> , 9, 1-19	1.7	10
30	Investigating Safety Effectiveness of Wyoming Snow Fence Installations Along a Rural Mountainous Freeway. <i>Transportation Research Record</i> , <b>2017</b> , 2613, 8-15	1.7	6
29	Drivers Lane-Keeping Ability in Heavy Rain: Preliminary Investigation Using SHRP 2 Naturalistic Driving Study Data. <i>Transportation Research Record</i> , <b>2017</b> , 2663, 99-108	1.7	39
28	Safety Effectiveness of Variable Speed Limit System in Adverse Weather Conditions on Challenging Roadway Geometry. <i>Transportation Research Record</i> , <b>2015</b> , 2521, 45-53	1.7	12
27	Evaluation of the Safety Effectiveness of the Conversion of Two-Lane Roadways to Four-Lane Divided Roadways: Bayesian Versus Empirical Bayes. <i>Transportation Research Record</i> , <b>2015</b> , 2515, 41-49	1.7	14
26	Evaluation and spatial analysis of automated red-light running enforcement cameras. <i>Transportation Research Part C: Emerging Technologies</i> , <b>2015</b> , 50, 130-140	8.4	26
25	Real-time assessment of fog-related crashes using airport weather data: a feasibility analysis. <i>Accident Analysis and Prevention</i> , <b>2014</b> , 72, 309-17	6.1	45
24	Utilizing Microscopic Traffic and Weather Data to Analyze Real-Time Crash Patterns in the Context of Active Traffic Management. <i>IEEE Transactions on Intelligent Transportation Systems</i> , <b>2014</b> , 15, 205-213	6.1	29
23	Safety Evaluation of Hybrid Main-Line Toll Plazas. <i>Transportation Research Record</i> , <b>2014</b> , 2435, 53-60	1.7	7
22	Synthesis of State-of-the-Art in Visibility Detection Systems Applications and Research. <i>Journal of Transportation Safety and Security</i> , <b>2014</b> , 6, 183-206	1.7	5
21	Bayesian random effect models incorporating real-time weather and traffic data to investigate mountainous freeway hazardous factors. <i>Accident Analysis and Prevention</i> , <b>2013</b> , 50, 371-6	6.1	115
20	A data fusion framework for real-time risk assessment on freeways. <i>Transportation Research Part C: Emerging Technologies</i> , <b>2013</b> , 26, 203-213	8.4	60
19	Application of Stochastic Gradient Boosting Technique to Enhance Reliability of Real-Time Risk Assessment: Use of Automatic Vehicle Identification and Remote Traffic Microwave Sensor Data. <i>Transportation Research Record</i> , <b>2013</b> , 2386, 26-34	1.7	20
18	Real-time prediction of visibility related crashes. <i>Transportation Research Part C: Emerging Technologies</i> , <b>2012</b> , 24, 288-298	8.4	80
17	. <i>IEEE Transactions on Intelligent Transportation Systems</i> , <b>2012</b> , 13, 459-468	6.1	114
16	Assessment of Interaction of Crash Occurrence, Mountainous Freeway Geometry, Real-Time Weather, and Traffic Data. <i>Transportation Research Record</i> , <b>2012</b> , 2280, 51-59	1.7	78
15	Bayesian Updating Approach for Real-Time Safety Evaluation with Automatic Vehicle Identification Data. <i>Transportation Research Record</i> , <b>2012</b> , 2280, 60-67	1.7	63
14	Exploring a Bayesian hierarchical approach for developing safety performance functions for a mountainous freeway. <i>Accident Analysis and Prevention</i> , <b>2011</b> , 43, 1581-9	6.1	135

13	Investigating the Temporal Instability in Injury Severity Outcomes of Clear and Adverse Weather Crashes on Rural Mountainous Highways. <i>Transportation Research Record</i> ,036119812110570	1.7	1
12	Evaluating connected vehicle-based weather responsive management strategies using weather-sensitive microscopic simulation. <i>Journal of Intelligent Transportation Systems: Technology, Planning, and Operations</i> ,1-19	3.2	
11	Safety Impact of Connected Vehicles on Driver Behavior in Rural Work Zones under Foggy Weather Conditions. <i>Transportation Research Record</i> ,036119812110491	1.7	8
10	Machine Learning Approach for Predicting Lane-Change Maneuvers using the SHRP2 Naturalistic Driving Study Data. <i>Transportation Research Record</i> ,036119812110035	1.7	4
9	Real-time crash prediction for a long low-traffic volume corridor using corrected-impurity importance and semi-parametric generalized additive model. <i>Journal of Transportation Safety and Security</i> ,1-35	1.7	13
8	Development of a Novel Convolutional Neural Network Architecture Named RoadweatherNet for Trajectory-Level Weather Detection using SHRP2 Naturalistic Driving Data. <i>Transportation Research Record</i> ,036119812110054	1.7	2
7	Development of a Novel Framework for Hazardous Materials Placard Recognition System to Conduct Commodity Flow Studies Using Artificial Intelligence AlexNet Convolutional Neural Network. <i>Transportation Research Record</i> ,036119812110266	1.7	1
6	Safety Performance Assessment of Connected Vehicles in Mitigating the Risk of Secondary Crashes: A Driving Simulator Study. <i>Transportation Research Record</i> ,036119812110278	1.7	13
5	Does random slope hierarchical modeling always outperform random intercept counterpart? Accounting for unobserved heterogeneity in a real-time empirical analysis of critical crash occurrence. <i>Journal of Transportation Safety and Security</i> ,1-38	1.7	4
4	Investigating the Safety Effectiveness of Wildlife Vehicle Crash Countermeasures using a Bayesian Approach with a Comparison between Carcass Removal Data and Traditional Crash Data. <i>Transportation Research Record</i> ,036119812210839	1.7	1
3	Driving Simulator Trajectory-Level Analysis of Truck Drivers Behavioral Alteration in Connected Vehicles Environment Under Fog with Complex Roadway Geometry. <i>Transportation Research Record</i> ,036119812210839	1.7	2
2	Causes and Effects of Autonomous Vehicle Field Test Crashes and Disengagements Using Exploratory Factor Analysis, Binary Logistic Regression, and Decision Trees. <i>Transportation Research Record</i> ,036119812210846	1.7	
1	Cluster analysis and multi-level modeling for evaluating the impact of rain on aggressive lane-changing characteristics utilizing naturalistic driving data. <i>Journal of Transportation Safety and Security</i> ,1-29	1.7	1