

Mohamed Ahmed

List of Publications by Citations

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Version: 2024-04-27

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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	Exploring a Bayesian hierarchical approach for developing safety performance functions for a mountainous freeway. <i>Accident Analysis and Prevention</i> , 2011 , 43, 1581-9	6.1	135
83	Bayesian random effect models incorporating real-time weather and traffic data to investigate mountainous freeway hazardous factors. <i>Accident Analysis and Prevention</i> , 2013 , 50, 371-6	6.1	115
82	. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2012 , 13, 459-468	6.1	114
81	Real-time prediction of visibility related crashes. <i>Transportation Research Part C: Emerging Technologies</i> , 2012 , 24, 288-298	8.4	80
80	Assessment of Interaction of Crash Occurrence, Mountainous Freeway Geometry, Real-Time Weather, and Traffic Data. <i>Transportation Research Record</i> , 2012 , 2280, 51-59	1.7	78
79	Effects of truck traffic on crash injury severity on rural highways in Wyoming using Bayesian binary logit models. <i>Accident Analysis and Prevention</i> , 2018 , 117, 106-113	6.1	63
78	Bayesian Updating Approach for Real-Time Safety Evaluation with Automatic Vehicle Identification Data. <i>Transportation Research Record</i> , 2012 , 2280, 60-67	1.7	63
77	A data fusion framework for real-time risk assessment on freeways. <i>Transportation Research Part C: Emerging Technologies</i> , 2013 , 26, 203-213	8.4	60
76	Real-time assessment of fog-related crashes using airport weather data: a feasibility analysis. <i>Accident Analysis and Prevention</i> , 2014 , 72, 309-17	6.1	45
75	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> , 2018 , 90, 379-392	8.4	44
74	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> , 2018 , 91, 371-384	8.4	44
73	Drivers Lane-Keeping Ability in Heavy Rain: Preliminary Investigation Using SHRP 2 Naturalistic Driving Study Data. <i>Transportation Research Record</i> , 2017 , 2663, 99-108	1.7	39
72	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> , 2019 , 68, 71-80	4	37
71	Detecting lane change maneuvers using SHRP2 naturalistic driving data: A comparative study machine learning techniques. <i>Accident Analysis and Prevention</i> , 2020 , 142, 105578	6.1	34
70	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> , 2018 , 2672, 137-147	1.7	32
69	Investigating the Impact of Fog on Freeway Speed Selection using the SHRP2 Naturalistic Driving Study Data. <i>Transportation Research Record</i> , 2018 , 2672, 93-104	1.7	30
68	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> , 2014 , 15, 205-213	6.1	29

67	Characteristics and mitigation strategies for cell phone use while driving among young drivers in Qatar. <i>Journal of Transport and Health</i> , 2018 , 8, 6-14	3	27
66	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> , 2019 , 129, 250-262	6.1	26
65	Evaluation and spatial analysis of automated red-light running enforcement cameras. <i>Transportation Research Part C: Emerging Technologies</i> , 2015 , 50, 130-140	8.4	26
64	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> , 2019 , 123, 176-189	6.1	25
63	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> , 2019 , 119, 141-149	5.8	23
62	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> , 2013 , 2386, 26-34	1.7	20
61	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> , 2018 , 59, 244-259	4.5	20
60	Investigating factors affecting severity of large truck-involved crashes: Comparison of the SVM and random parameter logit model. <i>Journal of Safety Research</i> , 2021 , 77, 151-160	4	19
59	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> , 2021 , 149, 105855	6.1	19
58	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> , 2019 , 2673, 221-232	1.7	18
57	Investigating in-vehicle distracting activities and crash risks for young drivers using structural equation modeling. <i>PLoS ONE</i> , 2020 , 15, e0235325	3.7	18
56	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> , 2019 , 2673, 132-142	1.7	17
55	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> , 2019 , 106, 29-40	8.4	15
54	Identifying the Causes of Drivers' Hazardous States Using Driver Characteristics, Vehicle Kinematics, and Physiological Measurements. <i>Frontiers in Neuroscience</i> , 2018 , 12, 568	5.1	14
53	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> , 2015 , 2515, 41-49	1.7	14
52	Assessment of the effectiveness of connected vehicle weather and work zone warnings in improving truck driver safety. <i>IATSS Research</i> , 2020 , 44, 230-237	4.2	13
51	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
50	Exploring the effect of fog on lane-changing characteristics utilizing the SHRP2 naturalistic driving study data. <i>Journal of Transportation Safety and Security</i> , 2021 , 13, 477-502	1.7	13

49	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
48	Exploring factors contributing to injury severity at work zones considering adverse weather conditions. <i>IATSS Research</i> , 2019 , 43, 131-138	4.2	12
47	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> , 2020 , 2674, 661-675	1.7	12
46	Safety Effectiveness of Variable Speed Limit System in Adverse Weather Conditions on Challenging Roadway Geometry. <i>Transportation Research Record</i> , 2015 , 2521, 45-53	1.7	12
45	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> , 2019 , 119, 21-28	5.8	11
44	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> , 2020 , 146, 105707	6.1	11
43	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> , 2020 , 142, 105521	6.1	11
42	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> , 2020 , 2674, 101-119	1.7	11
41	Development and Assessment of a Connected Vehicle Training Program for Truck Drivers. <i>Transportation Research Record</i> , 2019 , 2673, 113-126	1.7	11
40	Utilizing black-box visualization tools to interpret non-parametric real-time risk assessment models. <i>Transportmetrica A: Transport Science</i> , 2021 , 17, 739-765	2.5	11
39	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> , 2017 , 9, 1-19	1.7	10
38	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> , 2022 , 136, 103539	8.4	10
37	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> , 2021 , 79, 118-138	4.5	10
36	Toward the Development of Weather-Dependent Microsimulation Models. <i>Transportation Research Record</i> , 2019 , 2673, 143-156	1.7	9
35	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> , 2020 , 2674, 223-238	1.7	9
34	An Integrated Microsimulation Approach for Safety Performance Assessment of the Wyoming Connected Vehicle Pilot Deployment Program. <i>Accident Analysis and Prevention</i> , 2020 , 146, 105714	6.1	9
33	A Preliminary Investigation into the Impact of Connected Vehicle Human-Machine Interface on Driving Behavior. <i>IFAC-PapersOnLine</i> , 2019 , 51, 227-229	0.7	8
32	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

31	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> , 2021 , 28, 208-221	1.8	8
30	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> , 2020 , 12, 1205-1230	1.7	8
29	Safety Evaluation of Hybrid Main-Line Toll Plazas. <i>Transportation Research Record</i> , 2014 , 2435, 53-60	1.7	7
28	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> , 2021 , 45, 539-539	4.2	7
27	Investigating Safety Effectiveness of Wyoming Snow Fence Installations Along a Rural Mountainous Freeway. <i>Transportation Research Record</i> , 2017 , 2613, 8-15	1.7	6
26	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> , 2020 , 2674, 293-304	1.7	6
25	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> , 2020 , 11, 1889	3.4	6
24	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> , 2021 ,	3.3	6
23	Synthesis of State-of-the-Art in Visibility Detection Systems Applications and Research. <i>Journal of Transportation Safety and Security</i> , 2014 , 6, 183-206	1.7	5
22	Distraction of Connected Vehicle Human Machine Interface for Truck Drivers. <i>Transportation Research Record</i> , 2020 , 2674, 438-449	1.7	5
21	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> , 2019 , 2, 41-54	1.2	5
20	Machine Learning Approach for Predicting Lane-Change Maneuvers using the SHRP2 Naturalistic Driving Study Data. <i>Transportation Research Record</i> , 036119812110035	1.7	4
19	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> , 2021 , 25, 513-532	3.2	4
18	Charging Station Allocation for Electric Vehicle Network Using Stochastic Modeling and Grey Wolf Optimization. <i>Sustainability</i> , 2021 , 13, 3314	3.6	4
17	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
16	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> , 2019 , 27, 129-140	3.7	3
15	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> , 2021 , 45, 137-152	4.2	3
14	Global lessons learned from naturalistic driving studies to advance traffic safety and operation research: A systematic review.. <i>Accident Analysis and Prevention</i> , 2022 , 167, 106568	6.1	2

13	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
12	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
11	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> , 2022 , 81, 9-20	4	1
10	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
9	Connected Vehicle Training Framework and Lessons Learned to Improve Safety of Highway Patrol Troopers. <i>Transportation Research Record</i> , 2020 , 2674, 447-463	1.7	1
8	2018,		1
7	2018,		1
6	Exploring the Use of Driver Attributes to Characterize Heterogeneity in Naturalistic Driving Behavior 2018,		1
5	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
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	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
2	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	
1	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	