Mohamed Ahmed

List of Publications by Year
in descending order

92	2,547	201575	223716
papers	citations	27	46
		h-index	g-index

92	92	92	1349
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Exploring a Bayesian hierarchical approach for developing safety performance functions for a mountainous freeway. Accident Analysis and Prevention, 2011, 43, 1581-1589.	3.0	156
2	Bayesian random effect models incorporating real-time weather and traffic data to investigate mountainous freeway hazardous factors. Accident Analysis and Prevention, 2013, 50, 371-376.	3.0	141
3	The Viability of Using Automatic Vehicle Identification Data for Real-Time Crash Prediction. IEEE Transactions on Intelligent Transportation Systems, 2012, 13, 459-468.	4.7	140
4	Real-time prediction of visibility related crashes. Transportation Research Part C: Emerging Technologies, 2012, 24, 288-298.	3.9	104
5	Effects of truck traffic on crash injury severity on rural highways in Wyoming using Bayesian binary logit models. Accident Analysis and Prevention, 2018, 117, 106-113.	3.0	104
6	Assessment of Interaction of Crash Occurrence, Mountainous Freeway Geometry, Real-Time Weather, and Traffic Data. Transportation Research Record, 2012, 2280, 51-59.	1.0	97
7	Bayesian Updating Approach for Real-Time Safety Evaluation with Automatic Vehicle Identification Data. Transportation Research Record, 2012, 2280, 60-67.	1.0	83
8	A data fusion framework for real-time risk assessment on freeways. Transportation Research Part C: Emerging Technologies, 2013, 26, 203-213.	3.9	81
9	Investigating factors affecting severity of large truck-involved crashes: Comparison of the SVM and random parameter logit model. Journal of Safety Research, 2021, 77, 151-160.	1.7	69
10	The impacts of heavy rain on speed and headway Behaviors: An investigation using the SHRP2 naturalistic driving study data. Transportation Research Part C: Emerging Technologies, 2018, 91, 371-384.	3.9	67
11	Analyzing the effect of fog weather conditions on driver lane-keeping performance using the SHRP2 naturalistic driving study data. Journal of Safety Research, 2019, 68, 71-80.	1.7	63
12	Real-time assessment of fog-related crashes using airport weather data: A feasibility analysis. Accident Analysis and Prevention, 2014, 72, 309-317.	3.0	60
13	Utilizing naturalistic driving data for in-depth analysis of driver lane-keeping behavior in rain: Non-parametric MARS and parametric logistic regression modeling approaches. Transportation Research Part C: Emerging Technologies, 2018, 90, 379-392.	3.9	56
14	Detecting lane change maneuvers using SHRP2 naturalistic driving data: A comparative study machine learning techniques. Accident Analysis and Prevention, 2020, 142, 105578.	3.0	46
15	Drivers' Lane-Keeping Ability in Heavy Rain: Preliminary Investigation Using SHRP 2 Naturalistic Driving Study Data. Transportation Research Record, 2017, 2663, 99-108.	1.0	45
16	Using trajectory-level SHRP2 naturalistic driving data for investigating driver lane-keeping ability in fog: An association rules mining approach. Accident Analysis and Prevention, 2019, 129, 250-262.	3.0	44
17	Developing crash prediction models using parametric and nonparametric approaches for rural mountainous freeways: A case study on Wyoming Interstate 80. Accident Analysis and Prevention, 2019, 123, 176-189.	3.0	44
18	Investigating the Impact of Fog on Freeway Speed Selection using the SHRP2 Naturalistic Driving Study Data. Transportation Research Record, 2018, 2672, 93-104.	1.0	41

#	Article	IF	Citations
19	Characteristics and mitigation strategies for cell phone use while driving among young drivers in Qatar. Journal of Transport and Health, 2018, 8, 6-14.	1.1	39
20	Detection of critical safety events on freeways in clear and rainy weather using SHRP2 naturalistic driving data: Parametric and non-parametric techniques. Safety Science, 2019, 119, 141-149.	2.6	39
21	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. Transportation Research Record, 2018, 2672, 137-147.	1.0	38
22	Investigating in-vehicle distracting activities and crash risks for young drivers using structural equation modeling. PLoS ONE, 2020, 15, e0235325.	1.1	38
23	Evaluation and spatial analysis of automated red-light running enforcement cameras. Transportation Research Part C: Emerging Technologies, 2015, 50, 130-140.	3.9	37
24	Utilizing Microscopic Traffic and Weather Data to Analyze Real-Time Crash Patterns in the Context of Active Traffic Management. IEEE Transactions on Intelligent Transportation Systems, 2014, 15, 205-213.	4.7	36
25	Evaluation of weather-related freeway car-following behavior using the SHRP2 naturalistic driving study database. Transportation Research Part F: Traffic Psychology and Behaviour, 2018, 59, 244-259.	1.8	34
26	Impact of Variable Speed Limit in a Connected Vehicle Environment on Truck Driver Behavior under Adverse Weather Conditions: Driving Simulator Study. Transportation Research Record, 2019, 2673, 132-142.	1.0	30
27	Exploring factors contributing to injury severity at work zones considering adverse weather conditions. IATSS Research, 2019, 43, 131-138.	1.8	29
28	Application of Stochastic Gradient Boosting Technique to Enhance Reliability of Real-Time Risk Assessment. Transportation Research Record, 2013, 2386, 26-34.	1.0	28
29	Snow Detection using In-Vehicle Video Camera with Texture-Based Image Features Utilizing K-Nearest Neighbor, Support Vector Machine, and Random Forest. Transportation Research Record, 2019, 2673, 221-232.	1.0	28
30	Practical advantage of crossed random intercepts under Bayesian hierarchical modeling to tackle unobserved heterogeneity in clustering critical versus non-critical crashes. Accident Analysis and Prevention, 2021, 149, 105855.	3.0	28
31	Assessment of the effectiveness of connected vehicle weather and work zone warnings in improving truck driver safety. IATSS Research, 2020, 44, 230-237.	1.8	26
32	Trajectory-level fog detection based on in-vehicle video camera with TensorFlow deep learning utilizing SHRP2 naturalistic driving data. Accident Analysis and Prevention, 2020, 142, 105521.	3.0	26
33	Identifying the Causes of Drivers' Hazardous States Using Driver Characteristics, Vehicle Kinematics, and Physiological Measurements. Frontiers in Neuroscience, 2018, 12, 568.	1.4	25
34	Quantifying regional heterogeneity effect on drivers' speeding behavior using SHRP2 naturalistic driving data: A multilevel modeling approach. Transportation Research Part C: Emerging Technologies, 2019, 106, 29-40.	3.9	24
35	Nonparametric Multivariate Adaptive Regression Splines Models for Investigating Lane-Changing Gap Acceptance Behavior Utilizing Strategic Highway Research Program 2 Naturalistic Driving Data. Transportation Research Record, 2020, 2674, 223-238.	1.0	23
36	Evaluation of the Safety Effectiveness of the Conversion of Two-Lane Roadways to Four-Lane Divided Roadways. Transportation Research Record, 2015, 2515, 41-49.	1.0	21

#	Article	IF	Citations
37	Toward the Development of Weather-Dependent Microsimulation Models. Transportation Research Record, 2019, 2673, 143-156.	1.0	21
38	The safety performance of connected vehicles on slippery horizontal curves through enhancing truck drivers' situational awareness: A driving simulator experiment. Transportation Research Part F: Traffic Psychology and Behaviour, 2021, 79, 118-138.	1.8	20
39	Safety Performance Assessment of Connected Vehicles in Mitigating the Risk of Secondary Crashes: A Driving Simulator Study. Transportation Research Record, 2021, 2675, 117-129.	1.0	20
40	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. Transportation Research Record, 2020, 2674, 101-119.	1.0	19
41	Exploration of Hazardous Material Truck Crashes on Wyoming's Interstate Roads using a Novel Hamiltonian Monte Carlo Markov Chain Bayesian Inference. Transportation Research Record, 2020, 2674, 661-675.	1.0	19
42	Weather and surface condition detection based on road-side webcams: Application of pre-trained Convolutional Neural Network. International Journal of Transportation Science and Technology, 2022, 11, 468-483.	2.0	19
43	Global lessons learned from naturalistic driving studies to advance traffic safety and operation research: A systematic review. Accident Analysis and Prevention, 2022, 167, 106568.	3.0	19
44	An Integrated Microsimulation Approach for Safety Performance Assessment of the Wyoming Connected Vehicle Pilot Deployment Program. Accident Analysis and Prevention, 2020, 146, 105714.	3.0	18
45	Real-time crash prediction for a long low-traffic volume corridor using corrected-impurity importance and semi-parametric generalized additive model. Journal of Transportation Safety and Security, 2022, 14, 1165-1200.	1.1	18
46	Connected vehicle real-time traveler information messages for freeway speed harmonization under adverse weather conditions: Trajectory level analysis using driving simulator. Accident Analysis and Prevention, 2020, 146, 105707.	3.0	17
47	Utilizing black-box visualization tools to interpret non-parametric real-time risk assessment models. Transportmetrica A: Transport Science, 2021, 17, 739-765.	1.3	17
48	Exploring the effect of fog on lane-changing characteristics utilizing the SHRP2 naturalistic driving study data. Journal of Transportation Safety and Security, 2021, 13, 477-502.	1.1	17
49	Safety Effectiveness of Variable Speed Limit System in Adverse Weather Conditions on Challenging Roadway Geometry. Transportation Research Record, 2015, 2521, 45-53.	1.0	15
50	Complementary methodologies to identify weather conditions in naturalistic driving study trips: Lessons learned from the SHRP2 naturalistic driving study & roadway information database. Safety Science, 2019, 119, 21-28.	2.6	15
51	Development and Assessment of a Connected Vehicle Training Program for Truck Drivers. Transportation Research Record, 2019, 2673, 113-126.	1.0	15
52	Evaluating the safety effectiveness of a weather-based variable speed limit for a rural mountainous freeway in Wyoming. Journal of Transportation Safety and Security, 2020, 12, 1205-1230.	1.1	15
53	Charging Station Allocation for Electric Vehicle Network Using Stochastic Modeling and Grey Wolf Optimization. Sustainability, 2021, 13, 3314.	1.6	15
54	Safety Impact of Connected Vehicles on Driver Behavior in Rural Work Zones under Foggy Weather Conditions. Transportation Research Record, 2022, 2676, 88-107.	1.0	15

#	ARTICLE	IF	CITATIONS
55	A Preliminary Investigation into the Impact of Connected Vehicle Human-Machine Interface on Driving Behavior. IFAC-PapersOnLine, 2019, 51, 227-229.	0.5	14
56	Machine Learning Approach for Predicting Lane-Change Maneuvers using the SHRP2 Naturalistic Driving Study Data. Transportation Research Record, 2021, 2675, 574-594.	1.0	14
57	Coping with endogeneity and unobserved heterogeneity in real-time clustering critical crash occurrences nested within weather and road surface conditions. International Journal of Injury Control and Safety Promotion, 2021, 28, 208-221.	1.0	13
58	Multilevel weather detection based on images: a machine learning approach with histogram of oriented gradient and local binary pattern-based features. Journal of Intelligent Transportation Systems: Technology, Planning, and Operations, 2021, 25, 513-532.	2.6	13
59	Assessment of Drivers' Perceptions of Connected Vehicle–Human Machine Interface for Driving Under Adverse Weather Conditions: Preliminary Findings From Wyoming. Frontiers in Psychology, 2020, 11, 1889.	1.1	12
60	Evaluating the Effects of Connected Vehicle Weather and Work Zone Warnings on Truck Drivers' Workload and Distraction using Eye Glance Behavior. Transportation Research Record, 2020, 2674, 293-304.	1.0	12
61	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. IATSS Research, 2021, 45, 539-550.	1.8	12
62	Bayesian extreme value analysis of kinematic-based surrogate measure of safety to detect crash-prone conditions in connected vehicles environment: A driving simulator experiment. Transportation Research Part C: Emerging Technologies, 2022, 136, 103539.	3.9	12
63	Safety Evaluation of Hybrid Main-Line Toll Plazas. Transportation Research Record, 2014, 2435, 53-60.	1.0	11
64	Policy considerations for evaluating the safety effectiveness of passing lanes on rural two-lane highways with lower traffic volumes: Wyoming 59 case study. Journal of Transportation Safety and Security, 2017, 9, 1-19.	1.1	11
65	Complementary parametric probit regression and nonparametric classification tree modeling approaches to analyze factors affecting severity of work zone weather-related crashes. Journal of Modern Transportation, 2019, 27, 129-140.	2.5	10
66	Investigating Safety Effectiveness of Wyoming Snow Fence Installations Along a Rural Mountainous Freeway. Transportation Research Record, 2017, 2613, 8-15.	1.0	9
67	Distraction of Connected Vehicle Human–Machine Interface for Truck Drivers. Transportation Research Record, 2020, 2674, 438-449.	1.0	8
68	Development of a Novel Convolutional Neural Network Architecture Named RoadweatherNet for Trajectory-Level Weather Detection using SHRP2 Naturalistic Driving Data. Transportation Research Record, 2021, 2675, 1016-1030.	1.0	8
69	Development of a Novel Framework for Hazardous Materials Placard Recognition System to Conduct Commodity Flow Studies Using Artificial Intelligence AlexNet Convolutional Neural Network. Transportation Research Record, 0, , 036119812110266.	1.0	8
70	Does random slope hierarchical modeling always outperform random intercept counterpart? Accounting for unobserved heterogeneity in a real-time empirical analysis of critical crash occurrence. Journal of Transportation Safety and Security, 2023, 15, 177-214.	1.1	8
71	Synthesis of State-of-the-Art in Visibility Detection Systems' Applications and Research. Journal of Transportation Safety and Security, 2014, 6, 183-206.	1.1	7
72	Performance evaluation framework of Wyoming connected vehicle pilot deployment program: summary of Phase 2 pre-deployment efforts and lessons learned. Journal of Intelligent and Connected Vehicles, 2019, 2, 41-54.	3.6	7

#	Article	IF	Citations
73	Normal and risky driving patterns identification in clear and rainy weather on freeway segments using vehicle kinematics trajectories and time series cluster analysis. IATSS Research, 2021, 45, 137-152.	1.8	7
74	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. Journal of Safety Research, 2022, 81, 9-20.	1.7	7
75	Cluster analysis and multi-level modeling for evaluating the impact of rain on aggressive lane-changing characteristics utilizing naturalistic driving data. Journal of Transportation Safety and Security, 2022, 14, 2137-2165.	1.1	6
76	Causes and Effects of Autonomous Vehicle Field Test Crashes and Disengagements Using Exploratory Factor Analysis, Binary Logistic Regression, and Decision Trees. Transportation Research Record, 2022, 2676, 571-586.	1.0	5
77	Connected Vehicle Training Framework and Lessons Learned to Improve Safety of Highway Patrol Troopers. Transportation Research Record, 2020, 2674, 447-463.	1.0	4
78	Driving Simulator Trajectory-Level Analysis of Truck Drivers' Behavioral Alteration in Connected Vehicles Environment Under Fog with Complex Roadway Geometry. Transportation Research Record, 2022, 2676, 435-451.	1.0	4
79	Deep Learning Approach for Detecting Lane Change Maneuvers Using SHRP2 Naturalistic Driving Data. Transportation Research Record, 2023, 2677, 907-928.	1.0	4
80	A Case for Online Traffic Simulation: Systematic Procedure to Calibrate Car-Following Models Using Vehicle Data. , 2018, , .		3
81	Exploring the Use of Driver Attributes to Characterize Heterogeneity in Naturalistic Driving Behavior. , 2018, , .		3
82	Evaluating connected vehicle-based weather responsive management strategies using weather-sensitive microscopic simulation. Journal of Intelligent Transportation Systems: Technology, Planning, and Operations, 0, , 1-19.	2.6	2
83	Weather-Based Lane-Change Microsimulation Parameters for Safety and Operational Performance Evaluation of Weaving and Basic Freeway Segments. Transportation Research Record, 2022, 2676, 550-563.	1.0	2
84	A Framework to Enhance the Transferability of the SHRP2 Naturalistic Driving Study by Considering Heterogeneity of Driver Behavior Using Spatial-Temporal Factors in a Trajectory Level. , 2018, , .		1
85	Radar-Vision Algorithms to Process the Trajectory-Level Driving Data in the SHRP2 Naturalistic Driving Study. , 2018, , .		1
86	Impacto fÃsico e psicossocial na crianÃ§a com cÃ¢ncer em tratamento: avaliando sua qualidade de vida. Revista Da Faculdade De CiÃªncias MÃ©dicas De Sorocaba, 2021, 22, 9-16.	0.2	1
87	Investigating the Temporal Instability in Injury Severity Outcomes of Clear and Adverse Weather Crashes on Rural Mountainous Highways. Transportation Research Record, 2022, 2676, 107-132.	1.0	1
88	Investigating the Safety Effectiveness of Wildlife–Vehicle Crash Countermeasures using a Bayesian Approach with a Comparison between Carcass Removal Data and Traditional Crash Data. Transportation Research Record, 0, , 036119812210839.	1.0	1
89	Developing Statewide Safety Performance Functions for Commercial Trucks Transporting Hazardous Materials on Interstate Rural Roads in Wyoming. Transportation Research Record, 2023, 2677, 943-958.	1.0	1
90	Assessing the Effectiveness of Centerline Rumble Strips Accounting for Winter Maintenance Operational Levels on Wyoming Highways Using Before–After Empirical Bayes. Journal of Transportation Engineering Part A: Systems, 2022, 148, .	0.8	1

#	Article	IF	Citations
91	Assessing the impact of the compliance rate and daytime running lights penetration on the safety effectiveness of regulatory headlight use signs. Journal of Sustainable Development of Transport and Logistics, 2018, 3, 6-21.	0.3	0
92	Machine and Deep Learning Techniques for Daytime Fog Detection in Real Time with In-Vehicle Vision Systems Using the SHRP 2 Naturalistic Driving Study Data. Transportation Research Record, 2023, 2677, 995-1011.	1.0	0