Bin Ran

List of Publications by Year
in descending order

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90 papers	2,561 citations	218592 26 h-index	214721 47 g-index
90 all docs	90 docs citations	90 times ranked	2236 citing authors

#	Article	IF	Citations
1	Dynamic Trajectory-Based Traffic Dispersion Method for Intersection Traffic Accidents in an Intelligent and Connected Environment. IEEE Intelligent Transportation Systems Magazine, 2023, 15, 84-100.	2.6	6
2	Dynamic Driving Risk Potential Field Model Under the Connected and Automated Vehicles Environment and Its Application in Car-Following Modeling. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 122-141.	4.7	62
3	A Feature-Based Approach to Large-Scale Freeway Congestion Detection Using Full Cellular Activity Data. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 1323-1331.	4.7	3
4	Integrated Schedule and Trajectory Optimization for Connected Automated Vehicles in a Conflict Zone. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 1841-1851.	4.7	62
5	Cooperative Critical Turning Point-Based Decision-Making and Planning for CAVH Intersection Management System. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 11062-11072.	4.7	10
6	Analysis of cascading failure induced by load fluctuation and robust station capacity assignment for metros. Transportmetrica A: Transport Science, 2022, 18, 1401-1419.	1.3	3
7	Understanding and Modeling Urban Mobility Dynamics via Disentangled Representation Learning. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 2010-2020.	4.7	7
8	An improved tucker decompositionâ€based imputation method for recovering laneâ€level missing values in traffic data. IET Intelligent Transport Systems, 2022, 16, 363-379.	1.7	2
9	Infrastructure Allocation for Improving Sensing Accuracy and Connectivity Probability Based on Combination Strategy in Vehicular Networks. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 15244-15255.	4.7	0
10	A deep reinforcement learningâ€based distributed connected automated vehicle control under communication failure. Computer-Aided Civil and Infrastructure Engineering, 2022, 37, 2033-2051.	6.3	25
11	Level of Service Model of the Non-Motorized Vehicle Crossing the Signalized Intersection Based on Ridersâ€™ Perception Data. International Journal of Environmental Research and Public Health, 2022, 19, 4534.	1.2	5
12	Modelling the road network capacity considering residual queues and connected automated vehicles. IET Intelligent Transport Systems, 2022, 16, 543-570.	1.7	4
13	A distributed deep reinforcement learningâ€“based integrated dynamic bus control system in a connected environment. Computer-Aided Civil and Infrastructure Engineering, 2022, 37, 2016-2032.	6.3	16
14	Urban Traffic State Estimation with Online Car-Hailing Data: A Dynamic Tensor-Based Bayesian Probabilistic Decomposition Approach. Journal of Advanced Transportation, 2022, 2022, 1-16.	0.9	0
15	Navigating Electric Vehicles Along a Signalized Corridor via Reinforcement Learning: Toward Adaptive Eco-Driving Control. Transportation Research Record, 2022, 2676, 657-669.	1.0	8
16	Key Factors Analysis of Severity of Automobile to Two-Wheeler Traffic Accidents Based on Bayesian Network. International Journal of Environmental Research and Public Health, 2022, 19, 6013.	1.2	8
17	Spatially Formulated Connected Automated Vehicle Trajectory Optimization with Infrastructure Assistance. Journal of Advanced Transportation, 2022, 2022, 1-15.	0.9	2
18	A Reservation-Based Coordinated Transit Signal Priority Method for Bus Rapid Transit System With Connected Vehicle Technologies. IEEE Intelligent Transportation Systems Magazine, 2021, 13, 17-30.	2.6	5

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19	Impacts of cooperative adaptive cruise control platoons on emissions under traffic oscillation. Journal of Intelligent Transportation Systems: Technology, Planning, and Operations, 2021, 25, 376-383.	2.6	17
20	A Dynamic Control Method for Cavs Platoon Based on the MPC Framework and Safety Potential Field Model. KSCE Journal of Civil Engineering, 2021, 25, 1874-1886.	0.9	8
21	Analyzing the Safety Impacts of Variable Speed Limit Control on Aggregated Driving Behavior Based on Traffic Big Data. Journal of Advanced Transportation, 2021, 2021, 1-9.	0.9	5
22	Traffic signal coordination control optimization considering vehicle emissions on urban arterial road. Journal of Computational Methods in Sciences and Engineering, 2021, 21, 233-239.	0.1	2
23	Kalman Filtering Method for Real-Time Queue Length Estimation in a Connected Vehicle Environment. Transportation Research Record, 2021, 2675, 578-589.	1.0	7
24	Map matching for travel route identification based on Earth Mover's Distance algorithm using wireless cell trajectory data. Journal of Intelligent Transportation Systems: Technology, Planning, and Operations, 2021, 25, 644-656.	2.6	2
25	A Study on Autonomous Intersection Management: Planning-Based Strategy Improved by Convolutional Neural Network. KSCE Journal of Civil Engineering, 2021, 25, 3995-4004.	0.9	8
26	Incorporating multiple congestion levels into spatiotemporal analysis for the impact of a traffic incident. Accident Analysis and Prevention, 2021, 159, 106255.	3.0	6
27	A Novel Hybrid Model for Predicting Traffic Flow via Improved Ensemble Learning Combined with Deep Belief Networks. Mathematical Problems in Engineering, 2021, 2021, 1-16.	0.6	2
28	A novel lane-changing model of connected and automated vehicles: Using the safety potential field theory. Physica A: Statistical Mechanics and Its Applications, 2020, 559, 125039.	1.2	54
29	Risk perception and the warning strategy based on safety potential field theory. Accident Analysis and Prevention, 2020, 148, 105805.	3.0	38
30	A Prediction Method of GHG Emissions for Urban Road Transportation Planning and Its Applications. Sustainability, 2020, 12, 10251.	1.6	5
31	Automated traffic incident detection with a smaller dataset based on generative adversarial networks. Accident Analysis and Prevention, 2020, 144, 105628.	3.0	69
32	Analysis on the Higher Education Sustainability in China Based on the Comparison between Universities in China and America. Sustainability, 2020, 12, 573.	1.6	10
33	A Hybrid Model for Lane-Level Traffic Flow Forecasting Based on Complete Ensemble Empirical Mode Decomposition and Extreme Gradient Boosting. IEEE Access, 2020, 8, 42042-42054.	2.6	35
34	Urban arterial traffic status detection using cellular data without cellphone GPS information. Transportation Research Part C: Emerging Technologies, 2020, 114, 446-462.	3.9	20
35	Horizontal Alignment Security Design Theory and Application of Superhighways. Sustainability, 2020, 12, 2222.	1.6	6
36	A deep fusion model based on restricted Boltzmann machines for traffic accident duration prediction. Engineering Applications of Artificial Intelligence, 2020, 93, 103686.	4.3	36

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37	Efficient deep learning based method for multiâ€lane speed forecasting: a case study in Beijing. IET Intelligent Transport Systems, 2020, 14, 2073-2082.	1.7	11
38	Intersection traffic signal optimisation considering the impact of upstream curbside bus stops. IET Intelligent Transport Systems, 2020, 14, 880-888.	1.7	5
39	A Novel Car-Following Control Model Combining Machine Learning and Kinematics Models for Automated Vehicles. IEEE Transactions on Intelligent Transportation Systems, 2019, 20, 1991-2000.	4.7	74
40	Memory, attention and prediction: a deep learning architecture for car-following. Transportmetrica B, 2019, 7, 1553-1571.	1.4	12
41	Rear-End Crash Risk of CACC-Manual Driven Mixed Flow Considering the Degeneration of CACC Systems. IEEE Access, 2019, 7, 140421-140429.	2.6	19
42	Junction Conditions for Hamiltonâ€“Jacobi Equations for Solving Real-Time Traffic Flow Problems. IEEE Access, 2019, 7, 114334-114348.	2.6	0
43	Trip-Chain-Based Travel-Mode-Shares-Driven Framework using Cellular Signaling Data and Web-Based Mapping Service Data. Transportation Research Record, 2019, 2673, 51-64.	1.0	7
44	Exploring the Factors Affecting Mode Choice Intention of Autonomous Vehicle Based on an Extended Theory of Planned Behaviorâ€”A Case Study in China. Sustainability, 2019, 11, 1155.	1.6	112
45	Traffic speed prediction for intelligent transportation system based on a deep feature fusion model. Journal of Intelligent Transportation Systems: Technology, Planning, and Operations, 2019, 23, 605-616.	2.6	45
46	Day-ahead traffic flow forecasting based on a deep belief network optimized by the multi-objective particle swarm algorithm. Knowledge-Based Systems, 2019, 172, 1-14.	4.0	162
47	Measuring Spatial Distribution of Tourist Flows Based on Cellular Signalling Data: A Case Study of Shangha. , 2019, , .		3
48	Vehicleâ€“space traffic-state estimation of a motorway corridor with slip roads. Proceedings of the Institution of Civil Engineers: Transport, 2019, 172, 47-56.	0.3	1
49	Impact of Connected and Automated Vehicles on Passenger Comfort of Traffic Flow with Vehicle-to-vehicle Communications. KSCE Journal of Civil Engineering, 2019, 23, 821-832.	0.9	21
50	Freeway traffic state estimation: A Lagrangian-space Kalman filter approach. Journal of Intelligent Transportation Systems: Technology, Planning, and Operations, 2019, 23, 525-540.	2.6	14
51	Missing Value Imputation for Traffic-Related Time Series Data Based on a Multi-View Learning Method. IEEE Transactions on Intelligent Transportation Systems, 2019, 20, 2933-2943.	4.7	118
52	Passenger flow control with multi-station coordination in subway networks: algorithm development and real-world case study. Transportmetrica B, 2019, 7, 446-472.	1.4	34
53	Dynamic platoon dispersion model based on realâ€time link travel time. IET Intelligent Transport Systems, 2019, 13, 1694-1700.	1.7	4
54	Robust and flexible strategy for missing data imputation in intelligent transportation system. IET Intelligent Transport Systems, 2018, 12, 151-157.	1.7	16

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55	Methods for Multi-Type Sensor Allocations Along a Freeway Corridor. IEEE Intelligent Transportation Systems Magazine, 2018, 10, 134-149.	2.6	17
56	A hybrid deep learning based traffic flow prediction method and its understanding. Transportation Research Part C: Emerging Technologies, 2018, 90, 166-180.	3.9	499
57	A Utility for Crash Data Translation between Dissimilar Resolution Networks. , 2018, , .		0
58	Control design for stable connected cruise control systems to enhance safety and traffic efficiency. IET Intelligent Transport Systems, 2018, 12, 921-930.	1.7	14
59	An Improved Single-Lane Cellular Automaton Model considering Driverâ€™s Radical Feature. Journal of Advanced Transportation, 2018, 2018, 1-10.	0.9	6
60	Stability Analysis of Connected and Automated Vehicles to Reduce Fuel Consumption and Emissions. Journal of Transportation Engineering Part A: Systems, 2018, 144, .	0.8	34
61	Modeling Freeway Merging in a Weaving Section as a Sequential Decision-Making Process. Journal of Transportation Engineering Part A: Systems, 2017, 143, .	0.8	18
62	Dangerous driving behavior detection using video-extracted vehicle trajectory histograms. Journal of Intelligent Transportation Systems: Technology, Planning, and Operations, 2017, 21, 409-421.	2.6	54
63	Safety evaluation for driving behaviors under bidirectional looking context. Journal of Intelligent Transportation Systems: Technology, Planning, and Operations, 2017, 21, 255-270.	2.6	10
64	Driving risk status prediction using Bayesian networks and logistic regression. IET Intelligent Transport Systems, 2017, 11, 431-439.	1.7	29
65	Sensor layout strategy and sensitivity analysis for macroscopic traffic flow parameter acquisition. IET Intelligent Transport Systems, 2017, 11, 212-221.	1.7	9
66	Electric Vehicle Routing Problem with Charging Time and Variable Travel Time. Mathematical Problems in Engineering, 2017, 2017, 1-13.	0.6	36
67	Traffic Vehicle Counting in Jam Flow Conditions Using Low-Cost and Energy-Efficient Wireless Magnetic Sensors. Sensors, 2016, 16, 1868.	2.1	26
68	Hazardous Traffic Event Detection Using Markov Blanket and Sequential Minimal Optimization (MB-SMO). Sensors, 2016, 16, 1084.	2.1	13
69	Sensor Location Problem Optimization for Traffic Network with Different Spatial Distributions of Traffic Information. Sensors, 2016, 16, 1790.	2.1	3
70	A Comparison of Traffic Flow Prediction Methods Based on DBN. , 2016, , .		30
71	Multimode trip information detection using personal trajectory data. Journal of Intelligent Transportation Systems: Technology, Planning, and Operations, 2016, 20, 449-460.	2.6	26
72	Tensor based missing traffic data completion with spatialâ€“temporal correlation. Physica A: Statistical Mechanics and Its Applications, 2016, 446, 54-63.	1.2	105

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73	Estimating Missing Traffic Volume Using Low Multilinear Rank Tensor Completion. Journal of Intelligent Transportation Systems: Technology, Planning, and Operations, 2016, 20, 152-161.	2.6	21
74	A vehicle type-dependent visual imaging model for analysing the heterogeneous car-following dynamics. Transportmetrica B, 2016, 4, 68-85.	1.4	17
75	Using Tensor Completion Method to Achieving Better Coverage of Traffic State Estimation from Sparse Floating Car Data. PLoS ONE, 2016, 11, e0157420.	1.1	13
76	Traffic Speed Data Imputation Method Based on Tensor Completion. Computational Intelligence and Neuroscience, 2015, 2015, 1-9.	1.1	30
77	Large-scale evacuation network optimization: a bi-level control method with uncertain arterial demand. Transportation Planning and Technology, 2015, 38, 777-794.	0.9	7
78	Optimal timetable development for community shuttle network with metro stations. Transportation Research Part C: Emerging Technologies, 2015, 60, 540-565.	3.9	34
79	A Novel Multisensor Traffic State Assessment System Based on Incomplete Data. Scientific World Journal, The, 2014, 2014, 1-13.	0.8	0
80	Robust Missing Traffic Flow Imputation Considering Nonnegativity and Road Capacity. Mathematical Problems in Engineering, 2014, 2014, 1-8.	0.6	30
81	Optimization Model for Headway of a Suburban Bus Route. Mathematical Problems in Engineering, 2014, 2014, 1-6.	0.6	7
82	Comparing the State-of-the-Art Efficient Stated Choice Designs Based on Empirical Analysis. Mathematical Problems in Engineering, 2014, 2014, 1-8.	0.6	3
83	Safe distance car-following model including backward-looking and its stability analysis. European Physical Journal B, 2013, 86, 1.	0.6	42
84	Real-time detection algorithm for moving vehicles in dynamic traffic environment. , 2013, , .		0
85	Perspectives on Future Transportation Research: Impact of Intelligent Transportation System Technologies on Next-Generation Transportation Modeling. Journal of Intelligent Transportation Systems: Technology, Planning, and Operations, 2012, 16, 226-242.	2.6	75
86	An Exploratory Shockwave Approach to Estimating Queue Length Using Probe Trajectories. Journal of Intelligent Transportation Systems: Technology, Planning, and Operations, 2012, 16, 12-23.	2.6	86
87	Freeway Recurrent Bottleneck Identification Algorithms Considering Detector Data Quality Issues. Journal of Transportation Engineering, 2012, 138, 1205-1214.	0.9	13
88	Crash Severity Evaluation for Unsignalized Intersection Using Conflict Data. International Journal of Computational Intelligence Systems, 2011, 4, 1325-1333.	1.6	3
89	Large-Scale Freeway Network Traffic Monitoring: A Map-Matching Algorithm Based on Low-Logging Frequency GPS Probe Data. Journal of Intelligent Transportation Systems: Technology, Planning, and Operations, 2011, 15, 63-74.	2.6	15
90	A Hybrid Tree Approach to Modeling Alternate Route Choice Behavior With Online Information. Journal of Intelligent Transportation Systems: Technology, Planning, and Operations, 2010, 14, 209-219.	2.6	20