

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	A hybrid deep learning based traffic flow prediction method and its understanding. <i>Transportation Research Part C: Emerging Technologies</i> , 2018, 90, 166-180.	3.9	499
2	Day-ahead traffic flow forecasting based on a deep belief network optimized by the multi-objective particle swarm algorithm. <i>Knowledge-Based Systems</i> , 2019, 172, 1-14.	4.0	162
3	Missing Value Imputation for Traffic-Related Time Series Data Based on a Multi-View Learning Method. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2019, 20, 2933-2943.	4.7	118
4	Exploring the Factors Affecting Mode Choice Intention of Autonomous Vehicle Based on an Extended Theory of Planned Behavior—A Case Study in China. <i>Sustainability</i> , 2019, 11, 1155.	1.6	112
5	Tensor based missing traffic data completion with spatial-temporal correlation. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2016, 446, 54-63.	1.2	105
6	An Exploratory Shockwave Approach to Estimating Queue Length Using Probe Trajectories. <i>Journal of Intelligent Transportation Systems: Technology, Planning, and Operations</i> , 2012, 16, 12-23.	2.6	86
7	Perspectives on Future Transportation Research: Impact of Intelligent Transportation System Technologies on Next-Generation Transportation Modeling. <i>Journal of Intelligent Transportation Systems: Technology, Planning, and Operations</i> , 2012, 16, 226-242.	2.6	75
8	A Novel Car-Following Control Model Combining Machine Learning and Kinematics Models for Automated Vehicles. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2019, 20, 1991-2000.	4.7	74
9	Automated traffic incident detection with a smaller dataset based on generative adversarial networks. <i>Accident Analysis and Prevention</i> , 2020, 144, 105628.	3.0	69
10	Dynamic Driving Risk Potential Field Model Under the Connected and Automated Vehicles Environment and Its Application in Car-Following Modeling. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2022, 23, 122-141.	4.7	62
11	Integrated Schedule and Trajectory Optimization for Connected Automated Vehicles in a Conflict Zone. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2022, 23, 1841-1851.	4.7	62
12	Dangerous driving behavior detection using video-extracted vehicle trajectory histograms. <i>Journal of Intelligent Transportation Systems: Technology, Planning, and Operations</i> , 2017, 21, 409-421.	2.6	54
13	A novel lane-changing model of connected and automated vehicles: Using the safety potential field theory. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2020, 559, 125039.	1.2	54
14	Traffic speed prediction for intelligent transportation system based on a deep feature fusion model. <i>Journal of Intelligent Transportation Systems: Technology, Planning, and Operations</i> , 2019, 23, 605-616.	2.6	45
15	Safe distance car-following model including backward-looking and its stability analysis. <i>European Physical Journal B</i> , 2013, 86, 1.	0.6	42
16	Risk perception and the warning strategy based on safety potential field theory. <i>Accident Analysis and Prevention</i> , 2020, 148, 105805.	3.0	38
17	Electric Vehicle Routing Problem with Charging Time and Variable Travel Time. <i>Mathematical Problems in Engineering</i> , 2017, 2017, 1-13.	0.6	36
18	A deep fusion model based on restricted Boltzmann machines for traffic accident duration prediction. <i>Engineering Applications of Artificial Intelligence</i> , 2020, 93, 103686.	4.3	36

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19	A Hybrid Model for Lane-Level Traffic Flow Forecasting Based on Complete Ensemble Empirical Mode Decomposition and Extreme Gradient Boosting. <i>IEEE Access</i> , 2020, 8, 42042-42054.	2.6	35
20	Optimal timetable development for community shuttle network with metro stations. <i>Transportation Research Part C: Emerging Technologies</i> , 2015, 60, 540-565.	3.9	34
21	Stability Analysis of Connected and Automated Vehicles to Reduce Fuel Consumption and Emissions. <i>Journal of Transportation Engineering Part A: Systems</i> , 2018, 144, .	0.8	34
22	Passenger flow control with multi-station coordination in subway networks: algorithm development and real-world case study. <i>Transportmetrica B</i> , 2019, 7, 446-472.	1.4	34
23	Robust Missing Traffic Flow Imputation Considering Nonnegativity and Road Capacity. <i>Mathematical Problems in Engineering</i> , 2014, 2014, 1-8.	0.6	30
24	Traffic Speed Data Imputation Method Based on Tensor Completion. <i>Computational Intelligence and Neuroscience</i> , 2015, 2015, 1-9.	1.1	30
25	A Comparison of Traffic Flow Prediction Methods Based on DBN. , 2016, , .		30
26	Driving risk status prediction using Bayesian networks and logistic regression. <i>IET Intelligent Transport Systems</i> , 2017, 11, 431-439.	1.7	29
27	Traffic Vehicle Counting in Jam Flow Conditions Using Low-Cost and Energy-Efficient Wireless Magnetic Sensors. <i>Sensors</i> , 2016, 16, 1868.	2.1	26
28	Multimode trip information detection using personal trajectory data. <i>Journal of Intelligent Transportation Systems: Technology, Planning, and Operations</i> , 2016, 20, 449-460.	2.6	26
29	A deep reinforcement learning-based distributed connected automated vehicle control under communication failure. <i>Computer-Aided Civil and Infrastructure Engineering</i> , 2022, 37, 2033-2051.	6.3	25
30	Estimating Missing Traffic Volume Using Low Multilinear Rank Tensor Completion. <i>Journal of Intelligent Transportation Systems: Technology, Planning, and Operations</i> , 2016, 20, 152-161.	2.6	21
31	Impact of Connected and Automated Vehicles on Passenger Comfort of Traffic Flow with Vehicle-to-vehicle Communications. <i>KSCE Journal of Civil Engineering</i> , 2019, 23, 821-832.	0.9	21
32	A Hybrid Tree Approach to Modeling Alternate Route Choice Behavior With Online Information. <i>Journal of Intelligent Transportation Systems: Technology, Planning, and Operations</i> , 2010, 14, 209-219.	2.6	20
33	Urban arterial traffic status detection using cellular data without cellphone GPS information. <i>Transportation Research Part C: Emerging Technologies</i> , 2020, 114, 446-462.	3.9	20
34	Rear-End Crash Risk of CACC-Manual Driven Mixed Flow Considering the Degeneration of CACC Systems. <i>IEEE Access</i> , 2019, 7, 140421-140429.	2.6	19
35	Modeling Freeway Merging in a Weaving Section as a Sequential Decision-Making Process. <i>Journal of Transportation Engineering Part A: Systems</i> , 2017, 143, .	0.8	18
36	A vehicle type-dependent visual imaging model for analysing the heterogeneous car-following dynamics. <i>Transportmetrica B</i> , 2016, 4, 68-85.	1.4	17

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37	Methods for Multi-Type Sensor Allocations Along a Freeway Corridor. IEEE Intelligent Transportation Systems Magazine, 2018, 10, 134-149.	2.6	17
38	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
39	Robust and flexible strategy for missing data imputation in intelligent transportation system. IET Intelligent Transport Systems, 2018, 12, 151-157.	1.7	16
40	A distributed deep reinforcement learning-based integrated dynamic bus control system in a connected environment. Computer-Aided Civil and Infrastructure Engineering, 2022, 37, 2016-2032.	6.3	16
41	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
42	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
43	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
44	Freeway Recurrent Bottleneck Identification Algorithms Considering Detector Data Quality Issues. Journal of Transportation Engineering, 2012, 138, 1205-1214.	0.9	13
45	Hazardous Traffic Event Detection Using Markov Blanket and Sequential Minimal Optimization (MB-SMO). Sensors, 2016, 16, 1084.	2.1	13
46	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
47	Memory, attention and prediction: a deep learning architecture for car-following. Transportmetrica B, 2019, 7, 1553-1571.	1.4	12
48	Efficient deep learning based method for multi-lane speed forecasting: a case study in Beijing. IET Intelligent Transport Systems, 2020, 14, 2073-2082.	1.7	11
49	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
50	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
51	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
52	Sensor layout strategy and sensitivity analysis for macroscopic traffic flow parameter acquisition. IET Intelligent Transport Systems, 2017, 11, 212-221.	1.7	9
53	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
54	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

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55	Navigating Electric Vehicles Along a Signalized Corridor via Reinforcement Learning: Toward Adaptive Eco-Driving Control. <i>Transportation Research Record</i> , 2022, 2676, 657-669.	1.0	8
56	Key Factors Analysis of Severity of Automobile to Two-Wheeler Traffic Accidents Based on Bayesian Network. <i>International Journal of Environmental Research and Public Health</i> , 2022, 19, 6013.	1.2	8
57	Optimization Model for Headway of a Suburban Bus Route. <i>Mathematical Problems in Engineering</i> , 2014, 2014, 1-6.	0.6	7
58	Large-scale evacuation network optimization: a bi-level control method with uncertain arterial demand. <i>Transportation Planning and Technology</i> , 2015, 38, 777-794.	0.9	7
59	Trip-Chain-Based Travel-Mode-Shares-Driven Framework using Cellular Signaling Data and Web-Based Mapping Service Data. <i>Transportation Research Record</i> , 2019, 2673, 51-64.	1.0	7
60	Kalman Filtering Method for Real-Time Queue Length Estimation in a Connected Vehicle Environment. <i>Transportation Research Record</i> , 2021, 2675, 578-589.	1.0	7
61	Understanding and Modeling Urban Mobility Dynamics via Disentangled Representation Learning. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2022, 23, 2010-2020.	4.7	7
62	An Improved Single-Lane Cellular Automaton Model considering Driver's Radical Feature. <i>Journal of Advanced Transportation</i> , 2018, 2018, 1-10.	0.9	6
63	Horizontal Alignment Security Design Theory and Application of Superhighways. <i>Sustainability</i> , 2020, 12, 2222.	1.6	6
64	Incorporating multiple congestion levels into spatiotemporal analysis for the impact of a traffic incident. <i>Accident Analysis and Prevention</i> , 2021, 159, 106255.	3.0	6
65	Dynamic Trajectory-Based Traffic Dispersion Method for Intersection Traffic Accidents in an Intelligent and Connected Environment. <i>IEEE Intelligent Transportation Systems Magazine</i> , 2023, 15, 84-100.	2.6	6
66	A Prediction Method of GHG Emissions for Urban Road Transportation Planning and Its Applications. <i>Sustainability</i> , 2020, 12, 10251.	1.6	5
67	A Reservation-Based Coordinated Transit Signal Priority Method for Bus Rapid Transit System With Connected Vehicle Technologies. <i>IEEE Intelligent Transportation Systems Magazine</i> , 2021, 13, 17-30.	2.6	5
68	Analyzing the Safety Impacts of Variable Speed Limit Control on Aggregated Driving Behavior Based on Traffic Big Data. <i>Journal of Advanced Transportation</i> , 2021, 2021, 1-9.	0.9	5
69	Intersection traffic signal optimisation considering the impact of upstream curbside bus stops. <i>IET Intelligent Transport Systems</i> , 2020, 14, 880-888.	1.7	5
70	Level of Service Model of the Non-Motorized Vehicle Crossing the Signalized Intersection Based on Riders' Perception Data. <i>International Journal of Environmental Research and Public Health</i> , 2022, 19, 4534.	1.2	5
71	Dynamic platoon dispersion model based on real-time link travel time. <i>IET Intelligent Transport Systems</i> , 2019, 13, 1694-1700.	1.7	4
72	Modelling the road network capacity considering residual queues and connected automated vehicles. <i>IET Intelligent Transport Systems</i> , 2022, 16, 543-570.	1.7	4

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73	Crash Severity Evaluation for Unsignalized Intersection Using Conflict Data. <i>International Journal of Computational Intelligence Systems</i> , 2011, 4, 1325-1333.	1.6	3
74	Comparing the State-of-the-Art Efficient Stated Choice Designs Based on Empirical Analysis. <i>Mathematical Problems in Engineering</i> , 2014, 2014, 1-8.	0.6	3
75	Sensor Location Problem Optimization for Traffic Network with Different Spatial Distributions of Traffic Information. <i>Sensors</i> , 2016, 16, 1790.	2.1	3
76	Measuring Spatial Distribution of Tourist Flows Based on Cellular Signalling Data: A Case Study of Shanghai. , 2019, , .		3
77	A Feature-Based Approach to Large-Scale Freeway Congestion Detection Using Full Cellular Activity Data. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2022, 23, 1323-1331.	4.7	3
78	Analysis of cascading failure induced by load fluctuation and robust station capacity assignment for metros. <i>Transportmetrica A: Transport Science</i> , 2022, 18, 1401-1419.	1.3	3
79	Traffic signal coordination control optimization considering vehicle emissions on urban arterial road. <i>Journal of Computational Methods in Sciences and Engineering</i> , 2021, 21, 233-239.	0.1	2
80	Map matching for travel route identification based on Earth Mover's Distance algorithm using wireless cell trajectory data. <i>Journal of Intelligent Transportation Systems: Technology, Planning, and Operations</i> , 2021, 25, 644-656.	2.6	2
81	A Novel Hybrid Model for Predicting Traffic Flow via Improved Ensemble Learning Combined with Deep Belief Networks. <i>Mathematical Problems in Engineering</i> , 2021, 2021, 1-16.	0.6	2
82	An improved tucker decomposition-based imputation method for recovering lane-level missing values in traffic data. <i>IET Intelligent Transport Systems</i> , 2022, 16, 363-379.	1.7	2
83	Spatially Formulated Connected Automated Vehicle Trajectory Optimization with Infrastructure Assistance. <i>Journal of Advanced Transportation</i> , 2022, 2022, 1-15.	0.9	2
84	Vehicle-space traffic-state estimation of a motorway corridor with slip roads. <i>Proceedings of the Institution of Civil Engineers: Transport</i> , 2019, 172, 47-56.	0.3	1
85	Real-time detection algorithm for moving vehicles in dynamic traffic environment. , 2013, , .		0
86	A Novel Multisensor Traffic State Assessment System Based on Incomplete Data. <i>Scientific World Journal</i> , The, 2014, 2014, 1-13.	0.8	0
87	A Utility for Crash Data Translation between Dissimilar Resolution Networks. , 2018, , .		0
88	Junction Conditions for Hamilton-Jacobi Equations for Solving Real-Time Traffic Flow Problems. <i>IEEE Access</i> , 2019, 7, 114334-114348.	2.6	0
89	Infrastructure Allocation for Improving Sensing Accuracy and Connectivity Probability Based on Combination Strategy in Vehicular Networks. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2022, 23, 15244-15255.	4.7	0
90	Urban Traffic State Estimation with Online Car-Hailing Data: A Dynamic Tensor-Based Bayesian Probabilistic Decomposition Approach. <i>Journal of Advanced Transportation</i> , 2022, 2022, 1-16.	0.9	0