

Ali Hajbabaie

List of Publications by Year in descending order

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Version: 2024-02-01

55
papers

1,297
citations

394286

19
h-index

377752

34
g-index

55
all docs

55
docs citations

55
times ranked

700
citing authors

#	ARTICLE	IF	CITATIONS
1	A consensus-based distributed trajectory control in a signal-free intersection. <i>Transportation Research Part C: Emerging Technologies</i> , 2019, 100, 161-176.	3.9	149
2	Development of a signal-head-free intersection control logic in a fully connected and autonomous vehicle environment. <i>Transportation Research Part C: Emerging Technologies</i> , 2018, 92, 412-425.	3.9	118
3	Distributed coordinated signal timing optimization in connected transportation networks. <i>Transportation Research Part C: Emerging Technologies</i> , 2017, 80, 272-285.	3.9	111
4	Joint optimization of vehicle-group trajectory and signal timing: Introducing the white phase for mixed-autonomy traffic stream. <i>Transportation Research Part C: Emerging Technologies</i> , 2020, 116, 102659.	3.9	80
5	On the relationships between commuting mode choice and public health. <i>Journal of Transport and Health</i> , 2017, 4, 267-277.	1.1	57
6	A Program for Simultaneous Network Signal Timing Optimization and Traffic Assignment. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2015, 16, 2573-2586.	4.7	53
7	Dynamic Speed Harmonization in Connected Urban Street Networks. <i>Computer-Aided Civil and Infrastructure Engineering</i> , 2018, 33, 510-523.	6.3	51
8	Distributed optimization and coordination algorithms for dynamic speed optimization of connected and autonomous vehicles in urban street networks. <i>Transportation Research Part C: Emerging Technologies</i> , 2018, 95, 497-515.	3.9	45
9	Cooperative traffic signal and perimeter control in semi-connected urban-street networks. <i>Transportation Research Part C: Emerging Technologies</i> , 2019, 104, 408-427.	3.9	45
10	Network-Level Coordinated Speed Optimization and Traffic Light Control for Connected and Automated Vehicles. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2021, 22, 6748-6759.	4.7	45
11	A real-time network-level traffic signal control methodology with partial connected vehicle information. <i>Transportation Research Part C: Emerging Technologies</i> , 2020, 121, 102830.	3.9	44
12	A Cell-Based Distributed Coordinated Approach for Network-Level Signal Timing Optimization. <i>Computer-Aided Civil and Infrastructure Engineering</i> , 2017, 32, 599-616.	6.3	43
13	Optimal network-level traffic signal control: A benders decomposition-based solution algorithm. <i>Transportation Research Part B: Methodological</i> , 2019, 121, 252-274.	2.8	39
14	Traffic Signal Timing and Trajectory Optimization in a Mixed Autonomy Traffic Stream. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2022, 23, 6525-6538.	4.7	38
15	Traffic Signal Timing Optimization. <i>Transportation Research Record</i> , 2013, 2355, 10-19.	1.0	36
16	A decomposition scheme for parallelization of system optimal dynamic traffic assignment on urban networks with multiple origins and destinations. <i>Computer-Aided Civil and Infrastructure Engineering</i> , 2019, 34, 915-931.	6.3	24
17	Distributed Optimization and Coordination Algorithms for Dynamic Traffic Metering in Urban Street Networks. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2019, 20, 1930-1941.	4.7	22
18	Automated Speed Photo Enforcement Effects on Speeds in Work Zones. <i>Transportation Research Record</i> , 2008, 2055, 11-20.	1.0	21

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19	Dynamic traffic metering in urban street networks: Formulation and solution algorithm. Transportation Research Part C: Emerging Technologies, 2018, 93, 161-178.	3.9	21
20	Trajectory control in roundabouts with a mixed fleet of automated and human-driven vehicles. Computer-Aided Civil and Infrastructure Engineering, 2022, 37, 1959-1977.	6.3	21
21	Downstream Effects of Speed Photo-Radar Enforcement and Other Speed Reduction Treatments on Work Zones. Transportation Research Record, 2009, 2107, 24-33.	1.0	19
22	Speed Photo-Radar Enforcement and Its Effects on Speed in Work Zones. Transportation Research Record, 2009, 2096, 89-97.	1.0	19
23	Connected automated vehicle control in single lane roundabouts. Transportation Research Part C: Emerging Technologies, 2021, 131, 103308.	3.9	19
24	Arterial traffic control using reinforcement learning agents and information from adjacent intersections in the state and reward structure. , 2010, , .		15
25	Effects of ITS-based left turn policies on network performance. , 2010, , .		13
26	Innovative Work Zone Capacity Models from Nationwide Field and Archival Sources. Transportation Research Record, 2015, 2485, 51-60.	1.0	13
27	The Effects of the "White Phase" on Intersection Performance with Mixed-Autonomy Traffic Stream. , 2020, , .		13
28	Effects of Autonomous Driving Behavior on Intersection Performance and Safety in the Presence of White Phase for Mixed-Autonomy Traffic Stream. Transportation Research Record, 2022, 2676, 112-130.	1.0	11
29	Sustained and Halo Effects of Various Speed Reduction Treatments in Highway Work Zones. Transportation Research Record, 2011, 2265, 118-128.	1.0	9
30	Stochastic Gradient-Based Optimal Signal Control With Energy Consumption Bounds. IEEE Transactions on Intelligent Transportation Systems, 2021, 22, 3054-3067.	4.7	9
31	Detection Performance of Wireless Magnetometers at Signalized Intersection and Railroad Grade Crossing under various Weather Conditions. Transportation Research Record, 2011, 2259, 233-241.	1.0	8
32	Does traffic metering improve network performance efficiency?. , 2011, , .		7
33	Effects of Metered Entry Volume on an Oversaturated Network with Dynamic Signal Timing. Transportation Research Record, 2013, 2366, 53-60.	1.0	7
34	Estimation of Incident Propensity for Reliability Analysis in the Highway Capacity Manual. Transportation Research Record, 2013, 2395, 123-131.	1.0	7
35	Dynamic Bandwidth Analysis for Coordinated Arterial Streets. Journal of Intelligent Transportation Systems: Technology, Planning, and Operations, 2016, 20, 294-310.	2.6	7
36	The Effects of Connectivity on Intersection Operations with "White Phase", 2021, , .		7

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37	Generic Speed-Flow Models for Basic Freeway Segments on General-Purpose and Managed Lanes in Undersaturated Flow Conditions. Transportation Research Record, 2015, 2483, 102-110.	1.0	6
38	A comparison of approximate dynamic programming and simple genetic algorithm for traffic control in oversaturated conditions — Case study of a simple symmetric network. , 2011, , .		5
39	Generating Scenarios of Freeway Reliability Analysis. Transportation Research Record, 2015, 2483, 148-159.	1.0	5
40	Estimation of Saturation Headway in Work Zones on Urban Streets. Transportation Research Record, 2017, 2615, 26-34.	1.0	5
41	Effects of Connectivity and Traffic Observability on an Adaptive Traffic Signal Control System. Transportation Research Record, 2021, 2675, 800-814.	1.0	5
42	Effects of Automated Vehicles on Traffic Operations at Roundabouts. , 2020, , .		5
43	Utilization Management of Highway Operations Equipment. Transportation Research Record, 2020, 2674, 202-215.	1.0	4
44	Enhanced Decision-Making Framework Using Reliability Concepts for Freeway Facilities. Journal of Transportation Engineering, 2016, 142, 04016008.	0.9	3
45	Testing Connected Vehicle-Based Accident Mitigation for Red-Light Violation Using Simulation Strategies. Transportation Research Record, 2022, 2676, 583-600.	1.0	3
46	Using COVID-19 Data on Vaccine Shipments and Wastage to Inform Modeling and Decision-Making. Transportation Science, 2022, 56, 1135-1147.	2.6	3
47	Speed Photo Enforcement Effects on Headways in Work Zones. , 2011, , .		2
48	Evaluation of Wireless Magnetometers for Vehicle Detection at Signalized Intersections. , 2011, , .		1
49	Effects of Metered Entry Volume on an Oversaturated Network with Dynamic Signal Timing. Transportation Research Record, 2013, 2356, 53-60.	1.0	1
50	An Enhanced Cell Transmission Model for Multi-Class Signal Control. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 11215-11226.	4.7	1
51	Utilization and Cost Estimation Models for Highway Fleet Equipment. Transportation Research Record, 2021, 2675, 1172-1186.	1.0	1
52	A Distributed Gradient Approach for System Optimal Dynamic Traffic Assignment. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 17410-17424.	4.7	1
53	Common or Variable Cycle Length Policy for a More Efficient Network Performance?. , 2011, , .		0
54	Planning-Level Methodology for Freeway Facilities. Transportation Research Record, 2015, 2483, 47-56.	1.0	0

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55	Proposed Data-Driven Performance Measures for Comparing and Ranking Traffic Bottlenecks. Transportation Research Procedia, 2016, 15, 483-494.	0.8	0