Soyoung Ahn

List of Publications by Year
in descending order

51 papers	2,720 citations	236612 25 h-index	205818 48 g-index
51 all docs	51 docs citations	51 times ranked	1381 citing authors

#	ARTICLE	IF	CITATIONS
1	Platoon Trajectory Completion in a Mixed Traffic Environment Under Sparse Observation. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 16217-16226.	4.7	3
2	Modeling and Control Using Connected and Automated Vehicles with Chained Asymmetric Driver Behavior under Stop-and-Go Oscillations. Transportation Research Record, 2021, 2675, 342-355.	1.0	2
3	The cooperative sorting strategy for connected and automated vehicle platoons. Transportation Research Part C: Emerging Technologies, 2021, 123, 102986.	3.9	41
4	Harnessing connected and automated vehicle technologies to control lane changes at freeway merge bottlenecks in mixed traffic. Transportation Research Part C: Emerging Technologies, 2021, 123, 102950.	3.9	19
5	Estimation of Traffic Flow Rate With Data From Connected-Automated Vehicles Using Bayesian Inference and Deep Learning. Frontiers in Future Transportation, 2021, 2, .	1.3	2
6	Autonomous vehicle adoption: use phase environmental implications. Environmental Research Letters, 2021, 16, 064010.	2.2	9
7	On lane assignment of connected automated vehicles: strategies to improve traffic flow at diverge and weave bottlenecks. Transportation Research Part C: Emerging Technologies, 2021, 127, 103126.	3.9	14
8	On multi-class automated vehicles: Car-following behavior and its implications for traffic dynamics. Transportation Research Part C: Emerging Technologies, 2021, 128, 103166.	3.9	7
9	Variable Speed Release (VSR): Speed Control to Increase Bottleneck Capacity. IEEE Transactions on Intelligent Transportation Systems, 2020, 21, 298-307.	4.7	15
10	Traffic dynamics under speed disturbance in mixed traffic with automated and non-automated vehicles. Transportation Research Part C: Emerging Technologies, 2020, 113, 293-313.	3.9	20
11	Lane flow distribution of congested traffic on three-lane freeways. International Journal of Transportation Science and Technology, 2020, 9, 1-13.	2.0	5
12	Stabilizing mixed vehicular platoons with connected automated vehicles: An H-infinity approach. Transportation Research Part B: Methodological, 2020, 132, 152-170.	2.8	107
13	Analysis and Control of Heterogeneous Connected and Autonomous Vehicles using a Spring-Mass-Damper System. Transportation Research Record, 2020, 2674, 309-318.	1.0	5
14	Distributed model predictive control approach for cooperative car-following with guaranteed local and string stability. Transportation Research Part B: Methodological, 2019, 128, 69-86.	2.8	134
15	On the Spatial Evolution of Traffic State Transitions: Empirical Observations and General Features. Transportation Research Record, 2019, 2673, 606-618.	1.0	0
16	Stabilizing Mixed Vehicular Platoons with Connected Automated Vehicles: An H-infinity Approach. Transportation Research Procedia, 2019, 38, 441-461.	0.8	68
17	Mixed Traffic of Connected and Autonomous Vehicles and Human-Driven Vehicles: Traffic Evolution and Control using Spring-Mass-Damper System. Transportation Research Record, 2019, 2673, 504-515.	1.0	6
18	Robust local and string stability for a decentralized car following control strategy for connected automated vehicles. Transportation Research Part B: Methodological, 2019, 125, 175-196.	2.8	81

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19	Capacity-drop at extended bottlenecks: Merge, diverge, and weave. Transportation Research Part B: Methodological, 2018, 108, 1-20.	2.8	65
20	Truck platooning on uphill grades under cooperative adaptive cruise control (CACC). Transportation Research Part C: Emerging Technologies, 2018, 94, 50-66.	3.9	14
21	Stochastic modeling of breakdown at freeway merge bottleneck and traffic control method using connected automated vehicle. Transportation Research Part B: Methodological, 2018, 107, 146-166.	2.8	46
22	Control of Connected and Autonomous Vehicles with Cut-in Movement using Spring Mass Damper System. Transportation Research Record, 2018, 2672, 133-143.	1.0	11
23	Variable speed limit control at fixed freeway bottlenecks using connected vehicles. Transportation Research Part B: Methodological, 2017, 98, 113-134.	2.8	97
24	Towards vehicle automation: Roadway capacity formulation for traffic mixed with regular and automated vehicles. Transportation Research Part B: Methodological, 2017, 100, 196-221.	2.8	231
25	Truck Platooning on Uphill Grades under Cooperative Adaptive Cruise Control (CACC). Transportation Research Procedia, 2017, 23, 1059-1078.	0.8	4
26	Rolling horizon stochastic optimal control strategy for ACC and CACC under uncertainty. Transportation Research Part C: Emerging Technologies, 2017, 83, 61-76.	3.9	125
27	Car-Following and Lane-Changing Behavior Involving Heavy Vehicles:. Transportation Research Record, 2016, 2561, 89-97.	1.0	19
28	Analysis of Driver Response and Traffic Evolution under Variable Speed Limit Control. Transportation Research Record, 2015, 2490, 1-10.	1.0	7
29	Variable speed limit control for severe non-recurrent freeway bottlenecks. Transportation Research Part C: Emerging Technologies, 2015, 51, 210-230.	3.9	54
30	On macroscopic freeway merge behavior: Estimation of merge ratios using asymmetric lane flow distribution. Transportation Research Part C: Emerging Technologies, 2015, 60, 24-35.	3.9	7
31	Improving the Accuracy of Vehicle Emissions Profiles for Urban Transportation Greenhouse Gas and Air Pollution Inventories. Environmental Science & Technology, 2015, 49, 369-376.	4.6	24
32	Variable speed limit control for steady and oscillatory queues at fixed freeway bottlenecks. Transportation Research Part B: Methodological, 2014, 70, 340-358.	2.8	67
33	On the periodicity of traffic oscillations and capacity drop: The role of driver characteristics. Transportation Research Part B: Methodological, 2014, 59, 117-136.	2.8	100
34	The effects of lane-changing on the immediate follower: Anticipation, relaxation, and change in driver characteristics. Transportation Research Part C: Emerging Technologies, 2013, 26, 367-379.	3.9	161
35	A method to account for non-steady state conditions in measuring traffic hysteresis. Transportation Research Part C: Emerging Technologies, 2013, 34, 138-147.	3.9	30
36	A behavioral car-following model that captures traffic oscillations. Transportation Research Part B: Methodological, 2012, 46, 744-761.	2.8	164

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37	Microscopic traffic hysteresis in traffic oscillations: A behavioral perspective. Transportation Research Part B: Methodological, 2012, 46, 1440-1453.	2.8	81
38	Lane flow distribution on a three-lane freeway: General features and the effects of traffic controls. Transportation Research Part C: Emerging Technologies, 2012, 24, 157-167.	3.9	63
39	Applications of wavelet transform for analysis of freeway traffic: Bottlenecks, transient traffic, and traffic oscillations. Transportation Research Part B: Methodological, 2011, 45, 372-384.	2.8	154
40	Freeway traffic oscillations: Microscopic analysis of formations and propagations using Wavelet Transform. Transportation Research Part B: Methodological, 2011, 45, 1378-1388.	2.8	101
41	Passing Rates to Measure Relaxation and Impact of Lane-Changing in Congestion. Computer-Aided Civil and Infrastructure Engineering, 2011, 26, 285-297.	6.3	49
42	Identifying Large Truck Hot Spots Using Crash Counts and PDOEs. Journal of Transportation Engineering, 2011, 137, 11-21.	0.9	15
43	Effects of Merging and Diverging on Freeway Traffic Oscillations. Transportation Research Record, 2010, 2188, 1-8.	1.0	32
44	Empirical macroscopic evaluation of freeway merge-ratios. Transportation Research Part C: Emerging Technologies, 2010, 18, 457-470.	3.9	41
45	Impact of traffic oscillations on freeway crash occurrences. Accident Analysis and Prevention, 2010, 42, 626-636.	3.0	232
46	Evolution of Oscillations in Congested Traffic. Transportation Research Record, 2009, 2124, 194-202.	1.0	16
47	Comparisons of Speed-Spacing Relations under General Car following versus Lane Changing. Transportation Research Record, 2008, 2088, 138-147.	1.0	15
48	Evaluating Benefits of Systemwide Adaptive Ramp-Metering Strategy in Portland, Oregon. Transportation Research Record, 2007, 2012, 47-56.	1.0	19
49	Verification of a simplified car-following theory. Transportation Research Part B: Methodological, 2004, 38, 431-440.	2.8	107
50	Identification of Potential Freight Parking Locations in Urban Areas. Transportation Research Record, 0, , 036119812110130.	1.0	0
51	Driver Turn-Taking Behavior in Congested Freeway Merges. , 0, .		31