

Traffic state estimation on highway: A comprehensive s

Annual Reviews in Control

43, 128-151

DOI: [10.1016/j.arcontrol.2017.03.005](https://doi.org/10.1016/j.arcontrol.2017.03.005)

Citation Report

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | A phase-based smoothing method for accurate traffic speed estimation with floating car data. Transportation Research Part C: Emerging Technologies, 2017, 85, 644-663. | 3.9 | 32 |
| 2 | Traffic Density Estimation: A Mobile Sensing Approach. , 2017, 55, 126-131. | | 22 |
| 3 | Highway traffic state estimation per lane in the presence of connected vehicles. Transportation Research Part B: Methodological, 2017, 106, 1-28. | 2.8 | 41 |
| 4 | Multi-hop broadcast message dissemination in vehicular ad hoc networks: A security perspective review. International Journal of Distributed Sensor Networks, 2017, 13, 155014771774126. | 1.3 | 14 |
| 5 | Traffic state estimation method with efficient data fusion based on the Aw-Rascl-Zhang model. , 2017, , . | | 12 |
| 6 | Real-Time Traffic Estimation with Incomplete Information under Urban Traffic Network. , 2017, , . | | 1 |
| 7 | Fundamental diagram estimation using GPS trajectories of probe vehicles. , 2017, , . | | 5 |
| 8 | Highway Traffic Management System: Recent Trends and Future Challenges. SSRN Electronic Journal, 0, , . | 0.4 | 0 |
| 9 | State Estimation in Freeway Traffic Systems. Advances in Industrial Control, 2018, , 169-190. | 0.4 | 6 |
| 10 | Microscopic simulation-based validation of a per-lane traffic state estimation scheme for highways with connected vehicles. Transportation Research Part C: Emerging Technologies, 2018, 86, 441-452. | 3.9 | 25 |
| 11 | Short-Term Traffic Prediction with Vicinity Gaussian Process in the Presence of Missing Data. , 2018, , . | | 8 |
| 12 | Evaluation of Operation Status of Urban Rail Transit Stations Based on Historical Data. , 2018, , . | | 0 |
| 13 | Density and flow reconstruction in urban traffic networks using heterogeneous data sources. , 2018, , . | | 6 |
| 14 | Joint Flow and Density Reconstruction in Large Traffic Networks Using Partial Turning Ratio Information. , 2018, , . | | 0 |
| 15 | Flexible and efficient model-based congestion detection approach. , 2018, , . | | 0 |
| 16 | Traffic state estimation using small imaging satellites and connected vehicles. Transportation Research Procedia, 2018, 34, 4-11. | 0.8 | 5 |
| 17 | Analysis on Sag Bottleneck Phenomena Based on Multiclass Traffic State Estimation. Transportation Research Procedia, 2018, 34, 20-27. | 0.8 | 0 |
| 18 | Use of Small Satellites and Connected Vehicles for Large-Scale Traffic Monitoring in Road Network. , 2018, , . | | 2 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | Towards Smart Emergency Management: Trends and Challenges of Feature Engineering. , 2018, , . | | 1 |
| 20 | Short-Term Traffic Speed Prediction for Freeways During Hurricane Evacuation: A Deep Learning Approach. , 2018, , . | | 17 |
| 21 | Inertial Measurement Units-based probe vehicles: Path reconstruction and map matching. , 2018, , . | | 0 |
| 22 | Estimating the fundamental diagram using moving observers. , 2018, , . | | 5 |
| 23 | Hierarchical travel demand estimation using multiple data sources: A forward and backward propagation algorithmic framework on a layered computational graph. Transportation Research Part C: Emerging Technologies, 2018, 96, 321-346. | 3.9 | 66 |
| 24 | Traffic Speed Prediction for Urban Arterial Roads Using Deep Neural Networks. , 2018, , . | | 4 |
| 25 | Sybil Attack Resilient Traffic Networks: A Physics-Based Trust Propagation Approach. , 2018, , . | | 13 |
| 26 | Short Term Traffic Flow Prediction with Particle Methods in the Presence of Sparse Data. , 2018, , . | | 2 |
| 27 | Macroscopic traffic state estimation using relative flows from stationary and moving observers. Transportation Research Part B: Methodological, 2018, 114, 281-299. | 2.8 | 27 |
| 28 | Improved Numerical Method for Aw-Rascle Type Continuum Traffic Flow Models. Transportation Research Record, 2018, 2672, 262-276. | 1.0 | 9 |
| 29 | Traffic state estimation using stochastic Lagrangian dynamics. Transportation Research Part B: Methodological, 2018, 115, 143-165. | 2.8 | 36 |
| 30 | Integrating Model-Based Observer and Kullback-Leibler Metric for Estimating and Detecting Road Traffic Congestion. IEEE Sensors Journal, 2018, 18, 8605-8616. | 2.4 | 22 |
| 31 | Multisource Data Framework for Road Traffic State Estimation. Journal of Advanced Transportation, 2018, 2018, 1-9. | 0.9 | 12 |
| 32 | Traffic congestion detection based on hybrid observer and GLR test. , 2018, , . | | 8 |
| 33 | Local and coordinated ramp metering within the unifying framework of an adaptive control scheme. Transportation Research, Part A: Policy and Practice, 2019, 128, 89-113. | 2.0 | 6 |
| 34 | Multi-source traffic data reconstruction using joint low-rank and fundamental diagram constraints. IEEE Intelligent Transportation Systems Magazine, 2019, 11, 221-234. | 2.6 | 4 |
| 35 | Bayesian Dynamic Linear Model with Adaptive Parameter Estimation for Short-Term Travel Speed Prediction. Journal of Advanced Transportation, 2019, 2019, 1-10. | 0.9 | 8 |
| 36 | Traffic Estimation for Large Urban Road Network with High Missing Data Ratio. Sensors, 2019, 19, 2813. | 2.1 | 5 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 37 | Multiple model stochastic filtering for traffic density estimation on urban arterials. Transportation Research Part B: Methodological, 2019, 126, 280-306. | 2.8 | 7 |
| 38 | Position weighted backpressure intersection control for urban networks. Transportation Research Part B: Methodological, 2019, 128, 435-461. | 2.8 | 46 |
| 39 | Network-wide identification of turn-level intersection congestion using only low-frequency probe vehicle data. Transportation Research Part C: Emerging Technologies, 2019, 108, 320-339. | 3.9 | 49 |
| 40 | Learning Traffic Flow Dynamics Using Random Fields. IEEE Access, 2019, 7, 130566-130577. | 2.6 | 14 |
| 41 | Boundary Observer for Congested Freeway Traffic State Estimation via Aw-Rascle-Zhang model. IFAC-PapersOnLine, 2019, 52, 183-188. | 0.5 | 9 |
| 42 | On the value of relative flow data. Transportation Research Procedia, 2019, 38, 180-200. | 0.8 | 2 |
| 43 | Traffic Reconstruction Using Autonomous Vehicles. SIAM Journal on Applied Mathematics, 2019, 79, 1748-1767. | 0.8 | 16 |
| 44 | Analyzing the Impact of Traffic Congestion Mitigation: From an Explainable Neural Network Learning Framework to Marginal Effect Analyses. Sensors, 2019, 19, 2254. | 2.1 | 13 |
| 45 | Traffic Prediction using Time-Space Diagram: A Convolutional Neural Network Approach. Transportation Research Record, 2019, 2673, 425-435. | 1.0 | 27 |
| 46 | A Mesoscopic Traffic Data Assimilation Framework for Vehicle Density Estimation on Urban Traffic Networks Based on Particle Filters. Entropy, 2019, 21, 358. | 1.1 | 2 |
| 47 | A non-parametric Bayesian framework for traffic-state estimation at signalized intersections. Information Sciences, 2019, 498, 21-40. | 4.0 | 17 |
| 48 | Complex Dynamics of Traffic Management: Introduction. , 2019, , 1-19. | | 1 |
| 49 | An Interdisciplinary Review of Smart Vehicular Traffic and Its Applications and Challenges. Journal of Sensor and Actuator Networks, 2019, 8, 13. | 2.3 | 12 |
| 50 | Fundamental diagram estimation by using trajectories of probe vehicles. Transportation Research Part B: Methodological, 2019, 122, 40-56. | 2.8 | 39 |
| 51 | Back to the Future: Predicting Traffic Shockwave Formation and Propagation Using a Convolutional Encoder-Decoder Network. , 2019, , . | | 3 |
| 52 | Integrated optimal traffic flow control enabled by speed and time-gap regulation. , 2019, , . | | 1 |
| 53 | Autonomous vehicles: From vehicular control to traffic contro. , 2019, , . | | 7 |
| 54 | A Behavior-Based Population Tracker Can Parse Aggregate Measurements to Differentiate Agents. , 2019, , . | | 1 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 55 | Kinematic wave-oriented Markov Chain model to capture the spatiotemporal correlations of coupled traffic states. , 2019, , . | | 0 |
| 56 | Traffic density estimation method from small satellite imagery: Towards frequent remote sensing of car traffic. , 2019, , . | | 7 |
| 57 | Heterogeneous traffic estimation with particle filtering. , 2019, , . | | 2 |
| 58 | An extension of Newell's simplified kinematic wave model to account for first-in-first-out violation: With an application to vehicle trajectory estimation. Transportation Research Part C: Emerging Technologies, 2019, 109, 79-94. | 3.9 | 8 |
| 59 | The State-of-the-Art of Coordinated Ramp Control with Mixed Traffic Conditions. , 2019, , . | | 25 |
| 60 | Estimating Travel Speed of a Road Section Through Sparse Crowdsensing Data. IEEE Transactions on Intelligent Transportation Systems, 2019, 20, 3486-3495. | 4.7 | 18 |
| 61 | Efficient Traffic Estimation With Multi-Sourced Data by Parallel Coupled Hidden Markov Model. IEEE Transactions on Intelligent Transportation Systems, 2019, 20, 3010-3023. | 4.7 | 19 |
| 62 | Emission pattern mining based on taxi trajectory data in Beijing. Journal of Cleaner Production, 2019, 206, 688-700. | 4.6 | 32 |
| 63 | A constrained filtering algorithm for freeway traffic state estimation. Transportmetrica A: Transport Science, 2020, 16, 316-336. | 1.3 | 9 |
| 64 | Block Simplex Signal Recovery: Methods, Trade-Offs, and an Application to Routing. IEEE Transactions on Intelligent Transportation Systems, 2020, 21, 1547-1559. | 4.7 | 1 |
| 65 | On the value of relative flow data. Transportation Research Part C: Emerging Technologies, 2020, 113, 74-90. | 3.9 | 6 |
| 66 | Keep it simple stupid! A non-parametric kernel regression approach to forecast travel speeds. Transportation Research Part C: Emerging Technologies, 2020, 110, 269-274. | 3.9 | 4 |
| 67 | Estimation of the Change in Cumulative Flow over Probe Trajectories using Detector Data. Transportation Research Record, 2020, 2674, 649-661. | 1.0 | 1 |
| 68 | Traffic Data Imputation Using Deep Convolutional Neural Networks. IEEE Access, 2020, 8, 104740-104752. | 2.6 | 25 |
| 69 | Improving Motorway Mobility and Environmental Performance via Vehicle Trajectory Data-Based Control. IEEE Access, 2020, 8, 86862-86869. | 2.6 | 3 |
| 70 | Partitioning Space to Identify En-Route Movement Patterns. , 2020, , . | | 5 |
| 71 | A Framework for Robust Assimilation of Potentially Malign Third-Party Data, and Its Statistical Meaning. IEEE Intelligent Transportation Systems Magazine, 2020, 12, 147-156. | 2.6 | 1 |
| 72 | Distributed Consensus-Based Boundary Observers for Freeway Traffic Estimation with Sensor Networks. , 2020, , . | | 7 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 73 | Enhancing Structural Health Monitoring with Vehicle Identification and Tracking. , 2020, , . | | 9 |
| 74 | Traffic Flow Modeling Using Available Cloud-Based Traffic Velocity Information. , 2020, , . | | 1 |
| 75 | Data Fusion for Multi-Source Sensors Using GA-PSO-BP Neural Network. IEEE Transactions on Intelligent Transportation Systems, 2021, 22, 6583-6598. | 4.7 | 39 |
| 76 | Deep learning for intelligent traffic sensing and prediction: recent advances and future challenges. CCF Transactions on Pervasive Computing and Interaction, 2020, 2, 240-260. | 1.7 | 12 |
| 77 | Traffic Index Cloud Maps for Traffic Flow Analysis with Big Traffic Data. , 2020, , . | | 0 |
| 78 | An Improved Selective Ensemble Learning Method for Highway Traffic Flow State Identification. IEEE Access, 2020, 8, 212623-212634. | 2.6 | 10 |
| 79 | Energetic Impacts Evaluation of Eco-Driving on Mixed Traffic With Driver Behavioral Diversity. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 3406-3417. | 4.7 | 16 |
| 80 | Towards real-time density estimation using vehicle-to-vehicle communications. Transportation Research Part B: Methodological, 2020, 138, 435-456. | 2.8 | 13 |
| 81 | Freeway Short-Term Travel Speed Prediction Based on Data Collection Time-Horizons: A Fast Forest Quantile Regression Approach. Sustainability, 2020, 12, 646. | 1.6 | 25 |
| 82 | Big data analytics for intelligent transportation systems. , 2020, , 207-221. | | 3 |
| 83 | State estimation in urban traffic networks: A two-layer approach. Transportation Research Part C: Emerging Technologies, 2020, 115, 102616. | 3.9 | 22 |
| 84 | Forecasting Sparse Traffic Congestion Patterns Using Message-Passing RNNs. , 2020, , . | | 7 |
| 85 | Area Occupancy-Based Adaptive Density Estimation for Mixed Road Traffic. IEEE Access, 2020, 8, 5502-5514. | 2.6 | 7 |
| 86 | Traffic congestion monitoring using an improved kNN strategy. Measurement: Journal of the International Measurement Confederation, 2020, 156, 107534. | 2.5 | 45 |
| 87 | Short Term Traffic State Prediction via Hyperparameter Optimization Based Classifiers. Sensors, 2020, 20, 685. | 2.1 | 33 |
| 88 | An Automated Hyperparameter Search-Based Deep Learning Model for Highway Traffic Prediction. IEEE Transactions on Intelligent Transportation Systems, 2021, 22, 5486-5495. | 4.7 | 42 |
| 89 | A Novel Approach for Mixed Manual/Connected Automated Freeway Traffic Management. Sensors, 2020, 20, 1757. | 2.1 | 14 |
| 90 | A Control-Theoretic Approach for Scalable and Robust Traffic Density Estimation Using Convex Optimization. IEEE Transactions on Intelligent Transportation Systems, 2021, 22, 64-78. | 4.7 | 10 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 91 | The Role of Trip Lengths Calibration in Model-Based Perimeter Control Strategies. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 5176-5186. | 4.7 | 4 |
| 92 | Backpressure control with estimated queue lengths for urban network traffic. IET Intelligent Transport Systems, 2021, 15, 320-330. | 1.7 | 14 |
| 93 | Toward a Cost-Effective Motorway Traffic State Estimation From Sparse Speed and GPS Data. IEEE Access, 2021, 9, 44631-44646. | 2.6 | 3 |
| 94 | A Physics-Informed Deep Learning Paradigm for Traffic State and Fundamental Diagram Estimation. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 11688-11698. | 4.7 | 32 |
| 95 | Urban network traffic state estimation using a data-based approach. IFAC-PapersOnLine, 2021, 54, 278-283. | 0.5 | 3 |
| 96 | Analysis of congested traffic pattern features on freeways: A historical overview. , 2021, , 29-64. | | 0 |
| 97 | Review of Data Fusion Methods for Real-Time and Multi-Sensor Traffic Flow Analysis. IEEE Access, 2021, 9, 51258-51276. | 2.6 | 64 |
| 98 | CONSTRUCTION OF ESTIMATION METHOD OF TRAFFIC FLOW RATE AT TRAFFIC ACCIDENT BY STATE SPACE MODEL. Journal of Japan Society of Civil Engineers Ser D3 (Infrastructure Planning and Management), 2021, 76, I_1297-I_1309. | 0.0 | 0 |
| 99 | Traffic State Estimation using DSRC-Enabled Probe Vehicles. , 2021, , . | | 4 |
| 100 | An Enhanced Predictive Cruise Control System Design With Data-Driven Traffic Prediction. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 8170-8183. | 4.7 | 16 |
| 101 | System Analysis of Potential Accidents on Mountain Road Based on Rough Set and Quantitative Theory. KSCE Journal of Civil Engineering, 2021, 25, 1031-1042. | 0.9 | 7 |
| 102 | A data-driven multi-fidelity approach for traffic state estimation using data from multiple sources. IEEE Access, 2021, , 1-1. | 2.6 | 1 |
| 104 | Empirical Spontaneous Traffic Breakdownâ€”Fundamental Problem for Understanding Real Traffic. , 2021, , 47-67. | | 0 |
| 105 | Real-Time Fine-Grained Freeway Traffic State Estimation Under Sparse Observation. Lecture Notes in Computer Science, 2021, , 561-577. | 1.0 | 1 |
| 106 | Estimation for heterogeneous traffic using enhanced particle filters. Transportmetrica A: Transport Science, 2022, 18, 568-593. | 1.3 | 1 |
| 107 | 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 |
| 108 | Effect of Enhanced ADAS Camera Capability on Traffic State Estimation. Sensors, 2021, 21, 1996. | 2.1 | 3 |
| 109 | Domain adaptation from daytime to nighttime: A situation-sensitive vehicle detection and traffic flow parameter estimation framework. Transportation Research Part C: Emerging Technologies, 2021, 124, 102946. | 3.9 | 41 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 110 | Method of Evaluating and Predicting Traffic State of Highway Network Based on Deep Learning. Journal of Advanced Transportation, 2021, 2021, 1-9. | 0.9 | 6 |
| 111 | Traffic State Identification for Expressway Network Based on ETC Gantry System. , 2021, , . | | 0 |
| 112 | Macroscopic traffic flow modeling with physics regularized Gaussian process: A new insight into machine learning applications in transportation. Transportation Research Part B: Methodological, 2021, 146, 88-110. | 2.8 | 50 |
| 113 | Model-Based Dynamic Toll Pricing: An Overview. Applied Sciences (Switzerland), 2021, 11, 4778. | 1.3 | 10 |
| 114 | Performance of continuum models for realworld traffic flows: Comprehensive benchmarking. Transportation Research Part B: Methodological, 2021, 147, 132-167. | 2.8 | 14 |
| 115 | PDE Traffic Observer Validated on Freeway Data. IEEE Transactions on Control Systems Technology, 2021, 29, 1048-1060. | 3.2 | 26 |
| 116 | Velocity Prediction Based on Vehicle Lateral Risk Assessment and Traffic Flow: A Brief Review and Application Examples. Energies, 2021, 14, 3431. | 1.6 | 6 |
| 117 | Exploring the Performance of Streaming-Data-Driven Traffic State Estimation Method Using Complete Trajectory Data. International Journal of Intelligent Transportation Systems Research, 2021, 19, 572-586. | 0.6 | 1 |
| 118 | A Bayesian Learning Network for Traffic Speed Forecasting with Uncertainty Quantification. , 2021, , . | | 2 |
| 119 | Flow and Density Estimation in Grenoble Using Real Data. Engineering Proceedings, 2021, 5, . | 0.4 | 0 |
| 120 | On the deployment of V2X roadside units for traffic prediction. Transportation Research Part C: Emerging Technologies, 2021, 129, 103238. | 3.9 | 16 |
| 121 | Freeway traffic control: A survey. Automatica, 2021, 130, 109655. | 3.0 | 43 |
| 122 | Traffic Flow Parameters Collection under Variable Illumination Based on Data Fusion. Journal of Advanced Transportation, 2021, 2021, 1-14. | 0.9 | 5 |
| 123 | On the application of variational theory to urban networks. Transportation Research Part B: Methodological, 2021, 150, 435-456. | 2.8 | 6 |
| 124 | Predicting traffic demand during hurricane evacuation using Real-time data from transportation systems and social media. Transportation Research Part C: Emerging Technologies, 2021, 131, 103339. | 3.9 | 29 |
| 125 | Boundary Observer Design for Stochastic Phase Transition Models of Nonequilibrium Traffic Flow. IEEE Transactions on Automatic Control, 2021, 66, 4828-4835. | 3.6 | 4 |
| 126 | Estimating the effect of vehicle speeds on bicycle and pedestrian safety on the Georgia arterial roadway network. Accident Analysis and Prevention, 2021, 161, 106351. | 3.0 | 2 |
| 127 | An integrated Empirical Mode Decomposition and Butterworth filter based vehicle trajectory reconstruction method. Physica A: Statistical Mechanics and Its Applications, 2021, 583, 126295. | 1.2 | 13 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 128 | Online Estimation and Prediction of Large-Scale Network Traffic From Sparse Probe Vehicle Data. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 7233-7243. | 4.7 | 5 |
| 129 | Robust Boundary Observer for Traffic State Estimation on One Incoming and Two Outgoing Roads. IFAC-PapersOnLine, 2021, 54, 384-389. | 0.5 | 1 |
| 130 | High-Resolution Traffic Sensing with Probe Autonomous Vehicles: A Data-Driven Approach. Sensors, 2021, 21, 464. | 2.1 | 15 |
| 131 | Complex Dynamics of Traffic Management: Introduction. , 2019, , 1-19. | | 5 |
| 132 | Freeway Traffic Speed Estimation by Regression Machine-Learning Techniques Using Probe Vehicle and Sensor Detector Data. Journal of Transportation Engineering Part A: Systems, 2020, 146, . | 0.8 | 10 |
| 133 | Quasi-stationary states in temporal correlations for traffic systems: Cologne orbital motorway as an example. Journal of Statistical Mechanics: Theory and Experiment, 2020, 2020, 103404. | 0.9 | 13 |
| 134 | Dynamic Traffic Reconstruction using Probe Vehicles. , 2020, , . | | 4 |
| 135 | Physics Informed Deep Learning for Traffic State Estimation. , 2020, , . | | 25 |
| 136 | Numerical Investigation of Traffic State Reconstruction and Control Using Connected Automated Vehicles. , 2020, , . | | 2 |
| 137 | A study of speed-density functional relations for varying spatiotemporal resolution using Zen Traffic Data. , 2020, , . | | 5 |
| 138 | Real-Time Freeway Traffic State Estimation Based on the Second-Order Divided Difference Kalman Filter. Transport and Telecommunication, 2019, 20, 114-122. | 0.7 | 3 |
| 139 | Estimating the posterior predictive distribution of the traffic density in multi-lane highways using spacing measurements. , 2021, , . | | 1 |
| 140 | Estimating motorway traffic states with data fusion and physics-informed deep learning. , 2021, , . | | 4 |
| 141 | Learning Traffic Speed Dynamics from Visualizations. , 2021, , . | | 1 |
| 142 | Average density estimation for urban traffic networks: Application to the Grenoble network. Transportation Research Part B: Methodological, 2021, 154, 21-43. | 2.8 | 1 |
| 143 | RECENT ADVANCES IN KINEMATIC WAVE THEORY OF TRAFFIC FLOWS: VARIATIONAL FORMULATION AND NETWORK EXTENSION. Journal of Japan Society of Civil Engineers Ser D3 (Infrastructure Planning and) Tj ETQq1 1 0.784314 1gBT /Over | | |
| 144 | A Distributed Environment for Traffic Navigation Systems. Advances in Intelligent Systems and Computing, 2020, , 294-304. | 0.5 | 2 |
| 145 | Asymmetric Cell Transmission Model-Based, Ramp-Connected Robust Traffic Density Estimation under Bounded Disturbances. , 2020, , . | | 4 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 146 | Real-time Freeway Traffic State Estimation with Fixed and Mobile Sensing Data. , 2020, , . | | 0 |
| 147 | Calibration-free traffic state estimation method using single detector and connected vehicles with Kalman filtering and RTS smoothing. , 2020, , . | | 1 |
| 148 | Machine Learning for Receding Horizon Observer Design: Application to Traffic Density Estimation. IFAC-PapersOnLine, 2020, 53, 616-621. | 0.5 | 2 |
| 149 | Moving Array Traffic Probes. Frontiers in Future Transportation, 2020, 1, . | 1.3 | 2 |
| 150 | A Convolutional Neural Network Combined with a Gaussian Process for Speed Prediction in Traffic Networks. , 2021, , . | | 0 |
| 151 | Nonlinear Traffic Prediction as a Matrix Completion Problem with Ensemble Learning. Transportation Science, 2022, 56, 52-78. | 2.6 | 10 |
| 152 | SEE-TREND: SEcurE Traffic-Related EveNt Detection in Smart Communities. Sensors, 2021, 21, 7652. | 2.1 | 4 |
| 153 | The scenario approach: A tool at the service of data-driven decision making. Annual Reviews in Control, 2021, 52, 1-17. | 4.4 | 16 |
| 154 | Experimental assessment of traffic density estimation at link and network level with sparse data. Transportmetrica B, 2022, 10, 368-395. | 1.4 | 0 |
| 155 | Generic Approaches to Estimating Freeway Traffic State and Percentage of Connected Vehicles With Fixed and Mobile Sensing. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 13155-13177. | 4.7 | 5 |
| 156 | TSR-GAN: Generative Adversarial Networks for Traffic State Reconstruction with Time Space Diagrams. Physica A: Statistical Mechanics and Its Applications, 2022, 591, 126788. | 1.2 | 13 |
| 157 | YoÄYunluk tabanlı± kÄ¼meleme yÄ¶ntemiyle karakteristiÄYi oluÅYturulan yollar iÄ¶in RNN yÄ¶ntemi ile kÄ±sa zamanlı± trafik hÄ±z tahmini. Journal of the Faculty of Engineering and Architecture of Gazi University, 0, , . | 0.3 | 0 |
| 159 | Road traffic density estimation. , 2022, , 65-98. | | 0 |
| 160 | Parameter and density estimation from real-world traffic data: A kinetic compartmental approach. Transportation Research Part B: Methodological, 2022, 155, 210-239. | 2.8 | 7 |
| 161 | DDP-GCN: Multi-graph convolutional network for spatiotemporal traffic forecasting. Transportation Research Part C: Emerging Technologies, 2022, 134, 103466. | 3.9 | 49 |
| 162 | Model-based techniques for traffic congestion detection. , 2022, , 99-139. | | 0 |
| 163 | Real-time joint traffic state and model parameter estimation on freeways with fixed sensors and connected vehicles: State-of-the-art overview, methods, and case studies. Transportation Research Part C: Emerging Technologies, 2022, 134, 103444. | 3.9 | 24 |
| 164 | Highway accident number estimation in Turkey with Jaya algorithm. Neural Computing and Applications, 2022, 34, 5367-5381. | 3.2 | 8 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 165 | Hybrid Deep Learning Approach for Traffic Speed Prediction. Big Data, 2022, , . | 2.1 | 1 |
| 166 | Freeway Traffic State Estimation Method Based on Multisource Data. Journal of Transportation Engineering Part A: Systems, 2022, 148, . | 0.8 | 1 |
| 167 | Dynamic density and flow reconstruction in large-scale urban networks using heterogeneous data sources. Transportation Research Part C: Emerging Technologies, 2022, 137, 103569. | 3.9 | 5 |
| 168 | Analysis of the single-regime speed-density fundamental relationships for varying spatiotemporal resolution using Zen Traffic Data. Asian Transport Studies, 2022, 8, 100066. | 0.7 | 4 |
| 169 | Modeling Small-Granularity Expressway Traffic Volumes With Quantum Walks. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 17077-17086. | 4.7 | 4 |
| 170 | SPARSE MODELLING FOR LOCATION DEPENDENT FUNDAMENTAL DIAGRAM WITH COMPLETE VEHICLE TRAJECTORY DATASET. Journal of Japan Society of Civil Engineers Ser D3 (Infrastructure Planning and) Tj ETQq1 1 0.784314 mgBT /Over | 0.7 | 1 |
| 171 | Modeling Random Exit Selection in Intercity Expressway Traffic with Quantum Walk. Applied Sciences (Switzerland), 2022, 12, 2139. | 1.3 | 2 |
| 172 | Estimating key traffic state parameters through parsimonious spatial queue models. Transportation Research Part C: Emerging Technologies, 2022, 137, 103596. | 3.9 | 40 |
| 173 | A Deep Learning Based Traffic State Estimation Method for Mixed Traffic Flow Environment. Journal of Advanced Transportation, 2022, 2022, 1-12. | 0.9 | 4 |
| 174 | Generating virtual vehicle trajectories for the estimation of emissions and fuel consumption. Transportation Research Part C: Emerging Technologies, 2022, 138, 103615. | 3.9 | 9 |
| 175 | Traffic state estimation of urban road networks by multi-source data fusion: Review and new insights. Physica A: Statistical Mechanics and Its Applications, 2022, 595, 127079. | 1.2 | 28 |
| 176 | Physics-informed Learning for Identification and State Reconstruction of Traffic Density. , 2021, , . | | 12 |
| 177 | Sensing and monitoring of smart transportation systems. , 2022, , 495-522. | | 3 |
| 178 | Incorporating Kinematic Wave Theory Into a Deep Learning Method for High-Resolution Traffic Speed Estimation. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 17849-17862. | 4.7 | 19 |
| 179 | A Theoretical Validation of the Moving Observer Methodology. SSRN Electronic Journal, 0, , . | 0.4 | 0 |
| 180 | ST-InNet: Deep Spatio-Temporal Inception Networks for Traffic Flow Prediction in Smart Cities. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 19782-19794. | 4.7 | 6 |
| 181 | Physics-Informed Deep Learning for Traffic State Estimation: Illustrations With LWR and CTM Models. IEEE Open Journal of Intelligent Transportation Systems, 2022, 3, 503-518. | 2.6 | 17 |
| 182 | Road Traffic Forecast Based on Meteorological Information through Deep Learning Methods. Sensors, 2022, 22, 4485. | 2.1 | 11 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 183 | Estimating Freeway Lane-Level Traffic State with Intelligent Connected Vehicles. Transportation Research Record, 2023, 2677, 60-75. | 1.0 | 1 |
| 184 | Model-based dynamic toll pricing scheme for a congested suburban freeway with multiple access locations. Journal of Intelligent Transportation Systems: Technology, Planning, and Operations, 2023, 27, 693-720. | 2.6 | 1 |
| 185 | Real-Time Traffic Density Estimation: Putting on-Coming Traffic to Work. IEEE Transactions on Intelligent Transportation Systems, 2023, 24, 1374-1383. | 4.7 | 4 |
| 186 | Traffic System State Identification with Integrated Traffic State, Model Parameter and Queue Profile Estimation: Nonlinear Programming Reformulation with Differentiable Traffic State Variables Across Resolutions. SSRN Electronic Journal, 0, , . | 0.4 | 1 |
| 187 | Probabilistic traffic density estimation using measurements from Unmanned Aerial Vehicles. , 2022, , . | | 1 |
| 188 | Real-Time Vehicle Speed Prediction Based On Traffic Information Services. , 2022, , . | | 1 |
| 189 | A streaming-data-driven method for freeway traffic state estimation using probe vehicle trajectory data. Physica A: Statistical Mechanics and Its Applications, 2022, 606, 128045. | 1.2 | 2 |
| 190 | Traffic signal optimization for partially observable traffic system and low penetration rate of connected vehicles. Computer-Aided Civil and Infrastructure Engineering, 2022, 37, 2070-2092. | 6.3 | 13 |
| 191 | On 1-D PDE-Based Cardiovascular Flow Bottleneck Modeling and Analysis: A Vehicular Traffic Flow-Inspired Approach. IFAC-PapersOnLine, 2022, 55, 544-549. | 0.5 | 0 |
| 192 | An Approximate Position-Weighted Back-Pressure Traffic Signal Control Policy for Traffic Networks. SSRN Electronic Journal, 0, , . | 0.4 | 1 |
| 193 | On 1-D PDE-Based Cardiovascular Flow Bottleneck Modeling and Analysis: A Vehicular Traffic Flow-Inspired Approach. IEEE Transactions on Automatic Control, 2022, , 1-8. | 3.6 | 0 |
| 194 | Use of mobile technologies for driving, road accidents, health and psychological variables in Colombian drivers. Revista Colombiana De Psicologia, 2022, 31, 77-92. | 0.1 | 0 |
| 195 | A Revised Video Vision Transformer for Traffic Estimation With Fleet Trajectories. IEEE Sensors Journal, 2022, 22, 17103-17112. | 2.4 | 2 |
| 196 | Freeway Traffic State Estimation using Fixed and Mobile Sensing Data with Microscopic Simulation Evaluation. , 2022, , . | | 0 |
| 197 | Integrating PDE Observer with Deep Learning for Traffic State Estimation. , 2022, , . | | 1 |
| 198 | Predicting network flows from speeds using open data and transfer learning. IET Intelligent Transport Systems, 2023, 17, 804-824. | 1.7 | 1 |
| 199 | Estimating traffic volumes in an urban network based on taxi GPS and limited LPR data using machine learning techniques. , 2022, , . | | 0 |
| 200 | Learning energy-efficient driving behaviors by imitating experts. , 2022, , . | | 1 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|------|-----------|
| 201 | Integrated macro-micro modelling for individual vehicle trajectory reconstruction using fixed and mobile sensor data. <i>Transportation Research Part C: Emerging Technologies</i> , 2022, 145, 103929. | 3.9 | 5 |
| 203 | Particle Filtering for Automotive: A survey. , 2019, , . | | 3 |
| 204 | Incorporating Traffic Flow Model into A Deep Learning Method for Traffic State Estimation: A Hybrid Stepwise Modeling Framework. <i>Journal of Advanced Transportation</i> , 2022, 2022, 1-17. | 0.9 | 3 |
| 205 | Front-tracking transition system model for traffic state reconstruction, model learning, and control with application to stop-and-go wave dissipation. <i>Transportation Research Part B: Methodological</i> , 2022, 166, 212-236. | 2.8 | 3 |
| 206 | Controlling highway toll stations using deep learning, queuing theory, and differential evolution. <i>Engineering Applications of Artificial Intelligence</i> , 2023, 119, 105683. | 4.3 | 6 |
| 207 | Assessing on-road emissions from urban buses in different traffic congestion scenarios by integrating real-world driving, traffic, and emissions data. <i>Science of the Total Environment</i> , 2023, 863, 161002. | 3.9 | 4 |
| 208 | Hybrid deep learning models for traffic prediction in large-scale road networks. <i>Information Fusion</i> , 2023, 92, 93-114. | 11.7 | 16 |
| 210 | Bayesian Traffic State Estimation Using Extended Floating Car Data. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2022, , 1-15. | 4.7 | 3 |
| 211 | Traffic Flow Video Image Recognition and Analysis Based on Multi-Target Tracking Algorithm and Deep Learning. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2023, 24, 8762-8775. | 4.7 | 1 |
| 212 | Physics-Informed Neural Networks (PINNs)-Based Traffic State Estimation: An Application to Traffic Network. <i>Algorithms</i> , 2022, 15, 447. | 1.2 | 6 |
| 213 | Traffic Graph Convolutional Network for Dynamic Urban Travel Speed Estimation. <i>Networks and Spatial Economics</i> , 0, , . | 0.7 | 0 |
| 214 | Structured prediction of sparse dependent variables for traffic state estimation in large-scale networks. <i>Applied Soft Computing Journal</i> , 2023, 133, 109893. | 4.1 | 0 |
| 215 | A Route-based Method for Turning Ratio Estimation: Application to the Grenoble Downtown Traffic Flow and Density Reconstruction. , 2022, , . | | 0 |
| 216 | New frontiers of freeway traffic control and estimation. , 2022, , . | | 0 |
| 217 | Approximate Inference of Traffic Flow State at Signalized Intersections Using a Bayesian Learning Framework. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2023, , 1-12. | 4.7 | 0 |
| 218 | Towards Predicting Traffic Shockwave Formation and Propagation: A Convolutional Encoder-Decoder Network. <i>Journal of Transportation Engineering Part A: Systems</i> , 2023, 149, . | 0.8 | 1 |
| 219 | Urban Traffic Signal Control under Mixed Traffic Flows: Literature Review. <i>Applied Sciences (Switzerland)</i> , 2023, 13, 4484. | 1.3 | 5 |
| 220 | Traffic State Estimation near Signalized Intersections. <i>Journal of Transportation Engineering Part A: Systems</i> , 2023, 149, . | 0.8 | 2 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 221 | An adaptive framework for real-time freeway traffic estimation in the presence of CAVs. <i>Transportation Research Part C: Emerging Technologies</i> , 2023, 149, 104066. | 3.9 | 2 |
| 222 | Low-Rank Hankel Tensor Completion for Traffic Speed Estimation. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2023, 24, 4862-4871. | 4.7 | 7 |
| 223 | Origin-Destination Traffic Surveyâ€™ Case Study: Data Analyse for Bacau Municipality. <i>Sustainability</i> , 2023, 15, 4975. | 1.6 | 0 |
| 224 | Classification of the Traffic Status Subcategory with ETC Gantry Data: An Improved Support Tensor Machine Approach. <i>Journal of Advanced Transportation</i> , 2023, 2023, 1-21. | 0.9 | 1 |
| 225 | The role of explainable Artificial Intelligence in high-stakes decision-making systems: a systematic review. <i>Journal of Ambient Intelligence and Humanized Computing</i> , 2023, 14, 7827-7843. | 3.3 | 7 |
| 226 | On the Limitations of Physics-Informed Deep Learning: Illustrations Using First-Order Hyperbolic Conservation Law-Based Traffic Flow Models. <i>IEEE Open Journal of Intelligent Transportation Systems</i> , 2023, 4, 279-293. | 2.6 | 2 |
| 231 | Identifying Critical Locations on Road Networks Using Google Traffic Data. , 2023, , . | | 0 |
| 234 | Demo: Lane-level Traffic Estimation using V2C Communication. , 2023, , . | | 1 |
| 240 | Cooperative Driving for Speed Harmonization in Mixed-Traffic Environments. , 2023, , . | | 1 |
| 241 | Hybrid Event Memory as a Case Base for State Estimation in Cognitive Agents. <i>Lecture Notes in Computer Science</i> , 2023, , 134-149. | 1.0 | 0 |
| 242 | Research on Highway Enterprise-Level Big Data Platform Architecture and Predictive Analytics Algorithm. , 2023, , . | | 0 |
| 245 | An Overview of Model-Driven and Data-Driven Forecasting Methods for Smart Transportation. <i>Studies in Big Data</i> , 2023, , 159-183. | 0.8 | 1 |
| 255 | Traffic Stream Characteristics Estimation Using In-Pavement Sensor Network. , 0, , . | | 0 |
| 258 | HeteroPush: Communication-Efficient Video Analytics by Scheduling Heterogeneous Filters. , 2023, , . | | 0 |
| 262 | Output-Feedback Model Predictive Control for Ramp Metering. , 2023, , . | | 0 |
| 263 | A Machine Learning Method for Real-Time Traffic State Estimation from Probe Vehicle Data. , 2023, , . | | 0 |
| 264 | Research on rapid warning model of expressway congestion abnormal events based on ETC gantry system. , 2024, , . | | 0 |