

2025 IEEE 28th International Conference on Intelligent Transportation Systems (ITSC 2025)

**Gold Coast, Australia
18-21 November 2025**

Pages 1–670

IEEE Catalog Number:
ISBN:

CFP25ITS-POD
979-8-3315-2419-7



Copyright © 2025, IEEE

All Rights Reserved

Copyright and Reprint Permissions:

Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

*** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.

IEEE Catalog Number:	CFP25ITS-POD
ISBN (Print-On-Demand):	979-8-3315-2419-7
ISBN (Online):	979-8-3315-2418-0
ISSN:	2153-0009

Additional Copies of This Publication Are Available From:

Curran Associates, Inc
57 Morehouse Lane
Red Hook, NY 12571 USA

Phone:	(845) 758-0400
Fax:	(845) 758-2633
E-mail:	curran@proceedings.com
Web:	www.proceedings.com

TABLE OF CONTENTS

CrackESS: A Self-Prompting Crack Segmentation System for Edge Devices	1
<i>Yingchu Wang, Ji He, Shijie Yu</i>	
Rapid Parameter Calibration Method Using Model-Bridge for Microscopic Traffic Simulations	7
<i>Shusuke Shigenaka, Ryo Nishida, Keisuke Yamazaki, Masaki Onishi</i>	
Sphereabout: A Spherical Intersection Design for Networked Urban Air Mobility	15
<i>Farzan Moosavi, Bilal Farooq</i>	
Simulation-Based Pattern Timetabling for Short-Turning Trains in a Metro Network	21
<i>Fei Yan, Maximiliano Cubillos, Ola Jabali, Tommaso Schettini</i>	
Evaluating Rail Yard Capacity with an Optimization Model	27
<i>Rexhina Hoxha, Simona Sacone, Geert Van de Weyer, Roxan De Ridder, Stefano Cangelosi, Enrico Zero</i>	
Vehicle Trajectory Reconstruction with Estimation of Shockwave Speed Using Traffic Sensor and Probe Vehicles Data	33
<i>Junhee Choi, Dong-Kyu Kim</i>	
A Reservation-Based Shared Bus Lane Framework for Effective Public and Private Vehicle Coexistence	39
<i>C. Makridis, C. Menelaou, S. Timotheou, C.G. Panayiotou</i>	
CitySense RAG: Personalized Urban Mobility Recommendations Via Streetscape Perception and Multi-Source Semantics	45
<i>Chonghao Zhang, Hao Yu, Xiao Luo, Wenyu Yin, Jinyi Huang, Xuanyu Liu, Zhe Liu</i>	
Prediction of Multi-Pedestrian Interaction with Vehicles in Shared Spaces: A Particle-Based Graph Neural Network Approach	52
<i>Manman Wei, Masaki Onishi, Yingjie Yin</i>	
Energy-Efficient Optimized Operation of DC Traction Power Supply Systems in Rail Infrastructure by Modeling Controlled Rectifiers	60
<i>Friedemann Koop, Lukas Hager, Robert Burlacu</i>	
Considering Feasibility of Electric Aircraft at a Regional Scale	66
<i>Chandler Justice, Kyle Goodrick, Mario Harper</i>	
Robust Integrated Priority and Speed Control Based on Hierarchical Stochastic Optimization to Promote Bus Schedule Adherence Along Signalized Arterial	72
<i>Shurui Guan, Keqiang Li, Haoyu Yang, Yihe Chen, Hanxiao Ren, Yugong Luo</i>	
Energy-Optimal Deceleration Planning Method Using Improved Dynamic Programming Under Intelligent Transportation System	80
<i>Jinrak Park, Dohee Kim</i>	
Integrated Wheel Sensor Communication Using ESP32 - A Contribution Towards a Digital Twin of the Road System	88
<i>Ventseslav Yordanov, Simon Schäfer, Alexander Mann, Stefan Kowalewski, Bassam Alrifae, Lutz Eckstein</i>	

Real-Time V2X Expressway Traffic Control System for Proactive Black Ice Mitigation via Vehicle-Induced Thermal Feedback	94
<i>Xinyun Lao, Yu Shen, Gang Liu, Allan A. Zhang, Yuchuan Du</i>	
V2X Visible Light Communication Using Rolling Shutter Image Sensor with Offset Unary Encoding	100
<i>Ryota Kondo, Tsukasa Shimizu, Shintaro Shiba, Norimasa Kobori, Shan Lu, Takaya Yamazato</i>	
Joint Optimization of Traffic Signal and Vehicle Route via Alternating Direction Method of Multipliers	106
<i>Zhonggen Zhang, Jichen Zhu, Xiaoguang Yang, Kejun Long</i>	
Surface3D: A Surface-Aware Framework for Refining 3D Object Detection	114
<i>Mingyu Liu, Yutong Hou, Ekim Yurtsever, Xingcheng Zhou, Jiajie Zhang, Haolin Zhang, Alois Knoll</i>	
BatchEnsemble-Based Perception Uncertainty Quantification for Autonomous Vehicles	122
<i>Zhengyi Li, Hongyu Hu, Yang Xing, Chen Lv</i>	
Mcity Data Engine: Iterative Model Improvement Through Open-Vocabulary Data Selection	130
<i>Daniel Bogdoll, Rajanikant Patnaik Ananta, Abeyankar Giridharan, Isabel Moore, Gregory Stevens Henry X. Liu</i>	
High-Performance and Energy-Efficient Object Detection in Autonomous Driving with Spiking Neural Networks	137
<i>Ziwei Wang, Zhichao Liu, Suzheng Wu, Fanxun Wang, Guodong Yin</i>	
OSA-YOLO: A Lightweight YOLO Framework with Omnidirectional Selective Scanning and Area-Attention for Traffic Object Detection	144
<i>Chenchen Liu, Chengran Yuan, Jiawei Sun, Zhengshen Zhang, Zefan Huang, Sheng Guo, Marcelo H. Ang Eng Hock Francis Tay</i>	
MS-VLMDet: Multi-Scale Feature Enhanced Vision-Language Model for Pedestrian Detection	151
<i>Zekai Dai, Xingyuan Dai, Yisheng Lv, Xin Pei, Xu Wang, Xiaoyan Gong, Yu-Liang Liu, Wuling Huang</i>	
Calibrating a Car-Following Model for Autonomous Line Buses in Microscopic Traffic Simulations	157
<i>Dennis Harmann, Karolin Teuber, Lasse Bienenzeisler, Bernhard Friedrich</i>	
Enhancing Last-Mile Delivery Efficiency in Urban Environments Through Clustering and MILP-Based Route Optimization	164
<i>Shihab Hasan, Tarek Sheltami, Ashraf Mahmoud, Ansar Yasar</i>	
3D Indoor Pedestrian Route Choice Modeling Using Machine Learning-Based Wi-Fi Fingerprint Observations	172
<i>Jingran Su, Eiji Hato</i>	
Operational Validation of a SWIM-Based UAM Traffic Management System: Lessons from Korea's Grand Challenge	179
<i>Kwangchun Kang, Suyoung Shin, Hyoungeun Yoon, Taegyeong Yun, Changhwan Heo</i>	
Electric Vehicle Charger Reservation Service	187
<i>Chandler Justice, Max Ramsdell, Stockton Smith, Nate Stott, Mario Harper</i>	
Trajectory Adjustment Algorithm for Intelligent Connected Vehicles (ICV) Live Testing	193
<i>Lei Ye, Linhao Li, Qingwen Han, Lingqiu Zeng, Janzhong Li</i>	
Spatio-Temporal Analysis of Cyclist-Cyclist Multidirectional Interactive Behaviours	199
<i>Qiuyun Luan, Cheng Zhang, Bo Du, Jun Shen</i>	

Spatial Modeling of Copper Cable Theft in Intelligent Transport Systems	205
<i>Hongbo Zhao, Zuduo Zheng</i>	
Safety-Oriented Design of Cycling Infrastructure Minimizing Impact on Vehicular Traffic	211
<i>Manuel Campero Jurado, Giovanni De Nunzio, Carlos Canudas-de-Wit</i>	
Optimizing Pedestrian Safety in Real-Time: An Extreme Value Theory-Based Reinforcement Learning Framework	219
<i>Gabriel Andrade Lanzaro, Tarek Sayed</i>	
Following the Clues: Experiments on Person Re-ID Using Cross-Modal Intelligence	225
<i>Robert Aufschläger, Youssef Shoeb, Azarm Nowzad, Michael Heigl, Fabian Bally, Martin Schramm</i>	
Identifying Cyclist Riding Styles Using Drone-Based Trajectory Data and Volatility Clustering in Free-Flow Traffic Conditions	233
<i>Hussein Bachir, Simone Weikl</i>	
Application Management in C-ITS: Orchestrating Demand-Driven Deployments and Reconfigurations	241
<i>Lukas Zanger, Bastian Lampe, Lennart Reiher, Lutz Eckstein</i>	
A Data-Driven Novelty Score for Diverse in-Vehicle Data Recording	248
<i>Philipp Reis, Joshua Ransiek, David Petri, Tobias Schürmann, Jacob Langner, Eric Sax</i>	
Lightweight Multi-Agent-Based Service Migration Strategy for Cross-Network Scenarios	256
<i>Lingqiu Zeng, Hao Yang, Qingwen Han, Xinyue Song, Lei Ye</i>	
Urban Traffic Carbon Emission Modelling via Random Forest: Feature Importance and Effects of Sensors	263
<i>Hongxu Chen, Qishen Zhou, Bugao Zhang, Hongjun Liu, Zhengyi Cai, Zheng Zhu, Simon Hu</i>	
View-Aware High-Precision Vehicle Tracking Using Roadside RGB-D Camera Network	269
<i>Jingda Chen, Hanyang Zhuang, Chunxiang Wang, Ming Yang</i>	
Self-Supervised Moving Object Segmentation of Sparse and Noisy Radar Point Clouds	276
<i>Leon Schwarzer, Matthias Zeller, Daniel Casado Herraes, Simon Dierl, Michael Heidingsfeld, Cyrill Stachniss</i>	
Learn to Tour: Operator Design for Solution Feasibility Mapping in Pickup-and-Delivery Traveling Salesman Problem	284
<i>Bowen Fang, Xu Chen, Xuan Di</i>	
HITP: Hierarchical Intention Representation for Multi-Agent Trajectory Prediction	290
<i>Jiachen Liu, Jianwu Fang, Jianru Xue</i>	
Mixed-Granularity Physics-Informed Deep Learning for Traffic State Estimation	297
<i>Song Xue, Le Hai Vu</i>	
Freeway Travel Time Estimation Using Sequential Link Regression Modeling	303
<i>Henrik Fredriksson, Mattias Dahl, Johan Holmgren</i>	
Beyond Features: How Dataset Design Influences Multi-Agent Trajectory Prediction Performance	309
<i>Tobias Demmler, Jakob Häring, Andreas Tamke, Thao Dang, Alexander Hegai, Lars Mikelsons</i>	
Beyond Pixels: Vision-Language Models for Enhanced Street Environment Perception	317
<i>Wenyu Yin, Chonghao Zhang, Hao Yu, Xiao Luo, Jinyi Huang, Jiale Zhang, Shuwen Qi</i>	

Unsupervised Travel Mode Identification with Sparse Location Data	323
<i>Kenta Ishii, So Fumiyama, Rieko Otsuka</i>	
Improving Multi-Modal Transportation Recommendation Systems Through Spatio-Temporal Semantic Embedding	329
<i>Shi-Hao Gong, Chuyu Duan, Yiwen Lan, Jing Teng, Jiayi Guo</i>	
Multimodal Fault Diagnosis for Railway Switch Machine Based on Semantic Information Contrastive Learning	335
<i>Lu Ding, Wenhao Li, Bo Jin, Tingliang Zhou, Dong Han</i>	
An Autonomous Mobility on Demand Platform Supporting Cooperative Driving with Visual Context Generation for LMMs	341
<i>Haichao Liu, Hongji Liu, Jun Ma</i>	
Distance-Based Pricing in Multi-Modal Urban Networks with Deep Reinforcement Learning	349
<i>Nasser Parishad, Mehmet Yildirimoglu, Mark Hickman</i>	
Nonlinear Model Predictive Control for Coupling Between Two Vehicles	355
<i>Nupur Tembhare, Carsten Markgraf, Ivo Ivanov</i>	
Overcoming Communication Time Delay in V2V Collaborative Perception	361
<i>Wenfeng Leng, Yakang Wang, Yonghui Huang, Chuan Hu, Xi Zhang</i>	
Spatial Performance Analysis of NOMA-V2X with Cooperative Superposed Transmissions	367
<i>Tomoki Fuchikami, Takeshi Hirai, Naoki Wakamiya</i>	
A Clustering Approach to Lane Change Planning for Automated Buses	373
<i>Donghyun Lim, Hyungjoo Kim, Eugene Lee, Jiaqi Ma, Jaehyun Jason So</i>	
Coordinated Trajectory Planning for High-Speed Train Group Operation Based on Deep Reinforcement Learning	379
<i>Zixu Zhao, Jidong Lv, Zhengwei Luo, Jiahui Lyu, Ming Chai, Hongjie Liu, Junqiang Chen</i>	
Multi-Lane Coordinated Lane Change Based on Monte Carlo Tree Search in Mixed Traffic Environments	385
<i>Ning Deng, Mengchi Cai, Qingquan Liu, Chaoyi Chen, Qing Xu, Shen Li, Meng Li, Keqiang Li</i>	
Transformer-Based Assessment of Driving Corridors for Motion Planning of Automated Vehicles	391
<i>Gerald Würsching, Tobias Mascetta, Sammy Breen, Matthias Althoff</i>	
Towards Safer End-to-End Urban Driving: A World Model-Based Approach with Enhanced Safety	399
<i>Jiaheng Geng, Jiatong Du, Ye Li, Shangwen Li, Yanjun Huang</i>	
Efficient Driving Corridor Extraction for Autonomous Vehicles Using Best-First Reachability Analysis	407
<i>Florian Lercher, Matthias Althoff</i>	
Barrier Lyapunov Function-Based Geometric Lateral Controller for Autonomous Vehicles	415
<i>Alireza Hosseinnajad, Navid Mohajer, Mohammad Rokonzaman</i>	
Trajectory Planning for an Articulated Commercial Vehicle Using Model Predictive Contouring Control	421
<i>A. J. Aertssen, R. G. M. Huisman, I. J. M. Besselink, J. Elfring, M. J. G. Van De Molengraft</i>	

Safety-Guaranteed Optimal Control Strategy for DDEVs in High-Dynamic Scenarios: A Reconstructed Stability Region Method	428
<i>Fanxun Wang, Tong Shen, Yanbo Lu, Ruiqi Fang, Ziwei Wang, Guodong Yin</i>	
Unsupervised Learning for Detection of Rare Driving Scenarios	436
<i>Dat Le, Thomas Manhardt, Moritz Venator, Johannes Betz</i>	
Accelerating Autonomous Vehicle Safety Testing: A Framework Balancing Scenario Risk and Test Coverage	444
<i>Jiang Bian, Helai Huang, Rui Zhou</i>	
Real-Time Model Predictive Control of Vehicles with Convex-Polygon-Aware Collision Avoidance in Tight Spaces	450
<i>Haruki Kojima, Kohei Honda, Hiroyuki Okuda, Tatsuya Suzuki</i>	
Explicit Predictive Torque Vectoring with Stability-Driven Weight Adaptation and Real-Vehicle Assessment	458
<i>Haobo Sun, Wei Pan, Han Wang, Hanghang Liu, Lin Zhang, Hong Chen</i>	
Context-Aware Risk Assessment and its Application in Autonomous Driving	464
<i>Boyang Tian, Weisong Shi</i>	
Consensus-Aware AV Behavior: Trade-Offs Between Safety, Interaction, and Performance in Mixed Urban Traffic	471
<i>Mohammad Elayan, Wissam Kontar</i>	
Regularized Integration for Low-Speed Track Irregularity Measurement in EMS Maglev System	477
<i>Mingbo Liu, Guofeng Zeng, Ziping Han, Xin Liang</i>	
Simultaneous Detection and Compensation Against GNSS Spoofing for Factor Graph-Based Train Localization	483
<i>Si-Qi Wang, Jiang Liu, Bai-Gen Cai, De-Biao Lu, Wei Jiang</i>	
Enhancing LEO-GNSS Positioning in Urban Canyons: A Factor Graph Optimization Approach with StarLink Simulations	490
<i>Yixin Gao, Weisong Wen, Xikun Liu, Feng Huang, Jiahao Hu, Dongzhe Su</i>	
InterLoc: LiDAR-Based Intersection Localization Using Road Segmentation with Automated Evaluation Method	496
<i>Nguyen Hoang Khoi Tran, Julie Stephany Berrio, Mao Shan, Zhenxing Ming, Stewart Worrall</i>	
Vision-Aided Semantic Filtering for Enhancing LiDAR Odometry in Dynamic Urban Environments	504
<i>Ahmed Elgendy, Eslam Mounier, Haidy Elghamrawy, Aboelmagd Noureldin</i>	
Implicit Calibration of Point-of-Gaze on Scene Image Using Smooth-Pursuit Eye Movements for Driver Monitoring	512
<i>Riku Nakazawa, Satoru Takenaka, Yuya Homma, Arika Sato, Junichiro Kuwahara, Kentaro Takemura</i>	
Driver Vigilance Detection Based on Single-Channel EEG with a Multi-Scale Convolution Transformer	518
<i>Wenqi Zhang, Yanjun Qin, Xiaoming Tao</i>	
Effects of Signal Remaining Time Information on Driver Reaction and Start-Up Behavior at Signalized Intersections	525
<i>Eunjin Choi, Hyangmi Han</i>	

End-to-End Autonomous Driving Network Guided by Human Perceptual Experience	531
<i>Qingchao Cai, Yuanqi Su, Xiaoning Zhang, Hao Hu, Haoang Lu</i>	
Towards User-Adaptive HMIs in Future Trucks: Results from a Video-Based Online Study Investigating Acceptance and Perceived Patronization	538
<i>Anna Eckl, Svenja Mertens, Eric Hillenmeier</i>	
Multimodal Detection of Alcohol-Impaired Driving Using Time-Series Classification in a High-Fidelity Simulator	545
<i>Jan-Philipp Göbel, Jan Cedric Mertens, Thomas Kunding, Andreas Riener</i>	
Network-Wide Traffic Volume Estimation from Speed Profiles Using a Spatio-Temporal Graph Neural Network with Directed Spatial Attention	553
<i>Léo Hein, Giovanni De Nunzio, Giovanni Chierchia, Aurélie Pirayre, Laurent Najman</i>	
Next-Generation Travel Demand Modeling with a Generative Framework for Household Activity Coordination	561
<i>Xishun Liao, Haoxuan Ma, Yifan Liu, Yuxiang Wei, Brian Yueshuai He, Chris Stanford, Jiaqi Ma</i>	
Path Diffuser: Diffusion Model for Data-Driven Traffic Simulator	569
<i>Da Saem Lee, Akash Karthikeyan, Yash Vardhan Pant, Sebastian Fischmeister</i>	
A Self-Supervised Transformer for Unusable Shared Bike Detection	577
<i>Yin Huang, Yongqi Dong, Youhua Tang, Alvaro García Hernandez</i>	
Optimal Micro-Transit Zoning Via Clique Generation and Integer Programming	583
<i>Hins Hu, Rhea Goswami, Hongyi Jiang, Samitha Samaranayake</i>	
Dynamic Electric Dial-a-Ride Problem Considering Traffic and Charging Congestion	590
<i>Cameron Davis, Mehdi Keyvan-Ekbatani</i>	
Bringing C-ITS to Two Wheels: Innovation in Connected Motorcycle Technologies	595
<i>Shuo Ding, Erik Van Vulpen, Harsh. Z. Trivedi, Aseel Bedari, Aidin Bervan, Byron Palavikas Aniruddha Desai, Prakash Veeraraghavan</i>	
RampCast II: A Dual-Interface V2X Framework for Reliable Traffic Information Delivery	603
<i>Abin Mathew, Juntong Peng, Jue Zhou, Ziran Wang, Feng Li, Jim Sturdevant, Ed Cox, Yaobin Chen</i>	
Adaptive Extrinsic Calibration of Roadside Cameras for Surveillance Tasks	610
<i>Tobias Fleck, Julian Burger, J. Marius Zöllner</i>	
2.5D Object Detection for Intelligent Roadside Infrastructure	616
<i>Nikolai Polley, Yacin Boualili, Ferdinand Mütsch, Maximilian Zipft, Tobias Fleck, J. Marius Zöllner</i>	
TrafficSignReader: Real-Time Zero-Shot Recognition of Text-Based Traffic Signs	624
<i>Shounak Sural, Ragunathan Rajkumar</i>	
Perception Metrics for Intelligent Vehicles: An Application-Focused Evaluation	632
<i>Galia Fabiola Cornejo Urquieta, Julien Moreau, Yves Grandvalet, Federico Camarda Javier Ibanez-Guzman</i>	
Robust Traffic Light Detection and Stopline Release by HD-Map Association	640
<i>Richard Fehler, Kevin Rösch, Fabian Immel, Christoph Stiller</i>	

Persistent Monitoring and Analysis at a Corridor Scale with Lidar	646
<i>William Barbour, Matthew Bunting, Derek Gloudemans, Daniel B. Work, Jonathan Sprinkle</i>	
Dual LiDAR-Based Traffic Movement Count Estimation at a Signalized Intersection: Deployment, Data Collection, and Preliminary Analysis	652
<i>Saswat Priyadarshi Nayak, Guoyuan Wu, Kanok Boriboonsomsin, Matthew Barth</i>	
Development and Evaluation of Electromagnetic Suspension Seats for Blast Mitigation in Vehicles	659
<i>Akitoshi Takei, Hiroyuki Fujiwara, Hiro Igarashi</i>	
PCAG-Inception: An Enhanced Inceptiontime Model for Pothole Detection in Non-Motorized Vehicle Lanes	665
<i>Yubin Ma, Hang Xu, Simon Hu, Huan Hu</i>	
Enabling Scalable, Privacy-Preserving Smart Pedestrian Crossings with CSI-Based Sensing on COTS Hardware	671
<i>Nayan Gokull Dharmaraj, Dileeka Dias, Kasun T. Hemachandra</i>	
PointCompress3D: A Point Cloud Compression Framework for Roadside Lidars in Intelligent Transportation Systems	677
<i>Walter Zimmer, Ramandika Pranamulia, Xingcheng Zhou, Jiajie Zhang, Chuheng Wei, Ross Greer Julie Stephany B. Perez, Mingyu Liu, Holger Caesar, Mohan Trivedi, Alois Knoll</i>	
Combined Structural Health and Traffic Monitoring using Fiber Optic Distributed Acoustic Sensing	685
<i>Samah Hussein, Montasir Abbas</i>	
Panoptic-CUDAL: Rural Australia Point Cloud Dataset in Rainy Conditions	692
<i>Tzu-Yun Tseng, Alexey Nekrasov, Malcolm Burdorf, Bastian Leibe, Julie Stephany Berrio, Mao Shan Zhenxing Ming, Stewart Worrall</i>	
TGDT: A Temporal Graph-based Digital Twin for Urban Traffic Corridors	700
<i>Nooshin Yousefzadeh, Rahul Sengupta, Jeremy Dilmore, Sanjay Ranka</i>	
GMDNet: A Graph-Dynamics-Aware Multi-Scale Decoupling Network for Spatio-Temporal Traffic Flow Prediction	708
<i>Yaofeng Song, Yifan Ma, Zhiyao Chu, Haonan Zhao, Ruikang Luo, Rong Su</i>	
Vehicle Trajectory Imputation at Intersection Based on Ensemble Learning	714
<i>Liyong Zheng, Hongyu Rao, Jiang Zhu, Weihao Jiang, Yonggang Hao, Jianxuan Shao, Wei Zhao, Bin Su Wenjing Li, Yijue Xie, Wenke Ni, Boheng Sheng</i>	
A Generalizable Semantic Graph Learning Framework for Road Network Representation	720
<i>Yonghui Liu, Inhi Kim</i>	
ROSA: Roundabout Optimized Speed Advisory with Multi-Agent Trajectory Prediction in Multimodal Traffic	726
<i>Anna-Lena Schlamp, Jeremias Gerner, Klaus Bogenberger, Werner Huber, Stefanie Schmidtner</i>	
Multi-Stage Multi-Agent Reinforcement Learning for on-Demand Food-Delivery Services with a Mixed Fleet of Human Couriers and Drones	734
<i>Yulong Hu, Yali Du, Sen Li</i>	
Adver-City: Open-Source Multi-Modal Dataset for Collaborative Perception Under Adverse Weather Conditions	740
<i>Mateus Karvat, Sidney Givigi</i>	

Characterizing Human Feedback-Based Control in Naturalistic Driving Interactions via Gaussian Process Regression with Linear Feedback	747
<i>Rachel DiPirro, Rosalyn Devonport, Dan Calderone, Chishang Yang, Wendy Ju, Meeko Oishi</i>	
A Comparative Study of Multi-Vehicle Knowledge Fusion Methods	755
<i>Shanghang Zhou, Shuo Yang, Zhenyu Ma, Wei Du, Xincheng Li, Jiaming Xing, Yanjun Huang</i>	
A Road Hazard Feature-Based Mesoscopic Trajectory Planning Method Under MEC Architecture	762
<i>Lei Ye, Yulan Chen, Qingwen Han, Lingqiu Zeng, Ziyun Huang</i>	
Patch Exploration-Based Route Planning for Autonomous Vehicles	770
<i>Huan Meng, Jinhui Zhang, Xiaobing Huang, Ehsan Javanmardi, Manabu Tsukada</i>	
Risk-Aware Dual-Policy Coordination with World Model for Safe and Adaptive Highway Autonomous Driving	776
<i>Yongzhi Liu, Sunan Zhang, Changfei Shen, Xiangwei Zhang, Weicaho Zhuang</i>	
Object Detection Method for Non-Line-of-Sight Obstacles Reflected on Painted Surfaces	783
<i>Rei Oyama, Yusuke Takatori</i>	
Uncertainty-Aware Reinforcement Learning for Autonomous Driving in High-Dynamic Traffic Scenarios	789
<i>Yuran Kou, Jianwen Yin, Lei Peng, Tianfu Sun, Jia Liu, Huiyun Li</i>	
Methodology for Real-Time Privacy Preserving Data Recording on Autonomous Vehicles	795
<i>Ruben Naranjo, Nerea Aranjuelo, Itsaso Rodríguez-Moreno</i>	
MADRL: A Framework for MASS Sea Surface Image Defogging	801
<i>Zhuolin Wang, Yingjun Zhang, Hongrui Lu, Haoze Zhang</i>	
Bench-RNR: Dataset for Benchmarking Repetitive and Non-Repetitive Scanning LiDAR for Infrastructure-Based Vehicle Localization ¹ This work was supported by National Natural Science Foundation of China (62203294/U22A20100/ 62373250).	808
<i>Runxin Zhao, Chunxiang Wang, Hanyang Zhuang, Ming Yang</i>	
UrbanV2X: A Multisensory Vehicle-Infrastructure Dataset for Cooperative Navigation in Urban Areas	815
<i>Qijun Qin, Ziqi Zhang, Yihan Zhong, Feng Huang, Xikun Liu, Runzhi Hu, Hang Chen, Wei Hu, Dongzhe Su Jun Zhang, Hoi-Fung Ng, Weisong Wen</i>	
Vehicle Occupant Age and Gender Estimation Using Convolutional Neural Networks on RGB and NIR Images	823
<i>Patrick Laufer, Clemens Gühmann</i>	
A Simulator Dataset to Support the Study of Impaired Driving	831
<i>John Gideon, Kimimasa Tamura, Emily Sumner, Laporsha Dees, Patricio Reyes Gomez, Bassamul Haq Todd Rowell, Avinash Balachandran, Simon Stent, Guy Rosman</i>	
The Impact of Head-Up Display Warnings on Aggressive Driving: Visual and Behavior Insights	839
<i>Jaehyuck Lim, Shin Hyoung Park, Inhi Kim</i>	
Evaluation of Positioning Accuracy under Different Railway Environments with Multipath Signal Mitigation Method	845
<i>Wenzheng Qiao, Jian Wang, Debiao Lu, Jiang Liu, Baigen Cai, Wei Jiang</i>	

Disruptions in Rail Freight Transport: A Framework for Classification and Evaluation	851
<i>Franziska Rosenthal, Marius Dellbrügge, Uwe Clausen</i>	
Emergency Control Method of Train Rescheduling for Resilient Urban Rail Transit Networks	859
<i>Mingchang Zhu, Xiaoqing Zeng, Dong Ngoduy, Yingda Chen</i>	
Large Language Model Guided Gear-Shifting Optimization for Energy-Saving Rail Operations	865
<i>Wanju Yu, Donghe Li, Ye Yang, Yanbin Zou, Junyi Wang, Shitao Chen</i>	
Adaptive Optimization Method of Train-Ground Wireless Communication Network Coverage for Urban Rail Transit	872
<i>Dongling Su, Bing Bu</i>	
Advancing Robustness in Deep Reinforcement Learning with an Ensemble Defense Approach	878
<i>Adithya Mohan, Dominik Rößle, Daniel Cremers, Torsten Schön</i>	
Determining Invariably Rule-Compliant States for Motion Planning of Autonomous Vehicles	884
<i>Youran Wang, Matthias Althoff</i>	
Integrating Signal Temporal Logic into Zonotopic Predictive Control for Autonomous Vehicles	892
<i>Carlos Conejo, Amr Alanwar, Vicenç Puig, Bernardo Morcego</i>	
Toward a Harmonized Approach – Requirement-Based Structuring of a Safety Assurance Argumentation for Automated Vehicles	899
<i>Marvin Loba, Nayel Fabian Salem, Marcus Nolte, Andreas Dotzler, Dieter Ludwig, Markus Maurer</i>	
SimPRIVE: A Simulation Framework for Physical Robot Interaction with Virtual Environments	907
<i>Federico Nesti, Gianluca D'Amico, Mauro Marinoni, Giorgio Buttazzo</i>	
A Simple Pipeline for 3D Object Detection and Motion Prediction Without Prior Information Through Semantic Understanding	914
<i>Haku Shinoda, Yunsoo Bok, Keisuke Yoneda, Keigo Hariya, Yukiya Fukuda, Naoki Suganuma</i>	
Applying Pre-Trained Language Models on Multimodal Travel Behavior Prediction using Small-Sample Survey Data	921
<i>Jiao Ye, Yuwei Yang, Zhongxi Qiu, Qi Yang, Kai Hu, Jun Chen, Enze Shi</i>	
LLM-TripPlanner: A Large-Language-Model-Based Agent for Personalized Trip Planning	927
<i>Yiping Liu, Hyungchul Chung, Zixuan Xu, Kitae Jang, Sikai Chen, Tiantian Chen</i>	
VTIS-LLM: Domain-Adaptive LLM Agent for Enhancing Awareness in Vessel Traffic Services Through Natural Language	935
<i>Sijin Sun, Liangbin Zhao, Ming Deng, Xiuju Fu</i>	
Seeking to Collide: Online Safety-Critical Scenario Generation for Autonomous Driving with Retrieval Augmented Large Language Models	943
<i>Yuewen Mei, Tong Nie, Jian Sun, Ye Tian</i>	
Human Mobility Modeling with Household Coordination Activities Under Limited Information via Retrieval-Augmented LLMs	951
<i>Yifan Liu, Xishun Liao, Haoxuan Ma, Brian Yueshuai He, Chris Stanford, Jiaqi Ma</i>	
Chain-of-Thought-Based Knowledge Extraction from Heterogeneous Infrastructure Database for Integrated Transportation Asset Management	959
<i>Mengtian Yin, Tao Huang, Sin Ming Wong, Pieter Pauwels, George Economides, Ioannis Brilakis</i>	

CommonOcean-Sim: A Traffic Simulation Environment for Unmanned Surface Vessels	966
<i>Hanna Krasowski, Stefan Schärddinger</i>	
CARLACharge: A Versatile Simulator for Wireless Charging Roadways in Diverse Urban, Highway, and High-Traffic Environments	973
<i>Gabe Tonks, Taryn Jones, Tyson Buxton, Mario Harper</i>	
Toward a Full-Stack Co-Simulation Platform for Testing of Automated Driving Systems	980
<i>Dong Bi, Yongqi Zhao, Zhengguo Gu, Tomislav Mihalj, Jia Hu, Arno Eichberger</i>	
Safety-Critical Traffic Simulation with Guided Latent Diffusion Model	987
<i>Mingxing Peng, Ruoyu Yao, Xusen Guo, Yuting Xie, Xianda Chen, Jun Ma</i>	
Bidirectional Co-Simulation of Road Traffic and Power Distribution Networks During Electric Vehicle Charging	994
<i>Hideaki Uchida, Masato Obinata, Shinya Yoshizawa, Yohei Yamaguchi, Yoshiyuki Shimoda Hiroyuki Okura, Masahiro Minami, Keiichi Takeda</i>	
Rail-TopoSim: An Automatic Scene Generation and Simulation Framework for Rail Infrastructure Based on Topological Ontology*	1000
<i>Xinran Xie, Jing Liu, Yuxuan Huang, Xuan Pei, Taogang Hou</i>	
A Distributed Platoon Reconfiguration Framework in Emergency Scenarios With Heterogeneous MARL	1008
<i>Aijing Kong, Xian Wu, Xinbo Chen, Hao Zhang, Peng Hang, Jian Sun</i>	
LLM Distilled Spatio-Temporal Prompt Network for Traffic Forecasting	1014
<i>Xiaolong Xie, Hong Zhu, Keshuang Tang, Fengmei Sun</i>	
Towards Human-Centric Autonomous Driving: A Fast-Slow Architecture Integrating Large Language Model Guidance with Reinforcement Learning	1020
<i>Chengkai Xu, Jiaqi Liu, Yicheng Guo, Yuhang Zhang, Peng Hang, Jian Sun</i>	
LeAD: The LLM Enhanced Planning System Converged with End-to-end Autonomous Driving	1028
<i>Yuhang Zhang, Jiaqi Liu, Chengkai Xu, Peng Hang, Jian Sun</i>	
LinguaSim: Interactive Multi-Vehicle Testing Scenario Generation via Natural Language Instruction Based on Large Language Models	1036
<i>Qingyuan Shi, Qingwen Meng, Hao Cheng, Qing Xu, Jianqiang Wang</i>	
COVLM-RL: Critical Object-Oriented Reasoning for Autonomous Driving Using VLM-Guided Reinforcement Learning	1044
<i>Lin Li, Yuxin Cai, Jianwu Fang, Jianru Xue, Chen Lv</i>	
Balancing Mobility and Ecology: Eco-Approach at an Actuated Signalized Intersection	1052
<i>Shuoyuan Li, Haoran Wang, Jia Hu</i>	
AI Recommendation Systems for Lane-Changing Using Adherence-Aware Reinforcement Learning	1060
<i>Weihaio Sun, Heeseung Bang, Andreas A. Malikopoulos</i>	
Railway Timetable Forecasting Based on Feature Engineering and Transformer	1066
<i>Hehan Yu, John Easton, Clive Roberts</i>	

Trajectory Planning of Train Platoons in Urban Rail Networks: A Mixed Integer Linear Programming Approach	1073
<i>Runhan Yu, Jiateng Yin, Wei Zheng, Kaicheng Li</i>	
Electric Vehicle Driver Route Choice Behavior Analysis for Long-Distance Travel: Infrastructure Accessibility and Environmental Factors	1079
<i>Min Ji Kang, Hyun Su Park, Shin Hyoung Park, Shin-Hyoung Cho</i>	
Field Study of Connected Eco-Driving and Freight Signal Priority Along an Adaptive Coordinated Signalized Corridor	1084
<i>Haishan Liu, Peng Hao, Zhensong Wei, Matthew Barth, Kanok Boriboonsomsin</i>	
Taxi Repositioning via LLM-Driven Multi-Agent Coordination and Experience Accumulation	1091
<i>Hao Yu, Chonghao Zhang, Xiao Luo, Wenyu Yin, Zhe Liu, Jinyi Huang, Xuanyu Liu</i>	
BQA-Plan: Enhanced Imitation Learning-Based Planning via Behavior Quality Awareness	1097
<i>Chen Shao, Xuting Duan, Qi Wang, Jianshan Zhou, Kaige Qu, Chunmian Lin, Ivan Wang-Hei Ho Daxin Tian</i>	
Modal Contributions to the Robustness of Fusion Perceptions in Autonomous Driving	1104
<i>Thai M. Nguyen, Quang-Hung Luu, Hai L. Vu</i>	
Sentiment Matters: An Analysis of 200 Human-SAV Interactions	1111
<i>Lirui Guo, Michael G. Burke, Wynita M. Griggs</i>	
A Personalizable and Physics-Based Model Quantifying Expected Driver Attentiveness in Vehicle Lane-Keeping Automation	1119
<i>Jaeyoon Kim, Junmin Wang</i>	
Learning Traffic States and Fundamental Diagram via Physics-Informed Neural Operators	1126
<i>Qi Gao, Xuan Di</i>	
KDLight: A Traffic Signal Control Algorithm for Scenarios with Partially Observable Vehicle States	1132
<i>Zhiyuan Hu, Jianming Hu</i>	
A Subarea-Based Multi Agent Reinforcement Learning Approach for Traffic Signal Control	1138
<i>Meng Zhang, Dianhai Wang, Hongxin Yu, Xu Wang, Jiahao Zhang, Zhengyi Cai</i>	
Generative Adversarial Network-Based Adaptive Spatio-Temporal Traffic Flow Prediction with Large Language Models	1145
<i>Dingkai Zhang, Pengfei Wang, Lu Ding</i>	
Traffic Violation Risk and Policy Response in Commercial Transport: A Spatiotemporal and Causal Analysis	1153
<i>Yichang Shao, Yuhan Zhang, Yueru Xu, Zhirui Ye</i>	
A Dynamic Memory Graph of Multi-Level Feature Representation Approach in Traffic Prediction	1159
<i>Zhuo Liu, Ang Ji, Lingyun Su, Zhanbo Sun, Linchuan Yang, Mingming Kong, Xi Wang</i>	
Video-Based Traffic Anomaly Detection with Vision-Language Models: A Survey	1166
<i>Yuxin Zheng, Wei Zhou, Stefan Nastic, Chen Wang</i>	
Decision-Making Under Deception at Intersections: A Bayesian Game Approach	1174
<i>Fatemeh Banaie, Esmaeil Babaei, Simon Parkinson, Mauro Vallati</i>	

A Multi-Scale Vehicle-Based Traffic Control Architecture via Deep Reinforcement Learning and CAVs Platooning	1180
<i>Giacomo Basile, Cecilia Pasquale, Alberto Petrillo, Simona Sacone, Stefania Santini, Silvia Siri</i>	
Evaluating Transformer Models for Road Traffic Volume Forecasting with Weather-Aware Inputs	1186
<i>Araya Kibrom Desta, Ismail Arai</i>	
String-Stable CACC of Connected Automated Vehicles with Heterogeneous Braking Capabilities	1194
<i>Xiaohua Ge, Dengfeng Pan, Derui Ding, Qing Wu, Qing-Long Han, Xian-Ming Zhang</i>	
Improving the Communication Overhead in Vehicles Platoon: A Novel Dynamic Event-Triggered Predictor Method	1200
<i>Bianca Caiazzo, Sara Leccese, Alberto Petrillo, Stefania Santini</i>	
Field Test of Cooperative Driving Algorithms for Lane Merging and Emergency Evasion Using V2V	1206
<i>Kana Kim, Jaejun Lee, Junmyeong Park, Heesang Yoon, Hakil Kim</i>	
HeCoFuse: Cross-Modal Complementary V2X Cooperative Perception with Heterogeneous Sensors	1214
<i>Chuheng Wei, Ziyi Qin, Walter Zimmer, Guoyuan Wu, Matthew J. Barth</i>	
Adaptive Robust Trajectory Tracking Control for Dual-Vehicle Cooperative Transportation System	1222
<i>Jiaqi Pan, Zeyu Yang, Yuan Chang, Manjiang Hu, Qingjia Cui, Yougang Bian</i>	
CAV Trio: A Structurally Mobile Regulator for Lane-Wise Mixed Traffic with Hierarchical Deep Learning Control Strategy	1228
<i>Chen Zhang, Yunwen Xu, Dewei Li, Youren Chen</i>	
Towards Efficient Perception Data Sharing: A Semantic Approach to Collective Perception	1236
<i>Romain Tessier, Bruno Monsuez, Adriana Tapus, Oyunchimeg Shagdar</i>	
Social-Interaction-Aware Trajectory Prediction with Attention of Heterogeneous Traffic Participants	1242
<i>Dongming Han, Sizhe Cheng, Jinxiang Wang, Zhenwu Fang, Duanfeng Chu, Guodong Yin</i>	
Intersection Trajectory Planning: Modeling and Solution Algorithm Design Based on Petri Nets and Deep Reinforcement Learning	1249
<i>Yu Kong, Xinyu Chen, Chen Mu, Haijing Ning, Shumei Liu, Yisheng An</i>	
MP-RBFN: Learning-Based Vehicle Motion Primitives Using Radial Basis Function Networks	1255
<i>Marc Kaufeld, Mattia Piccinini, Johannes Betz</i>	
Improving Consistency in Vehicle Trajectory Prediction Through Preference Optimization	1263
<i>Caio Azevedo, Lina Achaji, Stefano Sabatini, Nicola Poerio, Grzegorz Bartyzel, Sascha Hornauer Fabien Moutarde</i>	
Planning-Oriented Trajectory Generation with Motion Prior Guidance Using Truncated Diffusion	1271
<i>Hengyang Sun, Meng Li, Jialei Nie, Jing Min, Yanjun Huang</i>	
HYPE: Hybrid Planning with Ego Proposal-Conditioned Predictions	1279
<i>Hang Yu, Julian Jordan, Julian Schmidt, Silvan Lindner, Alessandro Canevaro, Wilhelm Stork</i>	
A Differentiable Constraint-Aware Motion Planning Module for Unsupervised Trajectory Optimization	1287
<i>Zhaoyan Huang, Chao Zhang, Rui Zhang, Yiding Ji, Jinlong Hong, Bingzhao Gao, Qingwei Liu</i>	

Generalizing Autonomous Navigation via Human-Guided Diffusion Policies with Adversarial Reinforcement Learning	1294
<i>Dong Hu, Yangyang Zhou, Fengqing Hu, Chao Huang, Jingda Wu, Andrey V. Savkin</i>	
Integrity-Monitored Deep Reinforcement Learning for Safe and Robust Autonomous Navigation	1300
<i>Yuanyuan Zhang, Yingying Wang, Baoshan Song, Weisong Wen</i>	
Sense, Comprehend, Plan, Act: Design and Experimental Verification of a Situation-Aware Driving Function	1307
<i>Chris van der Ploeg, Michiel Braat, Jeroen Manders, Jochem Brouwer, Jan-Pieter Paardekooper</i>	
Enhanced Traffic Rule Monitoring Using Model-Predictive and Duration-Aware Robustness	1315
<i>Florian Finkeldei, Michael Wolf, Jan-Niklas Weghorn, Alexander Pretschner, Matthias Althoff</i>	
Anticipating the Invisible: A Knowledge-Based Agent for Occluded Pedestrian Collision Avoidance in Virtual Scenarios	1323
<i>Angie Nataly Melo, Carlota Salinas, Miguel Angel Sotelo</i>	
Generating Long-Term Vehicle-Vehicle Scenarios with High-Density Threatening Maneuvers in the Given Test Site	1330
<i>Yizhou Xie, Yong Zhang, Chengliang Yin</i>	
Batched Minimal Latency In-Sequence Ordering for Multi-Channel Data	1338
<i>Thomas Wodtke, Alexander Scheible, Dominik Authaler, Michael Buchholz</i>	
Rain Reflectivity Distribution and Detectability in Automotive Radar	1345
<i>Henrik Toss, Kristian Karlsson, Pierre Duthon, Yuri Poledna</i>	
Enhancing Self-Supervised Surround-View Fisheye Depth Estimation with Road Geometry and Foreground Semantics	1352
<i>Weimin Liu, Wenjun Wang, Joshua H. Meng</i>	
Fisheye Camera and Lidar Fusion for Autonomous Following Vehicles	1359
<i>Jiahui Wan, Guangqiang Wu</i>	
Hybrid Dynamics-Data Estimation of Tire-Road Adhesion Coefficient Under Water Film Effect	1366
<i>Jiahui Liu, Liang Wang, Yang Liu, Xiaobo Qu</i>	
REFNet++: Multi-Task Efficient Fusion of Camera and Radar Sensor Data in Bird's-Eye Polar View	1372
<i>Kavin Chandrasekaran, Sorin Grigorescu, Gijs Dubbelman, Pavol Jancura</i>	
Analyzing Riders' Intervention Behavior During Autonomous Driving: A VR-based Exploratory Study	1380
<i>Zheng Xu, Dong Xiao, Nan Zheng</i>	
The Impact of Human-Machine Interaction Transparency on Driver Trust in Autonomous Driving	1388
<i>Junjie Zhang, Yongfeng Ma, Guanyang Xing, Ziyu Zhang, Kai Kang, Lu Gao</i>	
Scene-Aware Conversational ADAS with Generative AI for Real-Time Driver Assistance	1394
<i>Kyungtae Han, Yitao Chen, Rohit Gupta, Onur Altintas</i>	
Understanding the Impact of Environmental and Rider Factors on Scooter Safety: A Virtual Reality Study	1402
<i>Kexin Zhu, Inhi Kim, Taeho Oh, Shinhyoung Park</i>	

Eye Movement Characteristics of Vehicle Occupants in Different Hazard Perception States in Naturalistic Expressway Traffic Scenes*	1408
<i>Qinqin Qin, Peiyi Wang, Xinzheng Wu, Junyi Chen</i>	
An Empirical Analysis of Driver Behavioral Changes Following Urban Speed Limit Adjustments	1416
<i>Min Ji Kang, Woo Seok Do, Oh Hoon Kwon, Shin Hyoung Park</i>	
Adaptive Fusion of Decomposed Traffic Components: A Heterogenized Spatio-Temporal Attention for Traffic Forecasting	1422
<i>Tianhao Li, Zhan Zhao, Xintian Liu</i>	
Mamba-Byte-Traffic: Token-Free Byte-Level Traffic Flow Prediction With Selective State-Space Model	1428
<i>Quang Nhat Nguyen, Majid Sarvi, Saeed Asadi Bagloee</i>	
Turn-Level Maximum Queue Length Prediction Based on Dynamic Graph Deep Learning Considering Traffic Signal	1434
<i>Chaemin Na, Hyunsoo Kim, Hwasoo Yeo</i>	
Ride the Flow: Dynamic Tensor and Adaptive Modeling for Short-Term Traffic Prediction	1440
<i>Yilin Liu, Guillaume Sartoretti</i>	
A Novel Hybrid Induction Model for Traffic State Estimation of Arbitrary-Shaped Missing Area with Physical Constraints	1446
<i>Bicheng Xu, Lu Bai, Wai Wong, Pan Liu, Yongtao Li</i>	
Network-Wide Traffic Prediction Via Bayesian State-Space Neural Networks and ARIMAX	1452
<i>Mohammad Reza Mohebbi, Niloofar Davoudi Jaghargh, Mario Döller, Mohammad Javad Hassan Zada Iuliia Yamnenko</i>	
Real-Time Anomaly Detection for Train Movement Authority Using TACformer	1460
<i>Shaoyang Ma, Li Zhu, Fang Cao, Xinjun Gao</i>	
DRL-Based Optimization of LQR for Virtual Coupling Train Interval Control	1467
<i>Feijie Gong, Wei Shangguan, Hongyu Song, Yichen Dun, Baigen Cai</i>	
Risk Prediction Method for Urban Rail Transit Emergency Events Based on Explanatory Ensemble Learning Model	1473
<i>Yuening Zhu, Wei Shangguan, Linguo Chai, Jujie Chen, Siyu Zhu, Weijie Wang, Hongyu Song</i>	
Signal Speed Sensor Based Train Slip Detection and Hazard Trend Prediction	1479
<i>Chengtao Xu, Dongxiu Ou, Yuqing Ji, Ming Chang</i>	
Digital Twin Simulation and Test Platform for VCTS: A Fundamental Study of Train Multi-Body Dynamics Modeling	1485
<i>Shirun Tian, Fei Yan, Arnab Majumdar, Xiaohua Huang</i>	
A Deep Learning-Based Real-Time Detection Model for Water Leakage in Subway Tunnels	1491
<i>Feng Ma, Hongli Zhao, Li Zhu, Lei Tan, Xiaohui Yang, Tao Tang</i>	
Enhancing Urban GNSS Positioning Reliability Via Conservative Satellite Selection Using Unanimous Voting Across Multiple Machine Learning Classifiers	1497
<i>Sanghyun Kim, Jiwon Seo</i>	

Multi-Staged Framework for Safety Analysis of Offloaded Services in Distributed Intelligent Transportation Systems	1503
<i>Robin Dehler, Oliver Schumann, Jona Ruof, Michael Buchholz</i>	
Reducing Conservatism in Fast and Safe Motion Generation by Means of Captivity-Escape Games	1511
<i>Christopher Bohn, Janne Bosch, Manuel Hess, Sören Hohmann</i>	
Implementation of an ODD Definition Language within an ODD Engine for Runtime OD Checking in Automated Driving Systems	1518
<i>Joschua Schulte-Tigges, Moritz Rumpf, Michael Reke, Alexander Ferrein</i>	
Introducing OASISS: ODD-Based AI Safety in AutonomouS Systems	1525
<i>Jerein Jeyachandran, Siddartha Khastgir, Xingyu Zhao, Eric Barbier, Paul Jennings</i>	
Modified-Emergency Index (MEI): A Criticality Metric for Autonomous Driving in Lateral Conflict	1533
<i>Hao Cheng, Yanbo Jiang, Qingyuan Shi, Qingwen Meng, Keyu Chen, Wenhao Yu, Jianqiang Wang Sifa Zheng</i>	
MobiVerse: Scaling Urban Mobility Simulation with Hybrid Lightweight Domain-Specific Generator and Large Language Models	1540
<i>Yifan Liu, Xishun Liao, Haoxuan Ma, Jonathan Liu, Rohan Jadhav, Jiaqi Ma</i>	
Generalized Route Choice Modeling via Fusion of Structural Knowledge and LLM-Inferred Context	1547
<i>Shuhan Qiu, Xiannan Huang, Guoyang Qin, Xuejian Chen, Jian Sun</i>	
Reflective LLM Prompt Optimisation for Interpreting GNN Predictions in Traffic Forecasting	1555
<i>Zetong Zhang, Jiwon Kim, Dan He, Mehmet Yildirimoglu</i>	
Advancing Simulation-Based Optimization with LLMs for Traffic Problems	1563
<i>Xin Liu, Jinbiao Huo, Zhen Zhou, Zhitao Hu, Ziyuan Gu, Zhiyuan Liu</i>	
E-Scooter Alarm Warning System for Pothole Detection: A Simulation Study	1569
<i>Hui Zhi Ng, Jaehyuck Lim, Taeho Oh, Inhi Kim</i>	
PreSimNet: A Unified Framework for Predicting and Simulating Car-Following Behaviors in Mixed Traffic Flow	1575
<i>Hao Lyu, Wan Liu, Ting Wang, Quansheng Yue, Junyao Li, Yanyong Guo</i>	
MultiDrive: A Co-Simulation Framework Bridging 2D and 3D Driving Simulation for AV Software Validation	1583
<i>Marc Kaufeld, Korbinian Moller, Alessio Gambi, Paolo Arcaini, Johannes Betz</i>	
Intrajsim: Trajectory Prediction for Simulating Multi-Vehicle Driving at Signalized Intersections	1590
<i>Yash Ranjan, Rahul Sengupta, Anand Rangarajan, Sanjay Ranka</i>	
CDA-SimBoost: A Unified Framework Bridging Real Data and Simulation for Infrastructure-Based CDA Systems	1597
<i>Zhaoliang Zheng, Xu Han, Yuxin Bao, Yun Zhang, Johnson Liu, Zonglin Meng, Xin Xia, Jiaqi Ma</i>	
An fNIRS-Based Multi-Sensor Fusion Approach for Passenger Comfort Assessment	1605
<i>Yang Zhao, Yewei Yu, Kecheng Shi, Ruoyu Deng, Hong Cheng</i>	
Autonomous Vehicle Intersection Management through Speed Optimization and Finite State Machine-Based Decision Making	1612
<i>Chiara Merolla, Simone Specchia, Andrea Galimberti, Matteo Corno, Giulio Panzani, Sergio Savaresi</i>	

Semantically-Aware Exploration in Zero-Shot Object Goal Navigation via Bayesian Memory	1618
<i>Junyi Hou, Wenxin Zhu, Qinyuan Ren</i>	
From Prompts to Pavement: LMMs-Based Agentic Behavior-Tree Generation Framework for Autonomous Vehicles	1624
<i>Omar Y. Goba, Ahmed Y. Gado, Catherine M. Elias, Ahmed Hussein</i>	
MR-LDM - the Merge-Reactive Longitudinal Decision Model: Game Theoretic Human Decision Modeling for Interactive Sim Agents	1631
<i>Dustin Holley, Jovin D'sa, Hossein Nourkhiz Mahjoub, Gibran Ali</i>	
doScenes: An Autonomous Driving Dataset with Natural Language Instruction for Human Interaction and Vision-Language Navigation	1638
<i>Parthib Roy, Srinivasa Perisetla, Shashank Shriram, Harsha Krishnaswamy, Aryan Keskar, Ross Greer</i>	
ReUGS: Reconstruction of Unstructured Scenes Based on Geometry-Constraints Gaussian Splatting Representation	1646
<i>Shi Sun, Ruoyao Li, Yafei Wang, Bowen Wang, Runheng Zuo, Yichen Zhang</i>	
Multi-Phased Integration of Charging Infrastructure Optimization	1653
<i>Joas Kahlert, Jiali Fu, Chengxi Liu, Johanna Skåntorp, Jan Kronqvist</i>	
Frame-Wise Interactive Strategy on Video Streams for Road Friction Estimation Under Kinematic Constraints	1660
<i>Weihua Wang, Haonan Ding, Ziwei Wang, Guodong Yin</i>	
Integrated Optimization of Speed Curve and Energy Management for a Fuel Cell Hybrid Tram on a Signalized Route	1668
<i>Dian Yi, Jing Xun, Zicong Zhao, Yuchen Luo, Jin Liu</i>	
Constraint-Guided Multi-Task Reinforcement Learning for Autonomous Electric Taxi Dispatch and Energy Management	1674
<i>Meng Zhao, Junyi Wang, Yanbin Zou, Donghe Li, Shitao Chen, Qingyu Yang</i>	
A Downscaling Approach for Electric Vehicle Dynamics: An Application of Similitude Laws	1682
<i>Ahmed Wassim El Gamah, Ouafae El Ganaoui-Mourlan, Dominique Gruyer, Antonio Sciarretta, Remi Sainct</i>	
Balancing Efficiency and Service: A Marginal Cost Approximation Approach to Multi-Period Vehicle Routing in E-Commerce Logistics	1687
<i>Hsin-Kai Huang, Ryota Okazaki, Yuki Oyama</i>	
The Potential of Large Language Model to Enhance Multi-Agent Traffic Signal Control in Complex Environments	1693
<i>Wanshu Wang, Wei Wang, Kimihiko Nakano</i>	
Knowledge Graph and Large Language Model-Driven Intelligent Traffic Assistant for Question Answering and Risk Analysis of Commercial Vehicles	1699
<i>Bangyan Wei, Yonggao Xu, Zhaocheng He, Zhijun Yi, Xiaoyun Wu, Yiting Zhu</i>	
Conflict-Aware Platoon Scheduling at Unsignalised Intersections Via Traveling Salesman Problem: A Large Language Model-Guided Heuristic Solution	1705
<i>Xiaoyu Shi, Sikai Chen, Kitae Jang, Tiantian Chen</i>	

Cross-Taxonomy Label Alignment in Transportation Networks With Prompt-Driven Large Language Models	1711
<i>Yonghui Liu, Inhi Kim</i>	
LLM-Based Triple Extraction with Class-Constrained Structural Prompting for Phase-Aware Knowledge Graphs in Aviation Incident Analysis	1717
<i>Shiwei Xin, Hu Li, Zeru Yang, Yehong Zhou, Liang Dong, Chun-Hsien Chen</i>	
Application and Evaluation of Large Language Models for Forecasting the Impact of Traffic Incidents	1723
<i>George Jagadeesh, Srikrishna Iyer, Michal Polanowski, Kai Xin Thia</i>	
Enhancing Obstacle Avoidance Stability of MDED-HDV in High-Speed and Dynamic Scenarios via Stability Region Estimation	1730
<i>Ruiqi Fang, Xin Bai, Haonan Ding, Fanxun Wang, Yanlin Wang, Jinhao Liang, Guodong Yin</i>	
AlignOcc: Alignment-Aware LiDAR-Camera Fusion for 3D Occupancy Prediction in Autonomous Driving	1738
<i>Zhichao Liu, Ziwei Wang, Keke Geng, Xiaolong Cheng, Jinhao Liang, Guodong Yin, Tianxiao Ma, Ye Sun</i>	
A Dynamic Driver Trust Model for Freeway On-Ramp Merging Considering Driving Style	1745
<i>Mingxi Yao, Zhenwu Fang, Junjie Gong, Jinxiang Wang, Mingchun Liu, Guodong Yin</i>	
A Hierarchical Deep Reinforcement Learning Framework for Traffic Signal Control with Predictable Cycle Planning	1752
<i>Hankang Gu, Yuli Zhang, Chengming Wang, Ruiyuan Jiang, Ziheng Qiao, Pengfei Fan, Dongyao Jia</i>	
Personalized Takeover Request Strategies for Level 3 Autonomous Vehicles Considering Driver Style Differences	1760
<i>Junjie Gong, Qixiang Zhang, Jinhao Liang, Mingxi Yao, Jinxiang Wang, Guodong Yin</i>	
Exploiting Adjacent Vehicle Interactions to Mislead Trajectory Predictions	1766
<i>Zhanbo Sun, Yueyuan Du, Feilong Wang, Rong Zhao</i>	
Eco-Driving for Uncertain Nonlinear CAEVs Platoon via a Fully Distributed Adaptive Robust PID-Based Protocol	1772
<i>Dario Giuseppe Lui, Gianmarco Pane, Alberto Petrillo, Stefania Santini</i>	
HCOMC: A Hierarchical Cooperative On-Ramp Merging Control Framework in Mixed Traffic Environment on Two-Lane Highways	1778
<i>Tianyi Wang, Yangyang Wang, Jie Pan, Junfeng Jiao, Christian Claudel</i>	
TGLD: A Trust-Aware Game-Theoretic Lane-Changing Decision Framework for Automated Vehicles in Heterogeneous Traffic	1786
<i>Jie Pan, Tianyi Wang, Yangyang Wang, Junfeng Jiao, Christian Claudel</i>	
Strategic and Tactical Planning for Electric Connected and Automated Shuttle Buses for Public Transport Service	1794
<i>A. Bozzi, C. Pasquale, S. Siri, A. Ferrara</i>	
Optimizing Traffic Flow at Unsignalized Intersections via Centralized Reinforcement Learning for Connected and Autonomous Vehicles	1800
<i>Fatima-Zahrae El-Qoraychy, Mahjoub Dridi, Jean-Charles Créput</i>	
AI-Enabled Connected Autonomous Vehicles Sustainable Routing in Urban Areas	1806
<i>Salvatore Fiorentino, Carmine Dodaro, Marco Maratea, Mauro Vallati</i>	

Dynamic Grouping Enhanced Deep Reinforcement Learning for Cooperative on-Ramp Merging	1812
<i>Peifeng Li, Huachun Tan, Zoutao Wen, Yanan Zhao, Bolin Gao</i>	
Route Search Algorithm for Predicting Traffic Congestion Based on Other Vehicles' Routes	1819
<i>Yafei Wang, Junpei Tokunaga, Hiroyuki Ebara, Naonori Ueda</i>	
Co-Operation Interactions in Mixed Traffic Environments	1827
<i>Ming Cheng, Hongyu Hu, Zhengyi Li, Sheng Jin</i>	
ROP-DARL: Risk-Aware Optimistic-Pessimistic Dual-Actor Reinforcement Learning for Safe Decision-Making of Autonomous Vehicles	1835
<i>Yaqing Li, Xinke Li, Mengyin Fu, Yi Yang, Ting Zhang</i>	
Cooperative Decision-Making and Trajectory-Control Approaches for Platoon Merging in a Connected Environment	1843
<i>Yunjie Liu, Changyin Dong, Yuxuan Hou, Hao Wang</i>	
Deep Reinforcement Learning-Based Hierarchical Framework for Collaborative Multi-UUV Underwater Target Search	1849
<i>Jiangpeng Li, Chengfeng Jia, Yun Lu, Lingying Huang, Rong Su</i>	
LoCo-VLM: End-to-End Autonomous Driving with a Loosely Coupled Vision-Language Model	1857
<i>Jiandong Xing, Shuai Min, Danmu Xie, Xinyu Wang, Letian Kang, Yilong Ren, Haiyang Yu, Xuesong Bai</i>	
Surface-Aware Lane Departure for Obstacle Avoidance in Off-Road Environments Using Semantic Segmentation and MPC	1865
<i>Alexander Bienemann, Peter Mortimer, Thorsten Luettel, Mirko Maehlich</i>	
Internet of Things-Based Accident Detection and Hazard Response System for Intelligent Transportation	1872
<i>Anis ur Rehman, Mohammad J. Sanjari, Bo Du, Junwei Lu</i>	
Map-Free Trajectory Prediction via Dual-Path Spatial-Temporal Network with Mamba	1878
<i>Zeye Song, Yuanchen Zhu, Xiaoyang Luo, Yong Wang, Yanan Zhao, Huachun Tan</i>	
Worst-Case Ready: A Policy-Constrained RL Framework for Robust Autonomous Driving	1885
<i>Letian Kang, Jiandong Xing, Zhiyong Cui, Zhengxing Lan, Zihe Wang, Yilong Ren, Haiyang Yu</i>	
Path-Following Model Predictive Control for Autonomous E-Scooters	1893
<i>David Meister, Robin Strässer, Felix Brändle, Marc Seidel, Benno Bessler, Nathan Gerber, Jan Kautz Elena Rommel, Frank Allgöwer</i>	
Red-Team Multi-Agent Reinforcement Learning for Emergency Braking Scenario	1899
<i>Yinsong Chen, Kaifeng Wang, Xiaoqiang Meng, Xueyuan Li, Zirui Li, Xin Gao</i>	
Leading Urban Traffic Streams With OpenCDA: Distributed Tests Amid CDA Agent Heterogeneity	1906
<i>Xu Han, Jiaqi Ma</i>	
RADE: Learning Risk-Adjustable Driving Environment via Multi-Agent Conditional Diffusion	1912
<i>Jiawei Wang, Xintao Yan, Yao Mu, Haowei Sun, Zhong Cao, Henry X. Liu</i>	
From Single to Multi-Ego: Scenario Fusion for Multi-Ego Validation of Autonomous Vehicles	1920
<i>Nick Schade, Jürgen Pannek</i>	

Road Train Detection and Decision Support Systems for Automated Vehicles using Deep Learning	1926
<i>Long Wang, Mahmoud Masoud, Mohammed Elhenawy, Sebastien Glaser</i>	
Robust Planning for Autonomous Vehicles with Diffusion-Based Failure Samplers	1934
<i>Juanran Wang, Marc R. Schlichting, Mykel J. Kochenderfer</i>	
ADVNTG: Autonomous Driving Vehicle and Neural Transformer-Based HD Map Generation Using Crowd-Sourced Fleet Data	1941
<i>Daniel Fritz, Dimitrios Lagamtzis, Michael Mink, Steffen Schober</i>	
Leveraging Motion Tracking for Sample Weighting in Motion-Based Calibration and Self-Assessment	1947
<i>Thomas Wodtke, Marco Deuschler, Michael Buchholz</i>	
PL-RAS++: Real-Time Integrity Assurance for Robust Localization via Risk-Adaptive Protection Level	1954
<i>Elias Maharmeh, Zayed Alsayed, Fawzi Nashashibi</i>	
One Step Closer: Creating the Future to Boost Monocular Semantic Scene Completion	1961
<i>Haoang Lu, Yuanqi Su, Xiaoning Zhang, Hao Hu</i>	
Occcylindrical: Multi-Modal Fusion with Cylindrical Representation for 3D Semantic Occupancy Prediction	1968
<i>Zhenxing Ming, Julie Stephany Berrio, Mao Shan, Yaoqi Huang, Hongyu Lyu, Nguyen Hoang Khoi Tran Tzu-Yun Tseng, Stewart Worrall</i>	
EvMVX-Net: Uncertainty-Aware 3D Object Detection via Evidential Regression and Mixture of Normal-Inverse Gamma Distributions	1976
<i>Zhiguo Zhao, Cong Zhao, Kun Chen, Xiaoxi Hu, Yuhuan Du, Yuxiong Ji</i>	
Driver-Vehicle Visual Fusion Enabling Safer Conflict Avoidance at Unsignalized T-Intersections	1984
<i>Xinyun Lao, Jincheng Gao, Yu Shen, Chenhang Ding, Yuxiong Ji</i>	
An fNIRS-Based Multi-Sensor Fusion Approach for Passenger Comfort Assessment	1991
<i>Yang Zhao, Yewei Yu, Kecheng Shi, Ruoyu Deng, Hong Cheng</i>	
MFE-Driver: Multimodal Fusion Network for EEG-based Driver Emotion State Recognition	1997
<i>Yongqiang Ma, Haodong Jing, Wenjie Gao, Haibo Hua, Xuetao Zhang</i>	
ACIT: Attention-Guided Cross-Modal Interaction Transformer for Pedestrian Crossing Intention Prediction	2005
<i>Yuanzhe Li, Steffen Müller</i>	
Impact of Missing Inter-Beat Intervals on Heart Rate Variability Features and Driver Drowsiness Detection	2012
<i>Aristotelis Styaniadis, André Lourenço, Carlos Carreiras, Christer Ahlström, Apostolos Ziakopoulos George Yannis</i>	
VUD-FC: A Heterogeneous Behavior-Oriented Adaptive Control Approach Using Variable Universe of Discourse Fuzzy Strategy	2019
<i>Yuzhi Chen, Chang Lu, Sixuan Xu, Menghan Wu, Yuanchang Xie, Chen Wang</i>	
From Links to Networks: A Data-Driven, Physics-Informed Koopman Framework for Traffic Networks	2026
<i>Linda Lim, Scott Moura, Maria Laura Delle Monache</i>	
A Benchmark Dataset for Bus Travel and Dwell Time Prediction	2034
<i>Alexander Horn, Philip-Roman Adam, Stefanie Schmidtner</i>	

Ensemble of Pre-Trained Models for Long-Tailed Trajectory Prediction	2042
<i>Divya Thuremella, Yi Yang, Simon Wanna, Lars Kunze, Daniele De Martini</i>	
Intention Enhanced Diffusion Model for Multimodal Pedestrian Trajectory Prediction	2050
<i>Yu Liu, Zhijie Liu, Xiao Ren, You-Fu Li, He Kong</i>	
Scalable Traffic Prediction via Data Reduction with Coreset Selection	2056
<i>Taeyoung Yu, Jiwon Kim, Soban Nasir Lone, Mohamed Abouelela, Constantinos Antoniou</i>	
Efficacy of Early and Late Spatio-Temporal Fusion in LSTM Models for Vehicle Trajectory Prediction	2064
<i>Jay Vora, Sukhjot Singh Sehra, Sumeet Kaur Sehra, Jaiteg Singh</i>	
Enhanced Localization of Driverless Trains using Multi-Scale Grid LiDAR Fiducial Marker Features*	2071
<i>Pandey Jyotsna, Kenji Imamoto, Taku Shimizu</i>	
Autonomous Operation Trajectory Planning for Maglev Train: A Case Based on LLM-Agent	2078
<i>Shihua Li, Lei Zhang, Dongxiu Ou, Zheng Ning</i>	
Research on Dynamic Resource Supply Strategy of Hard Shoulder of Expressway Based on Reinforcement Learning	2085
<i>Xuejian Yao, Jian Zhang, Bo Wang, Yu Qian, Maoze Wang</i>	
SegMine: A Multi-Modal Segmentation Dataset and Benchmarks for Visual Understanding in Open-Pit Mines	2091
<i>Luxi Li, Yuchen Li, Yunfeng Ai, Bin Tian, Zhe Xuanyuan, Long Chen</i>	
STRAP: Spatial-Temporal Risk-Attentive Vehicle Trajectory Prediction for Autonomous Driving	2099
<i>Xinyi Ning, Zilin Bian, Dachuan Zuo, Semiha Ergan</i>	
MSD-LLM: Predicting Ship Detention in Port State Control Inspections with Large Language Model	2105
<i>Jiongchao Jin, Xiuju Fu, Xiaowei Gao, Tao Cheng, Ran Yan</i>	
From Words to Collisions: LLM-Guided Evaluation and Adversarial Generation of Safety-Critical Driving Scenarios	2113
<i>Yuan Gao, Mattia Piccinini, Korbinian Moller, Amr Alanwar, Johannes Betz</i>	
A Large Language Model-Enhanced Q-Learning for Capacitated Vehicle Routing Problem with Time Windows	2121
<i>Linjiang Cao, Maonan Wang, Xi Xiong</i>	
TreeCSP: An Efficient Way to Generate Household Relationships for Population Synthesis	2127
<i>Duc Minh La, Hai L. Vu</i>	
HRSim: An Agent-Based Simulation Platform for High-Capacity Ride-Sharing Services	2133
<i>Wang Chen, Hongzheng Shi, Jintao Ke</i>	
Iterative Decision-Making in Reinforcement Learning for Ride-Sharing Optimization: A Joint Approach to Dispatching and Rebalancing	2139
<i>Hyun Su Park, DongHwa Shin, Shin Hyoung Park, Shin-Hyung Cho</i>	
Field Study on the Lateral Distribution of Aircraft Based on Measured Data	2145
<i>Zelin Liu, Mengyuan Zeng, Hongduo Zhao, An Xiao</i>	

High-Resolution Forecasting of Road Surface Temperature Using Graph Neural Networks	2152
<i>Shogo Takedomi, Keita Ishii, Teppei Mori, Akira Saida, Kota Okumura, Yuki Nakamura</i> <i>Tetsuro Matsushima, Shunsuke Ono</i>	
Motif-Density Aware Multi-Head Attention Knowledge Graph Embedding ((MA) ² KGE) for Spatio-Temporal Representation Learning of Urban Ride-Sharing Networks	2160
<i>Shiveswaran Ratneswaran, Satish Ukkusuri</i>	
Impact of Eco-Driving on Traffic Performance at Signalized Intersections: Blockage and Spillover	2166
<i>Zhuang Ming, Qishen Zhou, Xiaoxiang Na, Sheng Jin, Dongfang Ma, Simon Hu</i>	
A Kalman Filter-Based Disturbance Observer for Steer-by-Wire Systems	2172
<i>Nikolai Beving, Jonas Marxen, Steffen Müller, Johannes Betz</i>	
Deep-Koopman-Based Model Predictive Control for Trajectory Tracking of Automated Vehicle	2180
<i>Lei Li, Liwei Xu, Zilong Liu, Tingyuan Wang, Ang Li, Guodong Yin</i>	
LLM-Driven Constrained MARL for Collaborative Multi-Vehicle Control in Autonomous Cooperative Transportation Systems	2187
<i>Hao Pang, Zhenpo Wang, Guoqiang Li</i>	
LLMs-Powered Real-Time Fault Injection: An Approach Toward Intelligent Fault Test Cases Generation	2193
<i>Mohammad Abboush, Ahmad Hatahet, Andreas Rausch</i>	
Traffic Context-Augmented Vehicle Trajectory Prediction Framework Using Multimodal LLM	2201
<i>Jaegyun Im, Byeonghun Kim, Joobin Jin, Byeongjoon Noh</i>	
Pathfinders in the Sky: Formal Decision-Making Models for Collaborative Air Traffic Control in Convective Weather	2207
<i>Jimin Choi, Kartikeya Anand, Husni R. Idris, Huy T. Tran, Max Z. Li</i>	
Mixed-Autonomy Platoon Control as Sequence Modeling: A Fairness-Aware Multi-Agent Transformer Approach	2215
<i>Jingyuan Zhou, Zhicheng Wang, Kaidi Yang</i>	
LLMs as Virtual Traffic Police: Incident-Aware Traffic Signal Control Augmented by Large Language Models	2221
<i>Qiqing Wang, Shiqi Wei, Kaidi Yang</i>	
Flexible Fault-Tolerant Prescribed Control for Connected Automated Vehicles	2227
<i>Jiwei Tang, Jingzehua Xu, Ruihang Ji, Yiming Shu, Jiahui Xu, Chen Sun</i>	
Safety at Autonomous Intersections Under Connection Loss: Connected and Onboard Local Planning	2233
<i>Yingchen Hao, Hoam Chung, Hai L. Vu</i>	
Robust Distributed Model Predictive Control of Heterogeneous Vehicle Platoons with Unidirectional Topologies Under External Disturbances	2240
<i>Zeyuan Xu, Shaolong Shi, Zixuan Li, Duo Li, Sheng Wang, Antonella Ferrara</i>	
Analyzing and Modeling Different Patterns of Vehicle's Cut-In Behavior in Platoons	2246
<i>Wei Ye, Yueru Xu, Yichen Li, Yichang Shao</i>	
Efficomm: Bandwidth Efficient Multi Agent Communication	2252
<i>Melih Yazgan, Allen Xavier Arasan, J. Marius Zöllner</i>	

Rendezvous and Docking of Mobile Ground Robots for Efficient Transportation Systems	2260
<i>Lars Fischer, Daniel Flögel, Sören Hohmann</i>	
A Learning-Based Planning and Control Framework for Inertia Drift Vehicles	2268
<i>Bei Zhou, Zhouheng Li, Lei Xie, Hongye Su, Johannes Betz</i>	
Robust Steering Control of an Advanced Mobility Unit Considering the Communication Time Delay	2274
<i>Zihong Li, Ning Zhang, Hangyu Lu, Jun Wang, Cheng Wang, Guodong Yin</i>	
Reinforcement Learning for Mid-to-Mid Motion Planning in Autonomous Driving	2281
<i>Islem Kobbi, Hussam Atoui, Fawzi Nashashibi</i>	
Robust Model Predictive Control of High-Frequency Vibration in an Advanced Mobility Unit	2287
<i>Jun Wang, Ning Zhang, Zihong Li, Hangyu Lu, Cheng Wang, Guodong Yin</i>	
RISEE: A Highly Interactive Naturalistic Driving Trajectories Dataset with Human Subjective Risk Perception and Eye-tracking Information	2294
<i>Xinzheng Wu, Junyi Chen, Peiyi Wang, Shunxiang Chen, Haolan Meng, Yong Shen</i>	
UniSTPA: A Safety Analysis Framework for End-to-End Autonomous Driving	2302
<i>Hongrui Kou, Zhouhang Lyu, Ziyu Wang, Cheng Wang, Yuxin Zhang</i>	
DiffRCF: Diffusion Model for Robust 3D Object Detection with Radar-Camera Fusion	2310
<i>Rong Liu, Jiayin Deng, Boning Zhu, Zhiqun Hu, Zhaoming Lu</i>	
Improving Vulnerable Road-Users Detection Through Hybrid Collaborative Perception and Detection Refinement	2317
<i>Selma Oubouabdellah, Minh-Quan Dao, Ezio Malis, Elwan Héry, Julien Moreau, Vincent Frémont</i>	
Improving Camera-Based BEV Map Segmentation by Sampling Repeatedly	2323
<i>Stefan Schütte, Timo Osterburg, Torsten Bertram</i>	
Development of a Driving Guidance System to Improve Racing Performance	2329
<i>Jongtaek Han, Kunhee Ryu, Jihye Lee, Jonghak Bae, Jaehyun Lim, Jongeun Choi, Jinsung Kim</i>	
Driver Road Rage Detection and Event Perception Analysis Based on Eeg Functional Connectivity	2335
<i>Tianqi Liu, Yanjun Qin, Shanghang Zhang, Xiaoming Tao</i>	
Enhancing Navigation Text Generation and Visual Explanation Using Spatio-Temporal Scene Graphs with Graph Attention Networks	2341
<i>Hayato Suzuki, Kota Shimomura, Tsubasa Hirakawa, Takayoshi Yamashita, Hironobu Fujiyoshi</i>	
Resilient Optimal Output Regulation under Denial-of-Service Attacks with an Application to Autonomous Vehicles	2349
<i>Yuchen Dong, Weinan Gao, Zhongmei Li</i>	
Stability-Guided Safe Reinforcement Learning: A Lyapunov-Based Approach for Autonomous Vehicle Control	2356
<i>Haonan Ding, Mingzhuo Zhao, Sunan Zhang, Weihua Wang, Weichao Zhuang, Guodong Yin</i>	
ST-DiffNav: Spatio-Temporal Conditional Diffusion with Navigational Priors for Autonomous Trajectory Prediction*	2363
<i>Jintao Huang, Yanyong Guo, Yuguang Chen, Hao Wu</i>	

Real-Time Vision-Language Model Guided Semantic-Aware Diffusion Navigation with Intelligent Vehicle Validation	2370
<i>Lanqi Zhou, Lin Zhang, Zhaozhan Chi, Han Wang, Wei Pan, Qiang Meng, Hongqing Chu, Hong Chen</i>	
From Marginal to Joint Predictions: Evaluating Scene-Consistent Trajectory Prediction Approaches for Automated Driving	2377
<i>Fabian Konstantinidis, Ariel Dallari Guerreiro, Raphael Trumpp, Moritz Sackmann, Ulrich Hofmann</i>	
<i>Marco Caccamo, Christoph Stiller</i>	
LightMotion: A Lightweight Motion Prediction Model with Spatial Attention and Progressive Learning	2385
<i>Wisnu Aditya, Wen-Hui Chen, Yu-Chen Lin, Ting-Wei Yang</i>	
REM: A Multi-Model Fusion Framework for Real-Time Cyberattack Detection in Electric Vehicle Charging Systems	2392
<i>Son Duong, Secil Ercan, Mahdi Zargayouna</i>	
High-Accuracy Audio-based Vehicle Detection: Deep Learning vs Machine Learning	2399
<i>Hailey Hyosun Yoo, Majid Sarvi, Saeed Asadi Bagloee</i>	
Data-Driven Traffic Phase Detection and Jam Resolution Analysis Using Spatial-Temporal Observations	2405
<i>Marc Zörn, Hubert Rehborn, Lennart Querfurth, Robert Hoyer</i>	
Spatio-Temporal Bayesian Hierarchical Generalized Extreme Value Modeling of the Non-Stationary Traffic Conflict Extremes at Intersections	2411
<i>Quansheng Yue, Yao Wu, Hao Lyu, Quan Yuan, Yanyong Guo</i>	
Identification of Drunk Driving using Deep Learning Networks on Virtual Reality Simulation	2418
<i>Sida Jiang, Jiaming Wu, Bogdan Diaconu</i>	
Lane-Wise Highway Anomaly Detection	2424
<i>Mei Qiu, William Lorenz Reindl, Yaobin Chen, Stanley Chien, Nathan Shellhamer, Dan McCoy, Shu Hu</i>	
Sliding Mode Control for Departure-Optimized Virtual Coupling of Heavy Haul Trains	2432
<i>Changji Chen, Hongwei Wang, Xi Wang, Lei Yuan</i>	
Optimize Virtually Coupled Heavy-Haul Train Scheduling on Single-Track Bidirectional Lines	2438
<i>Jialei Liang, Ming Chai, Haiwang Yi, Zhao Sheng, Zhanyuan He, Dong Xie, Haoyuan Liu, Kaicheng Li</i>	
An Optimization Method of Marshalling Station Period Scheduling Plan Based on Ordinal Optimization	2444
<i>Zhiqing Zhang, Chong Wang, Zhongcan Li, Wei Dong, Xiang Yan, Zhao Long, Xinya Sun</i>	
An Optimization Method for Marshalling Station Period Scheduling Plan Based on Reinforcement Learning with Graph Neural Network	2452
<i>Tianyue Ding, Zhongcan Li, Chong Wang, Wei Dong, Xiang Yan, Wei Li, Junwei Cao</i>	
Towards Explainable Reinforcement Learning for Train Operation: Two Typical Methods	2460
<i>Zicong Zhao, Jing Xun, Yuan Cao, Jin Liu</i>	
Research on Prediction Method of Traction/Braking Performance of Subway Trains Based on Deep Learning and Model Fusion	2466
<i>Yamin Chen, Yong Zhang, Xinjun Gao</i>	
An Integrated Framework for Optimized Cross-Line Transit Scheduling	2474
<i>Changjian Yu, Zihan Zhang, Jaehyun So, Chang Liu, Francesco Braghin, Jia Hu</i>	

Passenger Flow Estimation Method for Ridesharing Systems Using Inverse Problem	2482
<i>Koki Oda, Toru Seo</i>	
Community-Aware Road Networks Embedding for Shortest-Path Distances Queries	2490
<i>Hua Zhang, Zijing Zhang, Ruicheng Lu</i>	
ABM-ETOP: Agent-Based Modelling for Transport Equity Policy Optimisation	2496
<i>Ruiyi Zhao, Taha Rashidi, S. Travis Waller</i>	
Bayesian-Symbolic Integration for Uncertainty-Aware Parking Prediction	2502
<i>Alireza Nezhadettehad, Arkady Zaslavsky, Abdur Rakib, Seng W. Loke</i>	
PSP: Physical-informed Sparse Learning for Interaction-aware Vehicle Trajectory Prediction	2510
<i>Zhexi Lian, Xuerun Yan, Ruiang Bi, Haoran Wang, Jia Hu</i>	
Revealing Urban Functionality Through Vehicle Dwell Patterns: A Data-Driven Approach	2517
<i>Ruicheng Lu, Hua Zhang, Zijing Zhang</i>	
Multi-Objective Calibration of Large-Scale Models Using Bayesian Optimization	2523
<i>Huy Le, Hai L. Vu, Vu Nguyen</i>	
A Theme-Based Citywalk Route Planning Algorithm: Considering Repeated Route Avoidance with Online Platform Data	2529
<i>Jiaxiang Yang, Yuxin He, Hao Wang, Jingjing Chen, Qin Luo, Tian Lei</i>	
Drive-by Sensing: A Framework for Selecting Vehicle Types and Deploying Sensors in Diverse Monitoring Scenarios	2537
<i>Yehao Xia, Wen Ji, Ke Han</i>	
Enhancing Grey Wolf Optimizer for the Traveling Salesman Problem via Adaptive Neighborhood Learning and Dynamic Parameter Tuning	2543
<i>Rikuto Shibutani, Takayuki Kimura, Takuya Shindo, Nobuhiko Itoh</i>	
Optimizing Roundabout Management via Deep Reinforcement Learning with Safety and Comfort Constraints	2549
<i>Ali Nadar, Jérôme Härri</i>	
Semantic-Enhanced Micro-Chain Modeling for Identifying Commuting Behavior Complexity	2556
<i>Yixin Chen, Chao Yang</i>	
Hyperparameter Optimization-Based Trust Quantification for Misbehavior Detection Systems	2562
<i>Artur Hermann, Nataša Trkulja, Dennis Eisermann, Benjamin Erb, Frank Kargl</i>	
Cooperative Control for Signals and Vehicles Based on Deep Reinforcement Learning in Mixed Traffic Environments	2570
<i>Rui Luo, Wei Shangguan, Linguo Chai, Junjie Chen</i>	
Self-Supervised Driver Distraction Detection for Imbalanced Datasets	2576
<i>Suraj Bhardwaj, David J. Lerch, Manuel Martin, Frederik Diederichs, Rainer Stiefelhofen</i>	
Advancing Blink Detection in Driver Monitoring with Improved Eye Landmark Analysis	2584
<i>Anima Rahman, Roger Woodman, Valentina Donzella</i>	

Sparse-FS3D: A Sparse-Feature Fusion Approach for Diffusion-Enhanced Few-Shot 3D Object Detection in Outdoor Scenes	2591
<i>Sandesh Jain, Heesang Han, A. Lynn Abbott, Abhijit Sarkar</i>	
ALOOD: Exploiting Language Representations for LiDAR-Based Out-of-Distribution Object Detection	2599
<i>Michael Kösel, Marcel Schreiber, Michael Ulrich, Claudius Gläser, Klaus Dietmayer</i>	
Improving Functional Reliability of Near-Field Monitoring for Emergency Braking in Autonomous Vehicles	2606
<i>Junnan Pan, Prodromos Sotiriadis, Vladislav Nenchev, Ferdinand Englberger</i>	
Low-Latency LiDAR Data Quality Monitoring for ADAS Under Adverse Weather Conditions	2612
<i>Juan D. González, Mirko Maehlich</i>	
CQVPR: Landmark-aware Contextual Queries for Visual Place Recognition	2620
<i>Dongyue Li, Jialei Chen, Ito Seigo, Hiroshi Murase, Daisuke Deguchi</i>	
Semantic-driven Distillation for Semantic Segmentation with Unknown Classes	2628
<i>Jialei Chen, Dongyue Li, Chong Yi, Xu Zheng, Ito Seigo, Hiroshi Murase, Daisuke Deguchi</i>	
A Concept for Efficient Scalability of Automated Driving Allowing for Technical, Legal, Cultural, and Ethical Differences	2636
<i>Lars Ullrich, Michael Buchholz, Jonathan Petit, Klaus Dietmayer, Knut Graichen</i>	
A Stochastic and Heterogeneous Dynamic Pricing Strategy for Electric Vehicle Charging Stations	2644
<i>Yongqi Zhang, Dong Ngoduy</i>	
V2XFormer: A Multi-Stage Transformer for Multi-Agent Reinforcement Learning in V2X-Enabled Traffic Signal Control	2652
<i>Yifeng Zhang, Ping Gong, Weiyi He, Yilin Liu, Mingfeng Fan, Guillaume Sartoretti</i>	
Evaluating the Impact of Data Granularity on Deep Q-Network Based Smart Traffic Signal Control	2660
<i>Michel Sauvage, Clément Leroy, Pierrick Cochon Jaffres, Jérôme Härri</i>	
ML-Based Prediction Framework for Varying Traffic Signal Control Strategies and Its GLOSA-Application	2666
<i>Kevin Malena, Christopher Link, Sandra Gausemeier, Ansgar Trächtler</i>	
Multi-View Tailored Tensor Completion for Spatiotemporal Traffic Data Imputation	2673
<i>Liyang Hu, Kun Gao, Yichang Shao, Xiaomeng Shi, Zhirui Ye</i>	
Enhancing Airport Ground Operations Efficiency through Speed-Controlled Aircraft Taxiing and Future Guidance Readiness	2679
<i>Huijuan Yang, Daniel Delahaye, Ji Ma</i>	
Supplemental Taxonomy for SAE L3-L4: A Tri-Layer Environmental Grading Framework	2687
<i>Chengxi Hu, Sikai Chen, Samuel Labi, Hongliang Ding, Hyungchul Chung, Tiantian Chen</i>	
Alert-Driven Pattern Mining in Large-Scale Road Traffic Management	2694
<i>Johannes Schönböck, David Graf, Werner Retschitzegger, Wieland Schwinger, Elisabeth Kapsammer, Birgit Pröll, Herbert Zaunmair, Marianne Lechner</i>	
PrefixCAN-Signal: PrefixSpan-based Automatic Controller Area Network Signal Extraction	2701
<i>Pruthvish Rajput, Ashhar Zaman, Vaibhav Katewa, Punit Rathore</i>	

Simulative Investigation of Consumption-Optimized Intersection Control for Autonomous Vehicles	2707
<i>Paul Heckelmann, Sandro Chris Breuer, Stephan Rinderknecht</i>	
A Generalizable Actor-Critic Framework for Safe and Robust Driving in V2X Environments	2714
<i>Zine el abidine Kherroubi</i>	
ParkAssist: Towards Automated, Real-Time Parking Analytics	2721
<i>Vijay Bajracharya, Junaid Ahmad, Fawad Ahmad</i>	
Every Scene All at Once: Exhaustive Multi-Agent Interaction Generation with Controlled Diffusion Model	2727
<i>Xiyan Jiang, Xiaocong Zhao, Yiru Liu, Peng Hang, Jian Sun</i>	
Model Predictive Control for Coordinated Lane Assignment and Longitudinal Coordination in Intersection Lane Expansion Zones	2735
<i>Qichao Liu, Dong Ngoduy, Weijie Yu, Jian Wang</i>	
FedMATD3: A Federated Reinforcement Learning Approach for Global Optimization in Multi-Agent Vehicular Task Offloading	2741
<i>Lingqiu Zeng, Yong Huang, Fukun Xie, Qingwen Han, Lei Ye</i>	
Compass Steering Control with Minimum Displacement Error for Enhanced Maneuverability and Safety in Narrow Spaces	2748
<i>Kang Wang, Yanlin Wang, Xiangwei Zhang, Kun Cheng, Bingbing Li, Weichao Zhuang, Guodong Yin</i>	
Energy-Optimal Multi-Modal Speed Planning and Following System for Connected Electrified Vehicles: Realistic V2X Communication-Based Experimental Analyses	2756
<i>Dohee Kim, Youngwon Seo, Eric Yongkeun Choi, Eunhyek Joa, Sang Ho Lee, Gu-Min Jeong</i> <i>Francesco Borrelli</i>	
Residual Koopman Model Predictive Control for Enhanced Vehicle Dynamics with Small on-Track Data Input	2762
<i>Yonghao Fu, Cheng Hu, Haokun Xiong, Zhangpeng Bao, Wenyuan Du, Edoardo Ghignone, Michele Magno</i> <i>Lei Xie, Hongye Su</i>	
Pixel-to-Control: End-to-End Autonomous Driving via Spatio-Temporal BEV Architecture for Control Sequence Prediction	2770
<i>Seongwoo Moon, Hyunki Seong, Jehun Kang, Hojin Ahn, David Hyunchul Shim</i>	
A Real-Time Control Barrier Function-Based Safety Filter for Motion Planning with Arbitrary Road Boundary Constraints	2778
<i>Jianye Xu, Chang Che, Bassam Alrifae</i>	
A Comparison Between Behavioral Cloning and Inverse Reinforcement Learning Allocation of Tire Forces for an Optimal Yaw Moment Control	2786
<i>Sarah Imene Khelil, Imane Taourarti, Bruno Monsuez, Adriana Tapus, Maud Geoffriault</i> <i>Javier Ibanez-Guzman</i>	
Predictive Safeguarding and Performance Monitoring for Learning-Based Vehicle Motion Controllers	2794
<i>Kenan Ahmic, Johannes Ultsch, Jonathan Brembeck, Darius Burschka</i>	
A Robust Radar-Camera Fusion for 2D Object Detection for Autonomous Driving	2802
<i>Tekalign Mengistu, Tesfamichael Getahun, Ali Karimoddini</i>	

Functionality Assessment Framework for Autonomous Driving Systems Using Subjective Networks	2808
<i>Stefan Orf, Sven Ochs, Valentin Marotta, Oliver Conder, Marc René Zofka, J. Marius Zöllner</i>	
Systematic Review and Simulator Study of Vibrotactile Take-Over Requests	2816
<i>Yousuf Al-Hakim, Tobias Hellberg, Martin Meywerk</i>	
LanePerf: A Performance Estimation Framework for Lane Detection	2822
<i>Yin Wu, Daniel Slieter, Ahmed Abouelazm, Christian Hubschneider, J. Marius Zöllner</i>	
Concept for Data-Driven Modeling of Perception Sensors for Automated Driving Systems	2830
<i>Julius Marquardt, Nick Schade, Jürgen Pannek</i>	
Beyond Line-of-Sight: Cooperative Localization Using Vision and V2X Communication	2836
<i>Annika Wong, Zhiqi Tang, Frank J. Jiang, Karl H. Johansson, Jonas Mårtensson</i>	
4D mmWave Radar for Sensing Enhancement in Adverse Environments: Advances and Challenges	2844
<i>Xiangyuan Peng, Miao Tang, Huawei Sun, Kay Bierzynski, Lorenzo Servadei, Robert Wille</i>	
Camera-LiDAR Traffic Light Relevance Estimation as Graph-Matching for Autonomous Vehicles	2852
<i>Ottavia Belotti, Alessandro De Luca, Riccardo Pieroni, Matteo Corno, Sergio M. Savaresi</i>	
Improving Landmark Positions in Urban Maps with Crowdsourced Data	2860
<i>Noël Nadal, Jean-Marc Lasgouttes, Fawzi Nashashibi</i>	
DesEAD: Enhancing End-to-End Autonomous Driving with Scene Descriptions	2866
<i>Peng Liu, Hongyi Lin, Yiyue Zhao, Yang Liu, Xiaobo Qu</i>	
MoRAL: Motion-Aware Multi-Frame 4D Radar and LiDAR Fusion for Robust 3D Object Detection	2873
<i>Xiangyuan Peng, Yu Wang, Miao Tang, Bierzynski Kay, Lorenzo Servadei, Robert Wille</i>	
Detection and Correction of Driver Mode Confusion Using LLM-Based Semantic Feedback in SAE Level 2 Automation	2880
<i>Ye Yang, Donghe Li, Li Sun, Sen Liu, Zhuobin Cao, Shitao Chen, Qingyu Yang</i>	
T-Mask: Temporal Masking for Probing Foundation Models Across Camera Views in Driver Monitoring	2887
<i>Thinesh Thiyakesan Ponbagavathi, Kunyu Peng, Alina Roitberg</i>	
Real-Time Gap and Acceleration Adaptation in Adaptive Cruise Control Based on Driver Overrides	2895
<i>Yitao Chen, Kyungtae Han, Ahmadreza Moradipari, Sergei Avedisov, Shatadal Mishra, Rohit Gupta Onur Altintas</i>	
A Hybrid Dynamic Model for Predicting Human Cognition and Reliance During Automated Driving	2902
<i>Sibibalan Jeevanandam, Neera Jain</i>	
Koopman-Driven Predictive Modeling of Vehicle-Driver Interaction	2910
<i>Abhimanyu Pratap Singh, Kai Li Lim, Husain Kanchwala, Mehmet Yildirimoglu</i>	
Development of a Driving Posture Assessment System for Posture Standardization Using a Single in-Cabin Camera	2916
<i>Shiyan Cui, Hiroaki Hayashi, Mitsuhiro Kamezaki</i>	
A Third-Party Risk-Aware Decision-Making Method for UAVs in Dynamic Traffic Environments	2923
<i>Jiahui Xu, Yong Wang, Jiaru Zhong, Yiming Shu, Jiwei Tang, Chen Sun</i>	

Last-Mile Delivery Optimisation with Autonomous Vehicles and Drones for Trust-Aware Multimodal Medical Logistics in Urban Environments	2929
<i>Yanyu Long, Safaa Sindi, Stewart Birrell, Seng Loke, Bahareh Nakisa</i>	
Optimal Fleet Sizing for On-Demand Urban Air Mobility Services Using Queueing-Theoretical Approach	2935
<i>Byeong Tak Park</i>	
Fair-CoPlan: Negotiated Flight Planning with Fair Deconfliction for Urban Air Mobility	2941
<i>Nicole Fronda, Phil Smith, Bardh Hoxha, Yash Vardhan Pant, Houssam Abbas</i>	
Real-World Impacts of the Parallel Scheduling Vehicle Routing Problem in Rural Environments	2947
<i>John Squires, Marcella Kaplan, Kevin Heaslip</i>	
Airspace Partitioning for Urban Air Mobility: A Macroscopic Approach with a Realistic Network	2955
<i>Magdalena Peksa, Mehdi Keyvan-Ekbatani, Klaus Bogenberger</i>	
PRREACH: Probabilistic Risk Assessment Using Reachability for UAV Control	2961
<i>Nicole Fronda, Hariharan Narayanan, Sadia Afrin Ananna, Steven Weber, Houssam Abbas</i>	
Goal-Based Trajectory Prediction for Improved Cross-Dataset Generalization	2967
<i>Daniel Grimm, Ahmed Abouelazm, J. Marius Zöllner</i>	
Contrast & Compress: Learning Lightweight Embeddings for Short Trajectories	2974
<i>Abhishek Vivekanandan, Christian Hubschneider, J. Marius Zöllner</i>	
Perception Without Vision for Trajectory Prediction: Ego Vehicle Dynamics as Scene Representation for Efficient Active Learning in Autonomous Driving	2982
<i>Ross Greer, Mohan M. Trivedi</i>	
LVLMM-MPC Collaboration for Autonomous Driving: A Safety-Aware and Task-Scalable Control Architecture	2990
<i>Kazuki Atsuta, Kohei Honda, Hiroyuki Okuda, Tatsuya Suzuki</i>	
Distributional Soft Actor-Critic with Diffusion Policy	2998
<i>Tong Liu, Yinuo Wang, Xujie Song, Wenjun Zou, Liangfa Chen, Likun Wang, Bin Shuai, Jingliang Duan, Shengbo Eben Li</i>	
Optimization of Traffic Signals Using Bayesian Optimization in a Multi-Step Prompt Engineering Method	3006
<i>Blessing Itoro Afolayan, Arka Ghosh, Samra Sarwar, Antonio D. Masegosa, Jenny F. Calderin</i>	
Quantum Machine Learning in Transportation: A Case Study of Pedestrian Stress Modelling	3014
<i>Bara Rababah, Bilal Farooq</i>	
Prototype-Driven Moment Exchange for Data Augmentation in High-Speed Train Fault Diagnosis	3020
<i>Siqi Wang, Yunpu Wu, Zongmin Zhou, Paul Allen, Gareth Tucker, Xia Lei</i>	
ClearVision: Leveraging CycleGAN and SigLIP-2 for Robust All-Weather Classification in Traffic Camera Imagery	3026
<i>Anush Lakshman Sivaraman, Kojo Adu-Gyamfi, Ibne Farabi Shihab, Anuj Sharma</i>	
A Hybrid Traffic Crash Risk Analysis Modeling of Crash Data-Driven Analysis and Microscopic Simulations	3034
<i>Chiwoo Roh, Sungeun Cho, Haneul Park, Jaehyun Jason So</i>	

Cyclist Near-Miss Detection Using Lightweight Deep Temporal Neural Networks	3042
<i>Khaled Saleh, Artur Grigorev, Adriana-Simona Mihaita</i>	
Cooperative Control of Subway Train Virtual Coupling with Input Saturation and Quantization	3048
<i>Songshan Che, Debiao Lu, Baigen Cai, Jian Wang, Jiang Liu, Wei Jiang</i>	
Toward Secure and Safe Railway Operations: Embedding Safety in Cybersecurity Frameworks	3054
<i>Benghenane Yasmine, Lounis Ahmed, Sallak Mohamed</i>	
Mapping Relationship Between Track Irregularity and Carbody Acceleration in High-Speed Maglev System	3062
<i>Wen Wang, Junqi Xu, Lijun Rong, Yougang Sun, Wen Ji, Dinggang Gao, Zhigang Liu, Xiang Liu</i>	
Physics-Informed Neural Network Learning-Based Nonlinear MPC for Maglev Vehicles Levitation Systems with Variable Terminal Constraint Set	3068
<i>Dandan Zhang, Yougang Sun, Haiyan Qiang, Guobin Lin</i>	
Safe Reinforcement Learning Control for Maglev Train Levitation System with Robust Safety Assurance	3074
<i>Xiaoning Zhao, Yougang Sun, Junqi Xu, Haiyan Qiang</i>	
Fleet Optimization for Mobile Hydrogen Refueling Stations in a Selective Pickup and Delivery Problem	3080
<i>Angelika Rett, Johannes Fottner</i>	
Data Governance in Intelligent Transport Systems: A Legal Perspective on D2D Journeys	3087
<i>Cindy Demuth, Dominik Wittenberg, Anne Paschke, Jürgen Pannek</i>	
ST-TransNet: An Adaptive Spatio-Temporal Transfer Network for City-Wise Traffic Speed Prediction	3095
<i>Lei Chen, Xuetao Wei, Shiyao Zhang</i>	
A Hybrid Attention-Enhanced Spatio-Temporal Graph Network for Continuous-Time Multi-Task Urban Human Mobility Forecasting	3102
<i>Mingyue Li, Xinghua Li, Yuntao Guo</i>	
Spatial Distribution and Influential Factors of Demand-Responsive Mobility Services using SHAP-based Machine Learning	3108
<i>Hyeonseo Kim, Sungjin Hong, Mingyo Seong, Sehyun Tak</i>	
Wise Goose Chase: A Predictive Path Planning Algorithm for Dynamic Rebalancing in Ride-Hailing Systems	3116
<i>Avalpreet Singh Brar, Rong Su, Christos G. Cassandras, Gioele Zardini</i>	
Multi-Objective Multi-Agent Deep Reinforcement Learning for Dynamic Pricing and RideSharing Optimization	3124
<i>Cheng-Fen Hsueh, Ta-Yin Hu</i>	
To Stay or to Bypass: Unraveling Mainline Vehicles' Aggregate Strategic Decision-Making at Highway Weaving Ramps	3130
<i>Haohui He, Kexin Wang, Ruolin Li</i>	
Scalable and Reliable Multi-Agent Reinforcement Learning for Traffic Assignment	3138
<i>Leizhen Wang, Peibo Duan, Cheng Lyu, Zewen Wang, Nan Zheng, Zhenliang Ma</i>	

Facilitating Efficient Driving and Intersection Flow Using Auxiliary Traffic Signals for Traditional and Automated Vehicles	3144
<i>Md Abdus Samad Kamal, A. S. M. Bakibillah, Nakakura Kenta, Kou Yamada, Jun-ichi Imura</i>	
Electrical Vehicles Charging: An Optimal Control Approach via Pontryagin's Maximum Principle	3150
<i>Lorenzo Montalto, Nikolce Murgovski, Jonas Fredriksson</i>	
Predictive Traffic Control for Evacuation Contraflow Using ZDD Sampling	3156
<i>Satoki Masuda, Eiji Hato</i>	
Eyes on the Road: A Naturalistic Comparison of MTW Rider Gaze in Urban Indian Traffic	3164
<i>Prerak Srivastava, Bhaiya Vaibhaw Kumar, Kavita Vemuri</i>	
Enhancing Urban Sensing Utility with Sensor-Enabled Vehicles and Easily Accessible Data	3170
<i>Hui Zhong, Qing-Long Lu, Qiming Zhang, Hongliang Lu, Xinhui Zheng</i>	
BiTPerceiver: Bidirectional Temporal Mamba for Online Driving Behavior Perception	3176
<i>Sensen Wang, Yixuan Duan, Chi Zhang, Yuehu Liu, Li Li</i>	
Maximal Compatibility Matching for Preference-Aware Ride-Hailing Systems	3182
<i>Avalpreet Singh Brar, Jaskaranveer Kaur, Rong Su, Xinling Li, Gioele Zardini</i>	
Accuracy is Not Agreement: Expert-Aligned Evaluation of Crash Narrative Classification Models	3188
<i>Sudesh Bhagat, Ibne Farabi Shihab, Jonathan Wood, Anuj Sharma</i>	
Summarizing Normative Driving Behavior from Large-Scale NDS Datasets for Vehicle System Development	3196
<i>Gregory Beale, Gibran Ali</i>	
CenterNext: Learning Generalized Gaussian Representation for LiDAR 3D Object Detection	3203
<i>Hao Dong, Haolin Zhang, Shitao Chen, Jingmin Xin, Nanning Zheng</i>	
Surveillance-Based Spatial Temporal Traffic Accident Detection: A Novel Dataset and Tailored Algorithm	3211
<i>Sixuan Xu, Tianran Zhang, Lei Zhao, Wei Zhou, Stefan Nastic, Chen Wang</i>	
MRLGraph: A Novel, Graph-Based Map Relation Learning Network for Traffic Element to Lane Assignment Based on Geometric Map Data	3219
<i>Julian Brandes, Manuel Stübler, Maximilian Harr, Philipp Crocoll, Wolfram Burgard</i>	
OODM-DS: Out-of-Distribution Mitigation Based on Dynamic Sampling for Human Pose Dataset Creation	3227
<i>Markus Rehmann, Michael Brunner, Cristóbal Curio</i>	
SnowyLane: Robust Lane Detection on Snow-Covered Rural Roads Using Infrastructural Elements	3235
<i>Jörg Gamerding, Benedict Wetz, Patrick Schulz, Sven Teufel, Oliver Bringmann</i>	
Monitoring and Measurement Estimation Using LiDAR Sensors on Autonomous Vehicles	3243
<i>Sungeun Cho, Seonghoon Ryoo, Chiwoo Roh, Soomok Lee, Jaehyun So</i>	
Conditioned Trajectory Generation for Realistic Driving Scenarios via a Hybrid Machine Learning Architecture	3249
<i>Robin Egolf, Alexander Fertig, Michael Botsch</i>	

Getting Ready for Deployment: Transformer-Enabled Robust Adaptive Traffic Signal Control	3257
<i>Xiaoyu Wang, Ilia Smirnov, Scott Sanner, Baher Abdulhai</i>	
How Far Should We Coordinate?: Exploring Spatial Coordination Strategies for Scalable Autonomous Intersection Management	3265
<i>Torachika Yumori, Fuma Sawa, Hiroki Nishikawa, Ittetsu Taniguchi, Takao Onoye</i>	
PLSJ-Framework: Prompt-in-the-Loop Traffic Safety Judgement Framework	3271
<i>Zhenghan Zhang, Hongwei Ye, Haoyang Wu, Yiyang Li, Yuntao Guo, Xinghua Li</i>	
A Game-Theoretic Framework for Intelligent EV Charging Network Optimisation in Smart Cities	3277
<i>Nilofar Aminikalibar, Farzaneh Farhadi, Maria Chli</i>	
Wheel Vibration Identification and Suppression of Distributed Drive Electric Vehicles Based on EMB	3285
<i>Yinggang Xu, Zheng Zhu, Zhaonan Li, Daolin Zhou, Xiangyu Wang, Liang Li</i>	
SCOPE-MoE: Supply Chain Forecasting with a Pretrained MoE-Based Large Time Series Model in E-Commerce	3292
<i>Shiyu Wang, Xinyue Zhong, Jiawei Li, Baichuan Mo, Zhou Ye, Ming Jin</i>	
Next-Generation Real-World Stress Prediction for Australian Bridges via Graph Attention-Based Models	3298
<i>Larry M. Arjomandi, Ehsan Radman</i>	
Impact of Charging Infrastructure Strategies on Operations of Battery Electric Trucks: Case Study of Drayage Application	3304
<i>Emmanuel Hidalgo Gonzalez, Pengfei Fan, Matthew Barth, Kanok Boriboonsomsin</i>	
Multi-Trajectory Prediction for E-Scooter Riders with Multi-Modal Inputs	3310
<i>Zhengming Zhang, Juntong Peng, Yaobin Chen, Jue Zhou, Stanley Chien, Zhengming Ding, Rini Sherony Zhaonan Sun, Shaozhi Wang, Renran Tian</i>	
BikeVAE-GNN: A Variational Autoencoder-Augmented Hybrid Graph Neural Network for Sparse Bicycle Volume Estimation	3317
<i>Mohit Gupta, Debjit Bhowmick, Ben Beck</i>	
A Novel Mixed-Integer Linear Programming Model for the Capacitated Arc Routing Problem Adapted to Roadside Management Operations	3324
<i>Ignacio Castañeda-Rodríguez, Adriana-Simona Mihaita, Brunelle Marche, Sebastián Dávila-Gálvez Mauricio Camargo</i>	
Approximate Solutions to Games of Ordered Preference	3330
<i>Pau de las Heras Molins, Eric Roy-Almonacid, Dong Ho Lee, Lasse Peters, David Fridovich-Keil Georgios Bakirtzis</i>	
Regulation-Aware Game-Theoretic Motion Planning for Autonomous Racing	3338
<i>Francesco Prignoli, Francesco Borrelli, Paolo Falcone, Mark Pustilnik</i>	
A Two-Dimensional Lane-Changing Model with Asymmetric Driving Behavior for Autonomous Vehicles	3345
<i>Sujae Jeon, Yeeun Kim, Hwasoo Yeo</i>	
Enhancing Cooperative Driving Through Physical-Digital-Infrastructure (PDI)-Augmented Perception: Field Tests on Two Safety-Critical Use Cases	3352
<i>Wei Xu, Sio-Song Ieng, Benoit Lusetti, Abdelmenname Hedhli, Dominique Gruyer</i>	

An RNN-Based Adaptive Generalized Maximum Correntropy Kalman Filter for UAV Cooperative Localization	3360
<i>Ying Ma, Rui Xue, Xingzi Qiang</i>	
FiReFly: Fair Distributed Receding Horizon Planning for Multiple UAVs	3366
<i>Nicole Fronda, Bardh Hoxha, Houssam Abbas</i>	
Maintaining Stability During Channel Switching in Multi-Channel Automated Driving Systems	3372
<i>A. Gopichand, C.A.J. Hanselaar, E. Silvas</i>	
Time-to-Collision Constrained NMPC for Connected and Autonomous Vehicles	3380
<i>Charlotte Beaune, Elwan Héry, Vincent Frémont</i>	
Closing the Loop: Motion Prediction Models Beyond Open-Loop Benchmarks	3388
<i>Mohamed-Khalil Bouzidi, Christian Schlauch, Nicole Scheuerer, Yue Yao, Nadja Klein, Daniel Göhring, Jörg Reichardt</i>	
Prediction-Driven Motion Planning: Route Integration Strategies in Attention-Based Prediction Models	3396
<i>Marlon Steiner, Royden Wagner, Ömer Şahin Taş, Christoph Stiller</i>	
GPU-Accelerated Barrier-Rate Guided MPPI Control for Tractor-Trailer Systems	3403
<i>Keyvan Majd, Hardik Parwana, Bardh Hoxha, Steven Hong, Hideki Okamoto, Georgios Fainekos</i>	
IANN-MPPI: Interaction-Aware Neural Network-Enhanced Model Predictive Path Integral Approach for Autonomous Driving	3411
<i>Kanghyun Ryu, Minjun Sung, Piyush Gupta, Jovin D'sa, Faizan M. Tariq, David Isele, Sangjae Bae</i>	
Comparison of Localization Algorithms Between Reduced-Scale and Real-Sized Vehicles Using Visual and Inertial Sensors	3419
<i>Tobias Kern, Leon Tolksdorf, Christian Birkner</i>	
Integration of Testing Scenarios for Automated Vehicles Using a Route Optimization Algorithm	3427
<i>Joonho Park, Gyungtaek Oh, Haneul Park, Jaehyun Jason So</i>	
Experimental Deployment of a Reinforcement Learning Automated Vehicle Controller Supervised by a Control Barrier Function	3434
<i>George Gunter, Matt Bunting, Jonathan Sprinkle, Daniel Work</i>	
Toward a Low-Cost Perception System in Autonomous Vehicles: A Spectrum Learning Approach	3440
<i>Mohammed Alsakabi, Aidan Erickson, John M. Dolan, Ozan K. Tonguz</i>	
Identification and Classification of Adverse Road Traffic Features Impacting Autonomous Vehicles Under Naturalistic Driving Conditions	3448
<i>Eunho Lee, Sungmin Yoo, Junho Park, Jaehyun So</i>	
IntersectionNDE: Learning Complex Urban Traffic Dynamics Based on Interaction Decoupling Strategy	3456
<i>Enli Lin, Ziyuan Yang, Qiuqing Lu, Jianming Hu, Shuo Feng</i>	
SG-NLOSTrack: Semantic-Guided Non-Line-of-Sight Target Tracking	3462
<i>Ziwei Li, Masahiro Hirano, Qitong Guo, Ruoyu Jia, Yuji Yamakawa</i>	
Vehicle as a Sensor - Dynamic Games for Occluded Vehicle Estimation on Highways	3469
<i>Robin Kensbock, Mohamed-Khalil Bouzidi, Georg Schilbach</i>	

L2M-Calib: One-Key Calibration Method for LiDAR and Multiple Magnetic Sensors	3476
<i>Qiyang Lyu, Wei Wang, Zhenyu Wu, Hongming Shen, Huiqin Zhou, Danwei Wang</i>	
LiDAR Ground Segmentation with Gaussian Mixture Models	3483
<i>Felix Neumann, Frederik Deroo, Georg von Wichert, Darius Burschka</i>	
An Extrinsic Sensor Calibration Framework for Precise Probabilistic Joint Calibration of Camera, LiDAR, and Radar	3490
<i>Bianca Forkel, Philipp Berthold, Mirko Maehlich</i>	
Robust 3D Bounding Box Detection and State Estimation of Dynamic Objects for Autonomous Navigation	3498
<i>Manuel Carita, Marcelo Contreras, Ehsan Hashemi</i>	
A VR Study to Explore the Benefits and Risks of eHMI Communication Strategies for Automated Buses	3505
<i>Yanbin Wu, Ken Kihara, Naohisha Hashimoto, Shin Kato</i>	
Analysis of Road Traffic Congestion Considering Individual Differences in Forward Movement Time	3511
<i>Masaki Kimura, Shigeo Shioda</i>	
Designing Rolling Stop Feature for Fully Automated Vehicles: A Human-Centered Approach on F1Tenth	3518
<i>Yuchen Liu, Farzeen Munir, Tomasz Piotr Kucner, Klaus Bengler</i>	
Beyond Overall Accuracy: Pose- and Occlusion-Driven Fairness Analysis in Pedestrian Detection for Autonomous Driving	3526
<i>Mohammad Khoshkdahan, Arman Akbari, Arash Akbari, Xuan Zhang</i>	
Verifiable Language Model Explanations for Deep RL-Based Flow Smoothing	3532
<i>Ashish Pandian, Ashwin Dara, Adrien Bindel, Nathan Lichtlé, Prasenjit Singh, Fatimah Alzamzami Esam Othman, Sulaiman Almatrudi, Jonathan W. Lee, Alexandre M. Bayen</i>	
Impact of Commercial ACC Vehicles on Traffic Stability Considering Inter-Driver and Intra-Driver Heterogeneity in Human-Driven Vehicles	3540
<i>Marouane Bouadi, Shi-Teng Zheng, Rui Jiang, Bin Jia</i>	
VLAD: A VLM-Augmented Autonomous Driving Framework with Hierarchical Planning and Interpretable Decision Process	3548
<i>Cristian Gariboldi, Hayato Tokida, Ken Kinjo, Yuki Asada, Alexander Carballo</i>	
Multi-Armed Bandit for Stochastic Shortest Path in Mixed Autonomy	3556
<i>Yu Bai, Yiming Li, Xi Xiong</i>	
Temporal Spatial Multi-Scale Compressor Trajectory Prediction Network	3562
<i>Xiucong Zhao, Shuai Liu, Yechen Qin, Chenhao Lin, Chao Shen</i>	
Multimodal Transport Path Optimisation with Fixed Timetable Constraints	3570
<i>Yueru Shang, John R. Woodward, Xinwei Wang</i>	
Identifying Traffic Congestion Sources Based on Propagation Dynamics in Road Networks	3576
<i>Makoto Usuki, Shohei Yasuda, Takashi Fuse, Hajime Seya</i>	

Real-Time Traffic Incident Detection with Sparse Observations: A Masked Spatiotemporal Graph Learning Framework	3582
<i>Xiaolei Zhu, Qiaowen Bai, Ghim Ping Ong, Biplab Sikdar</i>	
Automatic Train Operation of Heavy-Haul Trains Based on Model Predictive Control	3588
<i>Haoyu Yang, Ming Chai, Youbin Su, Zhanyuan He, Haoyuan Liu, Hai-Feng Wang</i>	
Improved Lexicographic Multi-Objective Model Predictive Tracking Control for Train Platoons with Switching Priority	3594
<i>Jiahui Lv, Wanli Lu, Zhengwei Luo, Zixu Zhao, Hongjie Liu, Jidong Lv, Junqiang Chen</i>	
Virtual Coupling Train Following Control Using High Order Control Barrier Functions	3600
<i>Yike Li, Yin Tong, Alessandro Giua</i>	
Beyond 9-to-5: A Generative Model for Augmenting Mobility Data of Underrepresented Shift Workers	3606
<i>Haoxuan Ma, Xishun Liao, Yifan Liu, Chris Stanford, Jiaqi Ma</i>	
HyLight: Hybrid Approach of Reinforcement Learning and Rule-Based Optimization for Coordinated Traffic Signal Control Based on Average Phase Demand	3614
<i>Hyunsoo Kim, Jung Won Lee, Hwasoo Yeo</i>	
Smart Integrated Trip Planner for Optimized Driving and Charging of Connected Electric Vehicles	3620
<i>Minwoo Gwon, Jiwon Kim, Seungjun Yoo, Kwang-Ki K. Kim</i>	
Multi-Physics Coupled Dynamic Model for High-Speed Maglev Vehicles Considering Aerodynamic Characteristics of Air Springs	3626
<i>Shan Wang, Junqi Xu, Dinggang Gao, Lijun Rong, Xiang Liu</i>	
A Bimodal Macroscopic Fundamental Diagram-Constrained Genetic Algorithm for Dynamic Dedicated Bus Lane Design	3633
<i>Takao Dantsuji</i>	
Shockwave Minimization within the Mesoscopic: Infrastructure-Guided Optimal Acceleration for Autonomous Vehicles	3639
<i>Minhee Kang, Yoojin Choi, Eunseo Choi, Heejin Ahn</i>	
Machine Learning Classification of Crash Risk During Takeover Based on Driver Readiness and Scenario Features	3645
<i>Tse-Yi Kuo, Yong-Ci Chang, Fu-You Huang, Hsueh-Yi Lai</i>	
PAtt: A Pattern Attention Network for ETA Prediction Using Historical Speed Profiles	3651
<i>ByeoungDo Kim, JunYeop Na, Kyungwook Tak, JunTae Kim, DongHyeon Kim, Duckky Kim</i>	
Decision-Making Modeling at Complex Mixed-Flow Intersections: A Hybrid CVAE-Transformer Framework	3659
<i>Bangan Lian, Shihan Wang, Liyong Zheng, Jiang Zhu, Jian Sun, Jie Sun</i>	
Multi-Railway Track and Switch Region Recognition Using Mobile Laser Scanning Data	3665
<i>Jaewook Jung, Mohammadjavad Ghorbanalivakili, Gunho Sohn</i>	
KD-GAT: Combining Knowledge Distillation and Graph Attention Transformer for a Controller Area Network Intrusion Detection System	3673
<i>Robert Frenken, Sidra Ghayour Bhatti, Hanqin Zhang, Qadeer Ahmed</i>	

Physically Based Neural LiDAR Resimulation	3679
<i>Richard Marcus, Marc Stamminger</i>	
A Multi-Fidelity Risk-Based Testing Framework for Evolving AI Systems: An Autonomous Driving Study	3687
<i>Zichong Yang, Jitesh H. Panchal, Ziran Wang</i>	
An Evolutionary Game-Theoretic Merging Decision-Making Considering Social Acceptance for Autonomous Driving	3693
<i>Haolin Liu, Zijun Guo, Yanbo Chen, Jiaqi Chen, Huilong Yu, Junqiang Xi</i>	
A Feedback Control Framework for Incentivised Suburban Parking Utilisation and Urban Core Traffic Relief	3701
<i>Abdul Baseer Satti, James Saunderson, Wynita Griggs, S. M. Nawazish Ali, Nameer Al Khafaf Saman Ahmadi, Mahdi Jalili, Jakub Mareček, Robert Shorten</i>	
Development of a Deep Learning-Based Hybrid Calibration Method for Large-Scale Activity-Based Travel Simulator Using Passive Aggregate Population Data	3707
<i>Shuntaro Tanaka, Daisuke Fukuda</i>	
Just-In-Time Deliveries: Managing Uncertain Target Arrival Times with Adaptive Routing	3715
<i>Xiaohan Wang, Zhan Zhao, Luyun Zhao, Liupengfei Wu</i>	
A Centralized Adaptive Traffic Signal Control Method for Large-Scale Network Based on SVD-Enhanced Deep Q-Network	3721
<i>Zhiyuan Guo, Jiarong Yao, Rong Su</i>	
BetterCheck: Towards Safeguarding VLMs for Automotive Perception Systems	3728
<i>Malsha Ashani Mahawatta Dona, Beatriz Cabrero-Daniel, Yinan Yu, Christian Berger</i>	
Safety Improvement of Car-Following for Connected Vehicle Flow Based on Individual Speed Guidance Upstream of a Lower Speed Limit Expressway Section	3736
<i>Yunkuan Cui, Danya Yao, Xinrui Ni, Yi Zhang, Wei Zhou, Yuliang Qi, Ziyue Zheng, Hongjun Zhang</i>	
Spatial Association Between Near-Misses and Accident Blackspots in Sydney, Australia: A Getis-Ord G_i^* Analysis	3743
<i>Artur Grigorev, David Lillo-Trynes, Adriana-Simona Mihăiță</i>	
ARRT*: A Hybrid Heuristic RRT* Approach for Efficient Path Planning	3751
<i>Sameeha Tasneem, Mike Stas, Guoyuan Wu, Matthew Barth</i>	
Uncertainty-Aware Safety-Critical Decision and Control for Autonomous Vehicles at Unsignalized Intersections	3757
<i>Ran Yu, Zhuoren Li, Lu Xiong, Wei Han, Bo Leng</i>	
SMART-Merge Planner: A Safe Merging and Real-Time Motion Planner for Autonomous Highway on-Ramp Merging	3764
<i>Toktam Mohammadnejad, Jovin D'sa, Behdad Chalaki, Hossein Nourkhiz Mahjoub, Ehsan Moradi-Pari</i>	
Continuous Inverse Reinforcement Learning with State-wise Safety Constraints for Stable Driving Behavior Prediction	3772
<i>Minglu Zhao, Masamichi Shimosaka</i>	
Enhancing Autonomous Vehicle Test Scenario Reasoning in Language Models	3779
<i>Denise Ataei, Ishaan Paranjape, Jim Whitehead</i>	

SCOUT: A Lightweight Framework for Scenario Coverage Assessment in Autonomous Driving	3787
<i>Anil Yildiz, Sarah M. Thornton, Carl Hildebrandt, Sreeja Roy-Singh, Mykel J. Kochenderfer</i>	
SMAE-DIM: Vehicle-Centric Semantic Masked AutoEncoders Pre-Training by Distilling Multimodal Foundational Models	3795
<i>Alexandre Marques, Pedro Ferreira, Bruno Silva, Jorge Batista</i>	
Robust Multi-Sensor Feature Matching for HD Map-Based Localization Using Graph Optimization	3803
<i>Pedro Vieira Oliveira, Robin Smit, Alaa Alassi, Jochem Brouwer, Jorrit Goos</i>	
C3M: Collaborative Magnetic-Aware Map-Merging for Intelligent Vehicles in Degraded Environments	3811
<i>Zhenyu Wu, Wei Wang, Hongming Shen, Qiyang Lyu, Mingxing Wen, Guohao Peng, Danwei Wang</i>	
Contextual Contrastive Learning for Rider Behavior Modeling Using Motorcycle Sensor Data	3818
<i>Federico Pennino, David Attisano, Davide Sette, Maurizio Gabbrielli</i>	
Smooth Human-Machine Takeover via Neurodynamic Torque-Angle Switching Control in Steer-by-Wire Systems	3824
<i>Yicai Liu, Yushu Li, Lei Pan, Xiangyu Wang, Liang Li, Yihong Fan, Guowang Zhang</i>	
DG-PINN: Differential Game Based Physics-Informed Neural Network for Vehicle Trajectory Prediction	3831
<i>Fumihito Furuhashi</i>	
Traffic Signal Phase and Timing Estimation with Large-Scale Floating Car Data	3838
<i>Mingcheng Liao, Zebang Feng, Miao Fan, Shengtong Xu, Haoyi Xiong</i>	
End-to-End Generation of City-Scale Vectorized Maps by Crowdsourced Vehicles	3846
<i>Zebang Feng, Miao Fan, Bao Liu, Shengtong Xu, Haoyi Xiong</i>	
A Hierarchical Optimal Control for Synchronous and Precise Arrival of Virtual Coupling Trains Under Disturbances	3853
<i>Jiawei Li, Daxin Tian, Xuting Duan, Jianshan Zhou, Dezhong Zhao, Dongpu Cao</i>	
Automated Hyperparameter Tuning of NMPC Based on Differentiable PMP for Electric Vehicles	3861
<i>Haoqi Hu, Wei Pan, Hanghang Liu, Lin Zhang, Hong Chen</i>	
Multimodal HD Mapping for Intersections by Intelligent Roadside Units	3867
<i>Zhongzhang Chen, Miao Fan, Shengtong Xu, Mengmeng Yang, Kun Jiang, Xiangzeng Liu, Haoyi Xiong</i>	
RailSAM: Taming SAM with Adapter for Railway Segmentation	3875
<i>Wenze Zhang, Chunmian Lin, Daxin Tian, Xuting Duan, Jianshan Zhou</i>	
TTAO-CNN-SEAttention: A Deep Learning Framework for Short-Term Traffic Flow Prediction	3882
<i>Anastasia Feofilova, Jixiao Jiang</i>	
CADet: Crack-Aware Detection with Dual-Decoder and Probability-Distribution-Based Fusion	3888
<i>Yaocheng Tang, Xiaohan Zhang, Xiaoxi Hu, Yutong Zheng</i>	
Enhancing Adversarial Robustness in Rail Detection via Frequency Domain Denoising and Model Distillation	3895
<i>Xiaotong Cui, Wei Zheng, Rui Wang, Baiju Feng, Jinyu Xiao</i>	

MixLight: A Model-Based Reinforcement Learning Method for Traffic Signal Control in Mixed Traffic with Low Connected Vehicle Penetration	3902
<i>Bowen Liu, Xingwei Jiang, Jianming Hu</i>	
Dynamic Gesture-Guided Pedestrian Intention Prediction via Dual-Stream Information Fusion	3908
<i>Yaoning Li, Zhang Zhang, Ming-Zhe Li, Da Li, Liang Wang</i>	
A Driving Corridor Based Lane-Changing Trajectory Planning Approach for Automated Vehicles	3916
<i>Xinrui Ni, Boyu Li, Yunkuan Cui, Xu Han, Danya Yao, Xin Pei, Yuliang Qi, Shuqing Jin, Yinna Liu</i>	
Assessing the Impact of Road Network Disruption on the Transport of Injured Individuals During Earthquakes of Varying Magnitudes	3924
<i>Pengshun Li, Claudio Matias Perez, Ziqi Wang, Bingyu Zhao, Kenichi Soga</i>	
Trajectory-Guided Self-Supervised Traversability Analysis for Off-Road Navigation under Low-Light Conditions	3930
<i>Xin Zhang, Zhenping Sun, Yafeng Bu, Jun Zeng, Xiaohui Li</i>	
Predictive Planner for Autonomous Driving with Consistency Models	3936
<i>Anjian Li, Sangjae Bae, David Isele, Ryne Beeson, Faizan M. Tariq</i>	
Distributed Resilient Super-Twisting Sliding Mode Control for Uncertain Heterogeneous Nonlinear CAVs Platoons Undergoing Bias Actuators Faults and Malicious Attacks	3944
<i>Dario Giuseppe Lui, Aniello Mungliello, Alberto Petrillo, Stefania Santini</i>	
On the Need for a Statistical Foundation in Scenario-Based Testing of Autonomous Vehicles	3950
<i>Xingyu Zhao, Robab Aghazadeh-Chakherlou, Chih-Hong Cheng, Peter Popov, Lorenzo Strigini</i>	
BusScan: A Simulation Platform for Evaluating Bus-Based On-Street Parking Detection Strategies	3958
<i>Junhan Fu, Yaxuan Li, Ruizhi Liao</i>	
NANO-SLAM: Natural Gradient Gaussian Approximation for Vehicle SLAM	3966
<i>Tianyi Zhang, Wenhan Cao, Chang Liu, Feihong Zhang, Wei Wu, Shengbo Eben Li</i>	
Roadside Monocular 3D Detection via Cross-View Semantic Alignment	3972
<i>Pei Liu, Zihao Zhang, Haipeng Liu, Yiqun Li, Junlan Chen, Ziyuan Pu</i>	
Improving Monocular 3D Object Detection for Far-Field Scenarios	3980
<i>Zihui Gao, Xinhai Zhao, Hao Chen</i>	
Denoising and Reconstruction of Vehicle Trajectories Using Millimeter Wave Radar Groups	3986
<i>Chengmin Li, Junhua Wang, Tao Wang, Ting Fu, Qiangqiang Shangguan, Jiangtian Xue, Yuhang Li</i>	
Rest Area Utilisation for Truck Traffic Management	3992
<i>Apostolos Kotsialos, Polyxeni Vassilakopoulou</i>	
Structured Motion Prediction with Efficient Spatial-Temporal Graph Attention for Autonomous Racing	3998
<i>Jinze Li, Haochen Liu, Bolin Zhao, Haohan Yang, Baichuan Lou, Chen Lv</i>	
Psychological Field-Encoded Trajectory Prediction with a Future Path-Guided Decoder for Autonomous Driving at Signalized Intersections	4004
<i>Anzheng Wang, Duanfeng Chu, Zejian Deng, Liping Lu, Jinxiang Wang, Chen Sun</i>	

CHARMS: A Cognitive Hierarchical Agent for Reasoning and Motion Stylization in Autonomous Driving	4011
<i>Jingyi Wang, Duanfeng Chu, Zejian Deng, Liping Lu, Jinxiang Wang, Chen Sun</i>	
Adding Runs of Modular Autonomous Vehicles with Skip-Stop Strategy Using Deep Reinforcement Learning	4018
<i>Hanyu Cheng, Qingyun Tian, David Z.W. Wang</i>	
Adaptive Clustering of Trucks with High-Order Mobility Correlations Using Enhanced Hypergraph Convolutional Networks	4026
<i>Xia Zhao, Menglin Wu, Zhihong Li, Yimeng Qin, Peilin lv</i>	
Multi-period Truck Scheduling with Queueing for Postdisaster Debris Removal: A Case Study of the 2025 Los Angeles Wildfires	4032
<i>Bingqing Liu, Haoxuan Ma, Jiaqi Ma</i>	
A Protection Method for Virtually Coupled Trains Based on Emergency Braking Acceleration Coordinated Configuration	4040
<i>Wenxiao Yan, Jiayu Wang, Tao Tang, Hongjie Liu</i>	
OPTIMA: Optimized Policy for Intelligent Multi-Agent Systems Enables Coordination-Aware Autonomous Vehicles	4046
<i>Rui Du, Kai Zhao, Jinlong Hou, Qiang Zhang, Tianjiao Li, Peter Zhang</i>	
Deciphering Aggressive and Courteous Vehicle Behaviors: Acceleration-Enhanced Cross-Modal Transformer for Pedestrian Intention Prediction	4053
<i>Dong Liu, Enfan Lan, Peili Song, Yifan Yang, Jingtai Liu</i>	
PhantomNet: A Lightweight Convolutional Network for Distraction Detection in Automotive Drivers	4061
<i>Rahimul I. Mazumdar, Anirban Dasgupta, Parijat Bhowmick</i>	
Graft: Credit-Based Byzantine-Tolerant Consensus for Geo-Redundant Rail Transit Cloud Platforms	4067
<i>Xinghe Zhang, Lianchuan Ma, Kaicheng Li, Tao Tang</i>	
LoECSNet: A Local Expansion and Cross-Row Sampling Self-Attention Network for 3D Object Detection	4073
<i>ZeNan Bai, YongHong Song, ZeYu Meng, XiaoMeng Wu</i>	
Model-Structured Neural Networks to Control the Steering Dynamics of Autonomous Race Cars	4081
<i>Mattia Piccinini, Aniello Mungello, Georg Jank, Gastone Pietro Rosati Papini, Francesco Biral Johannes Betz</i>	
TrainBEV: Railway Foreign Invasion Detection System Based on BEV Representation	4089
<i>Chenyang Cui, Xingyu Li, Jianming Hu</i>	
MC-BEVRO: Multi-Camera Bird Eye View Road Occupancy Detection for Traffic Monitoring	4095
<i>Arpitsinh Vaghela, Duo Lu, Aayush Atul Verma, Bharatesh Chakravarthi, Hua Wei, Yezhou Yang</i>	
Modeling Electric Vehicle Car-Following Behavior: Classical vs Machine Learning Approach	4102
<i>Md. Shihab Uddin, Md Nazmus Shakib, Rahul Bhadani</i>	
OSM-Pose: Leveraging OpenxdStreetMap for LiDAR Based Global Pose Estimation in Urban Autonomous Driving Scenarios	4108
<i>Runheng Zuo, Zexing Li, Yafei Wang, Shi Sun, Ruoyao Li, Mingyu Wu</i>	

Origin-Destination Pattern Effects on Large-Scale Mixed Traffic Control via Multi-Agent Reinforcement Learning	4115
<i>Muyang Fan, Songyang Liu, Shuai Li, Weizi Li</i>	
Multi-Objective Passing Decision and Trajectory Planning Method for Unstructured Road Environments via Integrated Discrete Modeling	4121
<i>Yingda Chen, Keping Li, Mingchang Zhu, Xue Xiao, Lun Zhang</i>	
External Driver Classification Using Reservoir Computing Enhancing Automated Vehicle Safety	4127
<i>Zhonglin Hou, Brett Molesworth, Yonggang Zhang, Oleksandra Molloy, Jingjing Guo, Joel Li, Hong Liu</i>	
Energy-Aware Bus Speed Control via Proximal Policy Optimization: A Comparative Study Under Fixed-Time, Bus-Priority, and Backpressure Signal Control Strategies	4133
<i>Siyuan Huang, Xianyu Peng, Michael Zhang</i>	
Advancing Data Augmentation: Generative Methods for Switch Machine Fault Summarization	4141
<i>Tianze Zhang, Bobo Zhao, Jiapeng Li</i>	
Optimal Path Planning of Unmanned Aerial Vehicle with Wind Field	4147
<i>Fangjia Lian, Qisong Yang, Bangjie Li, Pengxiang Wang, Haoqi Luo, Desong Du</i>	
A Vestibular-Based Trajectory Optimization Framework for Minimizing Motion Sickness	4153
<i>Wenfei Ji, Efsthios Velenis, Guangyu Tian</i>	
Collision-Avoidable Platooning Control of Automated Vehicles with Dynamic Event-Triggered Strategies	4161
<i>Pengyuan Liu, Derui Ding, Xiaohua Ge</i>	
Event-Based Predictive Control of EV Platoons with Energy Economy and Resource Efficiency	4168
<i>Shunyuan Xiao, Shuang Ni, Lei Ding, Maojiao Ye</i>	
Distributed Nonlinear Model Predictive Control for Virtually Coupled Train Set with Relative-Braking Distance	4174
<i>Jing Liu, Lu Jiang, Xiaolin Luo, Hongjie Liu</i>	
HHIM: Heterogeneous and Hierarchical Interaction Modeling for Multiscale Intention and Trajectory Prediction	4180
<i>Yuhui Jin, Donglan Liu, Siyang Li, Rui Gao, Xin Liu, Chenxi Li, Jian Huang</i>	
Dual-Level Distillation for Rail Defect Detection Based on Electromagnetic Tomography	4188
<i>Yizhou Zhou, Ze Liu, Junjie Li, Jingming Cao, Dingyi Ma, Hao Liang</i>	
Integrating Frequency Adaptive Normalization Into Inland Ship Trajectory Prediction: A Non-Stationary Time Series Forecasting Approach	4194
<i>Jialei Huo, Chen Li, Tengfei Wang, Yuxuan Cai, Ruiyao Li, Qiang Mei</i>	
Driveindia: an Object Detection Dataset for Diverse Indian Traffic Scenes	4201
<i>Rishav Kumar, D. Santhosh Reddy, P. Rajalakshmi</i>	
Elevation-Aware Path Planning with Learning Optimal Probability for Autonomous Driving	4207
<i>Chenggang Wang, Tao Wu, Pengnian Zhang, Junxiang Li</i>	
A Comprehensive Case Study Framework for Rutting Behavior Identification and Prediction	4215
<i>Danial Javed, Leilei Chen, Muhammad Talha</i>	

Efficient 3D-Gaussian-Splatting-Based Path Planning for Ground Vehicles on Uneven Terrain	4220
<i>Zhiwen Zhao, Yufan Liu, Zhenbo Song, Jianfeng Lu</i>	
DSATFusion: Multi-Modal 3D Detection via Vision-Text Synergy with Dynamic Sparse Attention	
Temporal Fusion	4227
<i>Yiheng Zhang, Pei Liu, Haipeng Liu, Xingyu Liu, Meng Huang, Junlan Chen, Shandong Wang</i>	
Evaluating Important Nodes in Transportation Networks Using Graph Neural Networks and	
Communicability Centrality	4235
<i>Mohammadreza Ghanbari, Saeed Asadi Bagloee, Jianzhong Qi, Majid Sarvi</i>	
Real Time Semantic Segmentation of High Resolution Automotive LiDAR Scans	4241
<i>Hannes Reichert, Benjamin Serfling, Elijah Schüssler, Kerim Turacan, Konrad Doll, Bernhard Sick</i>	
Research on the Method of Enhancing the Pass Capacity of Single-Track Freight Railway Trains Based	
on Coalition Game Theory	4247
<i>Hongrui Zhao, Yiwei Wang, Guangzu Li, Yuqiang He, Xiaodong Yu, Youneng Huang</i>	
Is Intermediate Fusion All You Need for UAV-Based Collaborative Perception?	4253
<i>Jiuwu Hao, Liguang Sun, Yuting Wan, Yueyang Wu, Ti Xiang, Haolin Song, Pin Lv</i>	
MonoSC: Enhancing Monocular 3D Object Detection by 2D Segmentation and Completion	4261
<i>Han Sun, Zhenbo Song, Xiao Lin, Jianfeng Lu</i>	
ParkFormer: A Transformer-Based Parking Policy with Goal Embedding and Pedestrian-Aware Control	4269
<i>Jun Fu, Bin Tian, Haonan Chen, Shi Meng, Tingting Yao</i>	
Leveraging Light-Weight Multi-Modal Large Model for UAV-Based Highway Inspection Systems	4276
<i>Yin Wei, Wentao Liu, Guizhen Yu, Peng Chen</i>	
Enhancing LiDAR Point Features with Foundation Model Priors for 3D Object Detection	4282
<i>Yujian Mo, Yan Wu, Junqiao Zhao, Jijun Wang, Yinghao Hu, Jun Yan</i>	
Estimation of Passenger Flow Status Under Urban Rail Transit Disruption Based on a Two-Phase	
Parallel Framework	4289
<i>Yifei Zhang, Haiying Li, Xi Jiang, Yuedi Yang, Xinyue Xu, Xiaoran Wang</i>	
VIRTUE: Visual Interference from Roadside Billboard Targets on Urban End-to-End Autonomous	
Driving	4295
<i>Zhiyao Luo, Yonglin Tian, Songlin Bai, Xianke Wu, Yu-Liang Liu, Yisheng Lv, Fei-Yue Wang</i>	
How to Collect Data from Alcohol-Impaired Drivers? Study Design for a Multi-Modal in-Cabin Dataset	4301
<i>Jan Cedric Mertens, Jan-Philipp Goebel</i>	
RSG-VLN: Relevance Semantic Map Guided Vision-Language Navigation	4308
<i>Liming Chen, Zhongyu Guo, Ningnan Wang, Haoxuan Ji, Weihuang Chen, Yitian Wang, Hongbin Sun</i>	
SD4R: Sparse-to-Dense Learning for 3D Object Detection with 4D Radar	4314
<i>Xiaokai Bai, Jiahao Cheng, Songkai Wang, Yixuan Luo, Lianqing Zheng, Xiaohan Zhang, Si-Yuan Cao</i>	
<i>Hui-Liang Shen</i>	
A Spatio-Temporal Framework for Assessing the V2G Potential of SAEVs: Trade-Off Between Energy	
and Mobility	4321
<i>Ona Van den Bergh, Rémy Cleenwerck, Cedric De Cauwer, Lieselot Vanhaverbeke</i>	

Behavioral Segmentation and Clustering of Geospatial Trajectories	4327
<i>Jessica L. Jones, Andrew T. Wilson, Renee Gooding, Daniel DeLayo, Keith Dalbey, Jon Whetzel Nitin Sharan</i>	
Dynamic Game-Informed Lane Changing: Leveraging Stochastic Search for Autonomous Vehicle Decision-Making	4334
<i>Tan Xiang, Ziyang Wang, Ding Li, Peng Chen</i>	
Enhancing Trust Repair in Driving: The Role of AI Emotional Expression and Perceived Control	4341
<i>Xinyue Hu, Laporsha Dees, Deepak Gopinath, Andrew Silva, Jonathan DeCastro, Guy Rosman Emily Sumner</i>	
Energy-Efficient Train Timetable Optimization With Energy Storage Devices	4349
<i>Lingyu Song, Entai Wang</i>	
CoordField: Coordination Field for Agentic UAV Task Allocation in Low-Altitude Urban Scenarios	4355
<i>Tengchao Zhang, Yonglin Tian, Fei Lin, Jun Huang, Patrik P. Süli, Qinghua Ni, Rui Qin, Xiao Wang Fei-Yue Wang</i>	
Modeling and Optimization of Traffic Evacuation Using Optimal Control Model	4361
<i>Yanglan Wang, Kenichi Soga</i>	
A Renewable Hydrogen-Based Transit Solution for Tompkins County: Feasibility Assessment and System Design	4369
<i>Huiya Yan</i>	
Real-World Performance Evaluation of DSRC and C-V2X for Automated Vehicles	4376
<i>Ergün Can, Ertan Şahin, Sude Nesrin Akinay, Duygu Kayaoğlu, Cemre Kavvasoglu Reza Ghahremaninejad, Buğra Turan, Ali Ufuk Peker, Kerem Par</i>	
A Genetic Algorithm Approach to Optimizing Product Storage in Military Logistics	4383
<i>Won Yong Ha</i>	
LogisticsVLN: Vision-Language Navigation for Low-Altitude Terminal Delivery Based on Agentic UAVs	4389
<i>Xinyuan Zhang, Yonglin Tian, Fei Lin, Yue Liu, Jing Ma, Xiao Wang, Kornélia Sára Szatmáry Fei-Yue Wang</i>	
Automated Route-based Conflation between Linear Referencing System Maps and OpenStreetMap Using Open-source Tools	4395
<i>Gibran Ali, Neal Feierabend, Prarthana Doshi, Whoibin Chung, Simona Babiceanu, Michael Fontaine</i>	
SliDeR-VLM: Interpretable Collision Prediction via Sliding-Window Depth-Enhanced Vision-Language Models	4403
<i>Ruijian Zha, Bojun Liu, Yongjie Fu, Xuan Di</i>	
A Semi-Black-Box Approach for Falsified Trajectory Injection Attack Against Network Signal Control	4409
<i>X. Liu, C.H. Yu, Z.C. Su, W.D. Ma</i>	
Online Planning of High-Speed Train Operation Curve Based on Dynamic Programming-Deep Q Network	4415
<i>Qianying Ma, Zhengwei Luo, Xiang Wang, Wanli Lu, Jidong Lv, Hongjie Liu, Junqiang Chen</i>	

Optimal Deployment and Operation of Mobile Charging Stations for Multi-Family Dwelling EV Charging	4421
<i>Xiaowei Chen, Satish V. Ukkusuri</i>	
TopoDiffuser: A Diffusion-Based Multimodal Trajectory Prediction Model with Topometric Maps	4427
<i>Zehui Xu, Junhui Wang, Yongliang Shi, Chao Gao, Guyue Zhou</i>	
Multi-Agent Scenario Generation in Roundabouts with a Transformer-Enhanced Conditional Variational Autoencoder	4433
<i>Li Li, Tobias Brinkmann, Till Temmen, Markus Eisenbarth, Jakob Andert</i>	
Day-of-the-Week Awareness in Time of Day Breakpoints for Traffic Light Plans	4440
<i>Ori Rottenstreich, Eliav Buchnik, Shai Ferster, Tom Kalvari, Ron Tsibulsky, Danny Veikherman, Avishai Zagoury, Jack Haddad, Dotan Emanuel, Avinatan Hassidim</i>	
Extracting Insights from Large-Scale Telematics Data for ITS Applications: Lessons and Recommendations	4448
<i>Gibran Ali, Neal Feierabend, Prarthana Doshi, Calvin Winkowski, Michael Fontaine</i>	
Virtual Coupling-Enabled Trajectory Optimization for Heavy-Haul Train Group: A Goal-Oriented MADDPG Approach	4456
<i>Xiaolan Ma, Min Zhou, Haifeng Song, Wei Wu, Hairong Dong</i>	
An Ante-Hoc Explainable Graph Attention Network for Routing Optimization	4462
<i>Narges Movahedkor, Reza Shahbazian, Francesca Guerriero</i>	
CADiffusion: Controllable Adversarial Diffusion for Attacking Lane Detection of Autonomous Vehicles	4468
<i>Yixing Zheng, Yizhuo Xiao, Zhongpan Zhu, Mustafa Suphi Erden, Cheng Wang</i>	
Diffusion-Based Generation and Imputation of Driving Scenarios from Limited Vehicle CAN Data	4475
<i>Julian Ripper, Ousama Esbel, Rafael Fietzek, Max Muhlhauser, Thomas Kreutz</i>	
A Complete Framework for Automatic Condition Evaluation of Trains' External Surface	4481
<i>Claire Nicodeme, Borachhun You, Sovanleng LY</i>	
Pedestrian Trajectory Projection on Train Stations' 2D Map for Optimized Station & Traffic Management	4487
<i>Claire Nicodeme, Théo Niemann, Borachhun You</i>	
Platoon Coordination and Leader Selection in Mixed Transportation Systems via Dynamic Programming	4493
<i>Ying Wang, Ting Bai, Andreas A. Malikopoulos</i>	
On Optimizing Maritime Routes in Particularly Sensitive Sea Areas	4499
<i>Angela Di Febbraro, Davide Giglio, Stefano Monfroni, Roberto Ronco</i>	
Intention-Aware Autonomous Driving in Interactive Traffic Scenarios through Amortized Active Inference	4505
<i>Kien Nguyen, Oskar Keurulainen, Almas Shintemirov, Ville Kyrki</i>	
Commercial Speed Impact Factors Identification for a Public Urban Bus Transport Network	4513
<i>Erwan Vincent, Zoltan Miklos, Simon Malinowski</i>	

MetaLLMetro: LLM-Centric Virtual Reality Navigation Platform for Metro Stations	4521
<i>Yongjie Fu, Bowen Fang, Mengxuan Liu, Xuan Di</i>	
RGDR: Reward-Guided Domain Randomization for Autonomous Driving	4527
<i>Dejin Wang, Seyede Fatemeh Ghoreishi</i>	
AutoF1: An RNN-Based Approach to Simulating Strategic Decision-Making in Formula 1	4535
<i>Vivek Mistry, William A. P. Smith</i>	
User-Centric Metrics: Making the Business Case for Cooperative Driving Automation Investment	4543
<i>Mukundhan Narasimhan, Lili Du</i>	
A Deep Auto-Encoder Approach for Clustering Cut-in Driving Styles from Naturalistic Data	4549
<i>Qingqing Hou, Yun Lu, Rong Su, Chengfeng Jia</i>	
Incentive-Compatible Mechanism for Integrated Bike Rebalancing and Local Store Deliveries	4556
<i>Nastaran Tork, Alireza Khani</i>	
Collaborating Unmanned Aerial Vehicle and Connected Vehicle for Macro-Micro Traffic Monitoring With Minimum Uncertainty	4563
<i>Chaopeng Tan, Jiarong Yao, Meng Wang</i>	
Transferable Lane Detection via Adjacency-Guided Instance Interaction and Label Reassignment	4570
<i>Yuxuan Wang, Yang Yang, Zhen Lei</i>	
Comparative Evaluation of Battery Electric and Internal Combustion Vehicles in On-Demand Shared-Ride Services: Energy and Operational Efficiency	4578
<i>Kang Tang, Harith Abdulsattar, Hao Yang, Jinghui Wang</i>	
Depth Perception and Object Detection System of Plateau Railway Scene Based on Binocular Vision	4585
<i>Jiaqi Zhao, Wei Jiang, Xiao Hu, Canjie Liao, Baigen Cai, Jian Wang, Jiang Liu, Xiaohui Ba, Debiao Lu</i>	
ForeCAST-GAT: Context-Aware Spatio-Temporal Graph Attention Transformer for Event-Driven Traffic Forecasting	4592
<i>Sifatul Mostafi, Khalid Elgazzar, Tamer Mohamed Abdellatif</i>	
Large Language Models for Autonomous Driving: A Review of Technical Challenges, Datasets, and Simulation Environments	4600
<i>Shokouh S. Ahmadi, Lingxi Li</i>	
Interactive Adversarial Scenario Generation for Autonomous Driving: A Continual Learning Framework with Safety Constraints	4608
<i>Jialin Fan, Ying Ni, Yuhang Chen, Siying Li, Jie Sun, Jian Sun</i>	
A Monte Carlo Tree Search Approach for Operating Profile Planning of Freight Trains on the Long Steep Downward Slope Sections	4615
<i>Xiang Wang, Zhengwei Luo, Qianying Ma, Zixu Zhao, Jidong Lv, Ming Chai, Kaicheng Li</i>	
OpenLKA: An Open Dataset of Lane Keeping Assist from Production Vehicles Under Real-World Driving Conditions	4621
<i>Yuhang Wang, Abdulaziz Alhuraish, Shengming Yuan, Hao Zhou</i>	
Anytime CAV Sorting Algorithm for Mixed-Traffic Multi-Lane Highways	4629
<i>Fernando Valladares Monteiro, Ketan Savla</i>	

VRU-Centric Hazardous Scenario Detection via Monocular Spatiotemporal Feature Fusion	4637
<i>Ying Ni, Siying Li, Jialin Fan</i>	
SEPose: A Synthetic Event-Based Human Pose Estimation Dataset for Pedestrian Monitoring	4643
<i>Kaustav Chanda, Aayush Atul Verma, Arpitsinh Vaghela, Yezhou Yang, Bharatesh Chakravarthi</i>	
InverseLight: Inverse Dynamics Enabling Policy Transfer with Limited Data for Traffic Signal Control	4649
<i>Yang Zhang, Ziyu Bian, Qiyuan Liu, Zhiheng Li</i>	
Continuous Drifting Control Based on Maximal Safety Probability Learning with TD3 and Lagrangian	4656
<i>Haoyang Xi, Shanshan Xie, Yi Yang</i>	
TravelLM: Could You Plan My Public Transit Alternatives in Face of a Network Disruption?	4663
<i>Bowen Fang, Zixiao Yang, Xuan Di</i>	
A Unified Network Equilibrium for Integrated Shared Mobility Services	4670
<i>Xu Chen, Bowen Fang, Xuan Di</i>	
Metro Train Rescheduling Considering Vehicle Deadhead Routing	4676
<i>Zhongzheng Xiao, Haiying Li, Zhengwen Liao</i>	