Lectern Session 2059
Monday, January 08 10:15 AM - 12:00 PM ET | Convention Center, Salon C
Learning Driver Models for Automated Vehicles (AVs) via Knowledge Sharing and Personalization
Wissam Kontar, Xinzhi Zhong, Soyoung Ahn | University of Wisconsin, Madison

Lectern Session 2062
Monday, January 08 10:15 AM - 12:00 PM ET | Convention Center, 150A
Correcting for Endogeneity between Crash Injury Severity and Crash Type at Freeway Ramp Areas Using a Hierarchical Bayesian Bivariate Ordered Approach
Penglin Song, N.N. Sze, Sikai Chen*, Samuel Labi | *University of Wisconsin, Madison

Poster Session 2094
Board Number B721
Monday, January 08 10:15 AM- 12:00 PM ET | Convention Center, Hall A
Humans as AI Mentors: Enhancing Deep Reinforcement Learning with Human Intervention for Safe and Efficient Autonomous Driving
Zilin Huang, Zihao Sheng, Sikai Chen | University of Wisconsin, Madison

Poster Session 2094
Board Number B724
Monday, January 08 10:15 AM- 12:00 PM ET | Convention Center, Hall A
Personalized Lane Departure Warning Based on Non-Stationary Crossformer and Kernel Density Estimation
Heng Yin, Lishengsha Yue, Pei Li*, Jian Sun | *University of Wisconsin, Madison

Poster Session 2098
Board Number A230
Monday, January 08 10:15 AM- 12:00 PM ET | Convention Center, Hall A
How Does Cellular Vehicle-to-Everything(C-V2X) Perform in Urban Environments? Results From Real-world Empirical Experiments on Urban Arterials
Pei Li, Keshu Wu, Yang Cheng, Zilin Huang, Rui Gan, Steven Parker, David Noyce | University of Wisconsin, Madison

Lectern Session 2136
Monday, January 08 1:30 PM- 3:15 PM ET | Convention Center, 207A
Horizontal Curve Safety Performance Evaluation Based on Naturalistic Vehicle Lane Position Data
Boris Claros, Madhav Chitturi, Glenn Vorhes, Andrea Bill, David Noyce | University of Wisconsin, Madison

Poster Session 2170
Board Number B601
Monday, January 08 1:30 PM- 3:15 PM ET | Convention Center, Hall A
A Deep Reinforcement Learning Based Autonomous Vehicle Fleet Control with Constrained Entropy-Based Dynamic Routing
Paul (Young Joun) Ha, Monika Filipovska, Sikai Chen*, Runjia Du, Samuel Labi | *University of Wisconsin, Madison

Lectern Session 2176
Monday, January 08 3:45 PM- 5:30 PM ET | Convention Center, 102B
Collaborating With Your Car in Unstructured Driving Environments: Requiring Low Effort Mitigates Age-Related Challenges in Driver-Automation Collaboration
Hansol Rheem*, Joonbum Lee*, John Lee*, Joseph Szczerba, Akilesh Rajavenkatanarayanan, Roy Mathieu
*University of Wisconsin, Madison

Poster Session 2213
Board Number B748
Monday, January 08 3:45 PM- 5:30 PM ET | Convention Center, Hall A
Analyzing Relationships between Latent Topics in Autonomous Vehicle Crash Narratives and Crash Severity Using Natural Language Processing Techniques and XGBoost
Pei Li, Sikai Chen, Lishengsa Yue, Yuan Xu, David Noyce |University of Wisconsin, Madison

Poster Session 2214
Board Number A200
Monday, January 08 3:45 PM- 5:30 PM ET | Convention Center, Hall A
The Enhancement of the Data Pipeline of a Connected Vehicle Corridor: A Leap Towards Digital Twin Implementation
Keshu Wu, Yang Cheng, Pei Li, Steven Parker, Bin Ran, David Noyce | University of Wisconsin, Madison

Poster Session 2215
Board Number A112
Monday, January 08 3:45 PM- 5:30 PM ET | Convention Center, Hall A
Application of Bayesian Modeling Averaging Copula Approach for Analyzing the Parameters of Car-Following Model
Shubo Wu, Yajie Zou, Xinzhi Zhong*, Yunlong Zhang | *University of Wisconsin, Madison

Lectern Session 2229
Monday, January 08 6:00 PM- 7:30 PM ET | Convention Center, 150B
Transfusor: Transformer Diffusor for Controllable Human-like Generation of Vehicle Lane Changing Trajectories
Jiqian Dong, Sikai Chen*, Samuel Labi | *University of Wisconsin, Madison

Poster Session 2231
Board Number B643
Monday, January 08 6:00 PM- 7:30 PM ET | Convention Center, Hall A
Vehicle-to-Vehicle Communication based Emergency Visual Alert System for Multiple Intersections
Rei Tamaru, Yang Cheng, Cesar Andriola, David Noyce, Bin Ran | University of Wisconsin, Madison

Poster Session 2233
Board Number B701
Monday, January 08 6:00 PM- 7:30 PM ET | Convention Center, Hall A
Human-Machine Interaction in Automated Vehicles: Reducing Voluntary Driver Intervention
Xinzhi Zhong, Yang Zhou, Varshini Kamaraj*, Zhenhao Zhou, Wissam Kontar*, Mariliani Hernández, Dan Negrut, John Lee, Soyoung Ahn* | *University of Wisconsin, Madison

Poster Session 2234
Board Number B753
Monday, January 08 6:00 PM- 7:30 PM ET | Convention Center, Hall A
Bi-scale Car-following Model Calibration for Corridor Based on Trajectory
Keke Long, Xiaopeng Li, Zhiwei Chen, Zhaohui Liang, Chengyuan Ma | University of Wisconsin, Madison

Poster Session 2234
Board Number B764
Monday, January 08 6:00 PM- 7:30 PM ET | Convention Center, Hall A
Kinematics-Aware Multi-Graph Attention Network for Heterogeneous Trajectory Prediction
Zihao Sheng, Zilin Huang, Keke Long, Sikai Chen | University of Wisconsin, Madison

Lectern Session 3007
Tuesday, January 09 8:00 AM- 9:45 AM ET | Convention Center, 150B
Truck Parking Usage Prediction for a Multi-state Truck Parking Information Management System (TPIMS)
Rei Tamaru, Yang Cheng, Steven Parker, Ernie Perry, Bin Ran, Soyoung Ahn | University of Wisconsin, Madison

Poster Session 3040
Board Number B728
Tuesday, January 09 8:00 AM- 9:45 AM ET | Convention Center, Hall A
Field Evaluation of Change and Clearance Intervals Leading to a Left Turn Flashing Yellow Arrow Indication
Boris Claros*, Madhav Chitturi*, Andrea Bill*, Francis Tainter, David Noyce*, Michael Knodler, David Hurwitz
*University of Wisconsin, Madison

Poster Session 3049
Board Number B664
Tuesday, January 09 8:00 AM- 9:45 AM ET | Convention Center, Hall A
A New Vehicle-to-Vehicle Communication Technology Based on Binary Light Code
Ke Ma, Xiaopeng (Shaw) Li, Peng Zhang, Zhaohui Liang, Te Xu | University of Wisconsin, Madison

Poster Session 3162
Board Number B662
Tuesday, January 09 1:30 PM- 3:15 PM ET | Convention Center, Hall A
A Novel Non-linear Car-following Model for Automated Vehicle: Development, Calibration, and Validation
Ke Ma*, Zhitong Huang, Chengyuan Ma*, Peng Zhang*, Xiaopeng Li*, Amir Ghiasi, John Hourdos, Rachel James, Gene McHale | *University of Wisconsin, Madison

Poster Session 3162
Board Number B652
Tuesday, January 09 1:30 PM- 3:15 PM ET | Convention Center, Hall A
Advanced Driver Assistance Systems and Automated Driving System Modeling Gaps
Qianwen Li, Xiaopeng (Shaw) Li*, Keke Long*, Ke Ma*, Zhitong Huang, Rachel James, Amir Ghiasi, Gene McHale, John Hourdos | *University of Wisconsin, Madison

Poster Session 3167
Board Number: A272
Tuesday, January 09 1:30 PM- 3:15 PM ET | Convention Center, Hall A
Multimodal Interaction-Aware 2D Vehicle Trajectory Prediction based on Diffusion Graph Convolutional Networks
Keshu Wu, Yang Zhou, Haotian Shi, Xiaopeng Li, Bin Ran | University of Wisconsin, Madison

Poster Session 3167
Board Number A273
Tuesday, January 09 1:30 PM- 3:15 PM ET | Convention Center, Hall A
Generative Adversarial Network for Car Following Trajectory
Haotian Shi*, Shuoxuan Dong, Yuankai Wu, Qinghui Nie, Yang Zhou, Bin Ran* | *University of Wisconsin, Madison

Poster Session 3215
Board Number A211
Tuesday, January 09 3:45 PM- 5:30 PM ET | Convention Center, Hall A
Deep Reinforcement Learning Based Framework for Mobile Energy Disseminator Dispatching to Charge On-the-Road Electric Vehicles
Jiaming Wang, Jiqian Dong, Sikai Chen*, Shreyas Sundaram, Samuel Labi | *University of Wisconsin, Madison

Poster Session 3215
Board Number A210
Tuesday, January 09 3:45 PM- 5:30 PM ET | Convention Center, Hall A
A Physics Enhanced Residual Learning (PERL) Framework for Traffic State Prediction
Keke Long, Zihao Sheng, Xiaopeng Li, Sikai Chen, Zilin Huang | University of Wisconsin, Madison

Poster Session 3224
Board Number B619
Tuesday, January 09 3:45 PM- 5:30 PM ET | Convention Center, Hall A
A Disaggregated Approach for Evaluating Distributional Equity Impacts of Automated Vehicles
Zhiwei Chen, Amy Stuart, Yujie Guo, Yu Zhang, Xiaopeng Li* | *University of Wisconsin, Madison

Poster Session 3229
Board Number B513
Tuesday, January 09 6:00 PM- 7:30 PM ET | Convention Center, Hall A
Decentralized Multi-vehicle Motion Planning for Platoon Formation in Mixed Traffic Using Monte Carlo Tree Search
Chenglin Liu, Zhigang Xu, Zhiguang Liu, Xiaopeng Li* | *University of Wisconsin, Madison

Poster Session 3229
Board Number B521
Tuesday, January 09 6:00 PM- 7:30 PM ET | Convention Center, Hall A
Knowledge-Informed Model-Based Reinforcement Learning for Smoothing Traffic Flow with Connected Automated Vehicles | Zihao Sheng, Zilin Huang, Sikai Chen | University of Wisconsin, Madison

Poster Session 3229
Board Number B523
Tuesday, January 09 6:00 PM- 7:30 PM ET | Convention Center, Hall A
Analyzing Driving Behavior of Automated Vehicles and Human Drivers Using Data from Field Experiments
Pei Li, Junwei You, Steven Parker, David Noyce | University of Wisconsin, Madison

Poster Session 4028
Board Number B772
Wednesday, January 10 8:00 AM- 9:45 AM ET | Convention Center, Hall A
Effect of Riding Experience on Changing Opinions Toward Connected and Autonomous Vehicle Safety – Evidence from Field Experiments
Yang Li, Xiaowei Shi, Xiaopeng Li | University of Wisconsin, Madison

Poster Session 4041
Board Number B711
Wednesday, January 10 8:00 AM- 9:45 AM ET | Convention Center, Hall A
Winter Maintenance Multispectral Performance Evaluation: Salt Brine Versus Solid Salt Applications
Boris Claros, Cesar Andriola, Madhav Chitturi, Andrea Bill, David Noyce | University of Wisconsin, Madison

Poster Session 4070
Board Number A221
Wednesday, January 10 10:15 AM- 12:00 PM ET | Convention Center, Hall A
A Probabilistic Framework for Estimating the Risk of Pedestrian-Vehicle Conflicts at Intersections
Pei Li*, Huizhong Guo, Shan Bao, Arpan Kusari | *University of Wisconsin, Madison

SCHEDULE AT A GLANCE

DAY	MON		TUE		WED	
Session	Lectern	Poster	Lectern	Poster	Lectern	Poster
8 AM			3007	3040 3049		4028 4041
9 AM						
10 AM	2059 2062	2094 2098				4070
11 AM						
12 AM						
1 PM						
2 PM	2136	2170		3162 3167		
3 PM						
4 PM	2176	2213 2214 2215		3215 3224		
5 PM						
6 PM	2229	2231 2233 2234		3229		
7 PM						

UNIVERSITY OF WISCONSIN - MADISON
TRANSPORTATION RESEARCH BOARD
103rd Annual Meeting - January 2024

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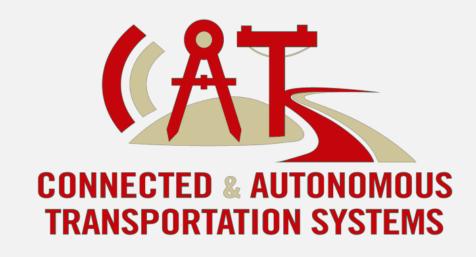Assistant Professor
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