2024 Road Safety & Simulation Conference Agenda

Date	Time	Session	#	Title	Authors	Room name
10/28/2024	1:00 PM - 4:00 PM	Preconference Workshop		Driver Simulator Users Group		Bluegrass Room
10/28/2024	1:00 PM - 4:00 PM	Preconference Workshop		Safety Performance Function Development		Magnolia Room
10/28/2024	5:00 PM - 7:00 PM	Evening Reception with exhibitors				Magnolia Room
10/29/2024	8:30 AM - 9:30 AM	Registration desk open				Prefunction Area
		Welcome		Nancy Albright, Commissioner of Environmental Quality and Public Works, Lexington-Fayette Urban County Government		Grand Ballroom
		Keynote Speech		Jason Siwula, Deputy State Highway Engineer, Kentucky Transportation Cabinet		
10/29/2024	9:30 AM - 10:00 AM	Break				Prefunction Area
10/29/2024	10:00 AM - 11:30 AM	Breakout sessions				
10/29/2024	10:00 AM - 11:30 AM	Series A Paper Presentation	138	Predicting Drowsy Driving in a Driving Simulator Using Intra-Individual Variability of Sleep	Benjamin McManus	Bluegrass Room
			101	Study of the effect of psycho-attitudinal characteristics on drivers' behavior	Francesco Galante, Filomena Mauriello, Alfonso Montella, Mariano Pernettim, and Simone Fucito	
			57	Impaired driving-related crash severity analysis: Comparison of parametric & non-parametric models	Meghna Chakraborty, Sagar Keshari and Subhrajit Sinha	
		Series B Paper Presentation	34	Comparative Safety Analysis of Take-over Control Mechanisms of Conditionally Automated Vehicles	Arastoo Karimi Maskooni, Arash Hassani Barbin, Abrar Hazoor, Giuseppe Marinelli and Marco Bassani	Ballroom D
			44	Evaluation of Human Interaction with Autonomous Vehicles on Limited Access Highway Facilities	Cadell Chand, Hisham Jashami and David Hurwitz	
			63	Safety and Operational Impacts of different Autonomous Vehicle Operations on Freeway Work Zones	Vamsi Krishna Maddineni, Melika Ansarinejad and Mohamed M Ahmed	
		Series C Paper Presentation	70	Analysis of Factors Associated with the Frequency and Severity of Turning Vehicle-Bicycle Crashes at Signalized Intersections	Faria Raha, Brendan Russo, Anthony Eschen, Steven Gehrke and Edward Smaglik	Magnolia Room
			83	Modeling Vehicle–Pedestrian Interactions at Unsignalized Intersections	Hiba Nassereddine	
			94	Leveraging Technology for Safer Roads for Vulnerable Road Users in South Africa	Ntombifuthi Ngobeni, Hlulani Nkuna, Koketso Bosilong, Boniswa Kwange, Andy Sejake and Busisiwe Marole	
10/29/2024	11:30 AM - 12:30 PM	Lunch				Grand Ballroom

Date	Time	Session	#	Title	Authors	Room name
10/29/2024	12:30pm-2:00pm	Breakout sessions				
	12:30 PM - 2:00 PM	Series A Paper Presentation	168	Driving Simulator Analysis of the First Time Driving on a Diverging Diamond Interchange	Alberto Figueroa-Medina, Didier Valdés-Díaz and Carol Perelló	Bluegrass Room
			30	How Cognitive Distraction Affects Motorway Work Zone Safety along Curves with Limited Available Sight Distance: A Driving Simulation Study	Alessandra Lioi, Alberto Portera, Luca Tefa, Arastoo Karimi and Marco Bassani	
			51	Effectiveness of smart horizontal markings on drivers' behavior along horizontal curves: a driving simulation study.	Francesco Angioi, Juan de Oña, Carolina Díaz-Piedra, Rocío de Oña and Leandro Di Stasi	
		Series B Paper Presentation	12	Development and application of the sliding window screening method on Virginia roadways.	Hyun Cho and Chien-Lun Lan	Ballroom D
			189	Empowering road safety practitioners in fatigue management: informed development of a self-directed learning resource	Ashleigh Filtness, Rachel Talbot and Evita Papazikou	
			67	Safety Potential Fields for Highway Driving Risk Assessment Considering Real-world Risk Perception	Dachuan Zuo, Zilin Bian, Fan Zuo and Kaan Ozbay	
		Series C Paper Presentation	37	Modeling Motorcycle Crash Frequency along Rural Multilane Segments in Kentucky	Bharat Pathivada, Arunabha Banerjee, Kirolos Haleem, Tathagatha Khan and Dylan Justice	Magnolia Room
			14	Identification of Potentially Misclassified Crash Narratives using Machine Learning (ML) and Deep Learning (DL)	Sudesh Bhagat and Jonathan S. Wood	
10/29/2024			59	Unlocking Insights into Driver Inattention: A Comprehensive Analysis of Factors and Trends through Statistical and Big Data Analysis	Saquib Mohammed Haroon and Alyssa Ryan	
		Series D Poster Presentation	120	Multivariate Model of Road Crashes for Vulnerable Users	Jonathan Agüero-Valverde and Darío Vargas Aguilar	Triple Crown Room
			89	Evaluation of Crash Potential of Highway Facilities Using Extreme Value Models	Ishant Bonde and Suvin P. Venthuruthiyil	
			65	Association of Elevated Concussive Symptoms on Driving Performance: A Comparison between Young Drivers with Mild Traumatic Brain Injury and Matched Healthy Controls	Christopher Rundus, Fangda Zhang, Thomas Kerwin, Cameron Wrabel, Junxin Shi, Andrea Underhill, Adeline Godsy, Benjamin McManus, Despina Stavrinos and Ginger Yang	
			73	Equitable Roadways: Analyzing Rural-Urban Road Safety in Nevada for Informed Strategic Planning	Khandaker Arafin Islam and Shashi Nambisan	
			134	Spatio-Temporal Analysis of Pedestrian-Vehicle Conflicts in Urban Intersections based on Trajectory Data	Qinyi Hu and Jaeyoung Lee	
			32	A New Piecewise Multinomial Logit Model of Crash Severity with Accommodation of Unknown Inflection Points	Di Yang, Zifeng Zhao, Kun Xie, Hong Yang, Mansoureh Jeihani and Tianyu Shen	
			156	Assessing Roadway Safety Inequities Using a Spatial Crash Prediction Approach	Olin Green, P. Adrian Frazier, Davis Chacon-Hurtado, Alexandra Paxton, John Ivan and Kerry Marsh	
			105	Exploiting Explainable Machine Learning Models to Reveal Critical Factors in Fatal Crashes across Pre-COVID, COVID, and Post-COVID Periods	Saumik Sakib Bin Masud, Seyedeh Mahgam Tabatabaei Tour and Alexandra Kondyli	
			170	Discrepancies in AV Work Zone Mapping: Analyzing Design vs. As-built Coordinates and Their Impact on Safety	Vaishnavi Wagh, Sean Brennan	
10/29/2024	2:00 PM - 2:30 PM	Break / Posters				Prefunction Area/

Date	Time	Session	#	Title	Authors	Room name
10/29/2024	2:30pm-4:00pm	Breakout sessions				
10/29/2024	2:30 PM - 4:00 PM	Series A Paper Presentation	46	Traffic organization design method for highway weaving area based on driving simulation experiment and traffic simulation experiment	Tianxiao Liang, Zhongyin Guo and Cancan Song Canceled	Bluegrass Room
			25	Drivers' Hazard Avoidance Behaviors when using ADAS: An Observational Simulator Study	Ganesh Pai and Anuj Pradhan	
			139	Estimating a Crash Modification Factor for Forward Collision Warning Systems in the Vehicle Fleet: A Driving Simulation Study	Oluwaseun Olufowobi, John Ivan, Kai Wang and Naveen Eluru	
		Series B Paper Presentation	17	Investigating Distracted Driving Crashes in Kentucky Pre- and Post-COVID-19 Pandemic	Arunabha Banerjee, William Pemberton, Tyaha Woodard, Benjamin McElroy, Bharat Pathivada and Kirolos Haleem	Ballroom D
			135	An Exploratory Analysis of Fatal Vehicle Crashes in Urban and Rural Kansas in Relationship to Identified Golden Hour Gaps in Hospital Coverage	Mason Lipford, Grace Lipford, Gregory Newmark and Eric Fitzsimmons	
			31	Examining the Risk of Near Misses for Light Rail Transit Using a Bivariate Zero-Inflated Poisson Model	Yung-Hsiang Cheng, Chiang Fu, Kuan-Teng Lin and Heng-Fu Wang	
		Series C Paper Presentation	49	Who should yield at uncontrolled intersections? Improving safety using temporary signs	Kirti Mahajan, Saumik Sakib Bin, Grace Savoie and Alexandra Kondyli	Magnolia Room
			74	A Study on Effect of Information from Navigation System on Driving Behavior	Mio Suzuki	
			97	Driver perception of fluorescent signage	Keolebogile Koketso Juleen Bosilong, Tshegofatso Mongae, Karien Venter, Tebogo Matsaung and Busisiwe Marole	
10/29/2024	4:30 PM - 9:00 PM	Kentucky Horse Park				

Date	Time	Session	#	Title	Authors	Room name
10/30/2024	8:00 AM - 9:30 AM	Breakout sessions				
10/30/2024	8:00 AM - 9:30 AM	Series A Paper Presentation	111	Applying model-based recursive partitioning to improve pedestrian exposure models to support transportation safety	Jakob Wiegand and Vikash Gayah	Bluegrass Room
			152	Factors Contributing to Drivers' Speeding Behavior: A Study of School Zones	Rahul Raoniar and Vedagiri Perumal	
			86	Predicting Motorcycle Crash Injury Severity in Utah: Utilizing Machine Learning Methods	Isaac Baah, Milan Zlatkovic and Mohamed Ahmed	
		Series B Paper Presentation	129	MODELING THE EFFECTS OF DRIVE ERROR AND IMPAIRMENT ON CRASH INJURY SEVERITY	Mohammad Razaur Rahman Shaon, Xiao Qin and Eric Jackson	Ballroom D
			173	Enhancement of Variable Speed Limit with Physics-Based Vehicle-Road Safety Simulation	Xiaoyu Zhang and Hao Wang	
			112	Examining the Takeover Process for Senior Drivers in Conditionally Automated Vehicles	Wen Ding, Yovela Murzello, Siby Samuel and Shi Cao	
		Series C Paper Presentation	75	A New Approach for Safety Calibration of Stochastic Traffic Simulation Models by Integrating of Crash Data	Di Sha, Chuan Xu, Yu Tang, Fan Zuo, Jingqin Gao and Kaan Ozbay	Magnolia Room
			188	A Simulation Study on Traffic Conflict Risk under Shockwave Propagation at Signalized Intersection	Junqing Wang, Hong Yang, Yuan Zhu, Zizheng Yan and Kun Xie	
			186	Evaluating Urban Intersections: A Comparative Study of Roundabouts Versus Protected U-Turns – Which is Better?	Nawaf Alnawmasi, Hisham Jashami and Qiuqi Cai	
		Series D Poster Presentation				Triple Crown Room
			53	Associations between symptom severity and driving performance following mild traumatic brain injury in young drivers: A simulator study	Fangda Zhang, Christopher Rundus, Thomas Kerwin, Cameron Wrabel, Junxin Shi, Benjamin McManus, Adeline Godsy, Andrea Underhill, Despina Stavrinos and Jingzhen Yang	
			60	: Examining Memory and Simulated Driving Acutely Post-Mild Traumatic Brain Injury	Adeline Godsy, Benjamin Mcmanus, Andrea Underhill, Christopher Rundus, Fangda Zhang, Thomas Kerwin, Cameron Wrabel, Ginger Yang and Despina Stavrinos	
			162	Decoding the Tapestry of Road Safety: A Comprehensive Exploration of Safety Restraints, Seat Positions, and Collision	Muthumari Anbumani and Srinivas S. Pulugurtha	
			193	Drivers' Education through eLearning and Exposure: An Opportunity to Increase Acceptance of Connected and Automated Vehicles	Sarah El-Dabaja; Bhaven Naik; Bernard Ndeogo Issifu; Deborah S. McAvoy; Deogratias Eustace	
			19	Influence of In-Car Touchscreens on Driver Performance: A Simulator-Based Study Examining Driver Behaviour in Distracted Conditions.	Giuseppe Marinelli, Abrar Hazoor and Ozlem Simsekoglu	
			88	Driving simulator for driving education: can Mixed Reality do it?	Helen Loeb, Jaime Hernandez, Benjamin Loeb and Rahul Mangharam	
			39	Effects of Auditory and Visual Warnings on Bicycle Safety at Intersections	Ismet Goksad Erdagi and Aleksandar Stevanovic	
			122	Motorcycle crash risk and risk-taking behaviors: an analysis for Costa Rica	Jonathan Agüero-Valverde, Darío Vargas Aguilar and Jessica Alvarez-Lopez	
			68	Navigating the Road to Safety: The Role of Automated Enforcement in Metro Phoenix Region	Sushmita Bhandari, Alyssa Ryan, Henrick Haule and Yao-Jan Wu	

Date	Time	Session	#	Title	Authors	Room name
10/30/2024	10:00 AM - 12:00 PM	Panel Discussion			Sarah Weissman Pascual, Dr. Srinivasan Raghaven, Dr. Frank Gross and Dr. Caitlin Northcutt	Grand Ballroom
10/30/2024	12:00 PM - 1:00 PM	Lunch				Grand Ballroom
10/30/2024	1:00pm-2:30pm	Breakout sessions				
10/30/2024	1:00 PM - 2:30 PM	Series A Paper Presentation	115	A.I. Automated Solution for Hazard Annotation and Eye Tracking in a Simulated Environment	Piyush Pawar, Benjamin McManus, Thomas Anthony, Ginger Yang, Thomas Kerwin and Despina Stavrinos	Bluegrass Room
			103	Open source head and face estimation as a complement to commercial eye-tracking	Chris Schwarz and John Gaspar	
			42	WeBikes: A configurable, open source add-on for simulating single-track vehicle dynamics in the Webots robot simulation software	Wenjia Li, Paris Francis, Robert McClosky and Alexander Brown	
		Series B Paper Presentation	66	Improving Work Zone Safety in the Era of Connected and Autonomous Vehicles: Co-Simulation-VR Platform Integrating CARLA, SUMO, and VR for Capturing Safety related Interactions	Shuo Zhang, Semiha Ergan, Fan Zuo and Kaan Ozbay	Ballroom D
			128	Pedestrian's Perspective on Interacting with Connected Autonomous Vehicles (CAV)	Saki Rezwana, Mohammad Razaur Rahman Shaon, Nicholas Lownes and Eric Jackson	
			163	Virtual Reality Simulation of Pedestrian Crossings at Channelized Right-turn Lanes in Urban Unsignalized Intersections	Alberto Figueroa-Medina, Didier Valdés-Díaz, Andres David Chamorro-Parejo and Natacha Cardona-Rodríguez	
		Series C Paper Presentation	146	Exploring the Impact of Traffic Calming on Public Health, Travel	Fotios Magkafas, Grigorios Fountas, Panagiotis Anastasopoulos	Magnolia Room
			119	Investigating surrogate safety measure's threshold consistency on different types of curves	K. Sukhanya, R. Nair Shilpa and B. K. Bhavathrathan	
			24	Surrogate Safety Evaluation of Incorrect Pedestrian Detection at Signalized Intersections	Slavica Gavric and Aleksandar Stevanovic	
		Series D Poster Presentation	179	A Unified Framework for Calculation of Surrogate Safety Metrics	Marcus Putz and Sean Brennan	Triple Crown Room
			150	Facilitating the conversation: Fatigue countermeasure for autonomous shuttle operations	Ashleigh Filtness, Rachel Talbot, Anna Sjörs Dahlman, Christer Ahlstrom and Anna Anund	
			183	Analysis of potential safety benefits resulting from different automation levels and penetration rates of automated vehicles: a case study in the Netherlands.	Dimitra Michalaka, Amna Chaudhry and Eleonora Papadimitriou	
			158	Extrinsic Calibration of 3D LiDAR Using Sphere Targets and	Xinyu Cao and Sean Brannan	
			117	Unintended Consequences: Changes in Driver Behavior Associated with the Adoption of Advanced Driver Assistance Systems	Nischal Gupta and Peter Savolainen	
			161	Hard Braking Collected from Probe Vehicles as a Predictor of Crash Occurrence at Urban Intersections in Connecticut	Quinn Packer, John Ivan and Monika Filipovska	
			164	Unveiling Travel Patterns with the Next-Generation Passive Mobile Origin and Destination (OD) Data from the National Household Travel Survey	Muthumari Anbumani and Srinivas S. Pulugurtha	
			13	A systemic evaluation of wrong way driving crashes and countermeasures on Virginia's roads	Hyun Cho, Erin Robartes and Benjamin Cottrell	

Date	Time	Session	#	Title	Authors	Room name
10/30/2024	2:30 PM - 3:00 PM	Break / Posters				Prefunction Area/
10/30/2024	3:00pm-4:30pm	Breakout sessions				
10/30/2024	3:00 PM - 4:30 PM	Series A Paper Presentation	11	Developing Equity-Aware Safety Performance Functions for Identifying Hotspots of Pedestrian Crashes	Guocong Zhai, Kun Xie, Di Yang and Hong Yang	Bluegrass Room
			124	Development of Crash Modification Factors for Median Cable Barriers Installed on Freeways in Ohio	Deogratias Eustace, Mohammad Almothaffar, Peter Hovey and Fayezeh Samandi	
			77	Goodness of Fit Tests for Safety Performance Function Development and Calibration	Bekir Bartin and Kaan Ozbay	
		Series B Paper Presentation	71	Pipeline for fast Digital Twin development and integration in Driving Simulation	Zhanqian Wu, Luying Zhang, Jaime Hernandez, Chase Leibowitz, Helen Loeb, Xiaoxia Dong, Erick Guerra and Rahul Mangharam	Ballroom D
			33	Safety Margin Assessment between Impending Skid Conditions and Aquaplaning during Vehicle Motion on Curved Road Sections	Stergios Mavromatis, Kiriakos Amiridis, Antonis Kontizas, Antonis Trakakis and Vassilis Matragos	
			106	Network-Level Pavement Treatment Prioritization based on Safety Evaluation and Friction Demand Analysis	Run Hu, Ramez Hajj, Erwin Kohler, Yanfeng Ouyang, Priscilla Tobias and Hao Wang	
		Series C Paper Presentation	81	When Language and Vision Meet Road Safety: Leveraging Multimodal Foundation Models to Assist in Accident Analysis	Ruixuan Zhang, Juexiao Zhang, Zilin Bian, Chen Feng and Kaan Ozbay	Magnolia Room
			41	Reinforcement learning-based optimal control of alert systems to mitigate alarm fatigue for roadway worker safety	Daniel Lu and Semiha Ergan	
			54	REVOLUTIONIZING SAFETY ASSESSMENT AT SIGNALIZED INTERSECTIONS: AN IN-DEPTH EXPLORATION OF ROAD USERS' DETECTION COMPUTER VISION ALGORITHMS	Ahmed Mohamed and Mohamed Ahmed	

Date	Time	Session	#	Title	Authors	Room name
10/31/2024	8:00am-9:30am	Breakout sessions				
		Series A Paper Presentation	16	A neuroscientific approach for investigating mental fatigue biomarkers in simulated driving trials	Andrea Giorgi, Manuel Picardi, Vincenzo Ronca, Simone Sportiello, Marco Petrelli, Carlo Polidori, Marteyn van Gasteren, Arnab Barua, Mobyen Uddin Ahmed, Fabio Babiloni and Gianluca Di Flumeri	Bluegrass Room
			69	Analyzing the Safety and Operational Dynamics of a Freeway	Melika Ansarinejad and Mohamed M. Ahmed	
			0			
		Series B Paper Presentation	38	Surrogate Safety Evaluation of a Multimodal Combined Alternate-Direction Lane Assignment and Reservation-Based Intersection	Milan Knezevic and Aleksandar Stevanovic	Ballroom D
			200	A Beginner's First Steps Into Using Machine Learning In Research Examining Crash Narratives	Paul Ross, Nathaniel Swallom	
			157	Merging Multi-antenna GPS Data for Vehicle Pose Estimation	Xinyu Cao and Sean Brannan	
10/31/2024	8:00 AM - 9:30 AM	Series C Paper Presentation	191	Analyses and Reconstructions of Collision Scenarios for Class 8, Long-Haul Trucks	Jeffrey Wishart, Yan Chen and Monish Dev Sudhakhar	Magnolia Room
			201	Systemic Approach to Regional Safety Action Plans	Adam Kirk	
			127	Motorcycle Riding Behavior in Pakistan and Effects on Crashes and Violations	Amjad Pervez and Jaeyoung Jae Lee	
		Series D Poster Presentation	76	Estimating Road Elevation Profile Using Publicly Available LiDAR Data	Bekir Bartin, Mojibulrahman Jami and Kaan Ozbay	Triple Crown Room
			21	Before and After Evaluations of Virginia's First two Continuous Flow Intersections	Wei Zhang	
			47	A Recruited Participant Study of Pedestrian Infrastructure	Amy Wyman, Hisham Jashami and David Hurwitz	
			113	An Integrated Field Testing and Numerical Modeling of Sole Geothermal-based Pavements: A Promising Sustainable	Amin Mohammadzadeh, Omid Ghasemi-Fare and Zhihui Sun	
			108	Impact of Retroreflective Backplates and Flashing Yellow Arrows on Distraction-Related Crashes in Kentucky	Arunabha Banerjee, Tyaha Woodward, Bharat Pathivada, Dylan Justice and Kirolos Haleem	
			40	Zooming In and Out with Big Data for Road Safety: Continuous Pavement Friction in Safety Analysis	Isaac Briskin and Ryland Potter	
			87	Unveiling Crash Causation through Data-Driven Strategies for Ohio Work Zone Safety	Isaac Baah and Mohamed Ahmed	
			159	Proactive Assessment of the Crash Potential of Signalized Intersection	Vedant Bhamare, Ishant Bonde and Suvin P. Venthuruthiyil	
			43	Assessing the Safety Effectiveness of Roundabouts in the State of Kentucky	Tathagatha Khan, Bharat Pathivada, Kirolos Haleem and Arunabha Banerjee	
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Date	Time	Session	#	Title	Authors	Room name
10/31/2024	9:30 AM - 10:00 AM	Break				Prefunction Area
10/31/2024	10:00am-11:30am	Breakout sessions				
10/31/2024	10:00 AM - 11:30 AM	Series A Paper Presentation	20	Exploring Freeway Traffic Accident Duration by the Latent Class Accelerated Hazard Model with Heteroskedasticity effect	Fu Chiang, Rui-Zhe Yeh, Yen-Hsu Chen and Yuan-Sheng Chen	Bluegrass Room
			27	Using Severity-Weighted Risk Scores for Data-Driven Safety Analysis	Grant Schultz, Tomas Barriga Aristizabal, Jace Ritchie and Richard Warr	
			141	Investigating the influence of socioeconomic and demographic factors on the relationships between road characteristics and traffic crash severity	Mahsa Jafari and Bhagwant Persaud	
		Series B Paper Presentation	176	Data-Driven High Friction Surface Treatment Applications for Roadway Safety	Austin Obenauf and Mike Vaughn	Ballroom D
			18	Assessing Safety and Operational Performance of Complete Streets Projects	Eirini Stavropoulou, Nikiforos Stamatiadis, Reginald Souleyrette, Teng Wang and William Staats	
			187	Evaluating the External Human-Machine Interface of Autonomous Vehicles on Pedestrian Safety at Mid-Block Crossings: A Virtual Reality-Enabled Simulation Study	Zizheng Yan, Hong Yang and Junqing Wang	
		Series C Paper Presentation	202	Texas Turnaround: 4th Street Ramp Traffic and Safety Improvement Project	Wei Zhang and Scott Himes	Magnolia Room
			55	Interchange Safety Comparison Tool	Graham Winchester and Len Harper	
			0			
10/31/2024	11:45 AM - 1:30 PM	Lunch				Grand Ballroom
		Awards				
		Closing Ceremony				