

VTTI Publications List – June 2024

- Aatique, M., Mizusawa, G., & Woerner, B. D. (1997). *Performance of hyperbolic position location techniques for code division multiple access*. Wireless '97, Calgary, Canada.
- Abdelghaffar, H. M., & Rakha, H. A. (2019). A novel decentralized game-theoretic adaptive traffic signal controller: Large-scale testing. *Sensors*, 19(10), 2282.
- Abdelghaffar, H. M., & Rakha, H. A. (2021). Development and testing of a novel game theoretic de-centralized traffic signal controller. *IEEE Transactions on Intelligent Transportation Systems*, 22(1), 231-242. doi:10.1109/TITS.2019.2955918
- Abdelghaffar, H. M., Elouni, M., Bichiou, Y., & Rakha, H. A. (2020). Development of a connected vehicle dynamic freeway sliding mode variable speed controller. *IEEE Access*.
- Abdelghaffar, H. M., Woolsey, C. A., & Rakha, H. A. (2017). Comparison of three approaches to atmospheric source localization. *Journal of Aerospace Information Systems*, 14(1), 40-52. <https://doi.org/10.2514/1.I010440>
- Abdelghaffar, H. M., Yang, H., & Rakha, H. A. (2017). Isolated traffic signal control using Nash bargaining optimization. *Global Journal of Research in Engineering*, 16(1). <https://www.engineeringresearch.org/index.php/GJRE/article/view/1516>
- Abdelghaffar, H.*, Elouni, M., Bichiou, Y.*, & Rakha, H. A. (2020). Development of a connected vehicle dynamic freeway sliding mode variable speed controller. *IEEE Access*, 8, 99219-99226. <https://doi.org/10.1109/ACCESS.2020.2995552>
- Abdelghaffar, H., Yang, H., & Rakha, H. (2016). Isolated traffic signal control using a game theoretic framework. In *19th IEEE Intelligent Transportation Systems Conference*. <https://doi.org/10.1109/ITSC.2016.7795755>
- Abdelmegeed, M., & Rakha, H. (2017). Heavy-duty diesel truck emission modeling. *Transportation Research Record: Journal of the Transportation Research Board*, 2627. <https://doi.org/10.3141/2627-04>
- Abdelmegeed, M., Ahn, K., & Rakha, H. (2016). *Modeling light duty vehicle emissions exploiting VT-CPFM fuel estimates* [Paper No. 16-2448]. Transportation Research Board 95th Annual Meeting, Washington, DC.
- Abstract presented at the 18th Injury Biomechanics Symposium of the Ohio State University "Impact Area and Speed Effects on Powered Two-Wheeler Crash Fatality and Injury Risk" - P. Terranova, F. Guo and Miguel A. Perez

- Abutabenjeh, S., Calida, B., & Jaradat, R. M. (2012). A collective reflection on the Ph.D. student's journey: Shades of technicism and epistemic pluralism. *Administrative Theory & Praxis*, 34(2), 273-278. <https://doi.org/10.2753/ATP1084-1806340207>
- Ahangari, S., Jeihani, M., Chen, H., & Rakha, H. A. (2020). Investigating the impact of an eco-speed-control system for hybrid electric vehicles on driver's behavior using a driving simulator. *International Journal of Current Research*.
- Ahmadian, M. (1997). *A hybrid semiactive control for secondary suspension applications* [Paper presentation]. Sixth ASME Symposium on Advanced Automotive Technologies - 1997 ASME International Congress and Exposition, Dallas, TX.
- Ahmadian, M. (1997). *Semiactive control of multiple degree of freedom systems* [Paper presentation]. 1997 ASME Design Engineering Technical Conference, Sacramento, CA.
- Ahmadian, M. (1999). *Design and development of magneto-rheological dampers of bicycle suspensions* [Paper presentation]. 1999 ASME International Congress and Exposition, Nashville, TN.
- Ahmadian, M. (1999). Filtering effects of mid-cord offset measurements on track geometry data. In *Proceedings of the 1999 IEEE/ASME Joint Railroad Conference* (pp. 157-161). IEEE. <https://doi.org/10.1109/RRCON.1999.762415>
- Ahmadian, M. (1999). On the isolation properties of semiactive dampers. *Journal of Vibration and Control*, 5(2), 217-232.
<https://doi.org/10.1177/107754639900500204>
- Ahmadian, M. (2001). On the design of magneto rheological recoil dampers for fire out of battery control. Tenth Gun Dynamics Symposium, Dallas, TX.
- Ahmadian, M. (2001). *The noise and vibration benefits of soft-mounted locomotive cabs*. 2001 IEEE/ASME Joint Rail Conference, Toronto, Canada.
- Ahmadian, M., & Ahn, Y. K. (2000). Performance analysis of magneto-rheological mounts. *Journal of Intelligent Material Systems and Structures*, 10(3), 248-256.
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- Ahmadian, M., & Cantwell, R. (1999). *Effect of pedestal liner clearance and resilience on rail vehicle operation*. ASME Rail Transportation Division, Chicago, IL.

- Ahmadian, M., & DeGuilio, A. P. (2001). Recent advances in the use of piezoceramics for vibration suppression. *Shock and Vibration Digest*, 33(1), 15-22.
<https://doi.org/10.1177/058310240103300102>
- Ahmadian, M., & Huang, W. (2000). Effect of self-steering locomotive trucks in improving adhesion on curved tracks. In *2000 IEEE/ASME Joint Rail Conference*.
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- Ahmadian, M., & Huang, W. (2002). A qualitative analysis of the dynamics of self-steering locomotive trucks. *Vehicle System Dynamics: International Journal of Vehicle Mechanics and Mobility*, 37(2), 85-127.
<https://doi.org/10.1076/vesd.37.2.85.3537>
- Ahmadian, M., & Jeric, K. M. (1999). *The application of piezoceramics for reducing noise and vibrations in vehicle structures*. 1999 SAE Off-Highway Equipment Congress and Exposition, Indianapolis, IN.
- Ahmadian, M., & Jeric, K. M. (2001). On the application of electrically shunted piezoceramics for increasing acoustic transmission loss in structures. *Journal of Sound and Vibration*, 243(2), 347-359. <https://doi.org/10.1006/jsvi.2000.3417>
- Ahmadian, M., & Mosch, E. C. (1997). *Designing heavy truck suspensions for reduced road damage*. Sixth International Conference on Recent Advances in Structural Dynamics, Southampton, United Kingdom.
- Ahmadian, M., & Pare, K. (2000). A quarter-car experimental analysis of alternative semiactive control methods. *Journal of Smart Material Systems and Structures*, 11(8), 604-612. <https://doi.org/10.1106/MR3W-5D8W-0LPL-WGUQ>
- Ahmadian, M., & Poynor, J. C. (1999). *Application of magneto rheological dampers for controlling shock loading*. 1999 ASME International Congress and Exposition, Nashville, TN.
- Ahmadian, M., & Poynor, J. C. (2001). An evaluation of magneto-rheological dampers for controlling gun recoil dynamics. *Shock and Vibration*, 8(3-4), 147-155.
<https://doi.org/10.1155/2001/674830>
- Ahmadian, M., & Simon, D. E. (2001). *An analytical experimental evaluation of magneto rheological suspensions for heavy trucks*. 17th IUTAM International Symposium on Dynamics of Vehicles on Road and Tracks, Lyngby, Denmark.

- Ahmadian, M., & Song, X. (1997). *Effect of system delay on semiactive suspension performance*. Sixth International Conference on Recent Advances in Structural Dynamics, Southampton, United Kingdom.
- Ahmadian, M., & Venezia, J. J. (2000). An experimental evaluation of noise and vibrations in modern locomotive cabs. In *2000 IEEE/ASME Joint Rail Conference*. <https://doi.org/10.1109/RRCON.2000.869996>
- Ahmadian, M., & White, D. L. (1999). An experimental evaluation of the effect of rail vehicles truck suspensions on wheel-rail forces. In *1999 IEEE/ASME Joint Rail Conference*. <https://doi.org/10.1109/RRCON.1999.762413>
- Ahmadian, M., DeGuilio, A. P., Inman, D. J., & Claus, R. O. (2000, April). *Application of smart damping materials and fiber optic sensors for structural vibration reduction*. 13th Annual Fiber Optics Biomedical Optics Research Review, Blacksburg, VA.
- Ahmadian, M., Jeric, K. M., & Inman, D. J. (2001). An experimental evaluation of smart damping materials for reducing structural noise and vibrations. *Journal of Vibration and Acoustics*, 123(4), 533-535. <https://doi.org/10.1115/1.1389459>
- Ahmadian, M., Reichert, B. A., & Song, X. (1997). Experimental and simulation analysis of magneto-rheological damper control systems and their application to vehicle seat suspensions: Final report. Lord Corporation.
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- Ahmadian, M., Reichert, B. A., & Song, X. (2001). System nonlinearities induced by skyhook dampers. *Shock and Vibration*, 8(2), 95-104. <https://doi.org/10.1155/2001/350235>
- Ahmadian, M., Simon, D. E., McLellan, N. S., & Carter, A. K. (1997). *Application of adaptive suspensions for intelligent heavy vehicles: Final report*. Federal Highway Administration.
- Ahmadian, M., Song, X., & Reichert, B. A. (1997). *Semiactive control of multibody systems*. 11th Symposium on Structural Dynamics and Control, Blacksburg, VA.
- Ahmadian, M., Song, X., & Reichert, B. A. (1997). *Semiactive control of structural resonance*. 11th Symposium on Structural Dynamics and Control, Blacksburg, VA.

Ahmed-Zaid, F., Krishnan, H., Vladimerou, V., Brovold, S., Cunningham, A., Goudy, R., & Viray, R. (2015). *Vehicle-to-vehicle safety system and vehicle build for safety pilot (V2V-SP): Driver acceptance clinics*. Federal Register.

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Ahn, K.*, Rakha, H. A., & Park, S.* (2020). Eco look-ahead control of battery electric vehicles and roadway grade impacts. *Transportation Research Record: Journal of the Transportation Research Board*, 2674(10), 429-437.
<https://doi.org/10.1177/0361198120935445>

Ahn, K.*; Aredah, A.*; Rakha, H.A.; Wei, T.; Frey, H.C. Simple Diesel Train Fuel Consumption Model for Real-Time Train Applications. *Energies* 2023, 16, 3555.
<https://doi.org/10.3390/en16083555>

Ahn, K.*; Du, J.*; Farag, M.*; Rakha H.A. Evaluating an Eco-Cooperative Automated Control System. *Transportation Research Record* 2023, 2677(2), 1562-1578.
<https://doi.org/10.1177/0361198122113315>

Ahn, K.*; Rakha, H.A. Developing a Hydrogen Fuel Cell Vehicle (HFCV) Energy Consumption Model for Transportation Applications. *Energies* 2022, 15, 529.
<https://doi.org/10.3390/en15020529>.

Ahn, K., & Rakha, H. (2013). Network-wide impacts of eco-routing strategies: A large-scale case study. *Transportation Research Part D: Transport and Environment*, 25, 119-130. <https://doi.org/10.1016/j.trd.2013.09.006>

Ahn, K., & Rakha, H. (2014). Eco-lanes applications: Preliminary testing and evaluation. *Transportation Research Record: Journal of the Transportation Research Board*, 2427, 41-53.

Ahn, K., & Rakha, H. A. (2006). System-wide impacts of green extension transit signal priority. In *IEEE ITSC06 Conference*. <https://doi.org/10.1109/ITSC.2006.1706724>

- Ahn, K., & Rakha, H. A. (2007). Field evaluation of energy and environmental impacts of driver route choice decisions. In *IEEE ITSC07 Conference*.
<https://doi.org/10.1109/ITSC.2007.4357661>
- Ahn, K., & Rakha, H. A. (2008). The effects of route choice decisions on vehicle energy consumption and emissions. *Transportation Research Part D: Transport and Environment*, 13(3), 151-167. <https://doi.org/10.1016/j.trd.2008.01.005>
- Ahn, K., & Rakha, H. A. (2009). A field evaluation case study of the environmental and energy impacts of traffic calming. *Transportation Research Part D: Transport and Environment*, 14(6), 411-424. <https://doi.org/10.1016/j.trd.2009.01.007>
- Ahn, K., Kronprasert, N., & Rakha, H. A. (2009). Energy and environmental assessment of high-speed roundabouts. *Transportation Research Record: Journal of the Transportation Research Board*, 2123, 54-65. <https://doi.org/10.3141/2123-07>
- Ahn, K., Park, S., & Rakha, H. A. (2020). Impact of intersection control on battery electric vehicle energy consumption. *Energies*, 13(12), 3190.
- Ahn, K., Rakha, H. A., & El-Shawarby, I. (2007, April). *Study of catalytic converter impact and engineout emission modeling using in-vehicle on-road emission measurements*. Second Ain Shams University International Conference on Environmental Engineering (ASCEE), Cairo, Egypt.
- Ahn, K., Rakha, H. A., & Park , S. (2020). Eco look-ahead control of battery electric vehicles and roadway grade effects. *Transportation Research Record: Journal of the Transportation Research Board*, 0361198120935445.
- Ahn, K., Rakha, H. A., & Park, S. (2013). ECO-Drive application: Algorithmic development and preliminary testing. *Transportation Research Record: Journal of the Transportation Research Board*, 2341, 1-11.
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- Ahn, K., Rakha, H. A., Trani, A., & Van Aerde, M. (2002). Estimating vehicle fuel consumption and emissions based on instantaneous speed and acceleration levels. *Journal of Transportation Engineering*, 128(2), 182-190.
[https://doi.org/10.1061/\(ASCE\)0733-947X\(2002\)128:2\(182\)](https://doi.org/10.1061/(ASCE)0733-947X(2002)128:2(182))
- Ahn, K., Rakha, H., & Park, S. (2018). *Impact of intersection control on electric vehicle energy consumption* [Paper No. 18-02937]. 97th Annual Meeting of the Transportation Research Board, Washington, DC.

Ahn, K., Rakha, H., Kang, K., & Govindarajan, V. (2016). *Multimodal intelligent transportation signal system impact assessment: Field testing and simulation results* [Paper No. 16-0731]. Transportation Research Board 95th Annual Meeting, Washington, DC.

Ahn, K., Rakha, H., Kang, K., & Govindarajan, V. (2016). Multimodal intelligent transportation signal system simulation model development and assessment. *Transportation Research Record: Journal of the Transportation Research Board*, 2558, 92-102.

Ahn, K.; Du, J., Farag, M., and Rakha, H.A. (2022), "Evaluating an Eco-Cooperative Automated Control System (Eco-CAC)," Transportation Research Board (TRB) 101st Annual Meeting, Washington DC, Jan. 9-13 [Paper: TRBAM-22-00245]

Ahn, Y. K., Ahmadian, M., & Morishita, S. (1999). On the design and development of a magneto-rheological mount. *International Journal of Vehicle System Dynamics*, 32(2-3), 199-216. <https://doi.org/10.1076/vesd.32.2.199.2087>

Ala, M. V., Yang, H., & Rakha, H. (2016). Modeling evaluation of eco-cooperative adaptive cruise control in vicinity of signalized intersections. *Transportation Research Record: Journal of the Transportation Research Board*, 2559, 108-119.

Alan V. Boruch, Izabele Marquetti, Susan Murphy, Carly Norris, Pamela VandeVord. "An Innovative Preclinical Model of Blast Spinal Cord Injury and the Use of a Novel Injectable Neural Scaffold as Treatment." Military Health System Research Symposium, Orlando, FL (August 2021).

Alazemi, F.*; Fadhloun, K.*; Rakha, H.A.; Mittal, A. (2023), Towards Building a Naturalistic Cycling Dataset Capturing Bicycle/Car Interactions, 9th International Conference on Vehicle Technology and Intelligent Transport Systems, Prague, Czech Republic, 26-28 April, 2023. <https://doi.org/10.5220/0011710000003479>

Alazmi, A.*; Rakha, H. Assessing and Validating the Ability of Machine Learning to Handle Unrefined Particle Air Pollution Mobile Monitoring Data Randomly, Spatially, and Spatiotemporally. *Int. J. Environ. Res. Public Health* 2022, 19, 10098. <https://doi.org/10.3390/ijerph191610098>

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Albert DL, Katzenberger MJ, Agnew AM, and Kemper AR. A Comparison of Rib Cortical Bone Compressive and Tensile Material Properties: Trends with Age, Sex, and Loading Rate. *Journal of the Mechanical Behavior of Biomedical Materials*, 122, 104668, 2021.

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Albert DL, Katzenberger MJ, Agnew AM, and Kemper AR. Failure of Human Rib Cortical Bone during Low Rate Compression Tests. Short Communication, *Proceedings of the International Research Council on Biomechanics of Injury*, Virtual, 2021.

Albert, D. L., Beeman, S. M., & Kemper, A. R. (2017, October). Occupant kinematics of the Hybrid III, THOR-M, and post-mortem human surrogates under various restraint conditions in full-scale frontal sled tests. 61st Annual Scientific Conference of the Association for the Advancement of Automotive Medicine, Las Vegas, NV.

Albert, D. L., Beeman, S. M., McNally, C., & Kemper, A. (2016). Short communication: Evaluation of rigid polyurethane foam as a surrogate material for knee bolsters and knee bolster airbags in full scale frontal sled tests. *Traffic Injury Prevention, Special Issue: Peer-Reviewed Journal for the 60th Annual Scientific Conference of the Association for the Advancement of Automotive Medicine*, 2016, 17(Supp 1).

Albert, D. L., Katzenberger, M. J.*, Agnew, A. M., & Kemper, A. R. (2021). A comparison of rib cortical bone compressive and tensile material properties: Trends with age, sex, and loading rate. *Journal of the Mechanical Behavior of Biomedical Materials*, 122, 104668.

Alden, A. (2017, August). *Key considerations for the future of transportation*. Joint Meeting of the Roanoke Valley TPO and New River Valley MPO, Blacksburg, VA.

Alden, A. (2017, August). *VTTI facilities and research*. Geohazards Impacting Transportation in Appalachia Conference, Blacksburg, VA.

Alden, A. (2017, December). *Unmanned aerial systems in support of road transportation*. Disruptive Innovations in Transportation Conference, Richmond, VA.

Alden, A. (2017, July). *Advanced transportation technologies*. American Planning Association (APA) Virginia Annual Conference, Roanoke, VA.

Alden, A. (2017, November). *The I-81 Corridor Coalition program*. Bristol MTPO Executive Board Meeting, Bristol, TN.

Alden, A. (2017, November). *The I-81 Corridor Coalition program*. Kingsport MPO Executive Board Meeting, Kingsport, TN.

Alden, A. (2017, October). *Autonomous surface transportation infrastructure inspection*. Association for Unmanned Vehicle Systems International - Cultivating Trust in Autonomous Systems Symposium, Blacksburg, VA.

Alden, A. (2017, September). *I-81 Corridor Coalition*. Appalachian Regional Commission - Network Appalachia, Washington, DC.

Alden, A. (2018). Future transportation – How automation and intelligent systems will impact the movement of people and goods. Tri-State Hub and APICS Joint Event, Greencastle, PA.

Alden, A. (2018, April). *Automated freight -- Challenges and opportunities*. Pennsylvania Automated Vehicle Summit, Pittsburg, PA.

Alden, A. (2018, April). *Autonomous vehicles and weather data*. American Meteorological Association AV Conference, Washington, DC.

Alden, A. (2018, April). *Autonomous vehicles: Are we ready?* West Virginia Local Technical Assistance Program/West Virginia Association of Metropolitan Planning Organizations Joint Conference, Morgantown, WV.

Alden, A. (2018, April). *Highway transportation -- Changing demands, impacts, and solutions*. Carlisle Area Chamber of Commerce, Carlisle, PA.

Alden, A. (2018, April). *VTTI -- Overview of facilities and selected research*. Virginia Department of Transportation Staunton District Business Conference, Weyers Cave, VA.

Alden, A. (2018, April). *VTTI overview, transportation trends, and I-81 Corridor Coalition*. Community Transportation Association of Virginia (CTAV) Young Professional in Transportation Training & Networking Symposium, Blacksburg, VA.

Alden, A. (2018, February). *Unmanned aerial systems in support of road transportation*. Association for Unmanned Vehicle Systems International Ridge and Valley Chapter Meeting, Blacksburg, VA.

Alden, A. (2018, January). *I-81 Corridor Coalition*. Berkeley County Council, Martinsburg, WV.

Alden, A. (2018, June). *Highway freight -- Evolving demands, effects, challenges, and solutions*. Eastern Pennsylvania Freight Summit, Bethlehem, PA.

Alden, A. (2018, May). *An introduction to the mechanics of salt and research in the transportation sector*. VA DEQ Salt Management Strategy (SaMS) Technical Training, Lorton, VA.

Alden, A. S. (2014). *An assessment of quiet vehicles and pedestrian and bicyclist safety* (14-UT-026). National Surface Transportation Safety Center for Excellence.

Alden, A. S., (2022, April) *Academic Community Update*. AUVSI Automated Goods Movement Summit.

Alden, A. S., (2022, April) *When Does the Vehicle Become the Driver*. AUVSI Automated Goods Movement Summit.

Alden, A. S., (2022, June 22) *Truck Parking on the I-81 Corridor*. Presented at the I-81 Truck Parking Roundtable.

Alden, A. S., (2022, June 29) *Truck Parking Projects*. Presented at the I-81 Truck Parking Roundtable.

Alden, A. S., (2022, May 17) American Rescue Plan Act (ARPA) Regional Challenge Grant - The Future of Transportation and Logistics. Appalachian Regional Commission, Network Appalachia Meeting.

Alden, A. S., Bell, S., Alemayehu, D., & Druta, C. (2023). Roadside Truck Placard Readers for Advanced Notice and Response at Safety-Critical Facilities: Phase 2. Virginia Transportation Research Council (VTRC). Retrieved from https://rosap.ntl.bts.gov/view/dot/67523/dot_67523_DS1.pdf

Alden, A. S., Mayer, B., McGowen, P., Sherony, R., & Takahashi, H. (2016). *Animal-vehicle encounter naturalistic driving data collection and photogrammetric analysis* (SAE Technical Paper 2016-01-0124). SAE.

Alden, A. S., Park, H., & Coggin, J. (2022). *Developing a Plan for Using Unmanned Aerial Vehicles for Traffic Operations Applications in Virginia*. Richmond, VA: VDOT, FHWA. Final Report. <https://rosap.ntl.bts.gov/view/dot/62005>

- Alhadidi, T., & Rakha, H. (2019). Modeling of bus passenger boarding/alighting times: A stochastic approach. *Transportation Research Interdisciplinary Perspectives*, 2, 100027. <https://doi.org/10.1016/j.trip.2019.100027>
- Ali, G., McLaughlin, S., & Ahmadian, M. (2021). Quantifying the effect of roadway, driver, vehicle, and location characteristics on the frequency of longitudinal and lateral accelerations. *Accident Analysis and Prevention*, 161 doi:10.1016/j.aap.2021.106356
- Ali, G., McLaughlin, S., & Ahmadian, M. (under review). Quantifying the effect of roadway, driver, vehicle, and location characteristics on the frequency of longitudinal and lateral accelerations.
- Aljamal, M. A., Abdelghaffar, H. M., & Rakha, H. A. (2020). Estimation of traffic stream density using connected vehicle data: Linear and nonlinear filtering approaches. *Sensors*, 20(15), 4066.
- Aljamal, M. A., Abdelghaffar, H. M., & Rakha, H. A. (2020). Real-time estimation of vehicle counts on signalized intersection approaches using probe vehicle data. *IEEE Transactions on Intelligent Transportation Systems*.
- Aljamal, M., Abdelghaffar, H., & Rakha, H. A. (2020). Estimation of traffic stream density using connected vehicle data: Linear and nonlinear filtering approaches. *Sensors*, 20(15), 4066. <https://doi.org/10.3390/s20154066>
- Aljamal, M., Farag, M., & Rakha, H. A. (2020). Developing data-driven approaches for traffic density estimation using connected vehicle data. *IEEE Access*, 8, 219622-219631. <https://doi.org/10.1109/ACCESS.2020.3042612>
- Al-Kaisy, A. F., Bhatt, J., & Rakha, H. A. (2003, January). *Assessing the effect of heavy vehicles on the visibility of traffic signs at multilane highways*. Transportation Research Board 82nd Annual Meeting, Washington, DC.
- Al-Kaisy, A. F., Bhatt, J., & Rakha, H. A. (2003, January). *Modeling the effect of heavy vehicles on sign visibility at multilane highways*. Transportation Research Board 82nd Annual Meeting, Washington, DC.
- Al-Kaisy, A. F., Bhatt, J., & Rakha, H. A. (2005). Modeling the effect of heavy vehicles on sign occlusion at multilane highways. *Journal of Transportation Engineering*, 131(3), 219-228. [https://doi.org/10.1061/\(ASCE\)0733-947X\(2005\)131:3\(219\)](https://doi.org/10.1061/(ASCE)0733-947X(2005)131:3(219))

Al-Kaisy, A. F., Jung, Y., & Rakha, H. A. (2005). Developing passenger car equivalency factors for heavy vehicles during congestion. *Journal of Transportation Engineering*, 131(7), 514-523. [https://doi.org/10.1061/\(ASCE\)0733-947X\(2005\)131%3A7\(514\)](https://doi.org/10.1061/(ASCE)0733-947X(2005)131%3A7(514))

Allen, E., Bowden, Z., Marchany, R., & Ransbottom, J. S. WIP: The Feasibility of High-Performance Message Authentication in Automotive Ethernet Networks.

Almannaa, M. H., Ashqar, H. I., Elhenawy, M., Masoud, M., Rakotonirainy, A., & Rakha, H. (2020). A comparative analysis of e-scooter and e-bike usage patterns: Findings from the city of Austin, TX. *International Journal of Sustainable Transportation*, 15(7), 571-579. <https://doi.org/10.1080/15568318.2020.1833117>

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Almannaa, M., Chen, H., Rakha, H. A., Loulizi, A., & El-Shawarby, I. (2017). Controlled-field evaluation of effectiveness of infrastructure to vehicle communication in reducing vehicle fuel consumption and delay at signalized intersections [Paper No. 17-01769]. *Transportation Research Board 95th Annual Meeting*, Washington, DC.

Almannaa, M., Chen, H., Rakha, H., Loulizi, A., & El-Shawarby, I. (2017). Reducing vehicle fuel consumption and delay at signalized intersections: Controlled-field evaluation of effectiveness of infrastructure-to-vehicle communication. *Transportation Research Record: Journal of the Transportation Research Board*, 2621, 10-20.

Almannaa, M., Elhenawy, M., & Rakha, H. (2019). Identifying optimum bike station initial conditions using Markov chain modeling. *Transport Findings*. <https://doi.org/10.32866/6801>

Almannaa, M., Elhenawy, M., & Rakha, H. A. (2019). Dynamic linear models to predict bike availability in a bike sharing system. *International Journal of Sustainable Transportation*, 14(3), 232-242.

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- Camden, M. C., Soccolich, S. A., Hickman, J. S., & Hanowski, R. J. (2019). Identifying equipment factors associated with snowplow operator fatigue. *Safety*, 5, 62. <https://doi.org/10.3390/safety5030062>
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- Camden, M. C., Soccolich, S. A., Hickman, J. S., Walker, M., & Hanowski, R. J. (2020). *Examining the relationship between CMV driver retention and safety* (Report No. 20-UI-093). National Surface Transportation Safety Center for Excellence.
- Camden, M. C., Tidwell, S., Golusky, M., Hammond, R., Soccolich, S. A., Hickman, J. S., & Hanowski, R. J. (2020). *Sharing the road with heavy vehicles: Hands-on demonstrations with teen drivers*. National Safety Council.

- Camden, M., & Wilson, C. (2021, October). *AI, data analysis improve driver safety and reduce risk for fleets*. Invited webinar hosted by FleetOwner.
- Camden, M., Hickman, J., Tidwell, S., Hammond, R., Hanowski, R., & Medina-Flintsch, A. (2022, February). Developing comprehensive defensive driving training for snowplow operators. *Proceedings of the XVI World Winter Service and Road Resilience Congress*.
- Camden, M., Hickman, J., Tidwell, S., Hammond, R., Hanowski, R., & Medina-Flintsch, A. (2022, February). *Developing comprehensive defensive driving training for snowplow operators*. Poster to be presented at the XVI World Winter Service and Road Resilience Congress, virtual.
- Camden, M., Hickman, J., Tidwell, S., Hammond, R., Hanowski, R., & Medina-Flintsch, A. (2022, February). *Developing comprehensive defensive driving training for snowplow operators*. Paper to be presented at the XVI World Winter Service and Road Resilience Congress, virtual.
- Camden, M.C. & Tidwell, S.A. (2021, July). *Transportation Research to Practice*. Invited presentation at Morgan State University's 2021 National Summer Transportation Institute.
- Camden, M.C. & Woody, C. (2021, July). *Safety First, Part 2: Creating Safer Drivers*. Invited webinar to be hosted by Heavy Duty Trucking.
- Camden, M.C. (2021, December). *Leveraging research-proven strategies to improve fleet safety*. Invited presentation at the Presidio Risk Control Workshop, Captive Resources, Phoenix, AZ.
- Camden, M.C. (2021, October). *Reducing crashes and improving fleet safety: Lessons learned from over 10 years of heavy vehicle research*. Invited presentation at the 2021 Network of Employers for Traffic Safety, Heavy Goods Vehicle Sector meeting.
- Camden, M.C. (2022, April). *Developing a Comprehensive Program to Successfully Improve Fleet Safety*. Invited presentation to be given at the University of Texas' 2022 Higher Education Risk Management Conference, San Antonio, TX.
- Camden, M.C. (2022, January). *Effective strategies to improve safety: Case studies of commercial motor vehicle safety advancement*. Invited presentation at the 101st Annual Transportation Research Board conference, Truck and Bus Safety Motor Carrier Safety Management subcommittee, Washington, D.C.

Camden, M.C. (2022, March). *Leveraging research-proven strategies to improve fleet safety*. Invited presentation at the TRAX Risk Control Workshop, Napa, CA.

Camden, M.C. (2022, March). *Safety culture and the science to improve fleet safety*. Invited presentation at Great West Causality Company, 2022 Leadership Symposium Series, Knoxville, TN.

Camden, M.C. (2022, March). *Safety culture and the science to improve fleet safety*. Invited presentation at Great West Causality Company, 2022 Leadership Symposium Series, Omaha, NE.

Camden, M.C. (2022, May). *Leveraging research-proven strategies to improve fleet safety*. Invited presentation at the Evolution Risk Control Workshop, Charlotte, NC.

Camden, M.C. (2022, May). *Safety culture and the science to improve fleet safety*. Invited presentation at Great West Causality Company, 2022 Leadership Symposium Series, Boise, ID.

Camden, M.C., Grove, K., Smart, A., Weakly, T., & Murray, D. (2021, September). Automation and trucking: What fleets need to know. Invited webinar sponsored by the Partners for Automated Vehicle Education.

Camden, M.C., Sharp, D., & Cobb, L. (2021, September). *Using positive strategies to address societal challenges*. Invited panel presentation at the 8th annual Distracted Driving Summit, Virginia Beach, VA.

Camden, M.C., Strayer, D., Sadowski, R. (2022, April). *The state of distracted driving*. Webinar hosted by the National Safety Council.

Camden, M.C., Tidwell, S., Antonik, C., Meissner, K., Glenn, L.T., Mabry, J.E., Golusky, M., & Hanowski, R.J. (2021). *Entry-level driver training (CDL) for maintenance equipment operators*. Project CR 20-01. Clear Roads Pooled Fund/Minnesota Department of Transportation.

Camden, M.C., Tidwell, S., Golusky, M., Hammond, R., Mabry, J.E., Meissner, K., & Hanowski, R.J. (2021). *Teen driver education: Learning how to safely share the road with commercial motor vehicles*. (Grant No. FM-MHP-0425-19-01-00.). Federal Motor Carrier Safety Administration.

Camden, M.C., Tidwell, S.A., & Mabry, E. (2021, July). *Impacting Transportation Through Research*. Invited presentation at Morgan State University's 2021 National Summer Transportation Institute.

- Campbell, J. L., Hanowski, R. J., Hooey, B. L., Gore, B. F., & Kantowitz, B. H. (1999). Development of human factors guidelines for advanced traveler information systems and commercial vehicle operations: ATIS function transitions (VTRC-08-CR-2). <http://www.fhwa.dot.gov/publications/research/safety/96146/96146.pdf>
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- Caponecchia, C., Wickens, C., Regan, M., Steckel, R., & Fitch, G. (2014). Naturalistic flying studies: Innovation in aviation safety research. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, 58(1), 69-71.
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- Carly Norris, Justin Weatherbee, Susan Murphy, Allison Nelson, Pamela VandeVord. "Investigating Space Brain: How Do Brain Cells Respond to Increased Intracranial Pressure?" VSGC Graduate Research Symposium, Hampton, VA (April 2022).
- Carly Norris, Susan Murphy, Justin Weatherbee, Pamela VandeVord. "Acute Neurometabolic Profile of Amino Acids Following Blast Exposure." Neurotrauma 2021, Virtual (July 2021).
- Carpenter, J. T., Fleischman, R. N., Dingus, T. A., Szcublewski, F. E., Krage, M. K., & Means, L. G. (1991). *Human factors engineering the TravTek driver interface*. Vehicle Navigation and Information Systems (VNIS) Conference, 1991,
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- Chaka, M. (2017, November). Naturalistic driving data and its potential for automated driving systems. Tech.AD Detroit, Novi, MI.
- Chaka, M. (2017, October). *Research solutions for the safe deployment of automated vehicles*. Autonomous Vehicle Test & Development, Novi, MI.
- Chaka, M. (2018, April). *Key topics to consider during the crash avoidance, crashworthiness, and occupant protection discussion*. Expert panel discussion and presentation, 100 Series Working Group, Stakeholder Meeting, FMVSS Considerations for Automated Driving Systems, Washington, DC.
- Chaka, M. (2018, April). *VTTI's Automated Mobility Partnership*. Variable Performance Testing for ADS Workshop, Troy, MI.
- Chaka, M. (2018, June). *VTTI's Automated Mobility Partnership*. SAE Variable Performance Testing for Automated Driving Systems (ADS) Workshop, Greenville, SC.

Chaka, M. (2018, March). *Making mid-career moves* [Panel session]. Celebrating Women in Transportation -- Land, Air, and Sea, Washington, DC.

Chaka, M. (2018, March). *New mobility revolution*. Northern Virginia Transportation Roundtable, Arlington, VA.

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Miller, A. (January, 2022) *Industry Recommended Practices for Improving Safety Culture and Utilizing Monitoring Technologies in the Oil and Gas Industry*. Presented at the Carrier Safety Management Subcommittee of the 101st Annual Transportation Research Board, Washington, DC.

Miller, A. (January, 2023) Discussion on ADS Driving Safety Metrics. Presented at the 102nd Annual Transportation Research Board during Truck and Bus Data Subcommittee, Washington, DC.

Miller, A. (July, 2021). Developing an Operational Controller for Automation within Mining Operations. Paper presentation at the 12th International Conference on Applied Human Factors and Ergonomics, Virtual Conference.

Miller, A. (May, 2022). *Safety Culture Science and Truck Automation*. Invited Speaker Presentation at the Virginia Forestry Summit, Blacksburg, VA.

Miller, A. M., Krum, A., Golusky, M., Joslin, S., Deal, V., Soccolich, S., & Hanowski, R. J. (2016). Federal Motor Carrier Safety Administration's Advanced System Testing Utilizing a Data Acquisition System on the Highways (FAST DASH), Safety Technology Evaluation Project# 3: Novel convex mirrors (FMCSA-RRT-15-021). Federal Motor Carrier Safety Administration.

Miller, A. M., Owens, J. M., Seong, Y., & Yi, S. (2017, November). *Project overview: Vulnerable road user mobility assistance platform*. 5th Annual UTC Conference for the Southeastern Region, Gainesville, FL.

Miller, A., & Camden, M. (April, 2022). *Safety Culture Science*. Invited Speaker Presentation at Great West Leadership Symposium, Indianapolis, IN.

Miller, A., & Camden, M. (April, 2022). *Safety Culture Science*. Invited Speaker Presentation at Great West Leadership Symposium, Grapevine, TX.

Miller, A., Owens, J., & Shivers, C. (February, 2022) *Analysis of the Non-Driving Mobility Needs of People with Disabilities*. Presented at the 5th Annual Center for Advanced Transportation Mobility Symposium, Virtual.

Miller, A., Petersen, A., Sarkar, A., & Kefauver, K. (January, 2022) *On-road Evaluation for ADS-equipped Heavy Vehicles*. Presented at the 101st Annual Transportation Research Board, Washington, DC.

Miller, L. E., Urban, J. E., Kelley, M. E., Powers, A. K., Whitlow, C. T., Maldjian, J. A., Rowson, S., & Stitsel, J. D. (2019). Evaluation of brain response during head impact in youth athletes using an anatomically accurate finite element model. *Journal of Neurotrauma*, 36(10), 1561-1570.

Miller, M., Herbers E., Walters J., (2022, June 17). Improving Methods to Measure Attentiveness through Driver Monitoring [Safe-D presentation, online].
<https://youtu.be/2NV47Rrs6OI>

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Rajaram Bhagavathula, Invited Speaker, Lighting Application Efficiency for Roadway Lighting, DOE R&D Workshop, January 31, 2022

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- Tidwell, S.A. (2022, April). *Research in Transportation: Career Paths and Project Highlights*. Invited presentation at Grassfield High School's Science, Technology, Engineering, and Math Program.
- Tidwell, S.A. (2022, July). *Research in Transportation: Career Paths and Project Highlights*. Invited presentation at Morgan State University's 2022 National Summer Transportation Institute.
- Tidwell, S.A. (2022, July). *Strategies for Safe Journeys While Sharing the Road with Large Trucks*. Invited presentation at Brake: The Road Safety Charity's Global Fleet Champions Planning Journeys to Share the Road Webinar.
- Tidwell, S.A., Golusky, M., & Petersen, M. (2022, July). *Transportation Research to Practice: A Guide to Driving Safely Around Large Trucks*. Invited presentation at Morgan State University's 2022 National Summer Transportation Institute.
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