

RESEARCH ASSISTANT PROFESSOR

University of Tennessee - Oak Ridge Innovation Institute
Center for Transportation Research (CTR), University of Tennessee Knoxville
National Transportation Research Center (NTRC), Oak Ridge National Laboratory
Knoxville, TN

Email: uahmed@utk.edu

Web: www.linkedin.com/in/uahmed16; <https://utorii.com/usman-ahmed/>;
<https://ctr.utk.edu/person/usman-ahmed/>

UNIVERSITY EDUCATION**Ph.D. Civil Engineering**

University of Toronto, Canada.
Adviser: Dr. Matthew J. Roorda.
Thesis Title: An Agent-Based Freight Business and Logistics Decisions Simulation

M.Sc. Transportation Systems

Technical University of Munich, Germany.
Adviser: Dr. Rolf Moeckel
Thesis Title: Development of a Microscopic Activity Sequence Modeler

B.E. Civil Engineering

National University of Sciences and Technology, Pakistan.

ACADEMIC POSITIONS***Research Assistant Professor***

University of Tennessee - Oak Ridge Innovation Institute, University of Tennessee Knoxville, USA
Since January 2025

Postdoctoral Fellow

Department of Civil & Mineral Engineering, University of Toronto, Canada
June 2022 - December 2024. Adviser: Dr. Matthew J. Roorda

Researcher/ Modeler

Travel Modeling Group, University of Toronto, Canada
September 2023 - December 2024. Adviser: Dr. Eric J. Miller

Research Assistant

Professorship of Travel Behavior, Technical University of Munich, Germany
February 2017 - August 2018. Adviser: Dr. Rolf Moeckel

PROFESSIONAL EXPERIENCE**Highway Engineer**

Prime Engineering & Testing Consultants, Pakistan, September 2014 - September 2015

PATENTS

P1. Shoman, Maged; **Ahmed, Usman**. Multimodal Computer Vision System and Method for Real-Time Navigation Assistance for Visually Impaired Pedestrians. *U.S. Provisional Application No. 63/917,447. File Date: 11/14/2025*

ACADEMIC ACHIEVEMENTS AND AWARDS

- *Project of the Year Award (2023)*, Institute of Transportation Engineers, Toronto. Project: E-cargo Pilot Study in Toronto. (Role: Project Manager).
- *University of Toronto - Sustainable Action Award (2023)*. Awarded to Purolator as a Project Partner (Dr. Ahmed participated as a project manager from the University of Toronto)
- *Richard Soberman Graduate Student Fellowship (2022)*, University of Toronto Transportation Research Institute.
- *Canadian National Scholarship (2021-2022)*, Canadian Transportation Research Forum.
- *Professor Gerald Steuart Graduate Scholarship in Transportation Engineering (2021)*, University of Toronto Transportation Research Institute.
- *Dr. Mazen Hassounah Graduate Scholarship in Mass Events Transportation and Crowd Management (2019)*, University of Toronto Transportation Research Institute.
- *Fortran Traffic Systems Graduate Scholarship in Transportation Research (2018)*, University of Toronto Transportation Research Institute.
- *Academic Merit Based Scholarship (2010-2014)*, National University of Sciences and Technology, Islamabad, Pakistan. Scholarships are awarded to students who achieve a GPA of 3.5/4.0 or higher.

TEACHING HISTORY

Instructor, University of Toronto, Toronto, ON, Canada. January - April 2024

Course: Freight Transportation and ITS Applications.

Co-Instructor, University of Toronto, Toronto, ON, Canada.

- Freight Transportation and ITS Applications.
Co-taught with Dr. Carlos Rivera-Gonzalez (*January - April 2023*)
- Infrastructure for Sustainable Cities.
Co-taught with Dr. Tufayel Chowdhury (*January - April 2022*)
- Introduction to Transportation Systems.
Co-taught with Dr. Sanjana Hossain (*September - December 2021*)

RESEARCH PRODUCTS**Peer-reviewed Journal Articles**

- J16 Assmussen, Katherine; **Ahmed, Usman** (2026). How is Online Shopping Reshaping Activity Patterns? Modeling Activity Behavior using Discrete Continuous Models. *Accepted in Transportation Research Part A: Policy and Practice*.
- J15 **Ahmed, Usman**; Hawkins, Jason (2026). Residential Price Modeling using Spatially Validated Machine Learning Methods: A Comparison Across Geographic Contexts. *Transportation Research Record*.
- J14 Ghizzawi, Farah; **Ahmed, Usman**; Roorda, Matthew (2026). Parking Patterns of Last-Mile Delivery Vehicles: A Comparison Between Light-Duty Trucks and Electric Cargo Tricycles in Downtown Toronto. *Transportation Research Interdisciplinary Perspectives*. <https://doi.org/10.1016/j.trip.2026.101941>
- J13 Amaral, Julia; Holguín-Veras, Jose; Roorda, Matthew J.; ... **Ahmed, Usman**; ... (2026). Freight Trip Generation in Metropolitan Areas: An International Perspective. *Transportation Research Part A: Policy and Practice*. Vol. 204. <https://doi.org/10.1016/j.tra.2025.104847>
- J12 **Ahmed, Usman**; Mousavi, Kianoush; Zhang, Shang; Roorda, Matthew (2025). Noise Impacts and Social Justice Analysis of Off-Peak Deliveries in the Greater Toronto Area. *Transport Policy*. Vol. 167, Pages 66-77. <https://doi.org/10.1016/j.tranpol.2025.03.018>
- J11 Saeedi, Milad; Xu, Junshi; **Ahmed, Usman**; Roorda, Matthew; Hatzopoulou, Marianne (2025). Urban Air Pollution Data Collection, Mapping, and Prediction using Mobile Sensors Installed on Courier Trucks. *Transportation Research Record*. <https://doi.org/10.1177/036119812513242>
- J10 Rivera-Gonzalez, Carlos; **Ahmed, Usman**; Roorda, Matthew (2025). The Evolving Landscape of Urban Logistics: A study of the Greater Golden Horseshoe. *Journal of Transport Geography*, 122, 104055. <https://doi.org/10.1016/j.jtrangeo.2024.104055>
- J9 **Ahmed, Usman**, Moeckel, Rolf (2023). Impact of Life Events on Incremental Travel Behavior Change. *Transportation Research Record*, 2677(9), 594-605. <https://doi.org/10.1177/03611981231159863>
- J8 **Ahmed, Usman**; Hawkins, Jason; Roorda, Matthew (2022). Establishment Location Choice Model Considering Intra-firm Interactions. *Journal of Transport Geography*, 102, 103391. <https://doi.org/10.1016/j.jtrangeo.2022.103391>
- J7 **Ahmed, Usman**; Tu, Ran; Xu, Junshi; Amirjamshidi, Glareh; Hatzopoulou, Marianne; Roorda, Matthew (2022). GPS Based Traffic Condition Classification using Machine Learning Approaches. *Transportation Research Record*, 2677(2), 1445-1454. <https://doi.org/10.1177/0361198122111370>
- J6 Hawkins, Jason; **Ahmed, Usman**; Habib, Khandker M. Nurul; Roorda, Matthew (2022). Measuring the Process of Urban Gentrification: A Composite Measurement of the

Gentrification Process in Toronto. *Cities*, 126, 103708.
<https://doi.org/10.1016/j.cities.2022.103708>

- J5 **Ahmed, Usman**; Roorda, Matthew (2022). Joint and Sequential Models for Freight Vehicle Type and Shipment Size Choice. *Transportation*, 50(5), 1613-1629.
<https://doi.org/10.1007/s11116-022-10289-6>
- J4 **Ahmed, Usman**; Roorda, Matthew (2022). Modelling Carrier Type and Vehicle Type Choice of Small and Medium Size Firms. *Transportation Research Part E: Logistics and Transportation Review*, 160, 102655. <https://doi.org/10.1016/j.tre.2022.102655>
- J3 **Ahmed, Usman**; Roorda, Matthew (2022). Modeling freight Vehicle Type Choice Using Machine Learning and Discrete Choice Methods. *Transportation Research Record*, 2676(2), 541-552. <https://doi.org/10.1177/03611981211044462>
- J2 Xu, Junshi; Tu, Ran; **Ahmed, Usman**; Amirjamshidi, Glareh; Hatzopoulou, Marianne; Roorda, Matthew (2021) An Eco-Score System Incorporating Driving Behavior, Vehicle Characteristics, and Traffic Conditions. *Transportation Research Part D: Transport and Environment*, 95, 102866. <https://doi.org/10.1016/j.trd.2021.102866>
- J1 **Ahmed, Usman**; Moreno, Ana; Moeckel, Rolf (2021). Microscopic Activity Sequence Generation: A Multiple Correspondence Analysis to Explain Travel Behavior Based on Socio-Demographic Person Attributes. *Transportation*, 48(3), 1481-1502.
<https://doi.org/10.1007/s11116-020-10103-1>

Technical Reports

- TR3 **Ahmed, Usman**; Le, Tho; Rivera-Gonzalez, Carlos; Roorda, Matthew (2024). A Commercial Travel Survey and Its Implications for the Supply Chain in Peel Region and the GTHA.
- TR2 **Ahmed, Usman**; Xu, Junshi; Tu, Ran; Amirjamshidi, Glareh; Hatzopoulou, Marianne; Roorda, Matthew (2020). Developing a Scoring System for Eco-Driving: Report II Development of Method for Phase 3.
- TR1 Xu, Junshi; Tu, Ran; **Ahmed, Usman**; Amirjamshidi, Glareh; Hatzopoulou, Marianne; Roorda, Matthew (2020). Developing a Scoring System for Eco-Driving: Report I. Literature Review, Development of Method for Phases 1 and 2.

Peer-Reviewed Conference Papers

- C24 **Ahmed, Usman**; Rivera-Gonzalez, Carlos; Roorda, Matthew. Warehouse Location Choice Model Considering Intra-Firm Interactions: A Case Study of the Greater Toronto Area. Presented at the 105th Annual Meeting of Transportation Research Board, January 11-15, 2026, Washington D.C.
- C23 Calderon, Oriana; **Ahmed, Usman**. Joint Modeling of Freight Mode Choice and Shipment Size Using Multi-Output Machine Learning. Presented at the 105th Annual Meeting of Transportation Research Board, January 11-15, 2026, Washington D.C.

- C22 Assmussen, Katherine; **Ahmed, Usman**. How is Online Shopping Reshaping Activity Patterns? Modeling of Activity Behavior using Discrete Continuous Models. *Presented at the 105th Annual Meeting of Transportation Research Board, January 11-15, 2026, Washington D.C.*
- C21 Shoman, Maged; **Ahmed, Usman**. VISIONASSIST: A Comprehensive Framework for Assistive Navigation for Visually Impaired Pedestrians. *Presented at the 105th Annual Meeting of Transportation Research Board, January 11-15, 2026, Washington D.C.*
- C20 Rashidi, Hesam; **Ahmed, Usman**; Nourinejad, Mehdi; Roorda, Matthew. Data-driven Tactical Design in Last-mile Logistics: Considering Driver Preferences in Tour Duration Estimation. *Presented at the 104th Annual Meeting of Transportation Research Board, January 5-9, 2025, Washington D.C.*
- C19 **Ahmed, Usman**; Mousavi, Kianoush; Zhang, Shang; Roorda, Matthew. Noise Impacts of Off-Peak Deliveries in the Greater Toronto Area: Community Noise Survey and Social Justice Analysis. *Presented at the 104th Annual Meeting of Transportation Research Board, January 5-9, 2025, Washington D.C.*
- C18 **Ahmed, Usman**; Hawkins, Jason. Residential Price Modeling with Spatial and Aspatial Cross-Validation: A Comparison Across Geographic Contexts. *Presented at the 104th Annual Meeting of Transportation Research Board, January 5-9, 2025, Washington D.C.*
- C17 Saeedi, Milad; Xu, Junshi; **Ahmed, Usman**; Roorda, Matthew; Hatzopoulou, Marianne. Urban Air Pollution Data Collection, Mapping, and Prediction using Mobile Sensors Installed on Courier Trucks. *Presented at the 104th Annual Meeting of Transportation Research Board, January 5-9, 2025, Washington D.C.*
- C16 Amaral, Julia; Holguin-Veras, Jose; Roorda, Matthew; ... **Ahmed, Usman**; ... Freight Trip Generation in Metropolitan Areas: An International Perspective. *Presented at the 104th Annual Meeting of Transportation Research Board, January 5-9, 2025, Washington D.C.*
- C15 **Ahmed, Usman**; Le, Tho; and Roorda, Matthew. An Urban Freight Model Considering Intra-firm and Supply Chain Relationships. *Presented at the 103rd Annual Meeting of Transportation Research Board, January 7-11, 2024.*
- C14 **Ahmed, Usman**, Xu, Junshi; Ghizzawi, Farah, Saeedi, Milad; Guseva, Lisa; Hatzopoulou, Marianne; Roorda, Matthew. E-cargo Tricycles for Urban Goods Movement: A Comprehensive Analysis of a Pilot Study in Toronto. *Presented at the 103rd Annual Meeting of Transportation Research Board, January 7-11, 2024, Washington D.C.*
- C13 Rivera-Gonzalez, Carlos; **Ahmed, Usman**; Roorda, Matthew. The Evolving Landscape of Urban Logistics: A Study of the Greater Golden Horseshoe. *Presented at the 103rd Annual Meeting of Transportation Research Board, January 7-11, 2024, Washington D.C.*
- C12 Ghizzawi, Farah; **Ahmed, Usman**; Roorda, Matthew. Parking Patterns of Last-Mile Delivery Vehicles: A Comparison Between Light-Duty Trucks and Electric Cargo Tricycles.

Presented at the 103rd Annual Meeting of Transportation Research Board, January 7-11, 2024, Washington D.C.

- C11 **Ahmed, Usman;** Moeckel, Rolf. Analysis of Travel Behavior Change Triggered by Life Events. *Presented at the 16th World Conference on Transport Research, July 17-21, 2023, Montreal, Canada*
- C10 **Ahmed, Usman,** Nourinejad, Mehdi; Roorda, Matthew. Freight Tour Modeling: A Novel Optimization Based Approach. *Presented at the 16th World Conference on Transport Research, July 17-21, 2023, Montreal, Canada*
- C9 **Ahmed, Usman,** Hawkins, Jason; Roorda, Matthew. Firm Location Choice Model Considering Firm Membership. *Presented at the 102nd Annual Meeting of Transportation Research Board, January 8-12, 2023, Washington D.C.*
- C8 **Ahmed, Usman;** Moeckel, Rolf. Impact of Life Events on Incremental Travel Behavior Change *Presented at the 102nd Annual Meeting of Transportation Research Board, January 8-12, 2023, Washington D.C.*
- C7 **Ahmed, Usman;** Nourinejad, Mehdi; Roorda, Matthew. A Tour-Based Model using Continuous Approximation Method. *Presented at the 101st Annual Meeting of Transportation Research Board, January 9-13, 2022, Washington D.C.*
- C6 **Ahmed, Usman;** Tu, Ran, Xu, Junshi; Amirjamshidi, Glareh; Hatzopoulou, Marianne; Roorda, Matthew. GPS Based Traffic Condition Classification using Machine Learning Approaches. *Presented at the 101st Annual Meeting of Transportation Research Board, January 9-13, 2022, Washington D.C.*
- C5 **Ahmed, Usman,** Roorda, Matthew. Joint and Sequential Models for Freight Vehicle Type and Shipment Size Choice. *Presented at the 101st Annual Meeting of Transportation Research Board, January 9-13, 2022, Washington D.C.*
- C4 **Ahmed, Usman;** Hawkins, Jason; Roorda, Matthew. Establishment Location Choice Model Considering Intrafirm Interactions. *Presented at the 68th Annual North American Meetings of the Regional Science Association International NARSC – RSAI November 8-13, 2021, Denver, Colorado (Presented Virtually)*
- C3 **Ahmed, Usman;** Roorda, Matthew. Modelling Carrier Type and Vehicle Type Choice of Small and Medium Size Firms. *Presented at the 100th Annual Meeting of Transportation Research Board (Virtual), January 2-29, 2021, Washington D.C.*
- C2 Xu, Junshi; Tu, Ran; **Ahmed, Usman,** Amirjamshidi, Glareh; Hatzopoulou, Marianne; Roorda, Matthew. A Scoring System to Evaluate Eco-Driving Using Driving Behaviour and Vehicle Characteristics for Usage-based Insurance. *Presented at the 100th Annual Meeting of Transportation Research Board (Virtual), January 2-29, 2021, Washington D.C.*
- C1 Hawkins, Jason, **Ahmed, Usman,** Habib, Khandker M. Nurul; Roorda, Matthew. Measuring the Process of Urban Gentrification: A Composite Measurement of the

Gentrification Process in Toronto. *Presented at the 66th Annual North American Meetings of the Regional Science Association International NARSC – RSAI November 13-16, 2019, Pittsburgh, Pennsylvania.*

Peer-Review Conference Abstracts

- A21 **Ahmed, Usman**; Miller, Eric. Analysis of dependent-serving activity/travel behavior. *Presented at the Modeling Mobility Conference, Sept 14-17, 2025, Minneapolis, Minnesota.*
- A20 Assmussen, Katherine; **Ahmed, Usman**. How Online Shopping is Reshaping Activity Patterns and Travel Behavior? *Presented at the Modeling Mobility Conference, Sept 14-17, 2025, Minneapolis, Minnesota.*
- A19 **Ahmed, Usman**; Ghizzawi, Farah; Roorda, Matthew 2025. Microhubs in the City of Toronto for Last-mile Deliveries using Electric Cargo Tricycles. *Presented at the International Urban Freight Conference (I-NUF) April 9-11, Los Angeles, California.*
- A18 **Ahmed, Usman**; Roorda, Matthew 2025. An Urban Freight Model with Supply Chain Relationships and Intrafirm Interactions. *Presented at the International Urban Freight Conference(I-NUF) April 9-11, Los Angeles, California.*
- A17 **Ahmed, Usman**; Le, Tho; Roorda, Matthew 2025. A Commercial Travel Survey for the Greater Toronto Area. *Presented at the 13th International Conference on Transport Survey Methods, March 30th - April 4th, 2025, Da Nang, Vietnam.*
- A16 **Ahmed, Usman**; Hassani, Mohamed Saoudi; Tomeo, Francois; Miller, Eric 2024. School Location Choice Modelling for the Montreal Metropolitan Area. *Presented at the 59th Annual Conference of Canadian Transportation Research Forum, May 12 - 15, 2024, Kelowna, British Columbia.*
- A15 **Ahmed, Usman** 2024. Supplier Type Choice Model Considering Distribution Channels. *Presented at the TRB Freight Systems and Marine Young Members Council (YMC-FM) Freight and Marine “Work-in-Progress” Lightning Talks and Poster Session, January 7 - 11, 2024.*
- A14 **Ahmed, Usman**; Hawkins, Jason 2023. Validity of Cross-Validation Methods in Spatial Settings: Case Study of Housing Prices in Rawalpindi and Islamabad Metropolitan Area, Pakistan. *Presented at the 70th Annual North American Meetings of the Regional Science Association International NARSC – RSAI, November 15-18, 2023, San Diego, California.*
- A13 **Ahmed, Usman**; Mousavi, Kianoush; Zhang, Shang; Roorda, Matthew 2023. Social Justice Analysis of Off-Peak Deliveries: A Study of the Greater Toronto Area. *Presented at the 5th VREF Conference on Urban Freight 18-20 October 2023, Gothenburg, Sweden*
- A12 Rivera-Gonzalez, Carlos; **Ahmed, Usman**; Roorda, Matthew 2023. The Evolving Landscape of Urban Logistics: A Study of the Greater Toronto and Hamilton Area.

Accepted for presentation (but withdrawn) at the 5th VREF Conference on Urban Freight 18-20 October 2023, Gothenburg, Sweden

- A11 **Ahmed, Usman**; Xu, Junshi; Ghizzawi, Farah; Saeedi, Milad, Hatzopoulou, Marianne; Roorda, Matthew 2023. E-cargo Tricycle Pilot Study: A Comparison of E-cargo Tricycles and Trucks for Urban Freight Deliveries. *Presented at the NECTAR Cluster 3 (Logistics and Freight) Workshop, 20-22 September 2023, Madrid, Spain.*
- A10 Moreno, Ana; Noulib, Georgina; **Ahmed, Usman**; Schiffer, Maximilian; Moeckel, Rolf 2023. Understanding the Impact of Life Events on Travel Behavior Change via Machine Learning. *Presented at the 25th Euro Working Group on Transportation Meeting 6 - 8 September 2023, Santander, Spain.*
- A9 **Ahmed, Usman**; Le, Tho; Roorda, Matthew 2023. Commercial Travel Survey: Insights of Urban Goods Movement in the GTHA. *Presented at the 58th Annual Conference of Canadian Transportation Research Forum May 7 - 10, 2023, Toronto, Ontario.*
- A8 Farah Ghizzawi; **Ahmed, Usman**; Roorda, Matthew 2023. A Comparison of Parking Behaviours of Delivery Trucks and E-cargo Tricycles. *Presented at the 58th Annual Conference of Canadian Transportation Research Forum May 7 - 10, 2023, Toronto, Ontario.*
- A7 **Ahmed, Usman** 2023. An Electric Cargo Tricycle Pilot Study 2023. *Presented at the TRB Freight Systems and Marine Young Members Council (YMC-FM) Freight and Marine "Work-in-Progress" Lightning Talks and Poster Session January 8 - 12, 2023.*
- A6 **Ahmed, Usman**; Roorda, Matthew 2022. Establishment Location Choice Model Considering Firm Membership. *Presented at 57th Annual Conference of Canadian Transportation Research Forum June 12 - 15, 2022, Montreal, Quebec.*
- A5 **Ahmed, Usman**; Roorda, Matthew 2022. Freight Vehicle Type and Shipment Size Modelling using Discrete Choice Methods. *Presented at 57th Annual Conference of Canadian Transportation Research Forum, June 12 - 15, 2022, Montreal, Quebec*
- A4 **Ahmed, Usman**; Roorda, Matthew 2022. Modelling Freight Vehicle Type and Shipment Size Choice. *Presented at the 9th METRANS International Urban Freight Conference May 25-27, Long Beach, California.*
- A3 **Ahmed, Usman**; Roorda, Matthew 2022. Applying Machine Learning to Model Freight Vehicle Type Choice. *Presented at the 9th METRANS International Urban Freight Conference May 25-27, Long Beach, California.*
- A2 **Ahmed, Usman**; Roorda, Matthew 2021. Freight Vehicle Type Choice using Random Forest Classification. *Presented at the 56th Annual Conference of Canadian Transportation Research Forum, May 17-18, 2021 (Virtual Conference).*
- A1 Xu, Junshi; Tu, Ran; **Ahmed, Usman**; Amirjamshidi, Glareh; Hatzopoulou, Marianne; Roorda, Matthew 2021. How to Fairly Evaluate Eco-Driving? An Eco-Score System

Developed Using Vehicle Characteristics and Traffic Conditions. *Presented at the 56th Annual Conference of Canadian Transportation Research Forum, May 17-18, 2021.*

RESEARCH GRANTS

Year	Funding Organization	Title
2025	Center for Regional and Rural Connected Communities	Techniques for Assessing Community Technology Readiness for Rural Development: Planning for Community Readiness Using Digital Twins.
2025	Center for Freight Transportation for Efficient & Resilient Supply Chain (UTK)	Spatial Modeling to support Supply Chain Policymaking across Metropolitan Areas in Tennessee.
2023	Region of Peel, Natural Science and Engineering Research Council of Canada	Smart Freight Centre: Freight Data Warehouse - Shipper Based Commercial Travel Survey.
2022	Munich Data Science Institute	Explainable AI to understand the impact of life events on travel behavior change (XAITraB)

MENTORING AND SUPERVISING ACTIVITIES

Current Students

- Momina Liaqat Ali, PhD Student, Industrial and Systems Engineering, UTK
- Galen Flanagan, PhD Student, Data Science & Engineering, Bredesen Center, UTK
- Sharika Kabir, PhD Student, Civil Engineering, UTK
- Pranav Govindu, Undergraduate Researcher, Computer Science, UTK

Former Students

- Farah Ghizzawi, PhD candidate, Civil Engineering, University of Toronto
- Lisa Guseva, Undergraduate Researcher, Civil Engineering, University of Toronto

INVITED PRESENTATIONS

- **Ahmed, Usman.** Freight Surveys and Modeling - Lessons from Toronto. Invited Presentation to the Tennessee Model Users Group Meeting (TNMUG), Mt. Juliet, TN, May 13, 2025.
- **Ahmed, Usman.** Activity-Based Travel Demand Modeling in Toronto. Invited Presentation to CE558 - Transportation Planning Course, Department of Civil & Environmental Engineering, University of Tennessee Knoxville, April 23, 2025.
- **Ahmed, Usman.** Electric Cargo Pilot Study in Toronto. ITE Toronto Project of the Year Award, Feb 21, 2024, University of Toronto

- **Ahmed, Usman.** Transforming Last-Mile Delivery: Sustainable and Efficient Innovation. Invited panel discussion at the Fast Track Cities: Building Sustainable Supply Chains Event organized by CityAge, Feb 15, 2024.
- **Ahmed, Usman.** Greater Toronto and Hamilton Area - Commercial Travel Survey. Invited presentation to the research-in-progress meeting, Centre for Automated and Transformative Transportation Systems, University of Toronto, Jan 26, 2023.
- **Ahmed, Usman.** Establishment Location Choice Model Considering Intra-Firm Interactions. Invited presentation to the Integrated Land-use and Transportation Environment (ILUTE) Research Group at the University of Toronto, Nov 9, 2022.
- Xu, Junshi; Tu, Ran; **Ahmed, Usman**; Amirjamshidi, Glareh; Hatzopoulou, Marianne; Roorda, Matthew. An Eco-Score System Incorporating Driving Behavior, Vehicle Characteristics, and Traffic Conditions. Invited presentation to Mobility Chair Meeting, Ecole Polytechnique de Montreal, May 25-26, 2021.
- **Ahmed, Usman.** Urban Freight Transportation Model for GTHA, Invited Guest lecture to CIV1506: Freight Transportation and ITS Applications, March 22, 2021.
- **Ahmed, Usman.** Modelling Freight Vehicle Type using Machine Learning and Discrete Choice Methods, Invited Presentation to University of Toronto Student Chapter of ITE, March 12, 2021.

RESEARCH INTERESTS

- Agent-based modeling
- Supply chain and logistics
- Urban goods movement
- Travel behavior modeling
- Emerging transportation technologies
- Artificial intelligence, machine learning, big data

SKILLS

- **Methodological:** Discrete choice modeling, machine learning, optimization, spatial analysis, Bayesian statistics
- **Programming languages:** R, Python, MATLAB
- **GIS:** ArcGIS & QGIS
- **Transportation modeling:** EMME, VISUM, VISSIM
- **Transportation geometric design:** AutoCAD & Autodesk CIVIL 3D

SERVICE

Journal Referee Work: Transportation Research Record; Transportation Research Part A, B, C & E; Journal of Transport & Land Use; International Journal of Transportation Science &

Technology; Transportation Letters: The International Journal of Transportation Research; Journal of Transport Geography; Research in Transportation Business & Management.

Conference Referee Work: Transportation Research Board (Since 2021); Models & Technologies for Intelligent Transportation Systems Conference (2023); Annual Bridging Transportation Researchers Conference (2022 & 2023); Canadian Society for Civil Engineering (2024).

Graduate Applications Review: Review of scholarship applications for Bredesen Center for Interdisciplinary Research and Graduate Education at the University of Tennessee, Knoxville.

Conference & Event Leadership

- **Session Chair** of *Travel Behavior, Equity, and Sustainability I* session, 16th World Conference on Transport Research, July 17-21, 2023, Montreal, Canada.
- **Technical Tour Lead**, 58th Annual CTRF Conference May 7-10, 2023, Hyatt Regency, Toronto, ON
- **Session Moderator**, 9th International Urban Freight Conference May 25-27, 2022, Long Beach, California.
- **Moderator**, Research in Progress Meeting, 2022 CLUE, University of Toronto
- **Moderator**, UT-ITE Weekly Webinar Series, 2021-2022, University of Toronto

Professional Memberships

- **Member**, American Society of Civil Engineers (ASCE)
- **Member**, Standing Committee on Freight Data (AED13), Transportation Research Board. August 16th, 2025 - April 14th, 2028.
- **Member**, Standing Committee on Freight Transportation Data (AED70), Transportation Research Board. April 15th, 2024 - May 30th, 2025.
- **Member**, Standing Committee on Statewide/National Transportation Data & Information Management (AED10), Transportation Research Board. April 15th, 2024 - May 30th, 2025
- **Member**, Subcommittee on Data, Planning, and Analysis Group Young Members (AE000(1)), Transportation Research Board. May 21st, 2024 - May 30th, 2025
- **Member**, Canadian Transportation Research Forum (2021-2022, 2024-2025)
- **Member**, Network on European Communications and Transport Activities Research (NECTAR) (2023)
- **President**, Institute of Transportation Engineers Student Chapter, University of Toronto (2021-2022)
- **Committee Member**, University of Toronto Transportation Alumni Network
- **Registered Engineer**, Pakistan Engineering Council (2014-2015)

- **Finance Officer**, Community Services Club-Art for Charity Chapter, National University of Sciences & Technology (2014)

PROFESSIONAL DEVELOPMENT

Workshops & Training Certifications

- T3. Regional I-Corps Program. University of Tennessee, Knoxville, Spring 2026
- T2. Planning More Equitable Transportation Systems, Mobility Network Summer School, University of Toronto, July 18-19, 2022.
- T1. ITS System Architecture Issues, Technical University of Munich, January 25-29, 2016.