

# Sixth SMART FREIGHT SYMPOSIUM

**Dr. Khaled Hassanein** began his term as dean of the DeGroot School of Business at McMaster University July 1, 2021. He is a professor of information systems and the past associate dean of graduate studies and research for the School. Between 2017 and 2021, he served as the director of the McMaster Digital Transformation Research Centre, and McMaster's SSHRC Leader. His interdisciplinary research spans the areas of digital transformation, data analytics, e-Health, artificial intelligence, decision support systems, and neuro-information systems. His research is supported through funding from federal (SSHRC, NSERC, CFI), provincial (ORDCF, ORF-MRI) and private sector sources. He has published over 130 peer-reviewed articles in leading journals and conferences and has received thousands of citations. Dr. Hassanein is a joint holder of several U.S. patents, a senior member of the IEEE, and a designated Professional Engineer in Ontario. In 2020, he received the DeGroot School of Business Research Excellence Award and McMaster's President Award for Excellence in Graduate Supervision. Dr. Hassanein has an extensive teaching experience in the MBA, EMBA and Executive programs at DeGroot. He also has international experience having been a Distinguished Visiting Professor at the American University in Cairo, Egypt, and the School of Management at the Universidad de los Andes, Bogota, Colombia, and having taught at the EDHEC Business School in Lille, France. Prior to joining McMaster, Dr. Hassanein was a Senior Research Associate with NCR's Payments Solutions division in Waterloo, Ontario.

**Kara Wells** serves as the Manager of the Systems Analysis and Forecasting Office at the Ministry of Transportation of Ontario (MTO). In this role, Kara oversees the development and application of transportation models, data analytics, and forecasting tools to support provincial transportation planning and policy development. Kara is also an active member of the TRANS Committee, a collaborative group comprising various transportation agencies. This committee focuses on regional transportation planning and data sharing to enhance transportation systems across jurisdictions.

## S1: Freight decarbonization

(Moderator: Dr. Matthew Roorda)

**Dr. Matthew Roorda** is a Professor of Civil Engineering, has been faculty at the University of Toronto since 2005, and has worked in the transportation engineering profession since 1998. He is the Canada Research Chair in Freight Transportation and Logistics and is chair of the Scientific Advisory Committee of the Smart Freight Centre. Dr. Roorda's research interests include urban freight transportation, freight planning and operations, freight and passenger travel survey methods, city logistics, agent-based simulation, parking and curbside management, street and neighbourhood design, emissions analysis, activity-based travel demand modelling, and firm behaviour.

**Geoff Burgess** is the Manager of Medium- and Heavy-Duty Vehicles and Modelling, in the On-Road Decarbonization and Electrification Division at Transport Canada. He leads policy analysis to support strategic decision-making and environmental policy and program development aimed at decarbonizing transportation. With experience across three federal departments, Geoff specializes in climate change and energy policy, focusing on market-based measures, incentives and targets. Geoff holds a Master's in Economics from Queen's University and a B.A. in Economics from McMaster University

**Gordon Reed** is a Director of Industrial Engineering for UPS Canada. UPS is a global leader in logistics, offering a broad range of solutions including transporting packages and freight; facilitating international trade, and deploying advanced technology to more efficiently manage the world of business. Gordon's

career with UPS began in 1989 in Canada's main distribution facility in Vaughan, Ontario. Since then, he has held numerous roles, including Account Manager, Marketing Communications Manager, and Director of Customer Solutions. He assumed his current role in 2018. In his current role he is responsible for securing the assets to support current and future growth. Recently he lead the charge for entry into fleet electrification and expansion of the fleet in CNG/RNG to assist with lowering our Carbon Footprint. Gordon obtained a Diploma in Supply Chain Management from Conestoga College, A BA and MDIV from The University of Toronto and PHD in Theology and Religion from The University of Oxford. He has been married for 31 years and has three children.

**Cynthia Lucar Diaz** is a sustainability and public policy leader with nearly two decades of experience advising organizations on embedding sustainability into business strategy and navigating public policy impacts. As Acting Manager, Waste Planning at the Region of Peel, she oversees the execution of Peel's long-term waste management strategy to achieve diversion targets, mitigate climate change impacts and drive circular economy initiatives. She sits on numerous industry committees and working groups guiding advocacy efforts and standards development. She holds a degrees in Public Policy and Administration from Toronto Metropolitan University, an undergraduate degree in International Studies from York University, and a certificate in Community Investment from Mount Royal University.

**Naweed Malik** is the Operations Manager at Emterra Environmental in Peel Region, where his passion for elevating operational standards have served as an asset in overseeing the day-to-day functions of the company's pioneering electric collections vehicle. Prior to joining Emterra Environmental, Naweed served as a Route Manager at WM. His leadership experience also includes a tenure at Canadian Blood Services, where he was honored with the ONN Living Our Values Award of Distinction for Ontario in 2020 and was a finalist for the National Award that same year. Naweed's diverse background also encompasses roles at The Canadian Red Cross and teaching English overseas.

**Tareq Alsaleh** is a Doctoral Researcher in Transportation Engineering at the Centre for Urban Innovation, Laboratory of Innovations in Transportation (LiTrans), Toronto Metropolitan University (TMU). He currently serves as the President of the Institute of Transportation Engineers (ITE) TMU Chapter and as a Board Director with Ontario Rivers Alliance. Tareq's research focuses on sustainable mobility frameworks towards net-zero transport systems through technological innovation and behavioural change. Prior to his PhD studies, he worked in international development and humanitarian response in several countries for over ten years, holding senior leadership positions, directing programs, and managing annual funding portfolios of up to 50 million USD from major institutional and governmental donors.

**Lih Wei Yeow** is a PhD candidate at the University of Toronto's Department of Civil & Mineral Engineering. His research focuses on the economic and environmental implications of emerging decarbonization technologies for heavy-duty trucks from a life cycle systems perspective. While at the University of Toronto, Lih Wei was awarded the Climate Positive Energy Graduate Student Scholarship. Before embarking on his PhD program, Lih Wei received an MEng (Research) and BEng in Engineering Systems and Design from the Singapore University of Technology and Design.

**Ahmed Foda** is a post-doctoral fellow in the Operations Management Department at DeGroote School of Business, McMaster University, where he has been collaborating on projects with the Smart Freight Center (SFC) and McMaster Institute of Transportation and Logistics (MITL) under the guidance of Dr. Elkafi Hassini and Dr. Moataz Mohamed. His research emphasizes the optimal planning and configuration of electric mobility systems, including infrastructure for electric vehicle charging, battery electric buses in transit,

last-mile delivery with UAVs, and waste collection electrification. For his research in advancing sustainable transportation, Ahmed was awarded the Transport Canada Scholarship in Sustainable Transportation by the Canadian Transportation Research Forum (CTRF).

## S2: Pathways to net zero

(Moderator: Dr. Clarence Woudsma)

**Dr. Clarence Woudsma** is currently Interim Co-associate Vice-President Graduate Studies and Postdoctoral Affairs at the University of Waterloo, a faculty member in the School of Planning and a Registered Professional Planner. He has broad experience in transportation policy and urban planning issues and has previously published on a broad range of subjects including deregulation of transportation markets, freight focused climate change adaptation and GHG emissions and urban freight impacts. Recent research projects include curbside management, the gig economy and last mile delivery, e-scooters and new mobility, and logistics land uses and urban development. He has served on several advisory committees to government (rail, transit, urban goods movement), is a Past President of the Canadian Transportation Research Forum and teaches courses in transportation and freight planning and policy.

**Elizabeth Baker** is a Partner in Deloitte's Supply Chain & Network Operations practice and a leader in the Fleet Decarbonization offering. Liz has significant experience in large scale Supply Chain transformations focused on logistics, distribution, and planning processes and systems. She works closely with clients to help meet business objectives and performance improvement targets that are enabled by tailored programs based on the client's unique supply chain characteristics. She has led many projects, from initial assessment and strategy through to implementation that have delivered measurable operating cost, working capital, and customer service benefits. She has deep knowledge of the trucking and 3PL industry having served both logistics service providers and shippers in retail and manufacturing.

**Matt Judd** is responsible for Transportation strategy, operations, and carrier selection & compliance for Nestlé Canada. Matt has held various roles within the logistics function, ranging from LEAN Flow Optimization, Warehousing Operations, and Transportation leadership. He is a passionate sustainability advocate, leading Nestle Canada's logistics sustainability efforts, working with Nestlé global teams and key suppliers to drive emissions reductions. Matt is also an active contributor with Nestle's YOUTH Initiative and works with various academic institutions (McMaster University, Smart Freight Centre, etc.), pairing real world business operations with academic and industry leading innovation. Matt holds his CITT-Certified Logistics Professional (CCLP) designation, and H.B.Com. in Commerce with a minor in Transportation & Economic Geography from McMaster University.

**Ahmed Zayan** is the Global Head of Logistics Strategy for Radio Ligand Therapy at Novartis. Ahmed is a supply chain and procurement professional with strong expertise in strategy, logistics, and implementation. Ahmed's specialties include data analysis, supply chain analysis, forecasting, inventory and quality control, SAP, and statistical and sales analysis.

**Sahil Bhatt** is a PhD student in Mechanical and Industrial Engineering at Toronto Metropolitan University under the supervision of Dr. Aliaa Alnaggar. Sahil worked on optimizing crowdsourced delivery platforms with the aim to balance competing objectives such as driver fairness in matching and service level. Sahil's main research interests include operations research and mathematical optimization.

**Farah Ghizzawi** is a fifth-year PhD candidate. She joined Professor Matthew J. Roorda's team at the University of Toronto in September 2020. Her research focuses on modelling the parking choice of urban

freight vehicles and evaluating parking management policies. Other research endeavors include pedestrian modelling and simulation and the operation of autonomous delivery robots. Farah worked as a transport modeller for six years in a regional engineering consulting firm based in Beirut. Her experience includes transportation planning, management, and design. Farah has a bachelor's degree in civil engineering and a master's degree in engineering management from the American University of Beirut.

**Rayan Ben Daya** holds a BSc degree in Industrial Engineering from the American University of Sharjah and is currently pursuing a MSc degree in Computational Science and Engineering at McMaster University. His primary interests include Optimizing Supply Chains, Electric Vehicles, Net-Zero Emissions Strategies, and Data Analytics.

### S3: Sustainable freight technologies

(Moderator: Dr. Bilal Farooq)

**Dr. Bilal Farooq** is Canada Research Chair in Disruptive Transportation Technologies and Services. He is an Associate Professor in Transportation Engineering at Ryerson University and the Director of the Laboratory on Innovations in Transportation (LiTrans). Dr. Farooq received the Early Career Researcher Awards in Québec (2014) and Ontario (2018).

**Sabbir Saiyed** is currently a Senior Planner at City of Toronto in City Planning Division. Sabbir is responsible for leading city-wide planning projects in a matrix environment for the City of Toronto. Sabbir was most recently a Manager of Transportation System Planning at the Region of Peel, where he worked for 20 years. Sabbir has over 25 years of experience in progressively responsible management and senior positions in transportation planning and engineering. Apart from the City of Toronto and the Regional Municipality of Peel, Sabbir has enjoyed productive careers at the City of Markham, Regional Municipality of York, and the City of Ottawa. Sabbir has a Ph.D. from Royal Military College of Canada and Master's degree specializing in transportation planning from Carleton University. Sabbir has received 2020 Transportation Association of Canada (TAC) Leadership Award and 2019 Ontario Transportation Planning Professional Award. Sabbir is a Registered Professional Engineer in the Province of Ontario. Sabbir is also an Adjunct Professor and teaches at Toronto Metropolitan University, York University and University of Toronto and Ted Rogers School of Business.

**Eric Francoeur** is Vice-President & General Manager at Precision Home & Office Deliveries, A Division of ASL Distribution and part of the Fastfrate Group of Companies. Eric heads the parcel & package delivery network for Precision and was a co-creator of this division. Eric has oversees sales, operations, systems and finance that now includes 13 Facilities across three Provinces with 85 employees and 575 contracted delivery drivers. Eric holds a Bachelor of Science Degree, a Six Sigma Champion Certification and is a Scaling-Up trained professional. With 24 years of Logistics and Transportation experience, Eric has 19 years of managing fleets in the courier sector.

**Amir Sayegh** has almost 25 years of experience, and a self-professed 'reformed academic and serial dabbler'. Amir is the AVP of Data Advocacy, Privacy, and Product Analytics within the data and analytics team at Geotab, working with clients and partners to create value from their data using the power of Data Intelligence. Prior to Geotab, Amir was with TELUS and Deloitte where he held different consulting, strategy and product roles. Amir has a Ph.D. in Electrical and Computer Engineering from McMaster University.

**Alia Galal** is a PhD student at the University of Toronto (UofT). Her research is multi-disciplinary and combines urban freight transportation, human factors, driver training, and traffic safety. Her research focuses on assessing and improving drivers' hazard anticipation skills with the bigger aim of enhancing safety of interactions between trucks and vulnerable road users in urban areas. Alia is also a student member of the Canadian Association of Road Safety Professionals (CARSP), a previous president of the UofT Institute of Transportation Engineers (UT-ITE) Student Chapter, and a previous vice president of the UofT Graduate Society of Women Engineers.

**Chirag Seth** is currently pursuing Master of Applied Science in Management Science and Engineering from University Of Waterloo. He received his undergraduate degree from Indraprastha University, Delhi with a specialization in Computer Science. He has professional experience in software development and machine learning, having worked with companies like Samsung and BYJU's. His research interests include supply.

**Sayaka Kamei** is a Ph.D. candidate in the Mechanical/Industrial Engineering Department at Toronto Metropolitan University. Sayaka is supervised by Dr. Sharareh Taghipour at the Reliability, Risk, and Maintenance Research Laboratory. Her research focuses on machine learning and predictive analysis for remaining useful life using neural networks.

**Yunfei Ma** is a Ph.D. candidate at the School of Computational Science and Engineering, McMaster University, where his scholarly pursuits revolve around the computational facets of transportation and supply chain dynamics, with a particular emphasis on road freight bottlenecks identification, freight routing emissions concerns, and infrastructure impact analysis.

**Erin Dane** is an accomplished Supply Chain Associate at Nestlé, with experience in logistics, supply planning, and customer supply chain. Holding a Bachelor of Commerce degree in Supply Chain and Business Analytics from the University of Windsor, Erin is dedicated to continuous learning and professional growth. Within Nestlé 's Supply Chain team, Erin's expertise in process automation, supply chain optimization, and sustainability projects has significantly improved operational efficiency. Erin's commitment extends beyond her professional achievements. She actively contributes to Nestlé 's Operations internship program and plays a vital role in youth talent recruitment, demonstrating her dedication to nurturing the next generation of supply chain professionals.

**Serbo Dimic** is a transportation and parcel logistics professional with over 20 years of experience optimizing and innovating Purolator's courier and sortation processes. He currently serves as a Research Manager, overseeing applied research team and fostering relationships with universities and research communities. Serbo holds a Master's degree in Management Science from the University of Waterloo and is passionate about the application of new technologies. He is also a member of the Professional Engineers of Ontario.

**Dr. Kevin Gingerich** is an Associate Professor in the Department of Civil Engineering at York University with a focus on transportation studies, and the new Chair of the Smart Freight Centre. Kevin received his PhD in Civil Engineering from the University of Windsor in 2017 while conducting research on international Canada-US truck patterns for the Cross-Border Institute. Recent freight applications of his research include long-haul truck parking, roadway design for long-combination trucks, truck tolls, and pilot testing for cargo cycles.