

2019

SMART FREIGHT SYMPOSIUM

Monday, November 4th | 8:30 AM-4:00PM EST
Faculty Club, University of Toronto



SMART FREIGHT SYMPOSIUM

November 4, 2019

University of Toronto Faculty Club, 41 Willcocks Street

8:30 a.m. *Registration and light breakfast*

9:00 Welcome

Dr. Christopher Yip, Dean, Faculty of Applied Science and Engineering, University of Toronto

9:10 Session 1: Key Freight Transportation Challenges - Government Partners

Moderator: Mayor Allan Thompson, Mayor, Town of Caledon

- Sabbir Saiyed, Manager, Transportation System Planning, Region of Peel
- Barbara Gray, General Manager, Transportation Services, City of Toronto
- Michael Casey, Manager, Provincial Planning Office, Ontario Ministry of Transportation
- Louis-Paul Tardif, Director, Economic Analysis and Research, Transport Canada

Open discussion

10:10 *Coffee break*

10:30 Session 2: Innovation in Freight Transportation - Industry Leaders Panel

Moderator: Dr. Saiedeh Razavi, McMaster Institute for Transportation and Logistics

- Jim Estill, CEO, Shipperbee
- Sandra Rothbard, Associate Director, Mobility, Sidewalk Labs
- Khelil Khelil, Manager, Business Research & Development, Network Strategy Dept., Purolator Inc.

Open discussion

12:00 p.m. Lunch with Keynote Address

- Nando Iannicca, Regional Chair, Region of Peel

12:50 Session 3: Early Smart Freight Centre Initiatives

Moderator: Dr. Mehdi Nourinejad, University of Toronto

- "Introduction to the Smart Freight Centre," Dr. Matthew Roorda, Univ. of Toronto.
- "E-commerce Last Mile Delivery Logistics," Dr. Elkafi Hassini, McMaster University
- "Potential Benefits of Managed Lanes for Freight Transportation," Dr. Peter Park, York University
- "Off-Peak Delivery Pilot," Sabrina Khan, Region of Peel and Dr. Matthew Roorda, Univ. of Toronto

Open discussion

2:20 *Coffee Break*

2:40 Session 4: Sustainable Freight Transportation

Moderator: Erik Nevland, Region of Peel

- "Alternative Fuel Technologies and Operational Models for On-Road Freight," Maddy Ewing, Pembina Institute
- "Running on Less, Technologies and Driver Training that Improve Fuel Efficiency from Highway Truck to Last Mile Delivery," Colin Sutherland, Executive Vice-President, Geotab
- "Air Quality and Health Benefits of Greening Freight Movements," Dr. Marianne Hatzopoulou, University of Toronto

Open discussion

3:50 Closing Remarks

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PRESENTERS A-Z

Michael Casey



Michael Casey is the Manager of the Provincial Planning Office at the Ministry of Transportation. His office is responsible for the development of long-range long range transportation plans and strategies as well as transportation planning tools to support the implementation of provincial priorities. Mr. Casey has worked in the Ontario Public Service for the last 19 years in different capacities. He has a masters certificate in public management from the Schulich School of Business, and a Bachelor of Arts in Political Science from the University of Calgary.

Jim Estill



Jim Estill is CEO of both of Danby Appliances and ShipperBee a new venture that is revamping outdated shipping channels into a system that is better for consumers, retailers and the environment. Jim is a Canadian technology entrepreneur, executive, and philanthropist. He started his first computer distribution business from the trunk of his car while in university and grew that business to \$2 Billion in sales. Jim's philanthropic work most recently involved sponsoring and settling over 100 refugee families. In 2018 Jim Estill received the Order of Canada.

Maddy Ewing



Maddy Ewing is an analyst with the Transportation and Urban Solutions team at the Pembina Institute, Canada's leading clean energy think tank. In her role, she conducts research and engages with stakeholders to support the adoption of clean transportation in Canada. Prior to joining the Institute, Maddy completed a master's degree at the University of Toronto in the Department of Civil & Mineral Engineering. Her research focused on evaluating low-carbon alternatives to diesel fuel for long-haul trucking in Canada using multi-criteria decision-making tools and insights from stakeholder interviews. She also conducted research on the evaluation of biofuels for heavy-duty transportation using life cycle assessment. Maddy has presented her research at several international conferences across North America.

Barbara Gray



Barbara Gray's commitment to innovation drives her work as General Manager of Transportation Services in the City of Toronto. As Deputy Director of the Transportation Department in Seattle she led the development of the first city-wide Pedestrian Master Plan and Complete Streets policy and oversaw daily operations for policy, planning, and right of way management. She launched the plan to include a public realm activation program, a Project Coordination Office and a 24/7 Transportation Operations Center. Barbara joined the City of Toronto in late 2016 and has since successfully led the implementation of the King Street Transit Pilot, which was subsequently approved for permanency in March 2019, the City's renewed Vision Zero 2.0 Plan, the launch of Automated Speed Enforcement, and the transition of the School Crossing Guards Program. Her current projects include a comprehensive review of winter services, Toronto's involvement in the Complete Streets policy-initiative, the roll-out of the Ten Year Cycling Network Plan, and pivotal pilot projects including congestion management initiatives. She is committed to a focus on building equity into decision making, improving multimodal design and leveraging technology and data to drive better project outcomes.

Dr. Elkafi Hassini



Dr. Hassini is Professor of Operations Management at the DeGroote School of Business at McMaster University. He specializes in data-driven optimization with applications in supply chain management. His current research interests include big data optimization, supply chain analytics, supply chain risk management, sustainability performance measurement and strategic procurement. His research has been funded by several funding agencies including CFI, MRI ORF-RI, NSERC and SSHRC. His research has also been recognized through best paper awards and the faculty researcher of the year award. He teaches supply chain management, procurement operations management and applied optimization.

Dr. Marianne Hatzopoulou



Dr. Hatzopoulou is Associate Professor in the Department of Civil & Mineral Engineering at University of Toronto. She is also Canada Research Chair in Transportation and Air Quality, and leads the Transportation and Air Quality (TRAQ) research group. Her expertise is in modelling road transport emissions and urban air quality as well as evaluating population exposure to air pollution. Her research aims to capture the interactions between the daily activities and travel patterns of urban dwellers and the generation and dispersion of traffic emissions in urban environments. She has developed regional GHG emission inventories for Toronto, Montreal, and Philadelphia as well as evaluated the potential of travel demand and technology scenarios on emission reduction. She has been invited on a number of panels and colloquia to speak about strategies to reduce transportation-related GHG emissions. In addition, Dr. Hatzopoulou has an active research stream in air pollution exposure and health. She has spearheaded a number of large air pollution monitoring campaigns and investigated potential determinants of exposure including meteorological effects, road geometry, the types of built environments, and traffic composition. She has also designed and implemented panel studies aiming at linking exposure to traffic emissions with measurable physiological changes in study participants. She works closely with epidemiologists in the development of improved measures for air pollution exposure and has received funding from federal and provincial health agencies to conduct integrative research in transportation, air pollution, and public health.

Nando Iannicca



Nando Iannicca was appointed Chair and Chief Executive Officer of the Region of Peel in December 2018 by Regional Council. Prior to his position as Regional Chair, he was a Councillor for the City of Mississauga and the Region of Peel for 30 years. Chair Iannicca represents the Region in dealing with other levels of government, presides over meetings of Regional Council and ensures its decisions are implemented. He also serves as the Chair of the Peel Police Services Board. During his career, the Chair has served on numerous boards, such as the Police Commission Board, Enersource/Hydro Board and Credit Valley Conservation Board. Chair Iannicca has also volunteered with the Trillium Hospital Foundation, Red Cross, Symphony Board, Salvation Army Red Shield Appeal, and Mississauga Food Bank. He is a Queen Elizabeth II Diamond Jubilee recipient for 25 years of volunteer services.

Sabrina Khan



Sabrina Khan is a Principal Planner in the Region of Peel’s Transportation System Planning group. She joined the Region in 2009. Sabrina is leading the Off Peak Delivery Pilot project under the Smart Freight Centre initiative on behalf of the Region of Peel. Prior to working at the Region, Sabrina worked in the private sector for 2 years. She obtained her B.A.Sc. Degree in Civil Engineering from the University of Toronto.

Erik Nevland



Erik Nevland is a Transportation Planner in the Region of Peel’s Transportation Systems Planning group. He obtained his undergraduate degree in engineering at the University of Saskatchewan and is currently in the final stages of obtaining his Masters in Applied Science in Civil Engineering at York University as a part time student. Additionally, he is the founding President of the ITE York University Student Chapter and volunteers with various organizations both within and outside the transportation industry. Erik represents the Region of Peel as a project manager for the Smart Freight Centre.

Dr. Mehdi Nourinejad



Dr. Mehdi Nourinejad received his PhD from the University of Toronto and worked for two years as a post-doctoral fellow at the Rotman School of Management. Mehdi’s research focuses on optimal planning and control of transportation systems in smart cities with autonomous vehicles. He has published his research in several peer-reviewed journals and he is on the editorial board of “Transportation Research Part E: Logistics and Transportation Review.” His research on autonomous vehicles has received media coverage and is published in outlets including Forbes, University of Toronto Engineering news, Popular Science, Design Quarterly, Global News, Gizmag, Science Daily, and Tech Xplore.

Dr. Peter Park



Dr. Park is an Associate Professor in the Department of Civil Engineering at the Lassonde School of Engineering (LSE), York University. His expertise is in transportation safety and security (highways and railways), intelligent transportation systems, transportation planning and advanced statistical analysis. Before joining LSE, he was a member of the faculty of the Department of Civil and Geological Engineering at the University of Saskatchewan (2008 to 2015). In addition to his academic experience, he has ten years of experience in national and international consulting as a traffic safety analyst, transportation engineer and planner. His most recent consulting experience includes two years with iTRANS Consulting Inc. (now HDR Inc), Richmond Hill, Ontario. Over the last five years, Dr. Park has worked extensively with Saskatchewan Government Insurance on a number of traffic safety related projects. For example, at U of S, Dr. Park and his project team developed a Geographic Information System (GIS) based hotspot identification system for high collision locations in Regina and Saskatoon and at iTRANS Consulting he worked on a number of major safety countermeasure selection projects including the U.S. Federal Highway Administration's (FHWA) Countermeasure Selection Tool for "SafetyAnalyst" (www.safetyanalyst.org), the FHWA's "Issue Briefs: Tool Box of Countermeasures and their Potential Effectiveness for Intersection and Roadway Departure Crashes" and the FHWA's "Desktop Reference for Crash Reduction Factors." He also created an E-learning course on "Science of Crash Reduction Factors" for the US National Highway Institute (NHI). This web-based course is designed for professionals responsible for identifying, recommending, selecting and installing appropriate traffic safety countermeasures to help reduce the number of collisions. Dr. Park has authored or co-authored numerous papers published in top journals and various conference proceedings. He has also delivered more than 30 technical reports for various North American agencies. Most of these publications discussed and analyzed issues in transportation safety and security. Dr. Park serves as an Editorial Board Member for highly regarded transportation safety journals including "Accident Analysis and Prevention" and "Analytic Methods in Accident Research."

Dr. Saiedeh Razavi



Dr. Saiedeh Razavi is the Director of the McMaster Institute for Transportation and Logistics (MITL), Associate Professor at the Department of Civil Engineering, and the Chair in Heavy Construction at McMaster University. Dr. Razavi has a multidisciplinary background and considerable experience in collaborating and leading national and international multidisciplinary projects on smarter mobility, smart infrastructure, construction and logistics. She combines several years of industrial experience with academic teaching and research. Her formal education includes degrees in Computer Engineering (BSc), Artificial Intelligence (MSc) and Civil Engineering (PhD). Her research focuses on connected and automated vehicles; smart work zones; and computational models for improving safety, mobility, and efficiency of communities. She has received several awards including McMaster's Student Union Merit Award for Teaching, the Faculty of Engineering Team Excellent Award, and the Construction Industry Institute best poster award.

Dr. Matthew J. Roorda



Matthew J. Roorda is a Professor of Civil Engineering and has been faculty at the University of Toronto since 2005. Dr. Roorda obtained his PEng in 1999. He completed his BEng at McMaster University, and his MAsc and PhD degrees at the University of Toronto. Dr. Roorda is a Canada Research Chair in Freight Transportation and Logistics, and Chair of the Smart Freight Centre, established 2019. He is Chair of the TRB committee AT015 Freight Transportation Planning and Logistics.

Sandra Rothbard



Sandra Rothbard is a freight transportation planner and advocate currently leading the last-mile delivery planning efforts for Sidewalk Labs. Having spent the last decade working for governmental agencies on solid waste management, emergency logistics and goods movement policies and project implementation, she now supports organizations as an independent consultant. Sandra earned a Master's degree in Urban Planning, reinforcing her passion for urban sustainability, resilience and community involvement. She is a member of the American Institute of Certified Planners, serves as secretary of the Land Use Committee for Brooklyn Community Board 2 and is a founding board member of the Urban Assembly School for Global Commerce.

Dr. Sabbir Saiyed



Dr. Sabbir Saiyed is currently a Manager of Transportation System Planning at the Regional Municipality of Peel. Dr. Sabbir Saiyed is one of the founding members of the Smart Freight Centre (SFC) and key industry Liaison and sponsor of the SFC. Dr. Sabbir Saiyed has over 25 years of experience in progressively responsible positions in civil engineering, transportation and management. Apart from the Regional Municipality of Peel, Dr. Sabbir Saiyed has enjoyed productive careers at the City of Markham, Regional Municipality of York, Royal Military College of Canada, Kingston and the Regional Municipality of Ottawa-Carleton. Dr. Sabbir Saiyed has a PhD from Royal Military College of Canada, Kingston, Ontario and a Master's degree from Carleton University. He is also a Registered Professional Engineer in the Province of Ontario. Dr. Sabbir Saiyed is very involved with Transportation Association of Canada and Ontario Traffic Council. Dr. Saiyed serves on various National and Provincial Committees and is a great resource for the Smart Freight Centre.

Colin Sutherland



Colin Sutherland has been part of Geotab's leadership team since its inception in North America and directs the company's global sales growth. Today, with over one million connected vehicles and more than 40,000 customers, Geotab is one of the fastest growing providers of telematics technology globally. Prior to joining Geotab, Colin managed the Customer Support, Dealer Technical Support and Aftermarket Parts teams for Freightliner of Canada. Helping to implement the telematics strategy for two of the top five fleets in North America, Colin routinely participates in customer and partner consulting in the use of telematics for productivity, safety, fleet, compliance and data integration. Colin has also been a speaker at many telematics and related industry conferences worldwide, where his perspective and advice to his audiences focuses on sharing knowledge and best practices for companies who are developing a telematics strategy.

Louis-Paul Tardif



Louis-Paul Tardif has been involved in the transportation sector for more than 40 years. He worked with government organizations and private sector organizations. After spending many years developing his own consulting/technology firm he joined Transport Canada in 2007. Louis-Paul holds a Master's degree in Geography from York University and Bachelor's degree in Geography from Laval University.

Mayor Allan Thompson



Mayor Allan Thompson brings a unique brand of passion to municipal leadership and a strong commitment to citizen engagement, collaboration and service delivery innovation. His vision is a connected, sustainable and inclusive community where we are all *#CaledonProud*. He was first elected to public office in 2003 as a Caledon area Councillor and then elected as a Regional Councillor in 2006. On December 2, 2014 he was sworn in as the seventh Mayor of the Town of Caledon and is currently serving his second term. Mayor Thompson is the Regional representative on the Board of the Association of Municipalities of Ontario (AMO) and is the Chair of the Rural

Ontario Municipal Association (ROMA), advocating for and providing leadership to, 444 municipalities across Ontario. Mayor Thompson is a lifelong resident of Caledon, a proud husband, father and multi-generational farmer.

Professor Christopher Yip



Professor Christopher Yip began his term as Dean of the Faculty of Applied Science & Engineering on July 2, 2019, after serving two years as Associate Vice-President in the University's International Partnerships Office. He is a leading scholar in the field of single-molecule biophysics and a faculty member with the Department of Chemical Engineering & Applied Chemistry, the Department of Biochemistry and the Institute of Biomaterials and Biomedical Engineering. He is a Principal Investigator with the Donnelly Centre for Cellular & Biomolecular Research at the University of Toronto.