Transportation Association of Canada

2021

CONFERENCE & EXHIBITION

CALL FOR CONFERENCE SUBMISSIONS GUIDE

Contents

Introduction

The **Transportation Association of Canada (TAC)** is soliciting submissions for the **2021 TAC Conference & Exhibition** technical program.

Presentation sessions will generally include three 20-minute presentations organized into 90-minute blocks. Exceptions to this format will be described in the session listing. **Panel discussions** will also be organized as part of the technical program but are not included in this guide. Panelists do not apply but are invited to participate.

To participate in a presentation session:

✓ **Submit a 200- to 400-word abstract** to be reviewed by a TAC council or committee member. Abstracts are reviewed and graded based on general criteria including:

- relevance to session topic and industry concerns
- originality or innovative content
- clarity of thought and expression
- freedom from bias toward commercial interest

IF YOUR ABSTRACT IS ACCEPTED	IF YOUR SUBMISSION IS ACCEPTED
You will be required to **submit a presentation and/or paper** depending on the requirements of that technical session.	You are **expected to present at the Conference in Fall 2021.**

For more information on presentation and/or paper requirements, submitters are encouraged to review the Guidelines for Authors & Presenters.

Important Information

- **Submissions must be made using TAC's** conference submission portal**.** When the submission is complete, an email confirmation is sent.
- **Submissions must be substantially different** from any papers or presentations delivered through other organizations.
- **Submissions must not favour special interests or be of a commercial nature.**
- **Submissions will be reviewed for quality, format, and relevance** to the session theme, and general interest.
- **Authors not adhering to deadlines may be disqualified.**
- **Authors must confirm that their employer and/or related clients are aware and approve of the submission.**
- Authors are responsible for ensuring submission details & author/presenter information is current & up-to-date.

- **If the submission is accepted, authors are expected to present at the conference. There is a limit of two co-presenters per presentation.**
- **Presenters must register and pay to attend the Conference as a delegate.**
- **Papers will be published** on TAC's website 'Conference Papers' section, the TAC Library catalogue and the Transportation Research International Database (TRID).
- **Presentations will be recorded** and made available by TAC as it sees fit.
- Student papers whose principal author is a registered full-time student at a recognized post-secondary institution will be considered for a Student Paper Award.
- **Withdrawals must be requested in writing to Christina Ghazal, Meetings & Events Coordinator.**

Deadlines

STEP	DATE
DUE DATE: Abstracts	**February 4**
Abstract acceptance/rejection issued	March 15-19
DUE DATE: Presentations and/or papers*	**May 3**
Presentation and/or paper acceptance/rejection/request for revisions issued	June 21-25
DUE DATE: Revised presentations and/or papers (if required)	**July 26**
Last day to make changes	August 31
DUE DATE: Final presentations and papers	**September 2021**
2021 TAC Conference & Exhibition	Fall 2021

** Some sessions require papers which also must be submitted by May 3.*

Questions? Contact:

Christina Ghazal
Meetings & Events Coordinator | cghazal@tac-atc.ca | 613-736-1350 ext. 236

Session Tracks

The 2021 Conference technical program will be organized into tracks aligned with TAC's councils and committees.

Please review all the sessions, because many relate to two or more tracks.

AT	ACTIVE TRANSPORTATION	PV	PAVEMENTS
AM	ASSET MANAGEMENT	RS	ROAD SAFETY
CC	CLIMATE CHANGE	SM	SMALL MUNICIPALITIES
CV	CONNECTED & AUTOMATED VEHICLES	SO	SOILS & MATERIALS
CO	CONSTRUCTION	ST	STRUCTURES
EN	ENVIRONMENT	TE	TECHNOLOGY
GD	GEOMETRIC DESIGN	TO	TRAFFIC OPERATIONS
MO	MAINTENANCE & OPERATIONS	TF	TRANSPORTATION FINANCE
MM	MOBILITY MANAGEMENT	TP	TRANSPORTATION PLANNING

ACTIVE TRANSPORTATION (AT)

AT

ORGANIZED BY THE ACTIVE TRANSPORTATION INTEGRATED COMMITTEE

Active Transportation during COVID-19: Was It Just a Blip?

Presentation Session (Papers Optional)

AT

The COVID-19 pandemic has impacted virtually all aspects of daily life, from front-line emergency services and transit to housing and municipal finance, among many others. In particular, mobility patterns around the world shifted dramatically at the onset of the pandemic, with motor vehicle and transit use experiencing sudden and significant declines in cities around the world, along with an increased demand for active transportation. This presented an immediate challenge for mobility and the need to provide safe spaces in the public realm while ensuring physical and mental health, safety, well-being, and resiliency of our communities and citizens. This session will explore changes in mobility patterns during the pandemic along with the implications beyond the pandemic and over the long-term.

Cycling Solutions: Overcoming Challenges and Barriers through Design

Presentation Session (Papers Optional)

AT

GD

Cycling infrastructure has greatly evolved over the past decade with new design treatments such as protected intersections, bus stop integration, and separated cycling facilities. Design practices by jurisdictions seek to overcome new challenges and barriers in designing safe cycling infrastructure and treatments are implemented in advance of formal design guidance. Submissions could address:

- Designs for elements that are beyond the available guidance
- Innovative designs to address and improve operations and safety
- Solutions to overcome challenges and barriers to implementing cycling infrastructure
- Designing for interactions between different modes including cyclists, pedestrians, motor vehicles, and transit

Equity Considerations in Planning for Active Transportation

Presentation Session (Papers Optional)

AT

TP

Active transportation is more accessible when only considering car ownership costs and transit fares, but poor infrastructure and networks are barriers for many. Projects that remove barriers are prioritized often by cost and coordination, public input, mobility, safety, and health outcomes. Equity provides another lens to interpret community impact. Low-income neighbourhoods with large, racialized or immigrant populations are often in car- or transit-dependent areas, with more adverse safety and health outcomes. On the other hand, more walkable and bikeable streets can bring fears for gentrification. This session looks at equity considerations for active transportation. Examples encouraged are:

- Inclusive consultation, targeting makeup close to local community
- Using alternative criteria and/or disaggregated data (socio-economic and demographic) to compare access to active transportation, or adverse impacts to people who walk or bike

Winter Maintenance for Pedestrians and Cyclists
Presentation Session (Papers Optional)

AT
MO

Winter maintenance has a significant role in the ability of active transportation users to access safe and reliable infrastructure during winter months. This session is seeking submissions on current or new winter maintenance initiatives driven by infrastructure, operational or public needs.

ASSET MANAGEMENT (AM)

AM

ORGANIZED BY THE ASSET MANAGEMENT COMMITTEE

Asset Management and Climate Change
Presentation Session (Papers Optional)

AM
CC

The session objective is to further the conversation and share knowledge on the incorporation of climate change considerations in asset management. Submissions may include adaptation to climate change and/or efforts to mitigate climate change through emissions reduction. The focus should be on network-level asset management planning.

Considerations of Levels of Service and Risk in Asset Management
Presentation Session (Papers Optional)

AM

With maintenance budgets usually the first to be cut, this session will explore the importance of defining levels of service by way of maintenance standards and associated performance measures to ensure maximizing asset lifecycle value. There will also be emphasis on roadway inspections and the gaps between achieving defined standards and the risks taken with non-compliance (e.g., roadside barriers, roadway classification around schools, hospitals, etc.).

Innovations and Advancements in Asset Management
Presentation Session (Papers Optional)

AM

The session objective is to highlight new and exciting improvements to asset management and serves as a catch-all for submissions focusing on innovations or new technologies in the asset management field that do not align with the other asset management sessions.

New Data Sources in Asset Management and Future Mobility
Presentation Session (Papers Optional)

AM
TE

This session will highlight new sources of data in asset management, particularly through emerging technologies in transportation. These sources may range from technologies deployed by public agencies (new data collection technologies) as well as private sources of data collection (public vehicle fleets, increasing levels of vehicle automation and sensor use).

CLIMATE CHANGE (CC)

CC

ORGANIZED BY THE CLIMATE CHANGE INTEGRATED COMMITTEE

Climate Change Actions: Lightning Presentation Session

Lightning Presentation Session (No Papers)

CC

Climate change is a key challenge for our planet and communities across Canada. Integrating climate change considerations in transportation planning and engineering is a priority for ensuring safe, livable and sustainable environment for current and future generations. This session welcomes short presentation that should rely predominantly on photos and visual elements to share the success and lessons learned from projects related to climate change responses. **Each presentation should be no more than 6 minutes, illustrating how the project(s) addresses climate change issues, telling compelling stories, and most importantly sharing lessons learned.**

Climate Action Coast to Coast to Coast

Presentation Session (Papers Optional)

CC

The continued disruptive impacts of climate change on the transportation system require mitigation and adaptation actions in designing, maintaining and operating transportation assets. Climate change actions plans are emerging in communities across Canada. The pace of change is quickening as more jurisdictions are turning to renewable energy and a range of other measures including emission reduction and adaptation initiatives. This session invites presentations from municipalities, provincial and federal government agencies, non-profit and advocacy groups, and researchers highlighting actions undertaken in responding to climate change.

Meeting Climate Change Challenges After COVID-19

Presentation Session (Papers Optional)

CC

Recovery from COVID-19 will present new challenges related to observed shifts in where people work and how they travel. Climate change needs to be reconsidered in transportation planning and engineering, in light of the pandemic and ongoing progress in green technologies. This session will address lessons learned for climate change strategies arising from COVID-19's impacts on transportation and the responses to them. Presentations will describe projects and their climate change implications, tell compelling stories, and share lessons learned and best practices for all modes of transportation.

CONNECTED & AUTOMATED VEHICLES (CV)

CV

ORGANIZED BY THE CONNECTED & AUTOMATED VEHICLES TASK FORCE

CAV Applications for Maintenance and Freight

Presentation Session (Papers Optional)

CV

TE

This session will explore the use of CAV technologies for purposes other than moving people, including freight transport (e.g. truck platooning, last-mile deliveries, sidewalk robots) and right-of-way maintenance (e.g. snow clearance). Submissions may address issues including but not limited to:

- Research and testing
- Policy and regulation
- Cybersecurity
- Safety
- Partnerships
- Implementation

Connected Vehicle Technologies

Presentation Session (Papers Optional)

CV

TE

This session will explore vehicle-to-infrastructure applications and communication technologies for connected vehicles, including their use for transit priority, emergency vehicles, and commercial vehicles. Submissions may address issues including but not limited to:

- Research and testing
- Policy and regulation
- Cybersecurity
- Safety
- Partnerships
- Implementation

High-Definition Maps & Data Needs for CAVs: Issues & Opportunities for Infrastructure Owner-Operators

Presentation Session (Papers Optional)

CV

This session will discuss the role that data and HD maps play in the operation of CAV operations and identify issues and opportunities for infrastructure owner-operators. Submissions could address topics including but not limited to:

- Data requirements and collection methods
- Public agency involvement and responsibilities
- Data ownership, privacy and regulations
- New or enhanced public sector capabilities that leverage HD map data

CONSTRUCTION (CO)

CO

ORGANIZED BY THE PUBLIC UTILITIES MANAGEMENT SUBCOMMITTEE

Innovations in Utility Risk Management

Presentation Session (Papers Optional)

CO

The presentations in this session will focus on innovations in utility risk management.

ENVIRONMENT (EN)

EN

ORGANIZED BY THE ENVIRONMENT & CLIMATE CHANGE COUNCIL

Erosion and Sediment Control for Transportation Construction Projects

Presentation Session (Papers Optional)

EN

CO

As knowledge of erosion and sediment control (ESC) practice continues to mature, experience gained through project successes and failures is occurring across Canada. This session will provide participants with practical ESC-related suggestions throughout all aspects of the project life cycle from training, design, procurement, installation, maintenance, monitoring, critical-event planning & response, through to project completion and decommissioning. Better performance is needed in this important aspect of construction, and participants will learn how to improve project performance through the sharing of lessons learned with ESC.

GEOMETRIC DESIGN (GD)

GD

ORGANIZED BY THE GEOMETRIC DESIGN COMMITTEE

All Highways Big and Small: Interchanges, Major Facilities, and Two-Lane Highways

Presentation Session (Papers Optional)

GD

This session will focus on the impacts of transforming interchanges, major facilities, and two-lane highways in new and innovative ways. The objective of this session is to highlight changes in geometric design that reflect the variety of rural and higher order highway networks.

Designing for Climate Change, Micromobility, Complete Streets and Accessibility

Presentation Session (Papers Optional)

GD

MM

This session will focus on how transportation designs have been adapting to changes in climate, the new micromobility environment, complete streets and the latest standards in accessibility. It will illustrate how these emerging issues have been incorporated into both greenfield and retrofit situations or corridors.

Supporting Vision Zero through Geometric Design
Presentation Session (Papers Optional)

GD RS

Geometric modifications to the design of the road are effective ways of moving towards the intended target speed for the context and improving road user behaviour. This session will focus on design modifications that support Vision Zero objectives.

What's New in Roundabout Design? Where We Started and Where We Are Now
Presentation Session (Papers Optional)

GD

The modern roundabout began to emerge in Canada in the 1990s, and roundabout design has evolved over the past three decades. This session will demonstrate how mini-roundabouts, single-lane and multilane roundabouts have changed, by examining projects that incorporate this evolution into new or existing roundabouts.

MAINTENANCE & OPERATIONS (MO)

MO

ORGANIZED BY THE MAINTENANCE & OPERATIONS COMMITTEE

Innovations in Summer Maintenance
Presentation Session (Papers Optional)

MO

This session will feature innovative or new concepts, methodologies, tools or equipment that are being rolled out in the delivery of summer maintenance activities such as pothole repairs, sweeping, bridge/culvert repairs, line markings for road users and pedestrians, or the maintenance of active transportation networks (sidewalks, cycling and multi-use paths). This can also include approaches in sharing information with the public, doing data collection for maintenance activities, educating/developing/recruiting/retaining employees or improving public and employee safety.

Innovations in Winter Maintenance
Presentation Session (Papers Optional)

MO

The intent of this session is to present innovative or new concepts, methodologies, tools or equipment that are being rolled out in the delivery of winter maintenance services and in trying to optimize the use of abrasives and chemicals. It can include maintenance of active transportation networks (sidewalks, cycling and multi-use paths) as well as approaches in sharing information with the public, educating/developing/recruiting/retaining employees or improving public and employee safety.

Severe Weather Impacts on Road Infrastructure
Presentation Session (Papers Optional)

MO

The intent of this session is to share experiences around severe weather impacts to transportation infrastructure. It can include sharing of a site-specific event that has taken place and could be of interest to participants or approaches and lessons learned in responding to such events and leveraging financial assistance programs. This can also include approaches in sharing information with the public, doing data collection repair activities or improving public and employee safety.

MOBILITY MANAGEMENT (MM)

MM

ORGANIZED BY THE MOBILITY MANAGEMENT COMMITTEE

Applications of Data in Mobility Management

Presentation Session (Papers Optional)

MM

AT

Advanced data collection and analysis are increasingly being used in emerging and unique ways to optimize existing transportation resources and improve the efficiency of service delivery. This session will feature novel applications of data collection and analysis in areas such as parking, transit, active transportation, micromobility or fleet vehicles. Demonstrated evidence of improved services or efficiency is preferred, but descriptions of new technologies with strictly theoretical or modelled improvements will be considered.

Competing for Curbside Space: Curbside Management

Presentation Session (Papers Optional)

MM

Curbside space is valuable real estate within the roadway with many competing uses that may include vehicle travel, on-street parking, on-street loading and deliveries, cycling infrastructure, transit and rideshare services, and parklets. These uses are managed using a variety of tools. This session is seeking presentations on:

- Pricing curbside space
- On-street parking management
- Managing multiple uses, users and demands
- Evaluation and performance
- Other curbside management topics

Emerging Issues in Urban Transportation: Examining the Public Interest in Shared Mobility

Presentation Session (Papers Optional)

MM

As shared mobility options disrupt and attempt to revolutionize urban transportation, public agencies are tasked with meeting their goals in the provision of a sustainable transportation system. This has been further impacted by the COVID-19 pandemic that has caused significant changes in mobility needs and strained already limited budgets. Presentations in this session will explore the role of shared mobility in rebuilding transportation systems to meet public agency goals. Broad themes will include how shared mobility can be integrated into future transportation systems, how shared mobility can support transit, and what overall risks and opportunities exist. Examples of shared mobility include on-demand ridesourcing (e.g. Uber, Lyft), shared mobility (e.g. carsharing, bikesharing), free-floating fleets (e.g. Car2Go, dockless bike/scooter-share), and peer-to-peer models (e.g. ridesharing).

Implementing Multimodal Service Pricing
Presentation Session (Papers Optional)

MM
TF

Determining pricing for multimodal services is becoming more complex as new and unique mobility services and platforms arrive. Competitive pricing for these services is critical to attracting more users to more sustainable modes, but it also needs to balance being able to pay for the service itself.

This session is focused on trends in mobility pricing, especially with respect to emerging services, both in the public and private sectors. Topics of interest include integrating different platforms and services when setting pricing, the equity impacts of different levels of mobility pricing, and the roles of government, transit systems and business in offering and pricing services and how this might change in the future.

Last-Mile Goods Movement in Canadian Communities: Trends and Best Practices
Presentation Session (Papers Optional)

MM
TP

Last-mile goods movement appears to be changing with increases in online shopping, food delivery, and new types of vehicles. COVID-19 has recently further changed how goods travel within our communities. This session will explore trends in last-mile goods movement and the ways that governments and businesses are accommodating change. These practices could relate to communities of all sizes, pilot projects, new policies or anything else that enables efficient goods movement in the context of a sustainable multimodal transportation system.

Quantifying the Impacts of Transportation Demand Management (TDM) at the Micro or Near-Micro Level
Presentation Session (Papers Optional)

MM

While many TDM strategies are applied at a regional or community scale, other corridor (near-micro) or site-specific (micro) applications create opportunities for trip makers to reduce, re-route, re-mode or re-time their trips. Site-specific applications are most commonly related to large employment centres and schools. TDM options for corridors may eliminate, or at least delay, the need to increase vehicle capacity along major roadway corridors. This session will feature case studies for site-specific and corridor TDM plans or actions that ideally provide metrics and quantify the return on investment.

PAVEMENTS (PV)

PV

ORGANIZED BY THE PAVEMENTS COMMITTEE

Innovations in Pavement Management, Engineering and Technologies
Presentation Session (Papers Required)

PV

Submissions could address:

- Innovative designs, tools, techniques or technologies applied to pavement management or pavement engineering
- Case studies presenting projects involving unique challenges in pavement management or engineering
- Pavement management/maintenance, design, methods of best practices of permeable interlocking concrete pavement (PICP) or standard interlocking concrete pavement (ICP)

ROAD SAFETY (RS)

RS

ORGANIZED BY THE ROAD SAFETY COMMITTEE

Emerging Trends in Road Safety

Presentation Session (Papers Optional)

RS Submissions could include a wide range of projects and emerging trends in road safety.

Implications of COVID-19 on Road Safety

Presentation Session (Papers Optional)

RS Submissions could include impacts of COVID-19 on road safety, as assessed through changes to road safety systems, road safety data, and other responses to the pandemic.

Leveraging New Data Sources and Approaches for Road Safety

Presentation Session (Papers Optional)

RS This session will highlight new data sources and approaches to road safety, including the use of video analytics, surrogate safety analysis, LiDAR, etc. Emphasis will be placed on how these sources may be integrated to a road safety management system and leveraged for greatest road safety impact.

Lowering Vehicle Speeds to Improve Road Safety

Presentation Session (Papers Optional)

RS This session will include case studies and discussions of recent and significant efforts to reducing vehicle speeds at the roadway class or network level. Significant discussion will take place on major efforts towards reducing the default posted speed limit and lessons learned from those efforts.

Road Safety Impacts of Intelligent Transportation Systems (ITS) and Connected and Automated Vehicles (CAVs)

Presentation Session (Papers Optional)

RS Submissions could include road safety impacts of the advancement and proliferation of emerging transportation technologies, particularly ITS and CAVs.

CV

Safety of Vulnerable Road Users

Presentation Session (Papers Optional)

RS This session will include presentations on any aspect of road safety as it pertains to vulnerable road users.

AT

Strategic Road Safety Plans and Policies
Presentation Session (Papers Optional)

RS

This session will highlight significant advancements in the area of strategic road safety plans and policies at Canadian and international jurisdictions. Presentations may describe specific approaches such as Vision Zero and/or the Safe System approach. Presentations may focus on any of the various stages of plan or policy development, as well as implementation. Emphasis should be placed on evidence-based decision making and substantive safety.

Vision Zero and Safe System in the Canadian Context
Presentation Session (Papers Optional)
Organized by the Vision Zero and Safe System Subcommittee

RS

The session objectives are to share information on lessons learned in the implementation of Vision Zero and the Safe System approach in Canada. Submissions should include successes and challenges, how these were achieved within the regulatory context, and how they were measured. This session will align with the current project of the Vision Zero and Safe System Subcommittee on the Synthesis of Current Canadian Practice in Vision Zero and the Safe System Approach.

SMALL MUNICIPALITIES (SM)

SM

ORGANIZED BY THE SMALL MUNICIPALITIES INTEGRATED COMMITTEE

Vision Zero in Small Municipalities
Presentation Session (Papers Optional)

SM

RS

What does Vision Zero look like in small municipalities? Presenters will share their experiences and address topics such as developing, implementing and monitoring a plan.

SOILS & MATERIALS (SO)

SO

ORGANIZED BY THE SOILS & MATERIALS COMMITTEE

Green Technology in Roadway/Embankment Materials and Geotechnical Engineering
Presentation Session (Papers Required)

SO

Submissions should focus on green technology in roadway/embankment materials and geotechnical engineering. Submissions could include:

- Recycling and incorporating recycled materials
- Alternative materials for road construction
- Quantifying greenhouse gas emissions for roadway/embankment materials
- Energy and CO_2 emissions reductions through innovative use/design of materials
- Durable construction materials that increase design life
- Field performance of products/methods using recycled materials vs traditional materials

Innovation in Roadway/Embankment Materials and Geotechnical Engineering

Presentation Session (Papers Required)

SO

Submissions should focus on innovation in roadway/embankment materials and geotechnical engineering. Submissions could include:

- Advancements in design and construction of road and bridge embankments
- Incorporating climate change considerations for geotechnical and pavement materials engineering
- Application of trenchless technology in constructing new infrastructure under existing roadways
- Remote sensing and drone use for geotechnical engineering

Testing and Modeling of Roadway/Embankment Materials and Geotechnical Engineering

Presentation Session (Papers Required)

SO

Submissions should focus on testing and modeling of roadway/embankment materials and geotechnical engineering. Submissions could include:

- Innovative testing and modeling of embankment and road materials, including unbound and bound soil, geosynthetics, and bituminous and Portland cement-based materials
- Development of estimation models for mechanical properties of pavement materials
- Assessment and use of frost and moisture susceptibility
- Seasonal variation mechanical properties of soil and pavement materials
- Case studies summarizing road and/or embankment construction projects with challenges and respective solutions applied
- Lessons learned from difficulties encountered in road and/or embankment construction
- Long term performance evaluations of road and/or embankments and lessons learned

STRUCTURES (ST)

ST

ORGANIZED BY THE STRUCTURES COMMITTEE

Transportation Structures

Presentation Session (Papers Optional)

ST

The objective of this session is to hear from designers, owners or contractors on their experiences with bridge rehabilitation including innovative rehab concepts, successes and failures, and anticipated or demonstrated 'bang for the buck' vs. replacement.

TECHNOLOGY (TE)

TE

ORGANIZED BY THE TECHNOLOGY COUNCIL

Big Data in Transportation

Presentation Session (Papers Optional)

TE

Submissions could address:

- Types and sources of big data
- Challenges and opportunities for big data collection and analytics
- Smart city applications and achievements

Digital Twinning and BIM for Road Infrastructure: Connecting the Digital World to the Real World

Presentation Session (Papers Optional)

TE

AM

TO

TP

BIM (Building Information Modeling) is changing how we design and build our infrastructure. It will also revolutionize how we interact with our transportation system as technology enables comprehensive digital twins that use real-world data to simulate and predict how a physical process will perform. Digital twinning incorporates big data, artificial intelligence, analytics and the Internet of things to help practitioners understand, analyze, manipulate and optimize the transportation system. Topics could include:

- Using BIM to enhance designs
- Implications of using digital models as the sealed deliverable
- Asset management, operations management and simulation using digital twins

Intelligent Transportation Systems (ITS) - Solving Problems with Technology

Presentation Session (Papers Optional)

TE

ITS represent integrated systems and technology across a wide variety of transportation applications. The objective of this session will be to hear from practitioners about how they have applied technologies to address known and identified transportation issues, such as safety concerns, congestion, or operational efficiencies.

Submissions could address:

- How the problem was identified
- How potential solutions were assessed and compared
- Lessons learned during design and deployment
- Assessment of the success of the application to address needs

TRAFFIC OPERATIONS (TO)

TO

ORGANIZED BY THE TRAFFIC OPERATIONS & MANAGEMENT COMMITTEE

#InnovativeTrafficControl

Presentation Session (Papers Optional)

TO

This session will focus on innovation in traffic operations and management across the country. The intent is to highlight practical examples that demonstrate new ways to solve traffic engineering challenges across the country.

Traffic Management for Public Life Recovery during COVID-19

Presentation Session (Papers Optional)

TO

This session will focus on traffic operations and management tools and techniques used for COVID-19 response and/or public life and business recovery. The intent is to highlight practical examples and lessons learned that demonstrate ways to solve traffic engineering challenges across the country during the pandemic.

TRANSPORTATION FINANCE (TF)

TF

ORGANIZED BY THE TRANSPORTATION FINANCE COMMITTEE

Follow the Money! Tools, Trends and Case Studies for Transportation Finance and Governance

Presentation Session (Papers Optional)

TF

The consideration of transportation financing, funding, and related governance issues at local and regional levels can support the development of innovative models, tools and techniques for the sustainable financing and funding of transportation infrastructure and operations. This session will explore best practices, tools, trends, and case studies related to:

- Mobility pricing (e.g. best practices for implementation, gaining public support)
- Transportation governance in metropolitan areas (e.g. integration of transportation services across jurisdictions/modes for passengers/freight; governance of mobility-as-a-service)
- Transportation infrastructure financing (e.g. P3 best practices and trends; mechanisms for sustained funding)
- Infrastructure program funding structures and requirements (e.g. transportation investment planning, transportation system funding, sustainability of funding sources post-COVID, future gas tax revenue)

TRANSPORTATION PLANNING (TP)

TP

ORGANIZED BY THE TRANSPORTATION PLANNING COMMITTEE

Applications of Data in Transportation Planning

Presentation Session (Papers Optional)

TP

While measurement has always been an important component of transportation planning, new approaches in data collection and analysis have revolutionized our understanding of the field. This session requests submissions demonstrating how previously unavailable data sources, or novel analyses of existing datasets, have been applied to improve understanding, guide decision making, and/or engage the public and stakeholders in transportation planning. While a broad range of both raw and processed data and techniques, such as transportation indicators, surveys, collection technologies, etc. are sought, preference will be given to submissions demonstrating applications to real projects and their benefits.

Goods Movement

Presentation Session (Papers Optional)

TP

Submissions could address:

- Examples of best practices to move goods safer, faster and better
- Optimizing use of existing transportation infrastructure, and making targeted investments and regulations for improved safety
- Developing safe, innovative solutions by improving current data collection practices, policies and regulations
- Achieving success and innovation through public-private partnerships
- Effectively integrating land use planning and community-building initiatives
- Safe and efficient supply chain and logistics practices to meet the needs of public and private partners in the context of the Canadian and global economies
- The role of goods movement in a pandemic

Health and Transportation

Presentation Session (Papers Optional)

TP

AT

Collaboration by transportation and public health practitioners is an opportunity to build health considerations into transportation policies, planning, investment and design decisions. With the pandemic, health considerations are even more important. Example of topics could include:

- Equitable and healthy transportation policies and practices
- Promoting health impact assessments of transportation activities
- Transportation and climate change
- Understanding the impact of weather on mobility choice – implications for health
- The health, safety, environmental and financial effects of shifts in travel behaviour due to the COVID-19 pandemic

Transportation Systems Modelling

Presentation Session (Papers Optional)

TP

Submissions should reflect the current state of practice for transportation systems modelling in Canada. Focus should be placed on describing the principles followed, methods used, and lessons learned from implemented models. Example of topics could include:

- Best practices for big data analysis and automation in modelling
- Land use and transportation interaction models
- Accessibility modelling and other GIS applications
- Creation or retrofit of existing models towards implementation of activity-based models or agent-based/integrated urban system models
- Microsimulation modelling of transit, cycling and/or walking
- Challenges and opportunities for models in smaller communities
- Best practices in model calibration and/or validation
- Microscopic or macroscopic modelling of goods movement
- GHG emissions modelling
- Challenges and opportunities of multi-resolution models
- Interpreting and communicating modelling results for stakeholders and the public