Transportation Access

The venue is near the intersection of St. George and College Streets in Downtown Toronto. It is accessible by the subway (Queen's Park Station) and the 506 Carlton streetcar line. Paid parking is also available around the venue location.

Accommodation

Suggestions for accommodation are:

- Holiday Inn Toronto Downtown Centre
  30 Carlton Street, Toronto, ON M5B 2E9
  (877) 660-8550 (416) 977-6655
- Chelsea Hotel – 33 Gerrard Street West
  Toronto, Ontario, Canada M5G 1Z4
  1-800-243-5732, 1-416-595-1975

Accommodation booking should be made directly by the participants. Ask for the UofT rate.

Who Should Attend?

The two short courses are designed for practising public transit professionals or those involved in the transportation and planning industry who have an interest in public transit planning and ITS. If you are new to the field and wish to have some formal exposure to the fundamentals, or if you have been practising for some time and wish to undertake a refresher and be exposed to recent state-of-the-art developments, then these short courses could form part of your professional development program.

It is expected that those involved in planning, designing and operating transit services at various levels of government will find value in the two courses. Consultants involved in traffic and public transit planning and ITS will also find the courses useful and relevant. Members of the general public with an interest in public transit are also invited to attend.

Course Organization

The two short courses are organized by the University of Toronto Transportation Research Institute. UTTRI brings together experts from engineering, economics, policy, urban geography and planning and computer science. The institute and its members are internationally renowned for high quality research in transportation from the perspectives of engineering, science and humanities.

Registration and Payment Information

Interested participants can register and pay in two ways.
Online at https://uoft.me/4Hq.
By mail: Complete a Registration Form and mail it with a cheque made out to the UNIVERSITY OF TORONTO to:

Pat Doherty, UTTRI
Department of Civil Engineering, U of T
35 St. George St.
Toronto, ON M5S 1A4

Registration Fees & Acknowledgment

The registration fees (inclusive of 13% HST) are $1,605 for the PT Planning and ITS course; $805 for the PT Modelling course; and $2,180 for both courses. All amounts are in Canadian dollars. Registration covers attendance, course notes, lunches, coffee breaks and course completion certificate. Accommodation costs are not included in the registration fee. Upon receipt of your completed registration form and payment, your registration will be acknowledged by email.

Early Bird Registration 15% Off

The following discounted fees (inclusive of 13% HST) are offered for early bird registration before July 24, 2019: $1,364.25 for the PT Planning and ITS course; $684.25 for the PT Modelling course; and $1,853 for both courses.

Refunds

If you have to cancel your registration, your fee will be refunded in full provided that we receive your cancellation request in writing no later than August 14, 2019. After that date, no refunds are available. A replacement can always be nominated if you cannot attend.

Contact Details

For inquiries about the course, please contact:
Ms. Pat Doherty, Course Manager
Events and Communications Coordinator, UTTRI
Phone: 1-416-978-4175
E-mail: pat.doherty@utoronto.ca

UNIVERSITY OF TORONTO
FACULTY OF APPLIED SCIENCE & ENGINEERING
Transportation Research Institute

A Practical Guide to Public Transit Planning, Modelling and ITS Applications

PUBLIC TRANSIT
SHORT COURSES

Two Short Courses on Public Transit

Public Transit Planning & ITS
August 21-22, 2019

Public Transit Modelling
August 23, 2019

Galbraith Building, Room 202
35 St. George Street

Presented by:

University of Toronto Transportation Research Institute (UTTRI)

UNIVERSITY OF TORONTO
FACULTY OF APPLIED SCIENCE & ENGINEERING
Transportation Research Institute

Two courses Serving as a Practical Guide to Public Transit Planning, Modelling and ITS Applications

High quality public transit is the linchpin of liveable cities. Not only does it enhance mobility, accessibility, economic productivity, public health and safety in modern cities, but it also plays an instrumental role in combating serious environmental challenges at the local and global scales. However, the provision of attractive public transit continues to face numerous challenges such as low-density land use due to continuous suburbanization, deteriorating level of service due to rising road congestion and constrained financial resources, to name a few. Given the challenges facing public transit, it is essential for transit planners to acquire advanced analytical skills and knowledge to aid them in the planning of attractive and efficient public transit systems. At the same time, advanced technology such as Intelligent Transportation Systems (ITS) is playing an increasingly important role in the planning and operations of public transit, and needs to be fully integrated into internal business processes.

The University of Toronto Transportation Research Institute is offering two back-to-back courses designed to provide participants with knowledge on key concepts and best practices related to public transit service planning and technology. The first course, **Public Transit Planning and ITS**, provides an overview of key concepts and best practices related to transit planning, network and service design, service standards, transit and land use, and the application of ITS technologies. The second course, **Public Transit Modelling**, provides a complementary but more focused and advanced exploration of tools that can be used for forecasting demand at both the system and route levels, transit assignment, and microsimulation-based analysis. The courses will be taught by leading transit planning researchers and practitioners and will provide a balanced perspective on transit systems planning and ITS, including both state-of-the-art techniques and practical perspectives.

Short Course Leaders

Dr. **Hossam Abdelgawad** has 14 years of experience in developing simulation models using a wide range of traffic software/tools. He is an Accredited Paramics User (APU) and has ample experience in building models using AIMSUN, Paramics, UAF, Vissim, DynusT, HCS, Synchro, SimTraffic, EMME and Dynameq.

Brendon Hemily, PhD, is an independent consultant with 35 years of experience working with the transit industry in Canada and the US, having been involved in a wide range of projects related to the implementation of innovative service concepts and the effective use of advanced technology. Previously, he was Manager of Research and Technical Services at the Canadian Urban Transit Association where he worked for 15 years.

Professor **Eric Miller** is the inaugural director of UTTRI and a recognized expert in integrated land use transportation modelling and demand forecasting. He is the developer of *GTAModel*, a "best practice" regional travel demand modelling system used widely to forecast travel demand in the Greater Toronto Area. He is co-author of the textbook *Urban Transportation Planning: A Decision-Oriented Approach*.

Amer Shalaby is a Professor of Civil Engineering at the University of Toronto with 25 years of research and consulting experience in Canada and internationally in the areas of transit planning and intelligent transportation systems. His research has been published widely in peer-reviewed journals and international conference proceedings. He is a member of two transit committees of the Transportation Research Board, and he sits on the editorial board of three international journals.

Nigel Wilson is a Professor of Civil and Environmental Engineering at MIT focusing on urban public transport. He directs a major long-term collaborative research program with leading global public transport agencies including Transport for London (UK), MTR (Hong Kong) and the MBTA (US) which focuses on making better use of smart card and other automatically collected data to support decision-making throughout the agency. During sabbatical leaves from MIT, Professor Wilson worked in three large transit agencies, the MBTA, Metro Transit and TfL, and has served as consultant to a number of other North American transit authorities. He taught a short course in transit planning at MIT for twenty years which had a cumulative enrollment of over 400 transit professionals.

Public Transit Planning and ITS

Wednesday, August 21, 2019

8:45-9am	Welcome and Course Introduction - **Hemily**
9-10:30	Setting the Context for Transit Planning - **Hemily**
10:30-11	Coffee Break
11-12:30pm	Transit Lines and Networks: Types and Operations - **Shalaby**
12:30-1:30	Lunch
1:30-3	Fundamentals of Line Analysis and Scheduling - **Shalaby**
3-3:30	Coffee Break
3:30-5	Transit ITS: Developments, Challenges, Opportunities and Future Directions - **Hemily**

Thursday, August 22, 2019

8:30-10am	Transit Signal Priority - **Shalaby**
10-10:30	Coffee Break
10:30-12	Transit Performance Monitoring Using ITS Data - **Wilson**
12-1pm	Lunch
1-2:30	Transit Cost Modelling - **Wilson**
2:30-2:45	Coffee Break
2:45-4:15	Transit Fare Policy and Collection Technology - **Hemily**
4:15-4:30	Closing Session: Attendance Certificate Presentation

Public Transit Modelling

Friday, August 23, 2019

8:45-9am	Welcome and Course Introduction - **Miller**
9-10:30	Introduction to Transit Ridership Forecasting & System Level Methods - **Miller**
10:30-11	Coffee Break
11-12:30pm	Transit Assignment Models - **Shalaby**
12:30-1:30	Lunch
1:30-3	Route-Level Ridership Forecasting Methods - **Miller**
3-3:15	Coffee Break
3:15-4:45	Microsimulation Models of Transit Operations - **Abdelgawad**
4:45-5	Closing Session: Attendance Certificate Presentation