

NEXT GENERATION ITS: Connectivity, Proximity and Mobility

ΠΕΡΙ ΓΕΝΕΡΑΤΙΩΝ ΙΙΣ: ΣΥΝΕΧΙΣΤΕΙΣ ΚΙΝΗΜΑΤΑ ΣΤΑ ΜΟΔΙΟΝ

2016
May 1-4



ANNUAL CONFERENCE & EXHIBITION

Coast Plaza Hotel & Conference Centre
1316 33 St NE Calgary, AB



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Contents

Welcome	3
Michael De Santis, Chair ITS Canada	
Rob Shirra, Managing Director ITS Canada	
Mayor of Calgary, Naheed Nenshi	
Sponsors	6
Annual Conference & Exhibit 2016 format	8
Exhibit	9
Vehicle Technology Showcase.....	9
Sideshow Technology Showcase	9
ITS Canada Awards 2016	9
General Information	10
Accommodations	10
Registrations.....	10
Cancellation Policy.....	11
Operating Hours	11
Conference Floor Plan	12
Exhibit floor plan	13
Virtual TMC Display	14
Sideshow Technology Showcase	14
Technical Tours	14
Connected Canada	15
Vehicle Showcase	15
Solar Car by the University of Calgary	15
Torch Motorcycles	15
Chevrolet Volt- General Motors Canada	16
Featured Speakers	17
Deputy Minister Greg Bass , Alberta Transportation.....	17
Richard B. Easley , President, E-Squared Engineering	17
Scott Fawcett , Director Intelligent Cities, GE	18
Justin Fishkin , Chief Strategy Officer, Local Motors.....	18
Ramit Kar , General Manager, Uber (Alberta)	18
Terry Ostan , Senior Manager –Innovation & Advanced Technology GM Canada.....	19
Dean Zabrieszach , Project Director, ITS WC 2016 Melbourne Australia	19
Conference Schedule	20
Sunday, May 1, 2016	21
Monday, May 2, 2016	22
Tuesday, May 3, 2016	27
ITS Canada Awards Ceremony and Gala Dinner, guest speaker Justin Fishkin	31
Wednesday, May 4, 2016	32
Exhibitor Profiles	34
ITS Canada Board of Directors	39
Local Organizing Committee Annual Conference & Exhibition 2016	40
Hotel Location Map	41

Chair's Greetings

ITS Canada ACE 2016



On behalf of the Board of Directors and Secretariat of ITS Canada, let me welcome you to our 19th Annual Conference and Exhibition in beautiful Calgary!

A great deal of effort has gone into planning and delivering a rich and diverse programme around this **years'** theme "**Next** Generation ITS: *Connectivity, Proximity and Mobility*". Three key words that illustrate well the continuing evolution of ITS where connected and integrated systems play an ever-increasing role in transporting people and goods.

With renowned national and international speakers as well as exhibitors, the conference offers a unique opportunity for ITS professionals to exchange ideas with their peers and to be informed on the latest innovation. We are very grateful to all our sponsors, exhibitors, and speakers for their immense contribution. This will culminate with the ITS Canada awards where we acknowledge significant and defining people, projects and initiatives in our Canadian ITS landscape.

This event is an important milestone for ITS Canada as it prepares the way to the 2017 ITS World Congress in Montreal where the next generation ITS will continue to evolve. I would like to acknowledge the Local Organizing Committee co-chairs Yeatland (Yeats) Wong of the City of Calgary and Judy Yu of Associated Engineering along with all the committed volunteers for making this event possible.

I wish you all a very productive conference and take this opportunity to enjoy Calgary and its wonderful surroundings.

Michael De Santis
Chair

Welcome!

What an exciting time to be in the transportation industry! What an exciting time to be in ITS!

After months of planning by a dedicated team of members in our Local Organizing Committee, we are finally **here in Calgary at our 19th Annual Conference and Exhibition. The exhibition at this year's conference** features an outstanding array of new technologies, and services that show how Canada continues to lead the world in ITS technology research and development. The accompanying Technology Showcase will give our members and attendees a glimpse of the exciting new technologies that will emerge over the next several years in the automotive industry, the manufacturing sector and the ITS industry. The strong **Technical Program for this year's conference is built on the conference theme "NEXT GENERATION ITS: Connectivity, Proximity and Mobility"**, and I am sure you will enjoy learning about the new developments in each of the program streams.

The sponsorship of the City of Calgary and the dedicated commitment of so many of its volunteers, from LOC Co-Chair Yeatland Wong to the dozens of City employees who have assisted to make this conference a reality, has been key to the success of this conference. We are grateful to GM Mac Logan and his team for their outstanding support!

Our other sponsors, from Bronze to Platinum, have all been very generous this year and we continue to value your support, your volunteer efforts and your commitment and dedication to our industry. In particular, I would also like to acknowledge the efforts and contributions of our other Co-Chair Judy Yu from Associated Engineering, who are also a Silver-level sponsor.

The next several years in ITS will mark the beginning of a renaissance in transportation, where vehicles will automatically navigate our roadways to deliver their passengers, their goods and services in most urban environments and inter-urban highways. These advancements are coming much faster than our regulators **and policy makers have anticipated and we believe that a key part of ITS Canada's ongoing role is to** effectively advocate for our members and the travelling public to ensure that renaissance is achieved in a safe, reliable and efficient manner. Truly an exciting future for all of us!

A special thank you to the members of our Secretariat staff, who work tirelessly for our members throughout the year and without whom this conference would not be as well organized and expansive.

I hope that our delegates will enjoy Calgary's hospitality and take full advantage of the excellent technical tours and social events planned for this conference. I hope that our exhibitors and sponsors experience much success in their networking and commercial endeavours, and I hope that our government and academic members enjoy the collegial and educational opportunities that our Annual Conference affords.

Have a great time in Calgary – yahoo!

Robert Shirra
Managing Director
ITS Canada





THE CITY OF
CALGARY
OFFICE OF THE MAYOR

NAHEED K. NENSHI

May 2016



A MESSAGE FROM MAYOR NENSHI

On behalf of my City Council colleagues and the citizens of Calgary, it is my pleasure to welcome you to the 19th Annual Intelligent Transportation Systems of Canada Conference and Exhibition.

This year's theme — "Next Generation ITS: Connectivity, Proximity, and Mobility" — resonates with Alberta's transportation needs, and the needs of cities across Canada. This forum provides a great opportunity for industry vendors, researchers, and decision makers to collaborate, share the latest innovations, and create a framework for tomorrow's technology.

I commend ITS Canada, the Local Organizing Committee, guest speakers, exhibitors, and sponsors for putting together this important annual conference.

While I'm sure the coming days will be busy, I hope those of you visiting Calgary have the opportunity to explore everything our city has to offer. From the natural scenery found in our parks and pathways, to the shopping and dining experiences, Calgary has something for everyone to enjoy.

I hope you all have a rewarding and enjoyable conference.

Sincerely,

Naheed K. Nenshi
MAYOR

Historic City Hall, 700 Macleod Trail South, #8069, Calgary, AB, Canada T2P 2M5
T 403.268.5622 F 403.268.8130 E themayor@calgary.ca

Proudly serving a great city

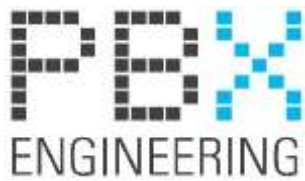
SPONSORS

On behalf of ITS Canada and the Local Organizing Committee, we would like to thank the following sponsors for their generous contributions

PLATINUM



GOLD



SILVER



BRONZE



VIRTUAL TMC PARTNERS



Annual Conference & Exhibition 2016 Format

Sessions/Special Highlights:

	Plenary/Luncheon Sessions:
	Plenary or Luncheon Sessions feature a keynote speaker and in some cases also include a panel discussion of high level ITS industry executives focused on a specific topic
	Special Interest Session/Town Hall Meeting
	Transport for Smart Cities in Canada 2016 and beyond
	Vehicle Showcase
	This year's vehicle showcase will feature vehicles with alternative energy sources, next generation connectivity, and motorcycles scientifically designed for women.
	Sideshow Technology Showcase
	Join us for this unique showcase, featuring local Calgary fringe technology being used outside of transportation. We've invited some of the most creative local artists, designers, and small businesses in Calgary to show us how they're using innovative technology in their respective fields.
	Technical Sessions
	This year's technical sessions provide attendees the opportunity to learn the latest and greatest about what the NEXT GENERATION ITS looks like in all modes of transportation: from bicycles through car sharing to non-traditional paid mobility services, all aspects of ITS, from security to funding, and standards, all settings, from urban to rural. More than 50 papers and presentations will make up this part of the program around the theme of our conference "NEXT GENERATION ITS: Connectivity, Proximity and Mobility"
	Technical Tours
	Various technical tours in Calgary will showcase how investment in ITS research is implemented in the largest city in Alberta.
	Technical Committees
	ITS Canada's technical committees are hosting themed-workshops and panel discussions at this year's Annual Conference & Exhibition 2016. All are welcome to join.
	Virtual TMC Demonstration
	Virtual TMC display bring together several jurisdictions' traffic management centres from across Canada into a single 'virtual TMC' that will demonstrate the capabilities and actual live events that each TMC is handling plus show how integration of the feeds can be accomplished on a single video wall and remote control centre.
	Registration

Exhibit

Thirty-five exhibitors will showcase their products, innovations, and services in the Plazas 2-4 and in the foyer outside the registration area.

Vehicle Showcase

Last year, we introduced our first vehicle showcase in Gatineau, and it was such a resounding success that **we've decided to bring back the showcase for a second year. This year's vehicle technology showcase will** feature vehicles with alternative energy sources, next generation connectivity, and motorcycles scientifically designed for women.

Sideshow Technology Showcase

Join us for this unique showcase, featuring local Calgary fringe technology being used outside of transportation.

ITS Canada Awards 2016

2016 marks the seventh year of the program, which was originally created to better serve and profile ITS **Canada's membership by acknowledging significant and defining people, projects, and initiatives in our** Canadian ITS marketplace. We are excited to announce a **NEW** and fifth category Award called **the "Young ITS Canada Leadership Award"**.

There are five award categories under the current ITS Canada Awards Program. These categories include: Distinguished ITS Canada Member of the Year Award, ITS Project/Program Award: Larger Municipal Area, Provincial, or Federal Application Category, ITS Project/Program Award: Medium and Smaller Municipal Area or Rural Application Category, New Canadian Commercial/Industry/Academic ITS Technology/Innovation/R&D Award and Young ITS Canada Leadership Award **NEW**.

Awards for each category will be formally announced, and recipients awarded, at a special Awards Ceremony and Gala Dinner to be held in Plaza 1 on Tuesday evening, May 3, 2016.

GENERAL INFORMATION

Accommodations

A block of rooms have been reserved at the Coast Plaza Hotel and Conference Centre - Calgary for April 27, 2016 until May 8, 2016. The special room rate is \$139.00 per room per night plus applicable taxes and will be available until April 1, 2016 or until the group block is sold-out, whichever comes first. Online booking to reserve a room is simple. [Click here.](#)

Registrations

Online registration is now open. To register, [click here.](#)

All speakers must register for our Annual Conference & Exhibition 2016. Below is an overview of the various types of registrations we offer this year.

ACE 2016 May 1-4, 2016, Calgary	Fees	GST	Total
<u>DELEGATE REGISTRATIONS</u>			
Member Registration			
Pre-Booking Discount (Nov 1, 2015 - March 15, 2016)	\$675.00	\$33.75	\$708.75
Regular Registration (March 16, 2016 - May 1, 2016)	\$875.00	\$43.75	\$918.75
Non-Member Registration			
Pre-Booking Discount (Nov 1, 2015 - March 15, 2016)	\$775.00	\$38.75	\$813.75
Standard Registration (March 16, 2016 - May 1, 2016)	\$975.00	\$48.75	\$1,023.75
Student Registration (No Banquet)			
Standard Registration (Nov 1, 2015 - May 1, 2016)	\$225.00	\$11.25	\$236.25
One Day Only Registrations	\$65.00	\$3.25	\$68.25
One Day Registrations (No Banquet)			
	\$350.00	\$17.50	\$367.50
Speaker Registrations			
	\$675.00	\$33.75	\$708.75
Poster Boards (Foyer)			
	\$0.00	\$0.00	\$0.00
Exhibitor Booth Personnel			
	\$270.00	\$13.50	\$283.50
Other			
Additional Banquet Ticket (per person)	\$150.00	\$7.50	\$157.50
Special Guests	\$0.00		
Tours			
Technicals tours 1, 2, and 3 price per tour	\$19.05	\$0.95	\$20.00

Cancellation policy

All cancellations are subject to the following Refund Policy:

1. No refunds will be issued until after the event.
2. Delegate registration cancellations before March 15, 2016, are eligible for a 100% refund.
3. Delegate registration cancellations received after March 15, 2016 but before April 1, 2016, are eligible for a 50% refund.
4. Delegate registration cancellations received after April 1, 2016, will not be refunded.
5. Delegate substitutions are allowed at any time, but must be made in writing (email) to the Secretariat (janneke@itscanada.ca) with a copy to julie@itscanada.ca

Operating Hours

General Registration

Sunday, May 1, 2016	10:00 AM to 5:00 PM
Monday, May 2, 2016	7:00 AM to 3:00 PM
Tuesday, May 3, 2016	7:15 AM to 3:00 PM
Wednesday, May 4, 2016	7:30 AM to 8:30 AM

Exhibit Hall (Plazas 2-4)

Exhibitor Move-In

Sunday, May 1, 2016	9:00 AM to 5:00 PM
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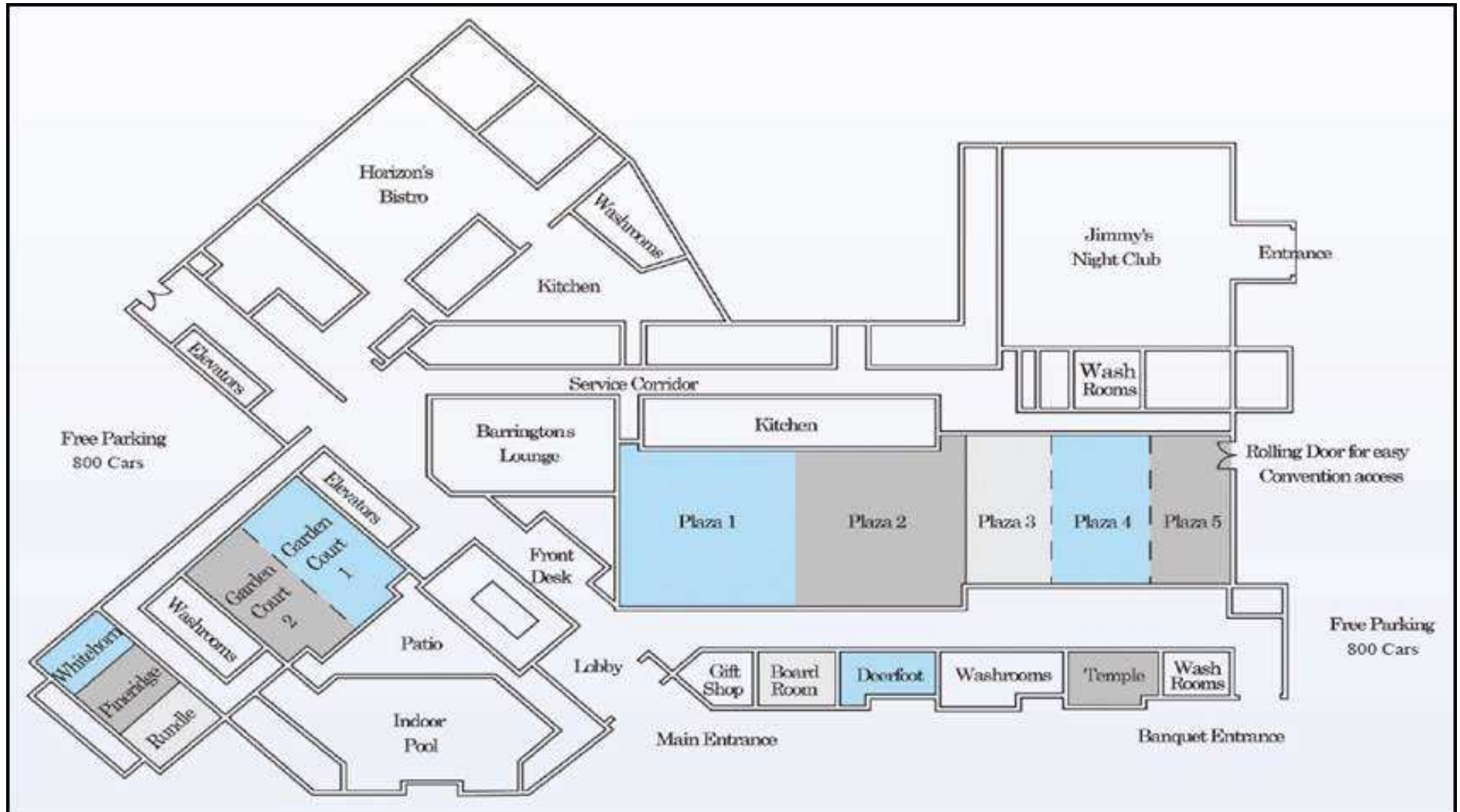
Exhibit Hours

Monday, May 2, 2016	7:30 AM to 5:00 PM
Tuesday, May 3, 2016	7:30 AM to 3:30 PM

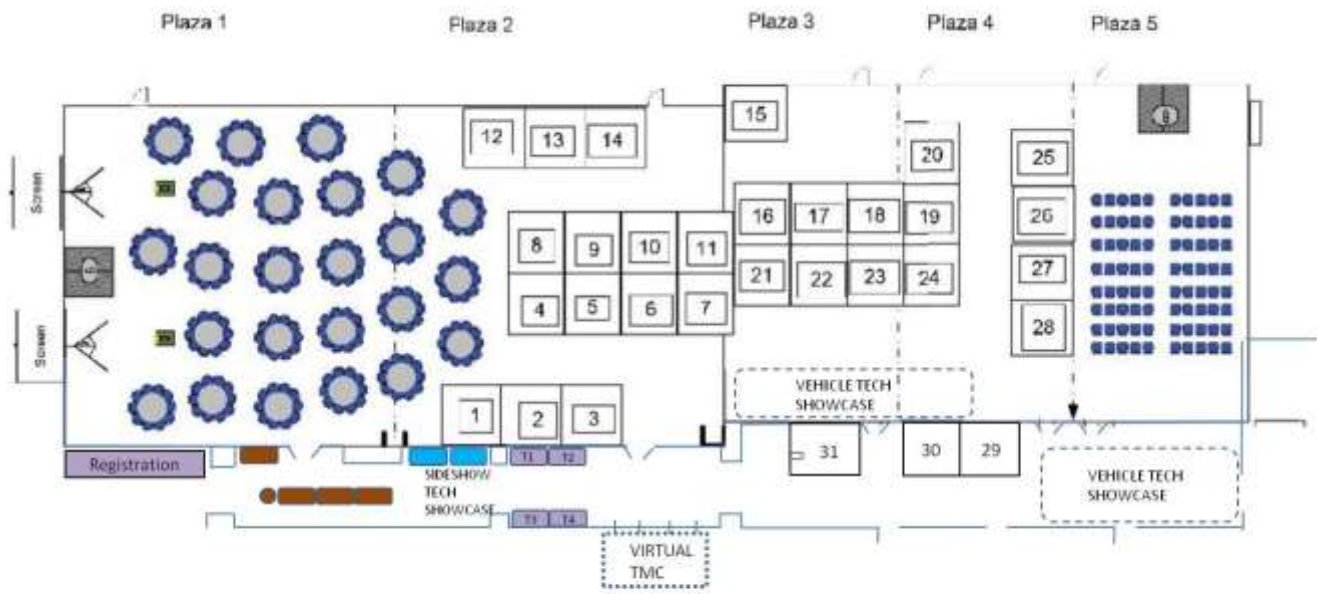
Exhibitor Move-Out

Tuesday, May 3, 2016	3:30 PM to 5:00 PM
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Coast Plaza Hotel & Conference Centre – Calgary floor plan
Annual Conference & Exhibition 2016



EXHIBITOR FLOOR PLAN 2016



Exhibitor Name	Booth #	Exhibitor Name	Booth #
Alberta Centre for Advanced MNT Products	T4	International Road Dynamics	22
Axis Communications Inc.	31	Mitsubishi Electric Sales Canada Activu , Winsted , Transnomis	9
Applied Electronics	1	Mitsubishi Electric Sales Canada Activu , Winsted , Transnomis	10
Calgary Parking Authority	29	Orange Traffic	24
Cellint Traffic Solutions	15	Parsons	4
Centre for Smart Transportation - UoA	T1	Roadway Traffic Products / Addco	14
Connected Vehicles & Smart Transportation	11	RouteMatch Software	30
Daktronics	12	Siemens RUGGEDCOM	21
Econolite	27	Smartmicro	8
Econolite	28	TaceI	23
Electromega	25	Telenium	7
ENCOM Wireless Data Solutions Inc.	18	TrustPoint Innovation	26
Fortran Traffic	16	TSS - Transport Simulation Systems	20
Fortran Traffic	17	University of Calgary	T3
GEWI North America	2	Vaisala	13
GGI Road & Traffic	5	Versilis Inc.	6
Interprovincial Traffic Services	19	WatCAR	T2
Innovative Traffic Solutions Inc.	3		

2016 VIRTUAL TMC DISPLAY

The Virtual TMC Display will bring together several **jurisdictions' traffic management centres** from across Canada into a single 'virtual TMC' that will demonstrate the capabilities and actual live events that each TMC is handling plus show how integration of the feeds can be accomplished on a single video wall and remote control centre. The display will be featured in the **Deerfoot Room**. Confirmed participants are: City of Calgary, City of Montreal, York Region and BC MoTi, Transnomis, Mitsubishi Electric Display Wall Systems, Activue, and Winsted.



2016 SIDESHOW TECHNOLOGY SHOWCASE



ITS Canada prides itself on being the leading edge of technology and innovation for the transportation industry, but this showcase shows how this is happening in other fields as well, from consumer electronics to fashion.

Join us for this unique showcase, featuring local Calgary fringe technology **being used outside of transportation**. We've invited some of the most creative local artists, designers, and small businesses in Calgary to show us **how they're using innovative technology in their respective fields**. Featured technologies from The Calgary 3D Print Club, Kat Marks Lethrbar, Teddy Seyed (University of Calgary), and MakeFashion.

TECHNICAL TOURS*

*Each technical tour costs \$20 per person including taxes.

[Tour 1](#) (max 15 participants)

Monday, May 2, 2016

1:30 PM to 3:30 PM

[Transit Control Centre, City of Calgary](#)

[Tour 2](#) (max 15 participants)

Tuesday, May 3, 2016

9:30 AM to 11:30 AM

[Calgary Airport Operations Control Centre](#)

[Tour 3](#) (max 15 participants)

Tuesday, May 3, 2016

1:30 PM to 3:30 PM

[Emergency Operations Centre, City of Calgary](#)

Transportation to the technical tour sites has been graciously provided by Calgary Transit

ITS Canada and Thinking Highways present CONNECTED CANADA

H3BM, publishers of Thinking Highways and Thinking Cities, are producing a one-off, bespoke magazine for the ITS Canada Annual Conference and Exhibition in Calgary, called CONNECTED CANADA. A digital version will be distributed to all delegates, exhibitors and ITS Canada members a week before our annual meeting and printed copies will be distributed at the event itself, from 1-4 May. Finally, in the first week of June an expanded digital edition will be sent out featuring additional articles, views, news and opinions.

CONNECTED CANADA is not just an opportunity to showcase Canadian ITS technology to Canadians – the post-show digital version will also be made available to view and download on the Thinking Highways website to maximise coverage and raise global awareness of some of the cutting-edge innovations and developments on display in Calgary. If you would like to contribute editorial to the post-show version then please contact either Janneke van der Zee at janneke@itscanada.ca or H3BM's editorial director Kevin Borrás at kevin@h3bm.com. For advertising and commercial opportunities please contact Luis Hill at luis@h3bm.com

2nd ANNUAL VEHICLE SHOWCASE

The University of Calgary Solar Car

The University of Calgary Solar Car team is a multidisciplinary undergraduate team which designs, builds, and races solar powered vehicles. Our current car, Schulich Delta, is the first cruiser class (practical) solar car in Canada. We strive to educate thousands of students across Alberta on sustainable energy with our community outreach program as well as to someday develop a consumer ready, street legal, solar powered car.



Torch Motorcycles

Torch Motorcycles is a community of female moto-enthusiasts, with a mission to collect real data to scientifically design and build motorcycles, components and apparel specifically for women.



Chevrolet Volt - General Motors of Canada

According to Strategy Analytics, there are more than 2.3 billion smartphones in use globally, and that number continues to rise. And on the road, customers are demanding better integration between phones and their vehicles. Whether they have an Apple or Android phone, General Motors is committed to providing the smartest, simplest connected driving experience possible to owners across the globe. For the 2016 model year, General Motors offers Android Auto and Apple CarPlay compatibility in more models than any automotive brand.



In the exhibitor display space at the ITS Canada Conference, General Motors will showcase the Chevrolet Volt with Apple CarPlay. **The Volt's MyLink infotainment system gives owners a smart and simple way to access Apple CarPlay.**

Each system builds off of the features smartphone users rely on most. Android Auto is built around Google Maps, Google Now and the ability to talk to Google, as well as a growing audio and messaging app ecosystem that includes WhatsApp, Skype, Google Play Music, Spotify, and podcast players. A full list of supported apps is available at Android.com/auto.



Apple CarPlay takes the iPhone features you'd want to access while driving and puts them on the vehicle's display in a smart, simple manner. That allows drivers to make calls, send and receive messages and listen to music right from the touchscreen or by voice via Siri. Apple CarPlay supported apps include Phone, Messages, Maps, Music and compatible third-party apps. A full list of those apps can be found at Apple.com/ios/carplay.

Many features can be controlled via voice commands through a button on the steering wheel, helping drivers spend more time with eyes on the road and hands on the wheel.

FEATURED SPEAKERS

Deputy Minister Greg Bass, Alberta Transportation



In July 2015, Deputy Minister Greg Bass joined Alberta Transportation. Greg previously served as Deputy Minister of Jobs, Skills, Training and Labour (JSTL), and Education.

Prior to joining the provincial government, Greg served students in the education system in Alberta for 26 years. He spent the last 10 years of his education as Superintendent of Buffalo Trail Public Schools and Rocky View School Division.

Greg graduated from the University of Alberta (U of A) with a Bachelor of Education in secondary education majoring in Physical Education and Social Studies. He **obtained a Master's degree in Education from the U of A in Educational Policy**

Studies specializing in Leadership and his Doctorate in Leadership specializing in Organizational Transformation from the University of Calgary.

Greg lives in Calgary with his wife, Bernadine and his two grown children. He enjoys all manner of sports, with a particular love of hockey and golf, and has coached over 80 sports teams in various communities over the past 25 years.

He is passionate about leading organizations to optimize workplace culture that foster high levels of employee engagement. He is also very committed to actualizing the vision for developing an integrated multi-modal network in the best interest of all Albertans to serve us well into the latter half of this century.

Richard Easley, E-Squared Engineering



Mr. Easley, President of E-Squared Consulting Corporation dba E-Squared Engineering, **has 31 years' experience in Civil Engineering in the areas of** program management, design, planning, feasibility studies, evaluations, outreach, education and training, and is taking a leading role in the planning and deployment of Intelligent Transportation Systems (ITS) technology on a national scale. Richard served as the first ITS CVO Coordinator on staff at IVHS/ITS America for several years and has subsequently served as the Chairman of the ITS America CVO Architecture and Standards Subcommittee, the Chairman of the ITSA Intermodal Task Force, the Chairman of the Institute of

Transportation Engineers Goods Movement Council and currently serves as the Chairman of the TRB Intermodal Freight Transport Committee as well as the Chairman of the TRB Freight Subcommittee of the Regional Transportation Systems Management and Operations Committee. Richard previously served as the **ITS Maryland State Chapter President where he led his chapter's efforts in winning both the ITS America Outstanding State Chapter Award and the ITS America State Chapter Membership Growth Award.** Mr. Easley has his BS and MS degrees in Civil Engineering from the University of Texas at Austin.

Scott Fawcett, GE



With GE, Scott is focused on the development and delivery of innovative intelligent lighting solutions to municipalities and utilities. Scott is responsible for co-innovating with customers and partners new solutions on top of a completely new class of street lights – intelligent LED fixtures that are equipped with sensors, transmitters and microprocessors to act as a high-performing data grids, capable of providing extraordinary levels of insight into urban environments in real time. Scott works with municipalities to evaluate and plan deployments of intelligent LED to help address the following urban challenges: traffic optimizations, asset management, heighten citizen safety, parking optimization, and environmental awareness and analysis. Scott currently is a Director on the Board of Directors for Alberta Innovates – Technology

Futures (AITF). AITF manages the key technology research investment priorities for the Province of Alberta. Past roles have included: Global Industry Manager for Microsoft, , and Director Energy Industry & Smart Grid for Cisco Systems. Scott's technical expertise spans the domains of Cleantech & renewable energy, Smart Grid, Nano materials, healthcare technologies, software, hardware, industrial controls and systems. Scott has considerable operations leadership in collaborative innovation with customers to accelerate new product development and better outcomes for municipalities. Scott holds a BSc from the University of Saskatchewan and a MBA from the EU Business School.

Justin Fishkin, Local Motors



Justin marries a lifelong dedication to sustainability and making a difference in the world with a background in finance and investing. Prior to joining Local Motors, he served as Senior Portfolio Manager of Carbon War Room, an NGO founded by Sir Richard Branson to identify and implement entrepreneurial solutions to climate change. Justin began his career at Goldman Sachs in investment banking. He then joined Lazard, followed by SAC Capital Advisors. In his spare time, Justin founded The Holster Project, co-founded digital indie record label Holster Records, serves on the Board of Street Soccer USA, remains a Senior Advisor to Carbon War Room, and recently ran his first marathon. Justin graduated with a BA in Economics from Duke University in Durham,

North Carolina. He was born and raised in Washington, D.C.

Ramit Kar, Uber



Ramit Kar is General Manager - Alberta for Uber, a technology company that is reinventing urban transportation and the way people and things move. By seamlessly connecting riders to drivers through an elegant smartphone app, Uber is making cities more accessible, innovating new possibilities for riders and creating new business for drivers in over 400 metros across the world. Before joining Uber, Mr. Kar was a Senior Engagement Manager with McKinsey & Company, a consultant with Canada's largest Venture Capital firms and an investor and operator of several start-ups. He has a BSc in Computer Science from the University of Calgary and an MBA from the Richard Ivey School of Business.

Terry Ostan, General Motors of Canada



Terry Ostan is the Senior Manager of Innovation & Advanced Technology at General Motors of Canada. He holds a degree in Mechanical Engineering and Management from McMaster University. Based at the Canadian Engineering Centre in Oshawa, Terry leads a diverse group of engineering teams that deliver designs and features in Advanced Chassis Technology, Advanced Body Systems, Active Safety Technologies, Computer Aided Engineering, Connected Vehicle and HMI Technologies. Terry has also been a Global Innovation Lead for General Motors for the Vehicle Dynamic Performance domain. Terry has had a rich and diverse career within GM of Canada. He has worked for GM Powertrain for 12 years where he developed expertise in alternative fuels and powertrain controls. On the vehicle side he has had the opportunity to work on many vehicle programs such as Buick Concept vehicles, Cadillac Professional Vehicles and was the Canadian Program Engineering Manager for the very successful Canadian designed Chevrolet Equinox and GMC Terrain crossover vehicles. Terry has 5 granted patents which reach across numerous vehicle systems and customer facing features such as diagnostics and fuel economy improvements.

Dean Zabrieszach, ITS WC 2016 Melbourne Australia






Mr Zabrieszach has been the CEO/Director of HMI Technologies Pty Ltd since March 2015. HMI is the market leader in the supply of ITS related solutions and signage in New Zealand and is expanding its operations into Australia with the appointment of Mr Zabrieszach. Prior to this recent appointment, Mr Zabrieszach worked with VicRoads, the state road authority of Victoria, for the past 31 years. Mr Zabrieszach occupied a number of senior positions within VicRoads including Manager Program Development, Manager Maintenance

Program, Manager Intelligent Transport Systems, Director Road User Services and most recently, Director Road Operations. Mr Zabrieszach is a Board Member and Vice-President of Intelligent Transport Systems (ITS) Australia, a Board Member of ITS Asia Pacific, Project Director for the 23rd ITS World Congress in Melbourne in 2016, a member of the AustRoads Cooperative ITS Program, the Australian Head of Delegation and Convenor of Working Group 9 on the International Standards Organisation Technical Committee 204 (ISO TC 204) for Intelligent Transport System, the Chair of Australian Standards Committee IT-023 for Intelligent Transport Systems, and a Club Melbourne Ambassador, promoting Melbourne as a world class city and Convention destination. The above activities have required Mr Zabrieszach to represent VicRoads and Australia at numerous national and international meetings and conferences on standards and intelligent transport systems. Mr Zabrieszach has extensive experience in intelligent transport systems, traffic management and security management, as well as the development of numerous road infrastructure projects in metropolitan **Melbourne. Mr Zabrieszach has played a leading role in developing the state's traffic and transportation plans** for major events such as the Melbourne Formula One Grand Prix, the Melbourne 500 cc/Moto Motorcycle Grand Prix and the 2006 Melbourne Commonwealth Games, the deployment of numerous ITS solutions and the development of business cases for major infrastructure projects such as the Monash Freeway-CityLink-**West Gate Freeway project, and Melbourne's successful bid to host the 23rd ITS World Congress in 2016.** Mr Zabrieszach graduated from the University of Melbourne in Civil Engineering in 1979.


CONFERENCE SCHEDULE

Time	Sunday, May 1, 2016	Room
9:00 AM – 5:00 PM	Exhibitor Move-In	Plaza 2-4
10:00 AM – 5:00 PM	Registration	Plaza 2-4 Foyer
2:45 PM – 4:00 PM	ITS Canada Board Meeting	Pineridge
3:15 PM – 4:15 PM	Advanced Public Transit Systems Technical Committee Meeting	Garden Courts
4:15 PM – 5:15 PM	Advanced Traffic Management Systems Technical Committee Meeting “Privacy and Risk Assessment for ITS Infrastructure” Panel Discussion moderated by Co-Chairs Brigid Canil, BC MoTI and Jonathan Darton, IBI Group Panelists: <ol style="list-style-type: none"> 1. Sharon Polsky, President & CEO, AMINAcorp, President & Leader of the Privacy and Access Council of Canada 2. Stephen Erwin, Head, Intelligent Transportation Systems Program, Ontario Ministry of Transportation 3. Shawna Boakes, Facilities Engineer, Dillon Consulting 4. Phil Masters, Senior Consultant, ITS, Parsons 	Plaza 5
6:30 PM – 8:30 PM	Official Opening Exhibit and Virtual TMC - Welcome reception (sponsored by the City of Calgary) Welcome remarks – Mr. Michael De Santis, Chair ITS Canada Welcome remarks – Ravi Seera, Manager of Traffic Division, City of Calgary	Plaza 2-4 Deerfoot Room

Time	Monday, May 2, 2016	Room
7:00 AM – 3:00 PM	Registration	Plaza 2-4 Foyer
7:30 AM – 5:00 PM	Exhibit Open	Plaza 2-4
7:15 AM – 8:15 AM	Breakfast (sponsored by Iteris)	Plaza 1
8:15 AM – 09:45 AM	<p>Opening Plenary – “NEXT GENERATION ITS: Connectivity, Proximity & Mobility”</p> <p>Welcome by Mr. Michael De Santis, Chair ITS Canada</p> <p>Address: Mr. Mac Logan General Manager of Transportation, City of Calgary</p> <p>Address: Deputy Minister Greg Bass, Alberta Transportation</p> <p>Video Address: The Honorable Marc Garneau, Minister of Transport</p> <p>Address: Dr. Sally S.F. Lai, Secretary General, ITS Taiwan</p> <p>Address: Datuk Amir Kasim, ITS Malaysia</p> <p>Address: “Invitation to the ITS WC 2016 Melbourne Australia” by Dean Zabrieszach, CEO/Director, HMI Technologies Pty Ltd and Project Director, ITS WC 2016 Melbourne Australia</p>	Plaza 1
09:45 AM – 10.30 AM	<p>Break and Networking with Exhibitors (sponsored by Econolite)</p> <p>Opening Vehicle Showcase (sponsored by IMS) Chevrolet Volt by GM Canada, UoC Solar Car, Torch Motorcycles</p> <p>Opening Sideshow Technology Showcase (sponsored by GE)</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div>	<p>Plaza 2-4</p> <p>Foyer</p>
10:30 AM – Noon	Virtual TMC Demonstration (sponsored by CIMA+)	Deerfoot Room

Time	Monday, May 2, 2016	Room
10:30 AM – noon	<p style="text-align: center;">M1 - Freight & Logistics</p> <p>Moderator: Mr. Richard B. Easley, E-Squared Engineering</p> <ol style="list-style-type: none"> 1. <i>City of Surrey Traffic Operations Centre</i> by Ian Steele, PBX Engineering and Amer Afridi, City of Surrey 2. <i>ITS Technologies and Performance Measures at International Borders</i> by Mike Barnet, Ministry of Transportation of Ontario, 3. <i>Driver Safety Notifications</i> by Brian Mofford, Drivewyze 4. <i>Calgary's Online Logistics Management by Oversize Loads</i> by Andrew Bissett, City of Calgary 5. <i>Deltaport Vehicular Access Control System (VACS)</i> by Ian Steele, PBX Engineering 	Plaza 5
10:30 AM – noon	<p style="text-align: center;">M2 Mobility as a Service -Traffic Management</p> <p>Moderator: Tony Churchill, City of Calgary</p> <ol style="list-style-type: none"> 1. <i>City of Mississauga ATMS Upgrade – Laying the Foundation for Next Generation ITS</i> by Richard Chylinski, Parsons Inc. 2. <i>Engineering Dynamic Pricing (Express Lanes) Systems</i> by James Barbosa, IBI Group 3. <i>Calgary Roadway Activities eMap</i> by Henry Sun, City of Calgary 4. <i>Finding an Appropriate Methodology for Determining Travel Time Reliability in the City of Calgary</i> by Dr. Shahram Tahmasseby, City of Calgary and Ekke Kok, City of Calgary 	Garden Courts
Noon – 1:30 PM Plaza 1	<p>Lunch (sponsored by IBI Group)</p> <p>Keynote Address “Future of Urban Transportation” by Ramit Kar, General Manager – Alberta, Uber followed by a Q&A session with the audience</p> <div style="display: flex; align-items: flex-start;">  <div style="flex-grow: 1;"> <p>Ramit Kar is General Manager - Alberta for Uber, a technology company that is reinventing urban transportation and the way people and things move. By seamlessly connecting riders to drivers through an elegant smartphone app, Uber is making cities more accessible, innovating new possibilities for riders and creating new business for drivers in over 400 metros across the world. Before joining Uber, Mr. Kar was a Senior Engagement Manager with McKinsey & Company, a consultant with Canada's largest Venture Capital firms and an investor and operator of several start-ups. He has a BSc in Computer Science from the University of Calgary and an MBA from the Richard Ivey School of Business.</p> </div> </div>	


Time	Monday, May 2, 2016	Room
1.30 PM – 3:00 PM	<p style="text-align: center;">M3 Big Data & Analytics – Traffic Data</p> <p>Moderator: Ekke Kok, City of Calgary</p> <ol style="list-style-type: none"> 1. <i>Calgary's Magnetometer Traffic Responsive & Data Collaborative Pilot</i> by Cheryl Szuch, City of Calgary and Yeatland Wong, City of Calgary 2. <i>Data Collection for Cycle Track Evaluation</i> by Dana Multow, City of Calgary 3. <i>Enhancing Existing Traffic Information Systems</i> by Rod Klashinsky, International Road Dynamics 4. <i>Existence of Capacity Drop, Hysteresis Phenomena and Macroscopic Fundamental Diagram for Deerfoot Trail, Calgary</i> by Karan Arora, University of Calgary and Dr. Lina Kattan, University of Calgary 	Plaza 5 (sponsored by the City of Edmonton)
1.30 PM – 3:00 PM	<p style="text-align: center;">M4 Connected & Autonomous Vehicles</p> <p>Moderator: Susan Spencer, Susan Spencer & Associates</p> <ol style="list-style-type: none"> 1. <i>Planning for Automated Vehicles in Cities</i> by Sean Rathwell, Dillon Consulting Ltd, Merrilees Willemse, Dillon Consulting Ltd and Tyler George, Dillon Consulting Ltd. 2. <i>The AURORA Connected Vehicle Technology Testbed</i> by Prof. David G. Michelson, University of British Columbia 3. <i>Integrated Corridor Management – a Precursor to Connected and Automated Vehicles</i> by Roy Hulli, Ministry of Transportation of Ontario 4. <i>Impact of Connected Vehicles on Urban Traffic Signals</i> by Mark Conrad, Parsons Inc. 5. <i>Planning for tomorrow: Getting what we want from autonomous vehicles</i> by Brian Mills, Brian Mills and Associates 	Garden Courts (sponsored by the City of Edmonton)


Time	Monday, May 2, 2016	Room
1:30 PM – 3:30 PM	<p>Technical Tour 1 – Transit Operation Control Centre (max 15 participants)</p> <p>The Transit Operation Control Centre houses the brains of Calgary transit's operations for the busiest light rail system in North America, and almost 1000 buses. This tour will show you the advanced technology that monitors and directs 192 light rail vehicles, with a combined route length of 60 kilometers, as well as 380 bus routes. In addition to the tasks of communicating and coordinating drivers and routes, Calgary Transit also features an impressive array of intelligent transportation technology, including: real-time travel information, advanced geotracking, an award winning website, Advanced passenger and route analysis software and state of the art 10Gb fiber optic IP based security camera network</p> 	<p>Registration desk</p> <p>Transportation to the technical tour sites is sponsored by Calgary Transit</p>
3:00 PM – 3:30 PM	<p>Break and Networking with Exhibitors (sponsored by Econolite)</p> <p>Vehicle Showcase (sponsored by IMS) Chevrolet Volt by GM Canada, UoC Solar Car , Torch Motorcycles</p> <p>Sideshow Technology Showcase (sponsored by GE)</p>	<p>Plaza 2-4</p> <p>Foyer</p>
3:00 PM – 5:00 PM	<p>Virtual TMC Demonstration (sponsored by CIMA+)</p>	<p>Deerfoot Room</p>
3:30 PM – 5:00 PM	<p>M5 – Transit & Beyond</p> <p>Moderator: Ekke Kok, City of Calgary</p> <ol style="list-style-type: none"> 1. <i>Transit-based Emergency Evacuation of Densely Populated Urban Areas using Intelligent Transportation Systems</i> by Soheila Aalami, University of Calgary and Dr. Lina Kattan, University of Calgary 2. <i>Modelling of Streetcar and Bus TSP in Toronto using Aimsun Mmicrosimulation Software</i> by Matthew Juckes, Transportation Simulation Systems Inc, Rajnath Bissessar, City of Toronto 3. <i>A New Era in Passenger Mobility: The Calgary Airport Compact Transit System</i> by Frédéric Faulconnier, PIT Group 4. <i>CalgaryTransit's Advanced Integrated Website</i> by Stephen Tauro, Calgary Transit 	<p>Plaza 5</p> <p>(sponsored by the City of Edmonton)</p>

Time	Monday, May 2, 2016	Room
3:30 PM – 5:00 PM	<p data-bbox="873 188 1192 220" style="text-align: center;">M6 Advancing ITS Safety</p> <p data-bbox="426 240 936 272">Moderator: Ian Steele, PBX Engineering</p> <ol data-bbox="474 293 1608 610" style="list-style-type: none"> 1. <i>System Integration using a Design-Build-Operate Approach – Lessons Learned</i> by Chris Philp, CIMA+ 2. <i>Weather Intelligence for Transportation Decision Support Systems</i> by Shawn Truelson, Schneider Electric Weather Services and Jeremy Duensing, Schneider Electric Weather Services 3. <i>Real-Time Safety Alerts for Severe Weather and Queue Ends</i> by Nick Cohn, TomTom and Dr. Maarten Clements, TomTom 4. <i>Utilizing Provincial Vehicles as Weather Sensors to Fill in the Gaps between Road Weather Sensors</i> by Jeremy Duensing, Schneider Electric Weather Services 	<p data-bbox="1665 188 1850 220">Garden Courts</p> <p data-bbox="1665 240 1976 305">(sponsored by the City of Edmonton)</p>
5:15 PM – 6:15 PM	<p data-bbox="426 634 800 659">The "Price of ITS" Gameshow</p> <p data-bbox="426 667 1629 764">If you enjoy The Price is Right, you'll love this fun gameshow event in which delegates can compete for prizes based on their knowledge of ITS and exhibitor products. Appetizers and drinks sponsored by Stantec.</p>	<p data-bbox="1665 643 1776 675">Plaza 2-4</p>
6:30 PM – 8:30 PM	<p data-bbox="426 789 1545 854">Reception ITS Canada Board of Directors, LOC ACE 2016, Technical Committees Chairs, Guest Speakers (by invitation only)</p> <p data-bbox="426 870 999 902">Recognition Local Organizing Committee 2016</p>	<p data-bbox="1665 789 1923 821">Whitehorn/Pineridge</p>

Time	Tuesday, May 3, 2016	Room
7:30 AM – 3:30 PM	Exhibit Open	Plaza 2-4
7:15 AM – 3:00 PM	Registration	Plaza 2-4 Foyer
7:15 AM – 8:15 AM	Women in ITS Canada Breakfast – co-hosted by Judy Yu and Janneke van der Zee (if you are interested in joining, send an email to janneke@itscanada.ca)	Plaza 1
7:15 AM – 8:15 AM	Breakfast (sponsored by LEA Group)	Plaza 1
8:15 AM – 9:45 AM Plaza 1	<p style="text-align: center;">“Transport for Smart Cities in Canada 2016 and beyond”</p> <p><i>What do our next generation smart cities look like and how do next generation ITS solutions keep us connected, proximal and mobile?</i></p> <p>An interactive town hall meeting moderated by Keenan Kitasaka, Associated Engineering, Program Chair ACE 2016</p> <ol style="list-style-type: none"> 1. Future thought models for mobility/Goods Movement – Richard B. Easley, E-Squared Engineering 2. Public Transit perspective – Rajeev Roy, York Region 3. Role of road pricing in major urban centres – Malcolm Logan, City of Calgary 4. Role of connected and autonomous vehicles – Ekke Kok, City of Calgary 5. Mobility as a Service – Michael De Santis, Innovations MI-8 Inc 6. Big Data, Security and Privacy Access– Phil Masters, Parsons 	

Time	Tuesday, May 3, 2016	Room
9:30 AM – 11:30 AM	<p>Technical Tour 2 – Calgary Airport Operations Control Centre (max 15 participants)</p> <p>The YYC Airport Operations Control Centre is a sophisticated facility that monitors and controls the day to day operations of the airport terminal. This tour will layout the new and interesting technology being put in place for the International Terminal Building and how critical systems are managed at the Calgary International Airport. A behind the scenes tour and time with knowledgeable YYC staff for questions will be the highlights of this experience.</p>	<p>Registration desk</p> <p>Transportation to the technical tour sites is sponsored by Calgary Transit</p>
9:45 AM – 10:15 AM	<p>Break and Networking with Exhibitors (sponsored by Tetra Tech)</p> <p>Vehicle Showcase (sponsored by IMS) Chevrolet Volt by GM Canada, UoC Solar Car, Torch Motorcycles</p> <p>Sideshow Technology Showcase (sponsored by GE)</p>	<p>Plaza 2-4</p> <p>Foyer</p>
10:15 AM – 11:45 AM	<p>Virtual TMC Demonstration (sponsored by CIMA+)</p>	<p>Deerfoot Room</p>
10:15 AM – 11:45 AM	<p>T1 Parking - Traffic Management</p> <p>Moderator: Richard B. Easley, E-Squared Engineering</p> <ol style="list-style-type: none"> 1. <i>The Parking Industry's Evolution</i> by Kurt McCaw, Calgary Parking Authority 2. <i>Social Media & Traffic Management</i> by Jim O'Neill, GEWI North America 3. <i>Travel Time Reliability of Signalized Arterials, the City of Calgary Case Study</i> by Mohammad Ansari Esfeh, University of Calgary and Dr. Lina Kattan, University of Calgary 4. <i>Calgary's Advanced Travel & Emergency Management System</i> by Sameer Patil, City of Calgary and Sugan Sivagnanam, City of Calgary 	<p>Plaza 5</p>

Time	Tuesday, May 3, 2016		Room
10:15 AM – 11:45 AM	<p style="text-align: center;">T2 Big Data & Analytics – Detection Technologies</p> <p>Moderator: Cory Edgar, PBX Engineering</p> <ol style="list-style-type: none"> 1. <i>Applications for Bluetooth Traffic Data</i> by Robert Bruce, TPA North America 2. <i>The Use of Bluetooth/WIFI Sensors for Arterial Traffic Signal Control</i> by Bruce Hellinga, University of Waterloo, Amir Zarinbal, University of Waterloo, Jordan Hart-Bishop, University of Waterloo and Cameron Berko, University of Waterloo 3. <i>Bluetooth-based Travel Time Systems – Bluetooth or WIFI based Technology to Collect Travel Time and Speed Data</i> by John Shearer, Iteris Inc and Scott Godfrey, GGI Road & Traffic 4. <i>The Importance of an Integrated Corridor Management Approach at Borders and their Surrounding Communities</i> by Mike Barnet, Ministry of Transportation of Ontario 		Garden Courts
11:45 AM – 1:30 PM Plaza 1	<p>Lunch (sponsored by the PBX Engineering)</p> <p>Address: “Innovative Freight Developments” by Richard B. Easley, President, E-Squared Engineering</p> <p>Keynote address: “ Driving the Future – Intelligent, Connected Vehicles” by Terry Ostan, Senior Manager –Innovation & Advanced Technology, GM Canada</p> <div style="display: flex; align-items: flex-start;">  <div style="margin-left: 20px;"> <p>Terry Ostan is the Senior Manager of Innovation & Advanced Technology at General Motors of Canada. He holds a degree in Mechanical Engineering and Management from McMaster University. Based at the Canadian Engineering Centre in Oshawa, Terry leads a diverse group of engineering teams that deliver designs and features in Advanced Chassis Technology, Advanced Body Systems, Active Safety Technologies, Computer Aided Engineering, Connected Vehicle and HMI Technologies. Terry has also been a Global Innovation Lead for General Motors for the Vehicle Dynamic Performance domain. Terry has had a rich and diverse career within GM of Canada. He has worked for GM Powertrain for 12 years where he developed expertise in alternative fuels and powertrain controls. On the vehicle side he has had the opportunity to work on many vehicle programs such as Buick Concept vehicles, Cadillac Professional Vehicles and was the Canadian Program Engineering Manager for the very successful Canadian designed Chevrolet Equinox and GMC Terrain crossover vehicles. Terry has 5 granted patents which reach across numerous vehicle systems and customer facing features such as diagnostics and fuel economy improvements.</p> </div> </div>		

Time	Tuesday, May 3, 2016	Room
1:30 PM – 3:30 PM	<p>Technical Tour 3 – Emergency Operations Centre (max 15 participants)</p> <p>Calgary's state of the art \$45-million Emergency Operations Centre had its first real world test during the 2013 Alberta floods - Canada's most expensive natural disaster, with total damages exceeding \$5 billion. The EOC is the City's command centre in any large scale emergency. It's impressive technology links all of the City's information resources, including a fully operational back up 911 centre, GIS services, traffic cameras, and even police helicopter surveillance. The facility is designed to be completely self-contained during the first 72 hours of any emergency. With 25 people on staff during non-emergencies, the facility can easily handle 200 people during an emergency, bringing representatives from all critical groups into a single facility to make fast decisions and facilitate effective collaboration between the right parties.</p> <p>During a major emergency, this facility is critical to coordinate the effort of thousands of workers and volunteers</p> 	<p>Registration desk</p> <p>Transportation to the technical tour sites is sponsored by Calgary Transit</p>
1:30 PM – 3:00 PM	<p>T3 Big Data & Analytics – Lessons of the Pan Am Parapan Am Games 2015</p> <p>Moderator: Geoff Knapp, MMM Group</p> <ol style="list-style-type: none"> 1. <i>Data for the 2015 Pan Am Parapan Am Games ITS Strategy</i> by Roy Hulli, Ministry of Transportation of Ontario 2. <i>The New MTO Central Region COMPASS Traffic Management Centre (CRCTMC)</i> by Ian Nelson, IBI Group, Lija Whittaker, Ministry of Transportation of Ontario and Ken Tai, Ministry of Transportation of Ontario 3. <i>Breaking down Barriers to ICM Operations</i> by Richard Chylinski, Parsons Inc and Roy Hulli, Ministry of Transportation of Ontario 	Plaza 5

Time	Tuesday, May 3, 2016	Room
1:30 PM – 3:00 PM	<p style="text-align: center;">T4 Advancing ITS Safety – Warning Systems</p> <p>Moderator: Allan Lo, Alberta Transportation</p> <ol style="list-style-type: none"> 1. <i>Implementation of a Variable Speed Limit Sign System on BC's Highways</i> by Cory Edgar, PBX Engineering 2. <i>Security for V2X Communications</i> by Brian Romansky, TrustPoint Innovation Technologies 3. <i>BC's Rural Highway – Wildlife Detection System</i> by Ian Steele, PBX Engineering and Brigid Canil, BC MoTI 	Garden Courts
1:30 PM – 3:30 PM	Virtual TMC Demonstration (sponsored by CIMA+)	Deerfoot Room
3:00 PM – 3:30 PM	<p>Break and networking with the Exhibitors (sponsored by Tetra Tech)</p> <p>Vehicle Showcase (sponsored by IMS) Chevrolet Volt by GM Canada, UoC Solar Car, Torch Motorcycles</p> <p>Sideshow Technology Showcase (sponsored by GE)</p>	Plaza 2-4 Foyer
3:30 PM – 5:00 PM	Exhibitors move-out	
3:30 PM – 4:30 PM	Revenue Systems Technical Committee Meeting	Plaza 5
4:30 PM – 5:30 PM	Advanced Traveller Information Technical Committee Meeting	Garden Courts

Time	Tuesday, May 3, 2016	Room
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6:00 PM – 9:30 PM
Plaza 1

ITS CANADA AWARDS CEREMONY AND GALA DINNER
Awards Ceremony Chair: John Greenough

Guest speaker Justin Fishkin, Chief Strategy Officer at Local Motors


“Built for Speed - The Future of Automotive Manufacturing”
Since the days of Henry Ford, the automotive industry has defined efficiencies based on economies of scale — limited product mix, high volume production, low profit margins, and amortization of product-specific tooling and productive capacity over many years. Local Motors is defined by an economy of scope — generating higher profit margins on fewer units of more models, without the need to re-tool to produce new products. An open digital platform combines global co-creation with local micro-production to **bring innovative vehicles (like the world’s first 3D printed car) to market at unprecedented speed.** Take a dive into the world of Local Motors with Chief Strategy Officer Justin Fishkin.

Strati – phase 2 subtractive manufacturing

Strati

Justin Fishkin is the Chief Strategy Officer of Local Motors, a technology company that designs, builds and sells vehicles. Justin marries a lifelong dedication to sustainability and making a difference in the world with a background in finance and investing. Prior to joining Local Motors, he served as Senior Portfolio Manager of Carbon War Room, an organization founded by Sir Richard Branson to identify and incubate entrepreneurial solutions to climate change. He began his career in investment banking at Goldman Sachs and later became an investor. Justin graduated with a BA in Economics from Duke University in Durham, North Carolina. He was born and raised in Washington, D.C.

Time	Wednesday, May 4, 2016	Room
7:30 AM – 8:30 AM	Registration	Plaza 2-4 Foyer
7:30 AM – 8:30 AM	Breakfast (sponsored by Associated Engineering)	Plaza 1
8:30 AM – 10:00 AM	<p style="text-align: center;">W1 Connected & Autonomous Vehicles</p> <p>Moderator: Ross McKenzie, WatCAR</p> <ol style="list-style-type: none"> 1. <i>Variable Speed Limit: A Microscopic Analysis in a Connected Vehicle Environment</i> by Bidoura Khondaker, University of Calgary and Dr. Lina Kattan, University of Calgary 2. <i>Connected Vehicle V2I Communication Application to Improve Driver Awareness at Signalized Intersections</i> by Mostafa Mohammed, University of Alberta, Yahui Ke, University of Alberta, Jie Gao, University of Alberta, Hui Zhang, University of Alberta, Karim El-Basyouny, University of Alberta and Tony Z. Qiu, University of Alberta 3. <i>Improved Traffic Signal Control Using Connected Vehicle Data</i> by Bruce Hellinga, University of Waterloo and Eshan Bagheri, Parsons Inc. 4. <i>Footprint Analysis of an Intelligent Forestry Transportation System based upon DSRC and Satellite-based M2M Communications</i> by Prof. David G. Michelson, University of British Columbia 	Plaza 5
8:30 AM – 10:00 AM	<p style="text-align: center;">W2 Advancing ITS Safety – Calgary Experience</p> <p>Moderator: Yeatland Wong, City of Calgary</p> <ol style="list-style-type: none"> 1. <i>Use of Rapid Rectangular Flashing Beacons for Pedestrian Safety in Calgary</i> by Tony Churchill, City of Calgary, Surendra Mishra, City of Calgary, Joanna Domarad, City of Calgary 2. <i>Queue Length Estimation and Prediction on Freeway Off-Ramps using Traffic Volume Count Data and Kalman Filter</i> by Seiran Heshami, University of Calgary and Dr. Lina Kattan, University of Calgary 3. <i>Calgary's Speed Limit Observation & Warning System</i> by Tony Churchill, City of Calgary, Surendra Mishra, City of Calgary, Joanna Domarad, City of Calgary 4. <i>The City of Calgary Mesh Connected Street Light and Traffic Signal Grid Project (LightGrid)</i> by Amy Hunter, City of Calgary, Varouj Arokun, GE Lighting Canada, Michael Gray, City of Calgary 	Garden Courts

Time	Wednesday, May 4, 2016	Room
10:00 AM – 10:30 AM	Break	Plaza 2
10:30 AM – noon	<p style="text-align: center;">W3 Big Data & Analytics – Communications</p> <p>Moderator: Homayoun Vahidi, IBI Group</p> <ol style="list-style-type: none"> 1. <i>Building Sustainable Communications Infrastructure for Municipal ITS</i> by David Basto, City of Calgary and Sameer Patil, City of Calgary 2. <i>Next Generation of Traffic Management</i> by Kliment Kuzmanovski, K4B Consulting 3. <i>ITS Data Collection Applications taking Advantage of Recent Advances in Mobile Communication and Geo Spatial Tools</i> by Jack Stickel, Alaska Department of Transportation and Public Facilities 4. <i>The Role of the Signalized Intersection in the Connected World</i> by Mike Clance, Intelight Inc. 	Plaza 5
10:30 AM – 11:30 AM	Connected and Automated Vehicle Technical Committee Meeting	Garden Courts
<p>Noon – 1:15 PM</p> <p>Plaza 1</p>	<p>Closing Luncheon of the 19th Annual Conference and Exhibition (sponsored by ISL Engineering)</p> <p>Closing remarks: Keenan Kitasaka, ACE 2016 Program Chair, Rob Shirra, Managing Director, ITS Canada and Michael De Santis, Chair ITS Canada</p> <p>Keynote address: "Building a practical city-wide wireless sensor network for the ultimate Intelligent City" by Scott Fawcett, Director Intelligent Cities, GE</p> <div style="display: flex; align-items: flex-start;">  <div> <p>With GE, Scott is focused on the development and delivery of innovative intelligent lighting solutions to municipalities and utilities. Scott is responsible for co-innovating with customers and partners new solutions on top of a completely new class of street lights – intelligent LED fixtures that are equipped with sensors, transmitters and microprocessors to act as a high-performing data grids, capable of providing extraordinary levels of insight into urban environments in real time. Scott currently is a Director on the Board of Directors for Alberta Innovates – Technology Futures (AITF). AITF manages the key technology research investment priorities for the Province of Alberta. Past roles have included: Global Industry Manager for Microsoft and Director Energy Industry & Smart Grid for Cisco Systems. Scott has a BSc from the University of Saskatchewan and a MBA from the EU Business School.</p> </div> </div>	

EXHIBITOR DESCRIPTIONS

Applied Electronics

1

Applied Electronics is Canada's leading provider of integrated media solutions and professional audio visual, broadcast and data management technology. Specializing in Control Room Display Solutions, we offer system design, supply and integration services, and we deliver innovative solutions to improve workflows, communication and collaboration for companies with media integration requirements.

GEWI North America

2

Founded in 1992, GEWI develops TIC software, a commercial off-the-shelf (COTS) product used worldwide by both commercial and government customers. TIC is used for <http://gewi.com/used-for/> many types of traffic related projects including traffic and travel events, road incident management, navigation testing, and real-time navigation and connected services. More information at www.gewi.com <http://www.gewi.com>

Innovative Traffic Solutions

3

Innovative Traffic Solutions Inc. (ITS) is an ISO 9001:2008 certified fully integrated distributor of traffic control products and your source for traffic control solutions. Since 1999 we have been providing Intelligent transportation systems and solutions from coast to coast across Canada.

Parsons

4

Since 1944, Parsons has been a trusted name in transportation, providing engineering and construction services on projects of any size and complexity. A pioneer in Intelligent Transportation Systems, Parsons has an international reputation for creating safer, better, and more sustainable ways to travel the world, one project at a time.

GGI Road & Traffic

5

GGI Road & Traffic offer solutions that are reliable and easy to use. We proudly distribute Iteris Roadway Sensor products in Canada consisting of Radar and Video Vehicle Detection, SmartCycle Bicycle Detection and Velocity Travel Time Systems. In Ontario we are the distributor of Lufft RWIS Sensors. We proudly offers the Patented Quick Change Kit (QCK). Change an LED can be as fast and easy as a light bulb, no tools required.

Versilis Inc.

6

With constant increase in highway traffic and road construction, the need for innovation in traffic control is urgent. Over the years Versilis has developed new solutions to maximize safety on our roads for users and workers while minimizing impact on traffic flow. The remotely controlled [SwiftGate lane closure system](#) is a SAFE, FAST and EASY way to conduct repetitive lane closures and openings from a distance. The [SwiftSign remote control signage](#) can also be activated from a distance. SwiftSign is a quick install solution that provides instant safety benefits, not to mention time and cost savings.

Tele

7

Telenium Inc. has developed Canada's leading system for informing the public of travel conditions. Telenium's off-the-shelf, cloud enabled Road Condition Reporting System (RCRS) offers a timely and reliable automated solution. The provinces of Alberta, Manitoba, Nova Scotia, PEI, Saskatchewan, New Brunswick as well as Yukon Territory employ Telenium's RCRS for their 511 Traveller Information Systems.

Smart Microwave Sensors GmbH 8

Smartmicro is the developer of the UMRR (Universal Medium Range Radar) used for intersection control, highway congestion monitoring, corridor speed enforcement applications, and autonomous vehicle implementations. It is the only radar in the market that can be used for multiple ITS applications using a single sensor platform.

Mitsubishi Electric Display Wall Systems 9-10

Mitsubishi Electric, Activu Corporation, Transnomis and Winsted provide turn-key & ergonomic, real-time visualization & collaboration solutions for effective sharing of multiple simultaneous sources of critical data, graphics and video information, on high-resolution common operating control room displays, enhancing operator performance & assisting with informed decision-making in 24x7 mission-critical operating environments.

Connected Vehicles & Smart Transportation 11

The CVST platform supports applications in smart transportation. It has three components: 1. Data management to gather and securely distribute real-time and historical data; 2. Business intelligence to produce value-added information; 3. APIs to support smart applications. We demonstrate portals that visualize real-time transportation data for Calgary and Toronto.

Daktronics 12

A world-wide reputation for quality and reliability, an extensive line of DMS products and 25 years of transportation industry experience give Daktronics its strong lead in the ITS display market. Daktronics has installed more than 4,000 Vanguard® DMS in North America, guiding millions of motorists every day. Learn more at Daktronics.com/ITS.

Vaisala 13

Stressed about making winter weather maintenance decisions? Vaisala is the global leader in offering the highest quality experts available to solve any of your weather challenges. Vaisala offers quality, accurate, and reliable equipment alongside cloud software to give you many options for viewing. Make sure when you need help with a road weather challenge it begins with Vaisala.

Roadway Traffic Products/Addco 14

Roadway Traffic Products has a long history of bringing traffic control and traffic calming products into the Western Canadian Market. We pride ourselves in aligning with manufacturers that have superior products and unique competitive advantages. One of our key manufacturing partners is ADDCO which is the producer of the Brick DMS sign. Come by **to see the Brick DMS display and find out how we separate ourselves from the rest."**

ADDCCO – St. Paul, MN USA
Since our founding more than 55 years ago, we have earned a reputation for engineering and manufacturing durable products and providing exceptional customer service. Our engineers create solutions for real-world problems. They research root causes, develop new approaches and test from concept through implementation. Our track record in the field, reputation for product innovation and quality certifications ensure that our Dynamic Message Signs will perform consistently even in the most demanding environments.

Cellint Traffic Solutions	15
<p>Cellint is using cellular signaling data to generate real time traffic information at sensors quality, as well as for providing origin destination analysis over 30% of the population. Our technology can pinpoint each active phone in the network to the exact street it is traveling on, and to the exact location on that street in short intervals, by matching the cellular network data in real time with reference database that includes cellular mappings of the roads. Our data enables us to micro-analyze each congestion contributor and find the most cost-effective mitigation measures.</p>	
Fortran Traffic Systems Ltd.	16-17
<p>Fortran Traffic Systems Ltd. is a leader in the North American traffic industry, providing totally integrated, turnkey transportation solutions. Fortran offers a challenging environment that fosters creativity and rewards excellence. Our team specializes in the design, development and manufacture of real-time, mission critical traffic management and control systems.</p>	
ENCOM Wireless Data Solutions Inc.	18
<p>ENCOM Wireless Data Solutions has been an industry leader for over 25 years specializing in wireless Broadband Communications and RF Engineering. Founded in Calgary, Alberta ENCOM has provided reliable wireless communications to the Oil & Gas Industry, ITS, Public Safety Communications, Municipal Corporate Networks and Water and Waste Water Management sectors.</p>	
Interprovincial Traffic Services	19
<p>Interprovincial Traffic Services Ltd. is a privately held business located in Surrey, BC. We provide the transportation market with innovative products and technology designed to improve the safety and efficiency of both current and future transportation infrastructures. Interprovincial Traffic proudly represents a number of 'best in class' manufacturers with products ranging from pavement markings and traffic calming devices to signals, controllers and central system software.</p>	
TSS Transport Simulation Systems	20
<p>TSS-Transport Simulation Systems (TSS) develops and supports the integrated Aimsun traffic modelling software environment and also Aimsun Online, the real-time decision support system for traffic management. Now with offices in Barcelona, London, Paris, Sydney, New York City and Portland OR, TSS services over 3,600 users in 70 countries, including government agencies, consultancies and academic users.</p>	
Siemens Canada Ltd.	21
<p>Reliable network communications are a critical necessity for monitoring and managing increasingly complex transportation infrastructures. Siemens' RUGGEDCOM products enable end-to-end communications solutions for urban, interurban, bridge and tunnel communications systems. RUGGEDCOM products are able to withstand the harshest environmental conditions and comply with NEMA TS 2 environmental requirements.</p>	
International Road Dynamics	22
<p>IRD (International Road Dynamics Inc.) is a Highway Traffic Management Products and Systems Technology Company. IRD's advanced technologies and systems provide benefits in commercial vehicle operations, traffic data collection, traffic safety, toll operations and fleet management. IRD is recognized as an ITS leader and has supplied its systems and products throughout the world.</p>	

Tacel	23
<p>Tacel Ltd, incorporated in 1979, is a diverse and dynamic company that has become one of Canada's leading suppliers of Intelligent Transportation Systems (ITS) and Traffic Control Devices. We manufacture and distribute the industries best quality products, and are ISO 9001:2008 registered. Please stop by booth #23 and say hi!</p>	
Orange Traffic	24
<p>Orange Traffic's goal is to optimize the FLUIDITY and SECURITY on the road in an innovative way. Orange Traffic specializes in the manufacturing and distribution of an array of high-quality and ISO 9001 certified devices for the traffic signage and signal industry. The company's human and innovative approach is what sets it apart.</p>	
Electromega Ltd.	25
<p>A company seriously involved in the transportation field across Canada. We provide integrated solutions, expertise and services in many areas including: traffic, parking, roadway security and LED message signs. All our products and solutions are approached under an integrated perspective. They benefit from the most up to date technology required for today and tomorrow urban areas.</p>	
TrustPoint Innovation Technologies Ltd.	26
<p>TrustPoint develops innovative products and solutions to address the security needs for IoT and M2M communications, including connected car and V2X applications. TrustPoint helps customers embed the highest standard of security in constrained devices while maintaining central control over identities and authorizations. TrustPoint is also the Security Technical Expert for the US DoT V2X crash avoidance system, helping write the specification for the Security Credentials Management System (SCMS).</p>	
Econolite Canada Inc.	27-28
<p>Since 1985, Econolite Canada is a leading provider of comprehensive traffic management solutions and Intelligent Transportation Systems. Committed to the advancement of connected vehicles and other leading edge technologies, Econolite's solutions ease traffic congestion, enhance transit operations, provide safer mobility, and improve quality of life.</p>	
Calgary Parking Authority	29
<p>The ParkPlus System offers municipal and commercial parking managers with an innovative and proven system for efficient management of parking operations. The ParkPlus System is the first application of 'pay-by-plate' technology worldwide. Developed by the Calgary Parking Authority the ParkPlus System is a proven and effective solution for the fully integrated management of parking payment and permits.</p>	
RouteMatch Software	30
<p>RouteMatch provides fully-integrated technologies to optimize both vehicle management and the rider experience. The option to "mix and match" modules based on need allows RouteMatch to be one of the most adaptable solutions on the market. Our clients enjoy unrivaled customer service, a dedicated partnership and constant innovation.</p>	

Axis Communications Inc

31

Axis Communications offers intelligent security solutions that enable a smarter, safer world. As the global market leader in network video, Axis is driving the industry by continually launching innovative network products based on an open platform - delivering high value to customers through a global partner network. For more information about Axis, please visit our website www.axis.com.

Centre for Smart Transportation – UoA

T1

The Centre for Smart Transportation (CST) is a unique research group within the Department of Civil and Environmental Engineering at the University of Alberta. We are committed to researching and developing leading-edge solutions to transportation-related issues in planning, operation and safety. In collaboration with several partners, we are currently **working to establish Canada's first Connected Vehicle test bed network, ACTIVE-AURORA.**

UWaterloo/WatCAR

T2

WatCAR is Canada's leader in the development of real-time wireless communication applications utilized between vehicles, infrastructure, and smartphones. Our connectivity and systems research contributes to ITS advances in; Public transit operations & planning, Traffic management & simulation modeling and Powertrain optimization. Collaborate with uWaterloo/WatCAR expertise and accelerate your product development.

University of Calgary

T3

Established within the Department of Civil Engineering at the University of Calgary, transportation research group aims to develop sustainable transportation management **strategies capable to optimize the safety, operation, capital and operating costs of Calgary's** growing transportation system. The work of the group is focused on transportation planning, traffic engineering, road safety, public transport and airport planning.

Alberta Centre for Advanced MNT Products

T4

ACAMP a not-for-profit, is an international group of businessman and product developers **with over 35 years'** experience in taking products to market. Our services encompass key areas identified as critical for the commercialization of technology based products. Clients have access to world-class equipment, facilities, expertise and a network of organizations that support product development through manufacturing.

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HOTEL LOCATION MAP

