

# ITS Canada Awards Program

2015

2015 Distinguished ITS Canada Member of the Year Award: Terry Bergan

As President and CEO of International Road Dynamics Inc since 1987, Terry Bergan has been a leading global figure in the ITS industry. International Road Dynamics was a charter member of ITS Canada in 1997 and has been a Sustaining Member ever since. Terry was one of the founding Directors of the Society. In addition to his role in ITS Canada, Terry Bergan has participated on many industry organizations such as ITS America, International Roads Federation (IRF), American Society of Testing of Materials (ASTM) and has written and co-authored several published technical papers.

He has built a world class brand in the ITS market and a successful Saskatoon based company that is 100% focused on intelligent application of technology to solve transportation problems throughout the world.

**Terry's entrepreneurial and engineering leadership has been demonstrated in a range of projects throughout Canada and internationally, including: Commercial Vehicle Sorting and Weight Enforcement Stations, Tolling systems, Border security systems and Highway Data Collection systems.**

Mr. Bergan has travelled to many countries worldwide and participated in international delegations with Canadian Prime Ministers Chretien and Harper, Saskatchewan Premier Brad Wall, Former US Secretary of Transportation Pena and numerous Canadian business delegations. He is a member of the Saskatchewan-Asia Business Council having been appointed by and reporting to Premier Wall.

Terry graduated from the University of Saskatchewan with a Bachelor of Science in Civil Engineering and is a member of the Association of Professional Engineers of Saskatchewan.



2015 ITS Project/Program Award: BC Regional Transportation Management Centre, BC Ministry of Transportation and Infrastructure  
Larger Municipality Area or Provincial/Federal Application Category

The BC Regional Transportation Management Centre is an example of innovation in both its partnerships and the technology used within the Province of BC to accomplish three primary goals: improving incident management, creating a regional hub for data sharing, and being setup as a central emergency facility for stakeholders to coordinate and provide transportation related information during an emergency event.

To accomplish this, the Ministry, in partnership with Transport Canada and TransLink, has invested time and resources in developing solid partnerships with many other external government agencies to coordinate and share data. The RTMC further supports these partnerships with state of the art technology that will allow everyone to achieve a common understanding of transportation events and locations within the Province using a single system.

With the development of the RTMC, the Ministry now have the capability to be able to connect to many existing systems both internal and with many partners to streamline information related to border data, congestion, port activities, provincial and national emergencies, weather, transit information related to buses and rapid transit, and other transportation related information.

The Regional Transportation Management Centre is also working closely with Emergency Management BC, the Port Metro Vancouver, ECOMM, BC Ferries, the Border Agencies and many regional municipalities to be a central focal point for collecting and reporting on transportation related responses to major emergency related events. This will eventually include all transportation related agencies being able to interact with a single event map that can log and report on events on all road networks.



2015 ITS Project/Program Award: Highway Ramp Flushing Project, City of Regina  
Smaller Metropolitan Area or Rural Application Category

The City of Regina Traffic Signal Department undertook a high priority project designed to alleviate the problem of vehicles backing up from an off ramp onto a high speed roadway due to the off ramps signalization reaching saturation. This was causing safety concerns stemming from increasing accidents such as rear end collisions, or vehicles veering off the road into the ditch to avoid collision. High traffic volumes of the main street corridor of the bypass, along with land elevations, infrastructure and equipment restrictions added to the complexity of the project.

Through the use of video detection and radio communications, and utilizing non standard types of infrastructure, the technical operations team was able to overcome these restrictions for setup. Using innovative controller programming, coupled with special program commands set in the central monitoring system, the project proved successful in effectively flushing the off ramp and reducing vehicle back ups, while minimally affecting the coordinated timing patterns of main street traffic.

A PTZ camera, along with wireless Ethernet equipment was also installed, enabling staff to remotely view real time video and perform on the fly configuration adjustments to the detection.



2015 New Canadian Commercial Industry/Academic ITS Technology/Innovation/R&D Award: Marlin:  
Smart Traffic Lights That Learn, University of Toronto

MARLIN, is a new machine-learning-based control software system for self-optimization of traffic lights. MARLIN seamlessly integrates with existing intersection traffic control system hardware. MARLIN runs on a palm-size computer that is connected directly to the controller through a standard interface, and commands the controller to execute specific actions that minimize intersection delay. MARLIN enables the traffic light system to self-learn and self-collaborate with neighbouring traffic lights , wirelessly, and does not need to be managed centrally.

MARLIN was developed at the University of Toronto ITS Lab and Testbed by Dr. Samah El-Tantawy during her PhD under supervision of Prof. Baher Abdulhai. Dr. Samah's dissertation of MARLIN has won two international awards including IEEE Best Dissertation Award for 2013. Based on extensive testing on a virtual model of downtown Toronto, MARLIN reduces motorist delays at intersections by an average of 40%. It improves travel **times on major corridors like Toronto's Lake Shore Blvd. by 25% and cuts down emissions by 30%**. El-Tantawy and Abdulhai are the co-founders of Pragmatek Transportation Innovations (PTI), a Uof T spin-off company in partnership with PEEK Traffic Inc., incorporated in Canada in 2013 to commercialize MARLIN.

MARLIN was awarded the Connaught Innovation award from University of Toronto in 2014 for a pilot project of deploying MARLIN in four intersections in the City of Burlington that is currently in progress and expected to be completed by June 2015.

