

Announcement: University of Toronto Transportation Research Institute receives funding from Ontario Research Fund-Research Excellence Round 7

March 2015

"iCity: Urban Informatics for Sustainable Metropolitan Growth" was one of 22 projects funded, of 92 projects submitted, by the Ontario Research Fund-Research Excellence Round 7 competition. The project, which will run for four years until June 2019, received \$2.95 million dollars which is being matched by institutional and industry support.

iCity is a collaborative endeavor between researchers at the University of Toronto, OCAD University, the University of Waterloo and IBM Canada. It is led by Principal Investigator Prof Eric J. Miller, director of the University of Toronto Transportation Research Institute (UTTRI) and a professor in the Department of Civil Engineering.

The project

iCity is a virtual lab for urban design that will develop and apply advanced data, analysis and visualization capabilities to find innovative ways to improve urban transportation system performance and design efficient, sustainable cities for the well-being of individuals and society.

This very ambitious project was selected for its potential to make significant contributions to and advance knowledge in the fields of city science and urban informatics. It will use modeling, simulation, visualization and decision support to tackle a major societal challenge, that of understanding and evolving future cities as complex "systems of systems".

The goals of iCity are highly relevant and timely, considering the need for urban infrastructure upgrades due to the increasing urbanization and growing need for sustainability and resilience. The external experts who assessed the scientific excellence of the iCity proposal note the potential to build international collaborations around the iCity research program and to develop tools that can be exported to cities around the world.

Improving urban transportation system performance and designing efficient, sustainable cities has great implications for the economic status of Ontario and well-being of its citizens. The lessons learned will provide a template for other urban areas that are facing similar problems and present significant opportunity for advancement of knowledge nationally and internationally.



The team

The external experts also commented on the quality, expansive expertise and multi-disciplinary composition of the research team, the great potential for cross-fertilization of ideas and the excellent project management plan that mitigates the risk of working with multi-disciplinary teams.

The research program is organized around three interrelated themes: Urban Informatics for Transportation Operations, Planning and Decision-Making, co-led by University of Toronto professors Mark S. Fox and Baher Abdulhai; Urban Mobility & Integrated Urban Systems Design, led by University of Toronto professor Matthew Roorda; Visualization and Decision-Support, led by Professor Sara Diamond, President of OCAD-U. Judy Farvolden, UTTRI's program director, is the project manager.

The iCity team thanks the commercial and public partners and supporters who endorsed the iCity proposal. The team looks forward to working with partners Cellint, City of Toronto, IBM Canada, Esri Canada, Maximum City, Region of Waterloo and Waterfront Toronto and supporters i-Canada, Metrolinx, Ontario Ministry of Transportation, Ontario Ministry of Municipal Affairs & Housing and VARDEC.

About UTTRI

UTTRI brings the considerable depth and breadth of UofT research to bear on real-world urban transportation problems. It fills a critical gap between traditional academic research, professional consulting and public sector transportation planning and operations. Building upon our research expertise and working relationships with both the public and private sectors, UTTRI seeks to find innovative ways to improve urban transportation system performance and design efficient, sustainable cities for the well-being of individuals and society.

UTTRI was established by Prof Cristina Amon, Dean of the University of Toronto's Faculty of Applied Science and Engineering in June 2013 with support from the Dean's Strategic Fund.

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