



The Canadian Society for Civil Engineering
The Canadian Geotechnical Society



London & District Section

2017/2018 Program

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GREAT PRICES!

Pricing to attend an individual meeting:

- **CSCE/CGS Member** **\$25**
- **Non-member** **\$30**
- **Student** **\$15**

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| Member Dinner Card | \$150 |
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| Student Dinner Card | \$90 |

Cards can be purchased at the September, October and November meetings.

*Contact Julian Novick @ 519-850-0020 x 104,
(Email: julian@wastell.ca) for more details.*

Notes about Meetings

- *Events are held at Fox and Fiddle, located at King St. and Wellington St. (Citi Plaza).*
- *Parking validated for Citi Plaza lot.*
- *Cash bar is available.*
- *Networking opportunity starts at 5:45 pm.*
- *Dining at 6:30 pm*
- *Presentation at 7:15 pm, followed by Q & A.*

2017/2018 PROGRAM

Wednesday September 20th, 2017

Anthropogenic Influence on Flooding and Water Shortage

Presenter: Mohammad Reza Najafi, Ph.D.; Assistant Professor, Western University

Wednesday October 18th, 2017

Niagara Tunnel Project, Quality Management & Quality Assurance Inspection and Testing

Presenter: Keith Foster, P.Eng.; Director of Expertise, Englobe

Wednesday November 15th, 2017

CSCE National Lecture Tour – Lac-Mégantic Cleanup

Presenter: Senator Prof. Rosa Galvez, Ph.D., P.Eng.; Laval University

Wednesday January 17th, 2018

London's Bicycle Master Plan

Presenter: Doug MacRae, P.Eng.; City of London

Wednesday February 21st, 2018

Western LEED Platinum Building

Presenter: Richard Hammond, *BES BArch MERS OAA MRAIC LEED®AP(BD+C) GGP*; Principal, Cornerstone Architecture

Wednesday March 21st, 2018

Western University Civil and Environmental Engineering Design Project

Presenters: Winning teams of 4th Year Western Engineering Students

Wednesday April 18th, 2018

London's Infrastructure: Challenges and Opportunities

Presenter: Kelly Scherr, P.Eng., *PTOE, MBA, FEC*; City of London

Wednesday September 20th, 2017: **Mohammad Reza Najafi, Ph.D.;** Assistant Professor, Western University

Anthropogenic Influence on Flooding and Water Shortage

Changes in the magnitude and frequency of hydroclimatic extremes are evident in many regions in Canada and around the globe, which may threaten existing infrastructure and challenge future designs. I will discuss possible contributions from anthropogenic (such as increases in greenhouse gas concentrations) and natural external forcing factors to the observed trends in hydroclimate variables, and their projected impacts.

Wednesday October 18th, 2017: **Keith Foster, P.Eng.;** Director of Expertise, Englobe

Niagara Tunnel Project, Quality Management & Quality Assurance Inspection and Testing

This major hydroelectric power generation project consisted of a 10.4km long, 14.4m diameter tunnel constructed approximately 140m below the City of Niagara Falls using the world's largest hard rock boring machine. The tunnel channels 500 cubic metres of water per second diverted from the Niagara River for electricity generation at the Sir Adam Beck hydroelectric generating station, increasing its annual capacity by 14 %. Englobe Corp. carried out an evaluation of the dolomitic limestone bedrock excavated from the Diversion Intake Channel for potential use as construction aggregate and implemented the Quality Management System for the Project. Englobe provided a Quality Manager and on-site Quality Assurance testing and inspection around the clock, using an on-site CCIL/CSA-certified concrete testing laboratory with a full time field and laboratory supervisor and six full-time certified laboratory and field technicians.

Wednesday November 15th, 2017: **Senator Professor Rosa Galvez, Ph.D., P.Eng.;** Laval University

CSCE National Lecture Tour – Lac-Mégantic Cleanup

The Lac-Mégantic train derailment and fire on July 6, 2013 was a human catastrophe and an environmental disaster. A runaway train containing 74 rail cars of light crude oil derailed and caught fire. The explosions and fire killed 47 residents and destroyed over 30 buildings. This was the deadliest rail accident in Canada since 1864. Approximately 6.3 million litres of oil was released into the environment, creating air, water and soil contamination. This presentation will describe what happened and outline the efforts made to remediate the impacts to this community and the environment.

Wednesday January 17th, 2018: **Doug MacRae, P.Eng.;** City of London

London's Bicycle Master Plan

The creation of "London ON Bikes", the City's new Cycling Master Plan, will be discussed.

Wednesday February 21st, 2018: **Richard Hammond, BES BArch MERS OAA MRAIC LEED®AP(BD+C) GGP;**
Principal, Cornerstone Architecture

Western LEED Platinum Building

The outline and history of LEED green building standards, and their application to Western Engineering's new Three C+ building, targeted to achieve platinum certification in accordance with LEED 2009, will be presented. Other contemporary green building standards, and issues and opportunities for making buildings greener will be briefly discussed.

Wednesday March 21st, 2018: **4th Year Engineering Students;** Western University

Western University Civil and Environmental Engineering Design Project Winners

For more than 20 years the City of London and Western Engineering have partnered to engage 4th year students in a capstone design competition. Student teams work on real-world projects proposed by the City with the support of Faculty and external advisors. The final designs highlight innovative materials and construction techniques while providing value and aesthetic benefit to the City. In this presentation, winning teams from this year's City of London Competition will present their designs for a pedestrian bridge over the Thames river linking the SoHo neighbourhood to Watson St. Park, a replacement for the culvert carrying Mud Creek under the CNR tracks and sewer separation along York St. between Colborne St. and the Thames river.

Wednesday April 18th, 2018: **Kelly Scherr, P.Eng., PTOE, MBA, FEC;** City of London

London's Infrastructure: Challenges and Opportunities

Presentation on the challenges and opportunities the future might hold for our city's infrastructure and the people who plan, design, build and manage it.