

The Canadian Society for Civil Engineering

The Canadian Geotechnical Society



London & District Section

2022/2023 Program

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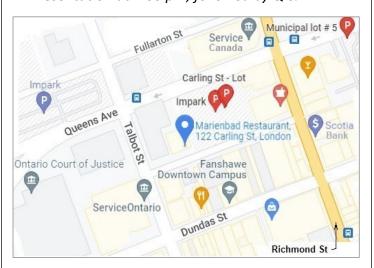
Pricing to attend an individual meeting (cash only):

CSCE/CGS Member \$30
 Non-member \$35
 Student \$20

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

Notes about Meetings

- Events are held in the Fireplace Room at Marienbad Restaurant, located at 122 Carling Street in downtown London (see map below).
- Plenty of parking at adjacent paid lots, or at city parking metres (free after 6pm or 2 hours free parking using the HonkMobile app code "CORE").
- Cash bar is available.
- Networking opportunity starts at 5:45 pm.
- Dining at 6:30 pm.
- Presentation at 7:00 pm, followed by Q & A.



2022/2023 PROGRAM

Wednesday September 21st, 2022

Building a Growing London

Presenter: Kelly Scherr, P.Eng.; City of London
Deputy City Manager, Environment & Infrastructure

Wednesday October 19th, 2022

Automated Calibration of Geomechanical Models

Presenter: Dr. Bing Li; Assistant Professor,

Western University

Wednesday November 23rd, 2022

Bridging for The Future – The Rehabilitation of the King George VI Lift Bridge

Presenter: Brian Lima, P.Eng.; County of Elgin General Manager of Engineering / Deputy CAO

Wednesday January 18th, 2023

James A. Vance (1892-1981): From Punkeydoodles Corners to National Prominence

Presenter: Dr. Mike Bartlett, P.Eng., FCSCE, MA; Chair of CSCE National History Committee

Wednesday February 15th, 2023

Dundas Place

Presenter: Jeff Scarrow, P.Eng.; Dillon Consulting

Wednesday March 22nd, 2023

Western University Civil and Environmental Engineering Design Project Winners

Presenters: Winning teams of 4th Year Western Engineering Students

Wednesday April 19th, 2023

City of London Cycling Master Plan

Presenter: Doug McRae, P.Eng., MPA; City of London Director, Transportation and Mobility

Wednesday September 21st, 2022: Kelly Scherr, P.Eng., MBA, FEC; City of London
Deputy City Manager, Environment & Infrastructure

Building a Growing London

Presentation on projects and plans that will provide infrastructure for our fast-growing city, now and for years to come.

Wednesday October 19th, 2022: Dr. Bing Li; Assistant Professor, Western University

Automated Calibration of Geomechanical Models

Current state-of-the art geomechanical models are highly sophisticated in their consideration of the phenomenological behaviour of soil and rocks, however engineers lack tools to determine appropriate parameters to select for their analyses. This is often owing to the natural variability of rock and soil characteristics, as well as limitations in scaling laboratory measurements to the field scale. Recent advances in surveying methods, in particular radar-based methods, have been successfully deployed to record full-field ground displacement with high temporal and spatial resolution. They present a great opportunity to characterize the in-situ geotechnical behaviour of sites. We first discuss a project to calibrate the behaviour of the Raft River geothermal energy extraction site, where earthquakes are detected in the deep crystalline basement. Our geomechanical model, which is calibrated by satellite measurements, suggests that these earthquakes are driven by poroelastic stresses originating from shallow cold water injection. We then discuss an ongoing project to automatically calibrate modelled rock fall trajectories against radar-measured bounce points using a surrogate regression model to minimize function calls of the rock fall simulator.

Wednesday November 23rd, 2022: Brian Lima, P.Eng.; County of Elgin, Manager of Engineering / Deputy CAO

Bridging For The Future - The Rehabilitation of the King George VI Lift Bridge

In 2021, the King George VI lift bridge began a new chapter in its life as it watches over the Village of Port Stanley, but it can also look back on over 8 decades of service. During the height of the COVID pandemic, the King George VI lift bridge which spans Kettle Creek underwent a 16-month significant rehabilitation to preserve it for generations to come. This iconic bridge structure is a single-span double leaf bascule bridge that continues to carry two lanes of traffic and pedestrians across Kettle Creek, and opens to allow the passage of commercial fishing and recreational watercraft.

<u>Wednesday January 18th, 2023</u>: **Dr. Mike Bartlett, P.Eng., FCSCE, MA**; Chair of CSCE National History Committee James A. Vance (1892-1981): From Punkeydoodles Corners to National Prominence

Two prominent awards are named after James A. Vance – Western Engineering gives a Vance Medal annually to the top graduate in the Civil and Environmental Engineering program and CSCE gives a Vance Medal annually for service to the Society. This presentation will briefly explore Vance's life and career. Vance was born on a farm at Punkeydoodles Corners. He assumed control of the family's construction company in Woodstock in 1914, when he was just 22, after his father passed away prematurely. He was elected President of the Engineering Institute of Canada in 1950-51 – and in 1955 was named a member (and later chaired) the Ontario Water Resources and Supply Committee – rather a jump from contracting! He later became Commissioner of the Ontario Water Resources Commission and so in September 1964 attended the sod-turning ceremony at Grand Bend to build the pipeline that supplies London with fresh water from Lake Huron. He also had a role in creating the engineering school at Western and in 1959 received an Honorary Degree from Western.

Wednesday February 15th, 2023: Jeff Scarrow, P.Eng.; Dillon Consulting Limited

Dundas Place (additional information to be provided)

Wednesday March 22nd, 2023: 4th Year Engineering Students; Western University

Civil and Environmental Engineering Design Project Winners (additional information to be provided)

<u>Wednesday April 19th, 2023</u>: Doug McRae, P.Eng., MPA; City of London, Director of Transportation and Mobility City of London Cycling Master Plan (additional information to be provided)



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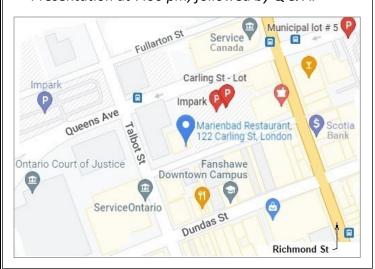
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UPDATED 2023 PROGRAM

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James A. Vance (1892-1981): From Punkeydoodles Corners to National Prominence

Presenter: Dr. Mike Bartlett, P.Eng., FCSCE, MA; Chair of CSCE National History Committee

Wednesday February 15th, 2023

Benefits of Falling Weight Deflectometer Testing on Municipal Networks

Presenter: Tony Wagner, C.E.T.; Englobe Team Leader, Materials Engineering - SWO

Wednesday March 22nd, 2023

Western University Civil and Environmental Engineering Design Project Winners

Presenters: Winning teams of 4th Year Western Engineering Students

Wednesday April 19th, 2023

City of London Mobility Master Plan

Presenter: Doug MacRae, P.Eng., MPA; City of London Director, Transportation and Mobility

Wednesday January 18th, 2023: Dr. Mike Bartlett, P.Eng., FCSCE, MA

Chair of CSCE National History Committee

James A. Vance (1892-1981): From Punkeydoodles Corners to National Prominence

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Wednesday February 15th, 2023: Tony Wagner, C.E.T.

Englobe, SWO Materials Engineering Team Leader

Benefits of Falling Weight Deflectometer Testing on Municipal Networks

Falling Weight Deflectometer Testing technology is based on the principals of the Benkelman beam. The data set collected with FWD equipment provides significantly more information, improved safety to the operator, as wells as a reduction in traffic interference and interruptions. The data collected with the FWD can be used to determine pavement strengths on municipal and provincial roadways, commercial applications as well as airports.

Wednesday March 22nd, 2023: 4th Year Engineering Students

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.

Wednesday April 19th, 2023: Doug MacRae, P.Eng., MPA

City of London, Director of Transportation and Mobility

City of London Mobility Master Plan

The City is entering a new era of transportation planning! The creation of a Mobility Master Plan is underway to plan the next generation of transportation projects. The MMP vision is that by 2050, Londoners of all identities, abilities and means will have viable mobility options to allow them to move throughout the city safely and efficiently. The movement of people and goods will be environmentally sustainable, affordable, and supportive of economic growth and development.