



The Canadian Society for Civil Engineering

The Canadian Geotechnical Society



London District Section

2011 / 2012 Program

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*Contact Tom Mara @ (519) 697-1547,
(Email: tmara3@uwo.ca) for more details.*

**Notes about Meetings Held at the
Fox and Fiddle Restaurant**

- Location: Fox and Fiddle, located at King St. and Wellington St. (Citi Plaza). Parking validated in Citi Plaza lot.
- Cash bar is available.
- Networking opportunity commences at 5:45 p.m.
- Dining at 6:30 p.m.
- Presentation at 7:15 p.m., followed by Q & A.

See reverse side for event details.

2011 / 2012 PROGRAM

WEDNESDAY SEPTEMBER 21ST, 2011

**INTERNATIONAL DEVELOPMENT INTERNSHIP - UWO STUDENTS
RETURNING FROM THE GAMBIA**

SPEAKERS: University of Western Ontario Students, Department of Civil Engineering

WEDNESDAY OCTOBER 12TH, 2011

**THE DEVASTATION OF CHRISTCHURCH, NEW ZEALAND –
REFLECTIONS OF A CANADIAN ENGINEER**

SPEAKER: MICHAEL COLLINS, P.ENG., PH.D., UNIVERSITY OF TORONTO

WEDNESDAY NOVEMBER 16TH, 2011

WATER INFRASTRUCTURE MANAGEMENT

SPEAKER: MICHAEL D'ANDREA, P.ENG., CITY OF TORONTO

WEDNESDAY JANUARY 18TH, 2012

LOW-TEMPERATURE GEOTHERMAL HEAT PUMP (GHP) SYSTEMS

SPEAKER: ROBERT SCHINCARIOL, P.ENG., P.GEO., UNIVERSITY OF WESTERN ONTARIO

WEDNESDAY FEBRUARY 15TH, 2012

MANAGING RISKS ASSOCIATED WITH SUPPORTED EXCAVATIONS

SPEAKERS: STORER BOONE, P.ENG., PH.D., GOLDBER ASSOCIATES LTD.

WEDNESDAY MARCH 21ST, 2012

**STRUCTURAL ENGINEERING A CENTURY AGO: A TALE OF TWO
BRIDGES**

SPEAKER: MICHAEL BARTLETT, P.ENG, PH.D., UNIVERSITY OF WESTERN ONTARIO

WEDNESDAY APRIL 25TH, 2012

**TRAFALGAR ST./HALE ST. & CN RAIL ELEVATED ROUNDABOUT
GRADE SEPARATION**

SPEAKER: HENRY HUOTARI, P.ENG., DELCAN

Wednesday September 21st, 2011 Presenters: Students from the University of Western Ontario, Department of Civil Engineering

International Development Internship – UWO Students Returning from The Gambia

Three students have participated in a three month internship from May - August 2010 in Banjul, The Gambia. They completed a three week training program with the West African Community Development Training Centre. They then worked with the Gambian Ministry of Agriculture (Soil and Water Management Services) to obtain practical engineering experience in the context of development. They worked with the Ministry of Agriculture on watershed management projects facilitated through the national Participatory Integrated Watershed Management Project.

Wednesday October 12th, 2011 Presenter: Michael Collins, P.Eng., Ph.D., University of Toronto

The Devastation of Christchurch, New Zealand – Reflections of a Canadian Engineer

Since the 4th of September 2010 Christchurch has been struck by three earthquakes with magnitudes larger than 6.3, and more than 300 with magnitudes greater than 4. These earthquakes are occurring in a region of New Zealand which was not classified as having a high seismic risk. While only 182 people have been killed the central city has been destroyed and the economic damage is estimated to exceed \$25 billion. The talk will describe what it was like to be in Christchurch during the most damaging of these earthquakes and what lessons these events have for Canadian engineers.

Wednesday November 16th, 2011 Presenter: Michael D'Andrea, P.Eng., City of Toronto

Water Infrastructure Management

Details to be provided.

Wednesday January 18th, 2012 Presenters: Robert Schincariol, P.Eng., P.Geo., University of Western Ontario

Low-Temperature Geothermal Heat Pump (GHP) Systems

Geothermal heat pumps are becoming increasingly popular due to rising energy prices and the fact that geothermal systems are energy efficient and utilize a renewable or sustainable form of energy – the heat stored and flowing through the earth. However, both design considerations and the regulatory framework have not advanced at the same pace. Interaction of the system with the environment drastically affects the performance, sustainability and design of GHPs. In support of the preparation of new GHP standards and regulations in Ontario, and with a focus on the ground component, related guidelines from different parts of the world have been reviewed. This review has shown some differences in design guidelines, or lack thereof, especially where the ground component or interaction with groundwater movement is concerned.

Wednesday February 15th, 2012 Presenter: Storer Boone, P.Eng., Ph.D., Golder Associates Ltd.

Managing Risks Associated with Supported Excavations

Supported excavations for infrastructure projects present significant risks to owners, engineers, and contractors. Criteria and responsibilities for design and construction of such excavations may or may not be well prepared and communicated to all parties. This presentation will focus on perceptions or misperceptions and pitfalls that all of these parties may find during design and construction. Examples ranging in scope from small pumping station excavations to major excavations in urban areas will be provided to present the common concerns. Key issues for consideration during preparation of contract documents will be presented to help owners, designers and contractors to avoid potentially unfair risk allocation, inadequate communication of intent, technical trouble, and/or inadequate documentation during construction.

Wednesday March 21st, 2012 Presenter: Michael Bartlett, P.Eng., Ph.D., University of Western Ontario

Structural Engineering a Century Ago: A Tale of Two Bridges

The City of London is currently assessing the rehabilitation options and long-term maintenance needs of two historic bridges: Blackfriars Bridge, a wrought-iron bowstring arch truss constructed in 1875, and Meadowlily Bridge, a steel double-intersection Warren truss constructed in 1910. Both offer fascinating insights into the state of bridge engineering of the time: by inspecting the structures and reviewing historical documentation critically, the intentions of the original designers are revealed – even in the absence of design calculations.

Wednesday April 25th, 2012 Presenter: Henry Huotari, P.Eng., Delcan

Trafalgar St./Hale St. & CN Rail Elevated Roundabout Grade Separation

The level railway crossing at the intersection of Trafalgar Street and Hale Street has been a longstanding bottleneck in the City of London's Arterial Road Network. This unique location features an arterial road, a collector road and three CN rail lines intersecting to form a single, level crossing in an area where there is a mix of residential, commercial and industrial land uses. Improvements were proposed to address delays and safety concerns. The intersection was opened to traffic in December 2010 and is the first major roundabout in London. It has been well received by the public and it is operating successfully.