



Vancouver Geotechnical Society

A Local Section of the
Canadian Geotechnical
Society

www.v-g-s.ca

2017-2018 Executive Committee:

Chair	- Shane Magnusson, BGC	604-684-5900
Past-Chair	- Chris Longley, Stantec	604-340-5123
Program Director	- Aran Thurairajah, Golder	604-296-4200
Treasurer	- Yoshi Tanaka, exp Services	604-422-2156
Secretary	- TBA	TBA
Registrar	- Tim Morton, GHD	604-248-3925
Web Manager	- Marc Bossé, Thurber	604-684-4384
CGS Director	- Andrea Loughheed, BGC	604-684-5900
Member-at-Large	- Mustapha Zergoun, Thurber	604-684-4384
Member-at-Large	- Ryan Mills, Tetra Tech Canada	604-685-0275
Member-at-Large	- Kumar Sriskandakumar, BGC	604-684-5900
Member-at-Large	- Ali Amini, NAGL	778-384-3606
Member-at-Large	- Intisar Ahmed, UBC/Stanec	604-436-3014

NOTICE OF UPCOMING TECHNICAL PRESENTATION Wednesday, October 25, 2017

TOPIC:

Advances in Dam Design

Canadian Geotechnical Society Cross Canada Lecture Tour (CCLT) – Fall 2017

SPEAKER:

Jean-Marie Konrad, ing., Ph.D.

Professor and NSERC/Hydro-Quebec Chairholder on optimization of the life-cycle of earth dams, Department of Civil Engineering, Université Laval, Quebec City

Dr. Konrad is a registered civil engineer with a Master's degree from Université Laval and a Doctorate degree from the University of Alberta where he contributed to the development of frost heave mechanics. He worked in the private sector as a geotechnical engineer for SNC-Lavalin and James-Bay hydro electric Corporation, at the National Research Council with respect to the geotechnical aspects of the artificial drilling islands in the Beaufort Sea, development of interpretation techniques of in situ testing data in weak soils and academia at the University of Waterloo (Ontario) and Université Laval (Québec). From 1998 to 2008, he was the Chairholder of an NSERC industrial research chair on frost action in civil engineering structures. Presently he is professor of civil engineering at Université Laval, Quebec and also the Chairholder of an NSERC industrial research chair on the optimisation of the life-cycle of earthdams. Dr Konrad is the author or co-author of over 150 technical papers. For the last twenty-five years, he was also a consultant for various projects related to artificial freezing, permafrost engineering, dam construction and safety assessment.

CONTENT:

Embankment dam performance and life span are closely related to the hydric, thermal and mechanical behaviour of materials used during its construction. The apparent simplicity of embankment dams hides complex and often poorly known behaviours resulting from thermo-hydro-mechanical coupling phenomena. Understanding the different behaviours as well as their interrelationships is of paramount importance to optimize the life cycle of these structures.

Hydro-Québec Production obtained the necessary approvals to build a 1,550-MW hydroelectric complex on the Rivière Romaine, north of the municipality of Havre-Saint-Pierre on the north shore of the St. Lawrence. The complex will consist of four hydropower generating stations with average annual output of 8.0 TWh. Construction of the Romaine-2 development began in 2009. Romaine-2 was commissioned in 2014 and the Romaine-1 development was commissioned in 2015. Work on the Romaine-3 and Romaine-4 developments, which will be operational in 2017 and 2020, respectively is underway. Since 2009, the NSERC/HQ industrial research chair in Life Cycle Optimization for Embankment Dams contributed to the advancement of various aspects in dam design. Major developments for seepage induced erosion are presented. The use of centrifuge testing for predicting deformation of Romaine 2 are discussed. Rockfill properties are viewed from a fractal perspective.

DETAILS:

Location: Executive Inn, 4201 Loughheed Highway, Burnaby, BC V5C 3Y6

Social Hour: 5:30 to 6:30 pm (drinks available at the hotel bar)

Technical Presentation: 6:30 to 7:30 pm (No need to RSVP)

Dinner: 8:00 pm (\$20 will be charged for dinner). If you would like to stay for dinner, please RSVP to Tim Morton via email (timothy.morton@ghd.com) or at the door.



Vancouver Geotechnical Society

A Local Section of the
Canadian Geotechnical
Society

www.v-g-s.ca

2017-2018 Executive Committee:

Chair	- Shane Magnusson, BGC	604-684-5900
Past-Chair	- Chris Longley, Stantec	604-340-5123
Program Director	- Aran Thurairajah, Golder	604-296-4200
Treasurer	- Yoshi Tanaka, exp Services	604-422-2156
Secretary	- TBA	TBA
Registrar	- Tim Morton, GHD	604-248-3925
Web Manager	- Marc Bossé, Thurber	604-684-4384
CGS Director	- Andrea Lougheed, BGC	604-684-5900
Member-at-Large	- Mustapha Zergoun, Thurber	604-684-4384
Member-at-Large	- Ryan Mills, Tetra Tech Canada	604-685-0275
Member-at-Large	- Kumar Sriskandakumar, BGC	604-684-5900
Member-at-Large	- Ali Amini, NAGL	778-384-3606
Member-at-Large	- Intisar Ahmed, UBC/Stanec	604-436-3014

The VGS would like to thank the following companies (in alphabetical order) for sponsoring this Cross Canada Lecture Tour:

- ConeTec
- Klohn Crippen Berger
- Tetra Tech Canada
- Thurber Engineering

The Cross Canada Lecture Tour is organized by the Canadian Geotechnical Society and its various local sections, and funding is provided by the Canadian Foundation for Geotechnique.