Vancouver Geotechnical Society
A Local Section of the Canadian Geotechnical Society

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NOTICE OF UPCOMING TECHNICAL PRESENTATION

Wednesday, January 20, 2016

SUBJECT: **Understanding Slope Stability Through Remote Sensing**

SPEAKER: **Matthew Lato, Ph.D., P.Eng. –** *BGC Engineering Inc.*

Dr. Lato obtained a B.Sc. in Geological Engineering (2006) and a Ph.D. Eng. in Geotechnical Engineering (2010) from Queen's University; before joining BGC Engineering in 2014 Dr. Lato worked for the Norwegian Geotechnical Institute in Oslo, Norway and RockSense GeoSolutions in Ottawa, Ontario. He is registered as a Professional Engineer in Ontario, B.C. and Newfoundland and Labrador, he has ten years of experience working with advanced remote sensing data collection and interpretation projects. Dr. Lato has been involved in slope stability, geohazard assessment, and tunnelling support design projects in North America, South America, Europe and Australia. He is presently an Adjunct Professor at Queen's University in the Department of Geological Sciences and Geological Engineering.

CONTENT: An engineer's ability to understand the conditions and mechanics of the environment they work in is critical to developing practical solutions. This ability becomes increasingly complicated when working on problems such as landslides where information is traditionally limited to sporadic (and costly) borehole mapping and instrumentation data, discrete surface measurements and observations, and interpolated geophysical data. Over the past ten years, advances in remote sensing technologies have enabled engineers to observe, interpret, and understand the physical environment and its evolution through time, at previously unimaginable levels of detail. This talk will cover the development of remote sensing tools, case studies, and state-of-the-art research and development. Three case studies from BC and Alberta will be presented:

i. understanding the movement of Fountain Slide between 2006 and 2015 through airborne lidar data and how this information is assisting in developing stability options for the site;
ii. identification of pre-failure rock block deformation from a natural slope along the CN railway line in the Fraser Canyon using high resolution ground based lidar data;
iii. mapping potential rock fall source zones and assessing preventative measures for a 150 metre high vertical rock face along a railway line in the Robson Valley using helicopter photogrammetry.

DETAILS: **Location:** Executive Inn, 4201 Lougheed 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: 7:45 pm ($30 will be charged for dinner)

If you would like to stay for dinner, please RSVP to Shane Magnusson via email or at the door shane.magnusson@amecfw.com