

Vancouver Geotechnical Society

A Local Section of the Canadian Geotechnical Society

www.v-g-s.ca

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NOTICE OF UPCOMING VGS-EERI BC Chapter TECHNICAL PRESENTATION

Thursday, 16 November 2023

TOPIC: Observed Geo-Seismic Impacts of the February 6th, 2023 Türkiye Earthquakes

SPEAKERS: Tyler Southam, P.Eng, Geotechnical Engineer, Tetra Tech

Tyler Southam is a Geotechnical Engineer with Tetra Tech in Vancouver, BC. He has been involved with projects throughout the Lower Mainland and Western Canada in both high seismic and mountainous areas. Tyler has experience in completing regional liquefaction studies, shallow and deep foundation design, rock slope design, slope stability assessments, site response analyses, and numerical modelling for several different infrastructure studies. He has also been an executive member of the Vancouver Geotechnical Society since 2021 and currently serves as the Program Director for the VGS.

Thava Thavaraj, Ph.D., P.Eng. Senior Geotechnical Engineer, Klohn Crippen Berger

Thava Thavaraj is a Senior Geotechnical Engineer with the Klohn Crippen Berger Ltd. in Vancouver, BC with 25 years of experience in geotechnical and seismic engineering. He holds a PhD in Civil Engineering from the University of British Columbia. He has extensive experience in the design, safety evaluation, and retrofit of hydroelectric and water dams, tailings dams, bridges, and port structures in Canada, the USA, and overseas. He has conducted site-specific seismic hazard assessments for infrastructure projects around the globe.

CONTENT:

On February 6th, 2023, a sequence of two damaging earthquakes with Mw7.8 and Mw7.7 occurred in southeastern Türkiye. The earthquakes resulted in over 50,000 fatalities and extensive damage over 11 provinces with economic losses estimated over \$100 billion. Tyler and Thava were part of the Canadian Association of Earthquake Engineering (CAEE)'s reconnaissance team that toured the affected region to observe the impact of the earthquakes and record perishable data. In this talk, they will share their experience and observations focussing on the geo-seismic impacts of the earthquakes. The talk will start with a summary of the earthquake sequence and conclude with the lessons learned and drawing parallels to Southwestern BC. The geo-seismic impacts to be discussed will include ground motion amplification, ground rupture, liquefaction and strain softening, lateral spreading, liquefaction-induced displacements and settlements, rockfalls, and landslides. And These impacts have caused widespread damage to the infrastructure including buildings, bridges, earth dams, port structures, and lifelines.

DETAILS:

Location: Centennial Room, Executive Hotel, 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 7:45 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 -

Ibrahim Kawasme via email (Ibrahim.Kawasme@kiewit.com) or at the door.

This event is co-organized by EERI-BC Chapter.