

CCEE-PCEE Pre-conference Workshop on June 25, 2023

Site Visit at UBC Structural/Earthquake Engineering Testing Facilities

The Department of Civil Engineering at the University of British Columbia (UBC) is honored to hold a One-Day Workshop for the 2023 Canadian/Pacific Conference on Earthquake Engineering. The one-day workshop will be held as part of the 2023 CCEE-PCEE conference on June 25, 2023, at the UBC Vancouver Campus. The focus of the workshop will be to provide an update on the advanced testing facilities at the UBC Department of Civil Engineering in the field of structural and earthquake engineering.

This one-day workshop will be free for all accepted delegates to encourage participation by students, researchers, and practitioners. The workshop will be sponsored by the Earthquake Engineering Research Facility (EERF) of the UBC.

The workshop will include introduction and lectures on advanced testing facilities of the Structural and Earthquake Engineering Research Group at the Department of Civil Engineering, a tour visit to the Structural Engineering and the Earthquake Engineering Laboratories, performing some demo quasi-static cyclic tests on structural components and a couple of demo shake table tests on full-scale structures. A tour also will be provided around the campus for sightseeing.

The workshop is expected to provide a high-level insight to the UBC testing capabilities for graduate students and other researchers in academic institutions. The workshop will also provide a networking opportunity for attendees to identify the experimental research preparedness of the UBC testing facilities in structural and earthquake engineering, share ideas and promote collaboration between the UBC and the researchers, in general. Attendees also will find a chance to explore the beauties of the UBC campus and enjoy their afternoon by visiting some wonderful places around the campus.

The Structures Laboratory has a 4840 sq. ft. (450 m²) high head-room containing a 30 ft x 72 ft (9 m x 22 m) reaction floor which can be used with various moveable reaction frames and hydraulic loading systems for quasi-static testing of large-scale structural components. Several universal testing machines, MTS servo-controlled loading systems with a range of jacks suitable for programmed cyclic and fatigue testing are available for testing. These systems can be used for quasi-static earthquake testing of structural components. Computer-based data acquisition systems are available for on-line data reduction and analysis with links to other computers.

The Earthquake Laboratory at the EERF is a purpose-built, state-of-the-art facility dedicated to the study of the behaviour of structures under the influence of the forces involved in seismic events. There is a high ceiling working lab space of 490 m² along with a control room and work area consisting of 42 m². The Earthquake Laboratory houses two shake tables: 1) The Linear Shake Table (LST): this device consists of a 7.6 m x 6.2 m steel platform to which test articles are affixed and that is moved in one direction by use of an actuator. The LST is suitable for testing the full-scale light structures; and 2) The

Multiple Axis Shake Table (MAST): this device consists of a steel table 4 m x 4 m to which test articles are affixed and that can be moved in six degrees of motion by use of seven independently-controlled actuators. The MAST is usually used for certificate testing of electrical and mechanical equipment as well as the full-scale structural components.

The University of British Columbia is home to many of Vancouver's must-see attractions. UBC is one of the best places to visit in Vancouver for both tourists and locals. The Vancouver campus is a special destination, brimming with West Coast scenery, world-class attractions and warm hospitality. Here you can lounge on a beach or cheer on a hockey game. Stroll through an ancient rainforest, wander remarkable museums and traditional gardens (<https://visit.ubc.ca/>).

Contact Information

For more information, please contact the Workshop Organizers at ccee-pcee-workshop@civil.ubc.ca

Tony Yang, PhD, P.Eng.

Mehrtash Motamedi, PhD, P.Eng.

Date and Time

Sunday, June 25, 2023: 9:30 am – 4:00 pm

Venue

UBC Department of Civil Engineering

6250 Applied Science Lane

Vancouver, BC, Canada V6T 1Z4

Registration

The workshop will be an in-person event. The one-day workshop will be free for the registrants for the main 2023 CCEE-PCEE Conference. However, separate registration for this event is required for all who wish to attend. The registration will include BBQ and soft drink at lunch time.

Fill out the [Registration Form](#) and send it by email to ccee-pcee-workshop@civil.ubc.ca

[Registration Form](#)

Workshop Program (Tentative)

Time	Activity
09:30 – 10:00	Registration and Welcome Address
10:00 – 11:00	Introduction and Presentations on Advanced Testing Facilities of the Structural and Earthquake Engineering Research Group at the Department of Civil Engineering <i>Presented by:</i> <i>Dr. Tony Yang, Professor, University of British Columbia</i> <i>Dr. Mehrtash Motamedi, Laboratories Manager, University of British Columbia</i>
11:00 – 12:00	Structural and Earthquake Laboratories Tour Demo Quasi-static Cyclic Tests on Structural Components Demo Shake Table Tests on Full-scale Structures
12:00 – 14:00	BBQ and Soft Drink
14:00 – 16:00	UBC Campus Tour, Sightseeing and Visiting the Beautiful Campus with Museums, Remarkable Gardens and Historical Buildings

Note: Program and contents are subject to change and will be confirmed later