



2013 **UBC-Tongji-CSRN Symposium**

Modern Solutions to Seismic Risk Mitigation:
A Sino-Canada Joint Effort to Deal with a
Challenging Problem

Vancouver, Canada
August 2013



Schedule of Events

MONDAY AUGUST 19, 2013

- 7:00 - 8:00 **Registration and upload of the presentations**
Location: *FSC – Room 1005 (see map on page 9)*
- 8:00 - 8:20 **Welcome and opening remarks**
Location: *FSC – Room 1005*
- 8:20 - 8:25 **Theme I: Concrete and masonry structures**
(Chairs: Prof. Mitchell and Prof. Adebar)
Location: *FSC – Room 1005*
- 8:25 - 8:45 Evaluation and retrofit of older construction shear walls
Prof. Denis Mitchell
McGill University
- 8:45 - 9:05 Seismic design of concrete buildings in Canada:
The 2014 Canadian Code
Prof. Perry Adebar
University of British Columbia
- 9:05 - 9:25 Enhancing the dynamic fracture toughness of concrete with
fiber reinforcement
Prof. Nemkumar Banthia
University of British Columbia
- 9:25 - 9:45 Innovative retrofits of concrete and masonry buildings
Prof. Murat Saatcioglu
University of Ottawa
- 9:45 - 10:05 Computation analysis of shear wall structure with replaceable
coupling beams
Mr. Cong Chen
Tongji University
- 10:05 - 10:25 In-plane seismic behavior of slender reinforced masonry shear walls
Mr. Brook Robazza
University of British Columbia
- 10:25 - 10:45 **Photo session**
Location: *Grass area outside of the FSC*
- 10:45 - 10:55 **Coffee break**
Location: *FSC - Foyer*



Schedule of Events

MONDAY AUGUST 19, 2013

- 10:55 - 11:00 **Theme II: Steel structures**
(Chairs: Prof. Tremblay and Prof. Ma)
Location: *FSC – Room 1005*
- 11:00 - 11:20 Recent research on steel towers in China
Prof. Renle Ma
Tongji University
- 11:20 - 11:40 Seismic retrofit of steel buildings
Prof. Robert Tremblay
Ecole Polytechnique
- 11:40 - 12:00 Innovative steel seismic fuses
Ms. Lisa Tobber
University of British Columbia
- 12:00 – 12:20 Seismic response of steel buckling restrained knee braced
truss moment frames
Mr. Yuanjie Li
University of British Columbia
- 12:20 - 12:40 Experimental study on hysteretic behavior of new k-shaped steel dampers
Ms. Yue Yang
Tongji University
- 12:40 – 13:40 **Lunch**
Location: *CEME – Room 1005 (see map on page 9)*
- 13:40 – 13:45 **Theme III: Ground motions and seismic hazards**
(Chairs: Prof. Finn and Prof. Chouinard)
Location: *FSC – Room 1005*
- 13:45 - 14:05 Amplification effects of thin soft surface layers: A study for the 2015 NBCC
Prof. Liam Finn
University of British Columbia
- 14:05 - 14:25 Microzonation maps for Montreal and suburbs
Prof. Luc Chouinard
McGill university
- 14:25 - 14:45 Estimating the effects of deep intraplate earthquakes in
subduction zones
Dr. Freddy Pina
University of British Columbia



Schedule of Events

MONDAY AUGUST 19, 2013

- 14:45 - 15:05 Forward directivity and directionality effects on seismic response of buildings
Mr. Manuel Archila
University of British Columbia
- 15:05 - 15:25 Effect of vertical ground motion in high-rise buildings
Ms. Sophia Zhou
University of British Columbia
- 15:25 - 15:40 **Coffee break**
Location: *FSC - Foyer*
- 15:40 – 15:45 **Theme VI: Foundations**
(Chairs: Prof. Wijewickreme and Prof. Taiebat)
Location: *FSC – Room 1005*
- 15:45 - 16:05 Reduction of buried pipeline damage risk due to ground movements
Prof. Dharma Wijewickreme
University of British Columbia
- 16:05 - 16:25 Seismic design of deep basement walls: evaluation of the current practice in BC
Prof. Mahdi Taiebat
University of British Columbia
- 16:25 - 16:45 Seismic response of large pile groups
Dr. Jason Dowling
University of British Columbia
- 16:45 - 17:05 Design of foundation for wind turbines
Ms. Xue Bai
Tongji University
- 17:05 – 19:30 **Barbeque**
Location: *Courtyard of Engineering Design Center (see map on page 9)*



Schedule of Events

TUESDAY AUGUST 20, 2013

- 8:00 – 8:05 **Theme V: Timber structures**
(Chairs: Prof. He and Prof. Lam)
Location: *FSC – Room 1005*
- 8:05 - 8:25 Recent research on timber structures in China
Prof. Minjuan He
Tongji University
- 8:25 - 8:45 Recent UBC research activities on CLT and Glulam
Prof. Frank Lam
University of British Columbia
- 8:45 - 9:05 Experimental study on lateral resistance of timber post and beam structures
Mr. Yingyang Liu
Tongji University
- 9:05 - 9:25 Test on lateral resistance of glulam beam-to-column connections
Ms. Huifen Liu
Tongji University
- 9:25 - 9:40 **Coffee break**
Location: *FSC - Foyer*
- 9:40 – 9:45 **Theme VI: Advanced testing and simulation**
(Chairs: Prof. Xiong and Prof. Yang)
Location: *FSC – Room 1005*
- 9:45 - 10:05 Introduction to structural health monitoring system of the Shanghai tower
Prof. Haibei Xiong
Tongji University
- 10:05 - 10:25 Next-generation experimental testing methods for earthquake
engineering research
Prof. Tony Yang
University of British Columbia
- 10:25 – 10:45 Efficient performance based design using parallel and cloud computing
Dr. Armin Bebam Zadeh
University of British Columbia
- 10:45 - 11:05 BC smart infrastructure monitoring system
Mrs. Sharlie Huffman
Ministry of Transportation British Columbia



Schedule of Events

TUESDAY AUGUST 20, 2013

- 11:05 -11:25 Ambient tests on dynamic characteristics for Shanghai tower under construction
Mr. Xiang Ou
Tongji University
- 11:25 - 11:45 Earthquake actions and testing approaches for zonal hanging architectural curtain walls
Ms. Yangling Wang
Tongji University
- 11:45 – 12:45 **Lunch**
Location: *CEME – Room 1005*
- 12:45 – 12:50 **Theme VII: Performance-based earthquake engineering (Chairs: Prof. Foschi and Prof. Paultre)**
Location: *FSC – Room 1005*
- 12:50 - 13:10 Performance-based seismic design using neural networks
Prof. Ricardo Foschi
University of British Columbia
- 13:10 - 13:30 Fragility curves for rehabilitated bridges with seismic isolators using experimental results
Prof. Patrick Paultre
Sherbrooke University
- 13:30 - 13:50 Multi variable fragility curves for performance-based earthquake engineering
Mr. Abbas Javaherian
University of British Columbia
- 13:50 - 14:10 Structural selection of isolation and non-isolation shopping mall
Mr. Miao Chi
Tongji University
- 14:10 - 14:25 **Coffee break**
Location: *FSC - Foyer*
- 14:25 – 14:30 **Theme VIII: Resilience in earthquake engineering (Chairs: Prof. Elwood and Mr. Sherstobitoff)**
Location: *FSC – Room 1005*
- 14:30 – 14:50 Earthquake disaster resilience: a comparison of Christchurch and L'Aquila
Prof. Ken Elwood
University of British Columbia



Schedule of Events

TUESDAY AUGUST 20, 2013

- 14:50 - 15:10 Seismic upgrade of BC schools - recent developments
Mr. John Sherstobitoff
Ausenco-Sandwell
- 15:10 - 15:30 Seismic characteristics of Pre-1980 high-rise concrete buildings in Vancouver
Mr. Jeff Yathon
University of British Columbia
- 15:30 - 15:50 Collapse assessment of non-ductile RC buildings
Mr. Majid Baradaran Shoraka
University of British Columbia
- 15:50 – 17:00 **Walking towards UBC Botanical garden**
- 17:00 – 20:00 **Banquet**
Location: *UBC Botanical Garden (see map on page 9)*
Dress code: Business casual



Schedule of Events

WEDNESDAY AUGUST 21, 2013

- 9:00 – 10:20 **Laboratory demo**
(Chairs: **Mr. Tung and Mr. Li**)
Location: *CEME – Room 1001 (see map on page 9)*
- 10:20 - 10:40 **Coffee break**
Location: *CEME – Room 1005*
- 10:40 - 12:00 **Parallel sessions:**
- Professors' discussion**
(Chairs: **Prof. He and Prof. Adebar**)
Location: *CEME – Room 2003*
- Students' discussion**
(Chairs: **Mr. Centeno and Mr. Liu**)
Location: *CEME – Room 2204*
- 12:00 - 13:00 **Lunch**
Location: *CEME – Room 1005*
- 13:00 - 15:00 **Plenary session**
(Chairs: **Prof. Mitchell and Prof. Xiong; Recorder: Mr. Archila**)
Location: *FSC – Room 1005*
- 15:00 – 15:15 **Closing remarks**
Location: *FSC – Room 1005*
- 15:15 – 16:30 **Tour of the campus (Chairs: Mr. Centeno and Mr. Archila)**
Location: *Please meet at FSC – Room 1005*
- 17:00 **Bus to Downtown Vancouver**
Location: *Please meet at UBC North Bus Loop – Bus #44 (at Bay 5)*
- 18:00 – 20:00 **Social gathering in Downtown Vancouver**
Location: *Black Frog Eatery -108 Cambie St, Vancouver, BC V6B 2M8*

THURSDAY AUGUST 22, 2013

- 9:00 – 19:00 **Sightseeing to local Vancouver sites**
Location: *Please meet at the lobby of the Gage residence at 8:45 am*



CSRN
RCRP

City General Arrangement

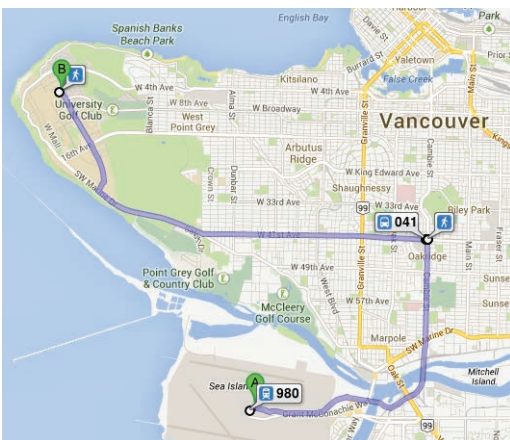
VANCOUVER, BC



Directions to UBC campus:

Option 1 – Taxi: Take taxi directly from YVR airport. Taxi line is just outside of the door of the arrival hall. The taxi usually accepts both cash, debit and credit card for payment.

Option 2 – Public transportation: Vancouver is famous for its well-established public transportation. You can almost go anywhere within the city using the trains, buses, and ferries. You can purchase the ticket from either the bus, train or sea bus and have the flexibility to reuse the same ticket (within 90 minutes) to transfer to other forms of transportations. During the weekday (before 6 pm), the tickets are valid by zones (city of Vancouver, city of Richmond or city of Burnaby). If you cross the city boundary, you will need to purchase multi-zone ticket. But if you are within the same city, you can just purchase the one zone ticket (\$2.75 for one zone). For example, traveling from YVR airport (located in the city of Richmond) to UBC (located in the city of Vancouver) will require a two-zone ticket.



A Vancouver International Airport
3211 Grant McConachie Way, Richmond, BC V7B 0A4

Walk to YVR-Airport Station Eastbound

Show details

YVR-Airport Station Eastbound (Stop ID: 61392)
Train - 980 - CANADA LINE SkyTrain towards "SKYTRAIN - platform sign CANADA LINE TO WATERFRONT";

Oakridge-41ST Station Northbound (Stop ID: 61374)
Walk to WB w 41 Av FS Cambie St

WB w 41 Av FS Cambie St (Stop ID: 50160)
Bus - 041 - Joyce Stn/Crown/Ubc towards "41 Ubc";

Ubc Loop Bay 3 Unloading Only (Stop ID: 59267)



Campus Map

UNIVERSITY OF BRITISH COLUMBIA



Accommodation:
St. John's College

Accommodation:
Gage Residence

UBC north bus loop

Lunch:
Department of Civil Engineering (CEME)
– Room 1005
Laboratory demo:
CEME - Room 1001
Parallel Sessions:
Professor's Discussion: CEME - Room 2003
Student's Discussion: CEME - Room 2204

BBQ:
Engineering Design Centre

Symposium registration and lectures:
Forestry Sciences Centre (FSC) – Room 1005

Banquet:
UBC Botanical Garden



Sponsors:



University of British Columbia



Tongji University



UBC Earthquake Engineering
Research Facility



Canadian Seismic Research
Network



UBC Department of Civil
Engineering



Canadian Association of
Earthquake Engineering



Association of Professional Engineers
and Geoscientists of British Columbia



Structural Engineering
Association of British Columbia



George Third & Son Ltd.



Starbucks Coffee Company

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