10TH ANNUAL SEABC PRESENTATION COMPETITION

SO, YOU THINK YOU CAN GIVE A SEMINAR?

VIRTUAL EDITION

Come and support the young engineers as they present on a wide array of structural engineering topics in this virtual event. Don't miss out on this chance to take in what the talented young structural engineers in our community have to offer.

DATES: FEB 23RD, and 25TH, 2021 @ Noon

Organizing Committee:

Stanley Chan, Navpreet Bharaj, Tanya Fraser, Hossein Bajehkian

Competition Prizes

1st Place Top Prize: $1000

2 People's Choice Award: $250

Audience Award: 2 Door Prize Draw (Google Nest Hub)

- The top prize winner will be selected by the judges after all presentations are completed.

- The audience will have the chance to vote for an additional participant for the people's choice award

- All members who participate in voting will have their name put into the draw for the audience award.

2021 Judges

- **Deanna Perrin – P.Eng, BSc. RJC Engineers**
- **Andy Metten – P.Eng, Struct.Eng, Partner, Bush Bohlman & Partners**
- **Dr. Anas Issa – PhD, EIT, (Civil) University of British Columbia**

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TO REGISTER: https://seabc.ca/events/upcoming/

Day 1: 12:00pm-1:00pm (Tuesday February 23, 2021)

Pouria Kourehpaz, E.I.T

Ph.D. Candidate, University of British Columbia

The New Samuel De Champlain Bridge, Montreal, QC, Canada: Design, Construction, and Challenges.

The new Samuel de Champlain Bridge in Montreal, Canada is one of the largest infrastructure projects in North America, which is designed as an asymmetric cable-stayed structure. In this presentation, Pouria will discuss key elements and challenges of the design procedure for the cable-stayed portion of this bridge.

Taikhum Vahanvaty

Masters Student, University of British Columbia

Estimating the recovery time of damaged buildings after an earthquake

Designing new buildings to comply with acceptable recovery times after an earthquake is receiving attention since past experiences have highlighted that our building performance is inadequate to ensure seismic resilience. This presentation will look at an analytical framework that helps us estimate the earthquake-induced recovery time of a building.

Ethan Wilkinson, B.Eng, EIT

Structural EIT, Associated Engineering

Advantages of Base-Isolation on the Seismic Retrofit of Cambie Bridge

Cambie Bridge is a vital part of Vancouver's transportation network, spanning False Creek and connecting South Vancouver to the Downtown core. An isolation-based seismic retrofit on this unique structure provides seismic resilience while also eliminating future maintenance items.

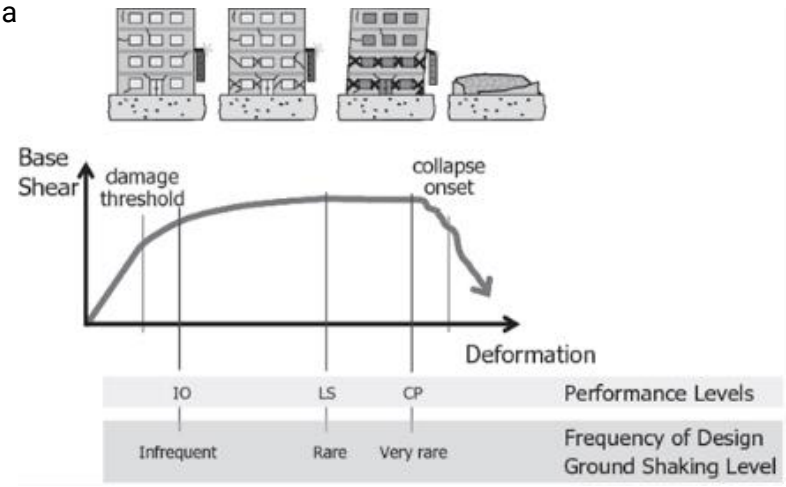
Day 2: 12:00pm-1:00pm (Thursday February 25, 2021)

Saif Aldabagh

Research Assistant, University of British Columbia

Simplified Predictive Expressions of Drift Limit States for Reinforced Concrete Circular Bridge Columns

A critical component of the performance-based design is the quantification of damage states in terms of engineering demand parameters such as drift. This study develops simplified predictive expressions of drift limit states for reinforced concrete circular bridge columns.



Kishoare Tamanna, MASc, EIT

Graduate Research Assistant, University of British Columbia

Sustainable Structural Systems Incorporating Recycled Waste Materials

Demonstrates the potential application of green concrete incorporating crumb rubber (CR) and recycled concrete aggregate (RCA) as aggregates in structural elements. This provides a viable solution to both landfill waste disposal and the ever-increasing demand for natural aggregates in concrete production.

Brendan Fitzgerald, M.Eng. EIT

Project Engineer E.I.T. Aspect Structural Engineers

Diaphragm Details for a Geometrically Challenging Mass Timber Roof in a High Seismic Region

The design of a continuous and sturdy diaphragm can be an arduous task for any engineer, even in ideal circumstances – toss in some challenging geometry and demanding seismic requirements and the task has the potential to break even the most experienced engineers. This presentation will provide an overview of the design, coordination, and installation of a selection of diaphragm details for a challenging mass timber roof located in a high seismic region.