

PRE-CONFERENCE WORKSHOP FOR YOUNG ENGINEERS

Bridge Dynamic Response by Design

DATE WED., SEPT. 20, 2017 • 8:00AM - 5:30PM

NOTE MAXIMUM 40 PARTICIPANTS. ENROLMENT LIMITED TO THOSE BORN AFTER JANUARY 1, 1983.

VENUE THE WESTIN BAYSHORE, 1601 BAYSHORE DRIVE, VANCOUVER, BC



Golden Ears Bridge (BC, Canada). Photo: COWI

WORKSHOP DESCRIPTION

This is a practice-based Workshop offering IABSE Young Engineers the opportunity to participate in exploration of Bridge Dynamics. The dynamic considerations and implications at each stage of the design development process for a major cable stayed bridge will be examined.

The objectives of this workshop are to generate awareness of the importance of making conscious dynamic design decisions during the bridge conceptual design stage, such that dynamic demands are accommodated effectively and economically throughout the entire design process instead of being an afterthought to a completed static design.

The Workshop will utilize the design development process for Golden Ears Bridge, shown above, to illustrate how

decisions on various dynamic design options affect its ability to achieve its seismic and aerodynamic performance objectives.

Software support provided by Bentley Systems will be used to afford “hands on” participation for Workshop attendees, working in groups of three or four, in dynamic design optimization assignments during the Workshop. A prize will be awarded for the best assignment in each of two dynamic exercises.

Reference material and dynamic characteristics of the bridge will be made available for study prior to the Workshop. The post-conference boat tour on Sunday September 24th will include a visit to the Golden Ears Bridge.

REGISTRATION FEES

This course is being offered to IABSE Young Engineers (born after Jan 1, 1983) as part of the 39th IABSE Symposium and enrolment is also offered to SEABC Young Members at preferred rates:

	Advance On-Line Registration (by Sep. 1, 2017)	Late Price / In-Person (after Sep. 1, 2017)
2017 IABSE Symposium Delegate (Young Engineer Category) or SEABC Member	\$250	\$300
Non-Member	\$300	\$350

* Note: Eligibility for this workshop is based on birthdate and participants will require government issued photo ID; additional discounts for full-time students are not available.

The registration fee includes:

- Access to pre-workshop reading materials
- Printed course notes and handouts during workshop
- Access to software required for the course (limited licence)
- Morning and afternoon coffee breaks on day of workshop
- Lunch on day of workshop

All registration fees are in Canadian Dollars (CAD) and are subject to prevailing government taxes at the time of the

transaction, including a Goods and Services Tax (GST) of 5%.

Cancellation requests received in writing prior to Sept. 1, 2017 are subject to a \$50 processing fee. All fees are non-refundable after Sept. 1, 2017.

Non-member price includes complimentary membership in SEABC until Dec. 31, 2017.

See registration website for additional Terms and Conditions.

INSTRUCTORS

Dr. Dusan Radojevic is a Senior Bridge Specialist at COWI North America. He has extensive experience in the analysis, design, and erection engineering of cable supported bridges. Dusan was involved in more than 25 cable supported bridge projects as a team leader or a project engineer working on final and preliminary designs, erection engineering, retrofits and by providing technical expert advice. Dusan's experience includes work on Angus Macdonald Bridge (NS, Canada), Golden Ears (Vancouver, BC, Canada), Ohio River (KY, USA), Arthur Ravenel (aka Cooper River, SC, USA), North Arm (Vancouver, BC, Canada), US Grant (OH, USA), Stonecutters (Hong Kong) and Sungai Johor (Malaysia).

Dr. Peter Taylor is a founding Partner of Buckland & Taylor Ltd (now COWI). His interest in dynamics, stimulated during his PhD studies, has continued during his more than forty year involvement in the design and construction of long span bridges, such as Alex Fraser Bridge in Vancouver, Canada; Rama 8 Bridge in Bangkok, Thailand; Chin Chau Min Jiang Bridge in China; and Ravenel Bridge in Charleston, USA. His contributions have been recognized by awards including the Order of Canada, Honorary Doctorate at Bristol University, CSCE Gzowski and Sanderson Medals, IBC George Richardson Medal and BC Science Council Gold Medal.

Dr. Peter Irwin is a founding partner of RWDI, a Canadian engineering firm specializing in wind consulting and testing, environmental engineering and building science. He served as CEO from 1999 to 20008 during which time the company expanded internationally. His interest in wind engineering began at the National Research Council of Canada (NRC) in Ottawa in 1974, where he developed several wind tunnel techniques now widely used in wind engineering. At RWDI he has led the wind engineering work on numerous landmark structures including long span bridges, large span roofs and the world's tallest buildings such as the Petronas towers, Taipei 101, the 828 m tall Burj Khalifa, and the newly completed 632 m Shanghai tower. His contributions have been recognized by numerous awards, including the CSCE Gzowski Medal, the CTBUH Fazlur Khan medal, the ASCE Cermak Medal, and the IAWQ Davenport Award.

Dr. Afshin Hatami, PhD, PE is the Product Manager for RM Bridge, working from our office in Sunrise, Florida since February 2015. He is a professional engineer in the state of California with 16 years of comprehensive experience in project engineering and bridge design with seismic considerations. Afshin has academic experience teaching bridge design and structural analysis courses for 8 years both abroad and in the United States, and served as a vice chair of the civil engineering department. During his academic years, Afshin has been involved in analytical and experimental investigations of several bridge research projects funded by the National Cooperative Highway Research Program (NCHRP) and Nebraska Department of Roads (NDOR).

Alexander Mabrich, PE, MSc. joined the Bentley Systems team 25 years ago. As a Senior Consultant, he provides consulting, training and support services for multidisciplinary design projects. His bridge, roadway, site, drainage, and geotechnical expertise ranges from resurfacing roadway projects thru multilevel complex interchanges in the Americas, Asia and Europe. A registered PE in Florida, he graduated from Universidad Ricardo Palma in Lima, Peru in 1988 and obtained his Master of Science in Civil Engineering degree from Florida International University in 1996. He is currently pursuing a Master in Business Administration at Saint Thomas University. Mr. Mabrich is also a recognized speaker in Civil and Geotechnical Conferences with papers published in conferences in the US, Canada, Mexico, and Peru.

Jeff Kroon is a bridge software specialist with Bentley Systems. Throughout his career he has helped companies discover and take advantage of the technical and business benefits of working with the proper mix of software solutions and workflows. Jeff is a registered EIT in the state of Indiana and obtained his Bachelors of Science degree in civil/structural engineering from the University of Notre Dame in 2010. Early in his career he trained many companies all around North America in the use of complex bridge design software and spoke at bridge conferences. After spending some time as a design engineer he returned to Bentley as a global product specialist, advocating for the advancement of technology in the bridge industry throughout North America, Europe, and Asia.

More Information: www.iabse2017.org | info@iabse2017.org

