



Biographies of Course Organizers & Presenters

T.Y. Lin

Sepideh Ashtari, Ph.D., P.Eng.

Bridge Engineer / Seismic Specialist

T.Y. Lin



Dr. Sepideh Ashtari is a bridge engineer who specializes in the seismic design and retrofit of bridges with a focus on performance-based seismic design. Sepideh received her doctoral degree in 2018 from the University of British Columbia, dedicating her research to enhancing the performance-based seismic design as intended for the Canadian Highway Bridge Design Code.

Sepideh has worked on multiple complex seismic projects in Canada, and has extensive experience in seismic analysis and evaluation of various types of highway and pedestrian bridges. She is a subcommittee member for the Seismic Design section of CSA S6, where she has been involved in or led several taskforces to improve the seismic provisions for the 2025 cycle of the code. She is also a subcommittee member for the Foundation and Seismic Design section of the CSA S7 Guidelines for Pedestrian, Cycling & Multiuse Bridges, the first Canadian design guideline for pedestrian bridges. Sepideh has been active in publishing technical papers on subjects related to seismic design and retrofit of bridges and was also an author for of the 2018 EGBC design practice guideline for performance-based seismic bridge design in BC.

Short Course Role: Workshop Moderator and Presenter on **Structural Seismic Design Topics in Canada**



Natural Resources
Canada

Ressources naturelles
Canada

John Cassidy, Ph.D.

Seismologist and Senior Research Scientist

Natural Resources Canada



Based in Sidney, BC, Dr. John Cassidy leads the Geological Survey of Canada's national "Assessing Earthquake and Volcanic Geohazards Project" and is an adjunct Professor at the University of Victoria, School of Earth and Ocean Sciences where he teaches courses and supervises graduate students.

John serves as Co-Chair of the British Columbia Seismic Safety Council, and in 2010 was invited to travel through the hardest-hit parts of Chile following the M8.8 earthquake and tsunami as a member of the Canadian Association of Earthquake Engineers Chile Earthquake Reconnaissance Team. John was elected to the Board of Directors for the Canadian Association for Earthquake Engineering in 2021 and he works closely with the engineering community and emergency management organisations that utilise the results of earthquake science to help reduce the impacts of future earthquakes.

Short Course Role: Organizer





Biographies of Course Organizers & Presenters



Jimmy Fortier, M.Eng., P.Eng.
Bridge Engineer | Bridges and Tunnels
Parsons Corporation



Jimmy holds a bachelor's degree in civil engineering from Université de Sherbrooke and a master's degree from McGill University. He has 14 years of experience in the modelling, analysis, design, and load-rating evaluation of bridges.

Jimmy has expertise in seismic design and retrofit of structures and has been directly involved on many projects where isolation bearings were successfully implemented. He is a member of the subcommittee on seismic design for the S6:25 Canadian Highway Bridge Design Code and leads the Task Force on seismic isolation. He participated in the seismic evaluation of many crossings in Canada including the Clement, Jacques-Cartier and Honoré-Mercier bridges in Montreal, the MacDonald-Cartier, Alexandra bridges in Ottawa as well as the Ironworkers Memorial and Lion's Gate bridges in Vancouver.

Short Course Role: Presenter on **Structural Seismic Design Topics in Canada**

Marc Gérin, Ph.D., P.Eng., P.E.

President

Gerin Seismic Design



Marc has 33 years of experience in the seismic analysis and design of structures including bridges, marine and offshore structures and tunnels. For the past 20 years, he has been a consultant advising engineering firms and government agencies on seismic design issues. His expertise includes the development and application of performance objectives, non-linear analysis, seismic detailing, and evaluation of existing structures. He is also active in seismic research, with publications on design criteria, seismic retrofit of bridges and concrete under seismic loading. Experience with academic research, practical design, and construction engineering makes him particularly qualified for innovative projects involving modern seismic design issues.

Marc is vice-chair of the Technical Subcommittee for the Seismic Design chapter of the Canadian Highway Bridge Design Code and is a member of various Technical Review Boards for seismic design and rehabilitation projects in Québec and British-Columbia.

Short Course Role: Organizer and Presenter on **Overview of Seismic Design in Canada**





Biographies of Course Organizers & Presenters



Matthew Gerstenberger, Ph.D.

Seismologist

GNS Science, Te Pū Ao.



Matthew Gerstenberger has been the Programme Lead for the New Zealand National Seismic Hazard Model since 2012. His primary work has centred around the development of hazard and risk assessment models with a particular focus on understanding uncertainty and time-dependence. He has also been actively involved in many earthquake responses over the last 20 years. This includes working with GNS' earthquake hazard and risk forecasting teams to provide forecasting data and probabilistic modelling to assist in the event response and recovery phases. He initially joined GNS Science in 1996 and received his PhD in Seismology from ETH-Zurich in 2003.

Short Course Role: Presenter on **Overview of Seismic Hazard in New Zealand**



John Hare, C.P.Eng., Int.P.E., P.E. (California)

Managing Director

Holmes Group



John commenced work with Holmes in 1985 and has been in leadership and governance roles with the Group since 1997. In 1994, John was seconded to EQE International for a period immediately following the Northridge earthquake, to perform post-earthquake assessments, and for general reconnaissance. This led to his involvement in EQE NZ, a joint venture in New Zealand for purposes of seismic hazard assessment.

In 2015, John was appointed CEO of Holmes Group Limited, the parent company of Holmes, covering the operation of all parts of the business, currently located in NZ, Australia, Netherlands and the US. In 2013, John was the winner of the Fulton-Downer award from Engineering NZ, recognising his contribution through leadership of SESOC and participation with CERA and MBIE through the post-earthquake recovery. John is a former President of the Structural Engineering Society.

Short Course Role: Presenter on **Overview of Seismic Design in New Zealand**



Biographies of Course Organizers & Presenters



KEITH HOLMES, M.Eng., P.Eng

Director, Bridges (BC & Yukon)

WSP Canada



Keith Holmes is WSP's Bridge Director for British Columbia and Yukon with over 20 years of experience on major infrastructure works in BC and overseas. Keith has served a key structural role on many of BC's largest projects including the Sea-to-Sky Highway, Port Mann / Highway 1 and the Kicking Horse Canyon Phase 4.

Keith has a deep and abiding passion for bridge barriers which is entirely irrelevant to this short course. :-)

Short Course Role: Course Coordinator



Campbell Keepa, NZCE, C.P.Eng.

Technical Principal

WSP New Zealand



Campbell is a WSP Technical Principal with over 20 years of extensive geotechnical, civil and building structures, seismic risk design experience. He has been involved in post earthquake reconnaissance and reinstatement of bridges and marine structures that were significantly damaged by liquefaction and ground movement in the Canterbury and Kaikoura earthquake sequences and led the geotechnical design and construction for a large number of new bridges marine structures and bridge seismic strengthening projects across New Zealand.

Campbell is a member of MBIE Geotechnical Earthquake Engineering (Modules) Editorial Panel, a co-author of Section 6 - Site Stability, Foundations, Earthworks and Retaining Walls of the NZTA Bridge Manual, MBIE Geotechnical Modules and NZTA guidelines for the design of bridge foundations.

Short Course Role: Presenter on **Geotechnical Seismic Design Topics in New Zealand**



Canadian Conference - Pacific Conference on Earthquake Engineering 2023
Topics in Performance-Based Seismic Design of Bridges
Canadian and New Zealand Perspectives

Biographies of Course Organizers & Presenters



Don Kennedy, M.A.Sc., P.Eng.

Member Services Chair

Canadian Association for Earthquake Engineering



Don has 35 years of seismic and bridge experience in seismic criteria, design, performance assessment, retrofit design and construction. He is a ~20-year member of the seismic section of the Canadian Highway Bridge Design Code, and is current chair of that sub-committee. He has authored and presented papers and seminars on seismic retrofit and rehabilitation, seismic criteria and assessment, new bridge design, and performance-based seismic design.

Don was a member of the Canadian reconnaissance team for the 1994 Northridge earthquake, is a Director of the Canadian Association of Earthquake Engineers, Chairman of the Seismic chapter for the Canadian bridge code and was Technical Co-Chair of the 2015 11th Canadian Conference on Earthquake Engineering. He was a co-author of the 2018 EGBC design practice guideline for performance-based seismic bridge design in BC and has co-authored the BC MoTI criteria and Supplement to the CHBDC for seismic retrofit and design since 2005.

Short Course Role: Organizer



Natural Resources
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Michal Kolaj, Ph.D.

Research Scientist

Natura Resources Canada



Michal Kolaj contributed significantly to the development of the 6th Generation Seismic Hazard Model of Canada and the earthquake hazard provisions within NBC 2020. He is now leading the development of the next generation of models and is a member of the Standing Committee on Earthquake Design where he is working towards the development of the seismic hazard provisions for future editions of the NBC.

Short Course Role: Presenter on **Overview of Seismic Hazard in Canada**





Biographies of Course Organizers & Presenters

Holmes

Rob Presland, Ph.D., C.P.Eng., Int.P.E.

Technical Director

Holmes New Zealand



Rob is a Technical Director for Holmes NZ and has 25 years of experience in the seismic design and retrofit of structures in New Zealand. He specialises in technical design delivery, concept design, detailed design and construction of highway, and railway bridges, civil and marine structures.

His Technical Director role involves development of concept structural design solutions, provision of technical guidance and review across a range of projects. He has a detailed understanding of NZ specific bridge structures design philosophies and requirements, including particular requirements relating to seismic design and detailing in high seismic regions.

He has also been involved in post-earthquake damage assessments, recovery and repair of damaged structures following recent natural disasters in New Zealand.

Short Course Role: Presenter on **Structural Seismic Design Topics in New Zealand**



Carlos Ventura, Ph.D., P.Eng., P.E.

Professor

Structural & Earthquake Engineering
University of British Columbia



Dr. Carlos Ventura is currently the Director of the Earthquake Engineering Research Facility (EERF) at UBC and has more than 30 years of experience as a structural engineer. Dr. Ventura's areas of research are in Structural Dynamics and Earthquake Engineering. He has been conducting research on the dynamic behavior and analysis of structural systems subjected to extreme dynamic loads, including severe ground shaking for more than twenty years.

His current research is focused on the development of performance-based guidelines for seismic retrofit of schools, on methods to evaluate the interaction between critical infrastructure vulnerable to natural and man-made hazards, and on structural health monitoring of building, bridges and dams. He is a member of several national and international professional societies and advisory committees. He is a member of the Canadian Academy of Engineering and Fellow of Engineers Canada. He is also a member of several building and bridge code committees.

Short Course Role: Organizer





Canadian Conference - Pacific Conference on Earthquake Engineering 2023
Topics in Performance-Based Seismic Design of Bridges
Canadian and New Zealand Perspectives

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PAUL WILSON, M.Eng., P.Eng.

Principal

Thurber Engineering



Paul Wilson is a Principal with Thurber Engineering's Vancouver office and has over 20 years of experience on major projects in BC. This includes the LNG Canada Plant Site, G3 Grain Export Terminal, BC Place Roof Replacement, Richmond Speed Skating Oval, Sea-to-Sky Highway, Port Mann / Highway 1, Highway 91/17 Interchange and the Kicking Horse Canyon Phase 4.

Paul is actively involved in design guideline and code development including Section of the Canadian Highway Bridge Design Code (CHBDC) and EGBC Guidelines for school retrofits, site response analysis and seismic design of dikes.

Short Course Role: Presenter on **Geotechnical Seismic Design Topics in Canada**

