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Message from the President



David Harvey, P.Eng.
SEABC President

What drives us to be structural engineers? A deep fascination with how structures are built and resist imposed loads is vital; but for me, the pearls of wisdom from the ‘superstars’ of our great profession go much deeper.

Sir Isaac Newton once said, “If I have seen further than others, it is by standing upon the shoulders of giants.” I felt the truth of Sir Isaac’s words after my first structures lecture by Sir Alfred Pugsley, a famous aeronautical engineer. A few years later, I was captivated by working for the renowned bridge engineer Oleg Kerensky, whose energy, vision and integrity drove his inspirational designs. The River Foyle Bridge in Londonderry is one of the very best from a great designer whose early career included design of the Sydney Harbour Bridge.

Fast forward a few decades to a breakfast in Hong Kong with Bill Baker, who led design for the world record breaking Burj Khalifa in Dubai. Bill proceeded to sketch ideas for load paths in his latest building in London on the back of a napkin! It was a memorable insight into the thought process of a great structural engineer. Sadly, that napkin, full of brilliant ideas, did not survive the breakfast meeting.

This month has been a revelation, starting with an online meeting with Chris Wise – founder of Expedition Engineering and one of the great thinkers of today. Chris and his wife, architect Catherine Ramsden, called me out of the blue. With no agenda we filled an hour in no time! Chris outlined his bold concept to revolutionise pedestrian bridge upgrading for the UK’s Network Rail, by developing a modular design concept. The standardized requirements of such structures strongly suggested modularization, but it had never been attempted. The excessive costs and poor performance of one-off prototypes discouraged replacing aging rail infrastructure.



Ava Modular Footbridge Concept

Chris noted that his design is based on standard 1.2 m long modules digitally manufactured from stainless steel sheets. The lightweight structure requires minimum site possession time and slashes costs – to be proof tested this fall. My brain spinning, I reflected how Chris’ fresh thinking is endlessly inspiring.

The 2023 Pinnacle Lecture also took place in May, and it was an honour for me to invite Arup’s Global Bridge Leader Naeem Hussain to be the Keynote Speaker. Naeem has a design portfolio to dream of, featuring stand-out structures from across the globe. His ideas are inspirational, and the execution is flawless. Naeem has created some of the world’s best bridges to launch us firmly into the 21st century.

Notwithstanding his immense accomplishments, Naeem is a really nice person who quickly shrugs off accolades and gets down to business. I spent a day with Naeem and his wife Moira and took them to the Burrard Bridge rehabilitation. I showed Naeem an engineering puzzler: just how are the balconies carried by the thin-wall ‘Brazier’ towers without ground support and with no rebar crossing the interface? Naeem loved this one! A great day enjoying the company of an ‘engineering giant’.



How do the Burrard Bridge balconies stand up?

Committee Reports

Young Members Group



Lois Tso

E.I.T.



SEABC YMG Presentation Competition

On March 27, the SEABC Young Members Group hosted the 12th Annual Presentation Competition at Library Square in downtown Vancouver. It was a wonderful opportunity to once again host and see everyone in person after two years of holding the event in a virtual format. This year, we had four presenters step up to the stage and share their exciting topics to the audience: **Monrit Chatha**, **Farbod Pakpour**, **Shervin Shameli Derakhshan**, and **Keven Zhao**. We would like to congratulate our presenters for their well prepared and skillfully delivered presentations and also extend a special congratulations to Monrit for winning the Grand Prize and to Keven for winning the People's Choice Award!



Thank you to our three judges **Carla Dickof**, **Kian Karimi**, and **Kanish Mathur** for spending the evening with us. A special thanks to Carla also for capping off the event with her keynote presentation!

Our event this year would not have been possible without the generous support of our sponsors:

- Anchor Sponsor: **Computers and Structures, Inc.**
- Gold Sponsors: **Xradar** and **RJC Engineers**

Thanks to everyone for joining us at this year's event. We look forward to seeing everyone again at next year's presentation competition and at other SEABC YMG events ahead!



If you are interested in becoming a volunteer for our upcoming YMG events, feel free to reach out to us through our social media links below.

LinkedIn- [linkedin.com](https://www.linkedin.com)

Instagram- [instagram/seabc_social](https://www.instagram.com/seabc_social)

Email- ymg@seabc.ca

On the Web



Ricardo Ruiz,
B.Sc., M.Sc.

Summer is certainly here! Lots of association activities and updates were made available through the website.

1. SEABC event postings:

- Evening seminar- A structural overview of February 6, 2023 Kahramanmaraş, Türkiye, earthquakes (M7.7 and M7.6) on April 12. Presentation materials and slides are available in the event archives on the website: seabc.ca/events-archive
- Evening seminar- Solid-State Dampers for Enhanced Wind, Seismic & Vibration Performance of Structures on May 25
- SEABC Vancouver Island Discourse and Social on May 25

2. Industry event postings:

- One-Day Symposium during the 2023 CCEE-PCEE Conference on June 26
- 2023 Seattle Northwest Conference- Innovation in Structural Engineering on September 14
- Design of Economical and Resilient Steel Moment Frames on April 26
- February 2023 Earthquakes in Turkey and Syria: Observations from the Field and the Structural Engineers Office on May 4
- Seismic Retrofit Guidelines 2020 Edition (SRG2020) Workshop on May 5

3. SEABC April 2023 Term Courses – started April 11 and will continue until July 6. Only 2 courses were offered for this term. See details at: seabc.ca/certificate-program

4. SEABC February 2023 Newsletter- published and available on the website at: [SEABC Newsletter](#)

5. 2023 Annual General Meeting was successfully held via Zoom webinars on April 6. There were 34 members in attendance. The SEABC Board of Directors for 2022-2023 were elected by Acclamation.

6. YMG Presentation Competition 2023 was held in person at the Vancouver Library Square Conference Centre on March 27. Registration to attend and sponsorship opportunities were available through the website.

7. 2023 Pinnacle Lecture by Naeem Hussain

- Another interesting and successful presentation at this year's Annual Dinner on May 11
- Lecture was presented by renowned bridge engineer and recipient of the IStructE. 2022 Gold Medal – Naeem Hussain
- The keynote video recording has been posted to the website and available to members in the event archives page: seabc.ca/events-archive

We want to hear from you!

We welcome your comments for improving the SEABC's website and other online services. Please send your suggestions to webmaster@seabc.ca



IStructE News



David Harvey, P.Eng.
Struct.Eng

Having weathered the pandemic and a CEO change, IStructE is quickly establishing its 'new normal' in a much-changed world. One good example is Council meetings, which still need to take place, but are quickly adapting to the digital reality. For 2023, the February Council meeting was held in person, as there was a strong need to re-establish personal connections after the separation posed by the pandemic. The two-day event included debating sessions on current topics. The remaining Council meetings will be held on-line and will be in the form of two-hour briefings covering news and Council business. Being much shorter, the number of meetings has been increased to four to improve the currency of information.

I was fortunately able to attend both the in-person and first electronic Council meetings. I appreciated being able to meet everyone in London after the recent turbulence; but equally, to be able to establish on-line that close connection for a couple of hours without involving travel is of great value.

The Institution has provided strong leadership in adaptation to climate change, particularly regarding carbon accounting. IStructE has promoted carbon consciousness in the built environment through its publications. Here are some key IStructE references which are widely accessible:

- A brief guide to calculating embodied carbon (istructe.org)
- How to Calculate Embodied Carbon Guide 2nd Edition: Updates summary- The Institution of Structural Engineers (istructe.org)
- The Structural Carbon Tool Version 2- The Institution of Structural Engineers (istructe.org)
- Embodied carbon basics for structural engineers on-demand course- The Institution of Structural Engineers (istructe.org).

IStructE CEO



Yasmin Becker

IStructE has seen a relatively small number of CEOs (formerly known as Secretaries) over its 115-year history, compared with its presidents who typically serve annually. So, the CEO can more directly chart the Institution's course than any one president can.

"It is my honour to join IStructE as Chief Executive and I am excited to be leading the Institution into its next phase," said Yasmin Becker as she stepped into the role established by Martin Powell. Martin, who retired at the end of March, has carefully honed the CEO role over the past 14 years and leaves some pretty big shoes for Yasmin to fill. However, the Institution's search committee is confident that they have found the right person.

Yasmin clearly welcomes a challenge, pursuing a professional career having been actively discouraged by her conservative family, yet graduating from Warwick University and the London Business School! Yasmin joins IStructE from a healthcare background, having most recently led the Federation of the Royal Colleges of Physicians, where she spearheaded meaningful change in a respected worldwide body, yet still somehow manages to work on her Doctorate in Digital Transformation.

Why engineering? Yasmin confesses to great enthusiasm for engineering and the built environment starting from an early age after visiting construction sites with her father. She was further motivated by London's recent Grenfell Tower tragedy. Now Yasmin cannot wait to get to work with everyone at IStructE.

Pinnacle Lecture



David Harvey, P.Eng.
Struct.Eng

We were extremely fortunate in being able to bring legendary bridge engineer Naeem Hussain to Vancouver to deliver the 2023 Pinnacle Lecture at SEABC's flagship event. Naeem is the global bridge leader for Arup and has extensive credentials. Most notably he is a Fellow of the Royal Society for Engineering, an Arup Fellow and the 2022 Gold Medalist of the Institution of Structural Engineers.

Prior to introducing Naeem, I took the opportunity to thank our event sponsors: Associated Engineering, Axis Insurance Managers Inc., Bush Bohlman & Partners LLP, and COWI (Bronze sponsorship); and Thomas Leung Structural Engineering (Silver). Sponsorship is key to running our major events – quite literally, we could not bring world-class speakers to Vancouver without our event sponsors.

Naeem started off by introducing us to the five main types of bridge. All of the world's bridges are one or more of these types. Moving to the 1994 Hulme Arch – a landmark bridge in Manchester, UK, Naeem showed how the architectural design for an arch on the diagonal was developed for “no particularly good reason.” Despite that, the bridge is a highly visible civic icon that has been replicated many times.



Hulme Arch Bridge, Manchester, UK



Hulme Arch Bridge from Stretford Road

Naeem then moved to Arup's ideas for the Oresund Bridge between Denmark and Sweden. Their concept included an S-shaped alignment, a double deck truss to provide the stiffness needed for high-speed rail operations, 140 m spans to minimize marine flow impedance, precast columns, truss continuity through the cable-stayed spans, and free-standing tower arms which eliminated costly above-deck portal beams. Arup's concept was based on installation of large units up to 6,000 tonnes using the Svanen, the crane barge that had earlier erected Canada's Confederation Bridge.



Svanen – 6000 tonne Crane Barge, Holland



Oresund Marine Crossing, Denmark – Sweden



Oresund Bridge Navigation Span

In 1996 Naeem was involved in the Medway Viaduct, part of the high-speed rail link to the Channel Tunnel. The rail bridge paid homage to the two adjacent road crossings of the River Medway which were large parabolically-haunched girder spans. The Arup designers made a bold attempt to disguise the 14 m depth of the main girder which was needed to achieve sufficient stiffness for rail operations by wrapping the arms of the main pier around the webs of the box girder. The design undoubtedly made the best matching possible between a very stiff rail bridge and two flexible road bridges, but at this point I diverge from Arup, as a well designed through-truss with judiciously aligned piers could have been a better choice. The rail bridge would then have appeared quite different from its neighbours – as indeed it should.



Medway High Speed Rail Bridge, Kent, UK

In 2000, Naeem led the concept design for Hong Kong's Stonecutters Bridge. This amazing structure advanced the state-of-the-art for long-span cable-stayed bridge designs by a considerable margin. The mono-tower design was unprecedented considering the bridge's massive proportions – its 1018 m main span, the 73 m marine headroom beneath the deck, and 290 m tower height. The novel split deck was dictated by the mono-tower design but worked perfectly in achieving the minimum critical wind velocity of 95 m/s needed to resist aerodynamic flutter in the typhoon winds that dominate Hong Kong design loads. All this is certainly impressive, but for Naeem the most interesting part of the project was solving the tower displacement and ship impact design challenges. To tackle the vortex shedding and tower displacement issue, Naeem changed the original steel tower to a concrete tower with composite stainless-steel cladding, estimating that reduced maintenance would pay for the cost premium. To tackle the ship impact on the adjacent wharf, the designers used centrifuge modelling at the University of Delft. The test results calibrated 3-D modelling of the soil structure system which provided the pier design loads. This then novel design approach is now in widespread use.



Stonecutters Bridge, Hong Kong

Naeem then moved on to the Shenzhen Bay Bridge which connects Hong Kong with China, explaining the symbolic controversy of the two inclined single mast cable-stayed spans book-ending the multi-span marine crossing. Moving to the A30 bridges, Naeem noted that design innovation comes at a price in Montreal, and so routine I-girder superstructures were used for the river crossings. The main interest for Naeem was the clever 'push-launching' used for erecting the concrete I-girders.



Shenzhen Bay Bridge, Hong Kong-China

In 2007, Naeem then moved to the Queensferry Bridge, Edinburgh, Scotland – the design which he believes he influenced most. The bridge's four cable-stayed spans and approach viaduct were chosen to utilize Beamer Rock, a natural location for a tower base in the middle of the Firth of Forth. Unwilling to use a massive central tower to ensure stability, Naeem built on the overlapping cable concept he used years earlier on a small LRT bridge in Rennes, France. After convincing the contractor's project manager that 'overlapping cable fans' was the way to go, the Queensferry crossing concept was born. To land on Beamer Rock, a small footprint was needed, which pointed to the mono-tower design that Naeem believed was the right choice for the site. The superstructure design ended up as a 'tub' box girder with composite concrete deck suspended from two cable planes in the median. This brilliant design has created a new state-of-the-art for multi-span cable-stayed bridges.



Queensferry Crossing, Edinburgh, Scotland



Queensferry Bridge under construction



Completed Queensferry Bridge with signature overlapping cable fans



Queensferry's overlapping cable fans viewed from the bridge deck

Jumping back to Asia, Naeem described the Hong Kong Zhuhai Macao Bridge – at 53 km, the world's longest marine crossing. For this Naeem used large, prefabricated bridge pier sections which were lifted onto a small number of piles using a 2600 tonne crane barge. The same crane was used to lift in 110 m steel orthotropic box span sections onto the piers. The Jiu Zhou Bridge was one of three cable-stayed navigation spans featuring 'sail' type piers. These piers add significant stiffness which avoids the need for back-span anchor piers.



Hong Kong Zhuhai Macao Bridge

The Brunei Tumerong Bridge, a 30 km marine crossing connecting the two separate portions of Brunei on the island of Borneo came next. The marine viaducts were precast, with spans erected by balanced lifting of two box girders from a gantry which were moved inwards before lowering. Each girder pair could be installed in two days, carving a year off the construction schedule. Naeem had great fun with the two cable stayed navigation spans, modifying the A-frame towers to appear as Islamic arches – apt for the predominantly Muslim Kingdom of Brunei.



Sultan Haji Omar Ali Saifuddien (Brunei Tumerong) Bridge

Returning to Canada, Naeem described developing the design concept for the cable-stayed Samuel de Champlain Bridge in Montreal. In the final design, TY Lin almost exactly replicated Arup's concept, and the bridge opened in 2019. The former Champlain Bridge is now about 50% dismantled. Naeem then switched to the Cannakale Bridge, Turkey where Arup independently checked the design by COWI. "A lovely bridge," noted Naeem, with its 2023 m (world's longest) main span. Naeem quickly added

that China was currently working on a 2058 m span bridge, aiming to collect the world record.



Samuel de Champlain Bridge, Montreal, Canada



Samuel de Champlain Bridge opened to traffic



Canakkale Bridge, Turkey

Naeem gave us insight into his current work which features the delightful 32 km long Bataan Cavite Interlink Bridge, a marine crossing he clearly loves, near Manila, Philippines. The location combines high seismicity, with typhoon winds and significant ship impact loading. Unsurprisingly, the 900 m cable-stayed main navigation span owes a great deal to Stonecutters, with the added requirement of seismic isolation of the tower bases. Also on Naeem's 'to do' list are design studies for suspension bridges in Hong Kong. The Tsing Yi-Lantau Link Bridge is a conventional twin-tower suspension span combined with a smaller single-tower suspension

bridge with a common anchorage. The Tsing Lung Bridge is a quirky one-span suspension bridge with approach viaducts. The 1280 m main span has asymmetric towers which were necessary as the tower height restriction reduces with proximity to the airport. The eight-lane structure has one large aerofoil deck to achieve aerodynamic stability.



Bataan Cavite Interlink Bridge, Manila, Philippines



Proposed Tsing Lung Bridge, Hong Kong

Looking to the future, Naeem commended the amazing modelling and computer graphics talents of the younger engineers which can be used to quickly assist design development. The value of Artificial Intelligence (AI) is less clear to him, noting the dangers along with the advantages. He also believes that structural engineers should be taught architecture to understand how the professions can best work together to create designs.

Taking questions, Naeem felt strongly that there should always be an economic need for a bridge – sometimes an improved ferry service makes more sense. Asked about his favourite bridge, Naeem admitted to liking many but eventually agreed that Queensferry was probably his favourite. Paul Fast then gave the official thanks on behalf of SEABC to the speaker for his most informative and inspiring talk.

Congratulations!

As the recent Pinnacle Lecture event in the Sutton Place Hotel, Vancouver, Immediate Past President Cameron Kemp took to the podium to announce the winners of the 2023 Young Members Meritorious Achievement Award, part of the SEABC Legacy Awards program. This year the awards went to Kelsie Priest of Glotman Simpson and Robert Jackson of Fast & Epp. The photo shows Cam describing the significant career achievements of these outstanding young members. Heartiest congratulations, Kelsie and Robert!



As part of the recent Pinnacle lecture event at the Sutton Place Hotel, the Certificate in Structural Engineering Program announced its awards for student achievements. One of the outstanding students was none other than Meagan Harvey, SEABC's Okanagan Branch Chair. The photo shows Meagan receiving her graduation plaque from Darrel Gagnon representing the Certificate Program Board of Directors, while fellow director Chris Jacques looks on.



Repeated Failures



Robert Bourdages, P.Eng.
LEED AP

We have seen the recent earthquake damage from Turkey and Syria, relating to multiple catastrophic building collapses causing immeasurable loss of life, personal injury, and property damage.

Yet it is understood that the current building codes in Turkey are reasonably up to date and suitable to prevent the type of damage that has occurred.

The reason stated for this shortfall from many press outlets indicate a variety of reasons: building codes may not be enforced, materials are not available or are able to meet specifications, inspections are lacking, compliance is not affordable or competitive, corruption, lack of skilled workers, etc.

This theme has been repeated over several major earthquakes in recent history, and this type of catastrophic event will likely occur again if there is no change in policy and construction practice.

So, what to do? It is unlikely or very difficult to change policy and practices, even after repeated and major earthquake damage occurs.

Start with small but important steps for building safety. For example, develop prescriptive solutions for a variety of building types that are robust and safe, have tools and methods available to more easily validate compliance to critical detailing and material strength.

Prototypical building plans that are earthquake resistant can be made available that are pre-approved for construction. This will eliminate the process of technical reviews for each building. A variety of building sizes for a variety of seismic regions and soil types could be developed under this program. Each city could have a library of pre-approved construction plans that are specific to their level of seismic risk.

Start with low-rise to mid-rise concrete structures that have adequate shear walls distributed throughout and avoid potentially hazardous irregularities. These structures will be redundant and therefore have inherent reliability and adequate reserve strength by virtue of multiple lateral resisting elements throughout in each direction.

For high-rise construction, perhaps develop pre-approved construction plans that have structural steel lateral force resisting systems that are ductile and therefore resilient. Field verification would be easier to establish compliance. Reinforced concrete high-rise buildings have not shown to be safe in some high seismic regions where compliance to specifications cannot be assured.

Testing programs could include in-situ testing for concrete strength, and non-destructive and destructive testing for evaluating reinforcing at critical locations.

Properly designed and field verified seismic resistant prototypical buildings may not be as efficient and elegant as uniquely designed buildings however they could improve safety and therefore save lives and limit property damage. A different approach needs to occur to avoid repeated failures.



Certificate in Structural Engineering Program



Shannon Remillong,
CSE Program
Co-ordinator

This year at the SEABC Annual Pinnacle Lecture on May 11, 2023, the Certificate Program Executive Committee awarded the \$1,000.00 Mahmoud Rezai Scholarships to six outstanding students who have taken a minimum of 2 courses over 2 consecutive years, with the highest grade point average.

The students who have accomplished this goal between 2021 and 2023 are:

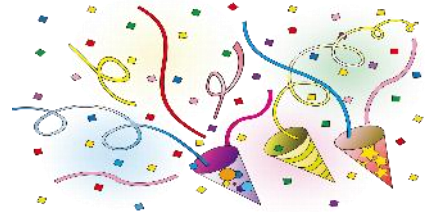
- Henry Czenczek (FRP Engineering, Kelowna)
- Alejandro Bohl (COWI, North Vancouver)
- Jonathan Doucette (RJC, Kelowna)
- Michael Bradbury (structural engineer, California)
- Tyler Boyer (Herold Engineering, Nanaimo)
- Kurt Taylor (Associated Engineering, Edmonton)

The Executive Committee would also like to congratulate the following who have recently graduated from the SEABC Certificate Program, successful completing 12 courses:

- Meagan Harvey (Mercury Structural, Kelowna)
- Jesslyn Fowlie (CBCL, Halifax)
- Seyed Hassan Mozneb (i3 Building Science and Consulting, Coquitlam)
- Kristopher Post (RJC, Edmonton)
- Roger Boudreau (Fishburn Sheridan & Associates, Ottawa)
- Kamyar Fozi (Kamtech Engineering, Coquitlam)

- Craig Santos (Gairns Santos Engineering, Prince George)
- Ben Hung (Jacobs Engineering, Burnaby)
- Michael Bradbury (structural engineer, California)

Congratulations everyone, well done and have a wonderful summer break!



September is not that far away!

Registration for the fall term opens **July 3, 2023**

Five courses will be offered **Live Webcast**, with selected courses simultaneously offered **In-Person** at the UBC Robson downtown campus. Courses will be Tuesday or Thursday evenings beginning the week of September 12 and ending the week of December 7, 2023.

The following courses will be offered in September 2023:

- **C2** Effective Structural Modelling
- **C10** Design of Earth Supported Structures
- **C13** Structural Steel Design for Buildings
- **E28** Design of Multi-Storied Concrete Buildings
- **C6** Dynamic Analysis of Structural Systems

Course outlines are available: seabc.ca/certificate-program

Course Delivery:

- Courses will be held **IN-PERSON** at the UBC Robson classroom as well as **LIVE WEBCAST** format,
- Five courses will be offered once a week for 2 hours in the evening,
- Courses are 12-13 consecutive weeks.

Important Dates:

- Registration open: Monday, July 3, 2023.
- Early-bird deadline: Friday, August 18, 2023.
- Registration will remain open until Monday, September 11, 2023.
- First lecture: Week of September 12, 2023.
- Last lecture: Week of December 7, 2023.
- Withdrawal Deadline: Monday, September 25, 2023 (\$75 administration fee will be applied to refund of course registration fee).

Course Fees and Discounts:

- Classroom (UBC Robson) \$500 + GST.
- Live webcast \$700 + GST
- Early-bird discount of \$50 per course applicable until Friday, August 18, 2023
- SEABC Member's discount of \$50 applied at registration.

Courses will fill up fast so make sure to register early and take advantage of the savings!

Registration Inquiries and Requests/Suggestions:
Please contact Shannon Remillong, Certificate
Program Administrative Assistant, at:
courses@seabc.ca

CSE Board of Directors

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Save the Date – Northwest Conference

The 2023 Northwest Conference will be held at The Hilton, Bellvue, WA, September 14, 15, 2023. Look out for announcements!

Announcement from Engineers and Geoscientists BC

Engineers and Geoscientists BC is excited to announce the launch of a new tool to support professionals and their contribution to building and maintaining inclusive environments. Our Guide to Inclusive Practices covers a range of topics that can be applied to volunteer activities with our organization, other organizations, and in general areas of professional practice.

Help us Promote This Resource

Advancing equity, diversity, and inclusion (EDI) takes collective and ongoing effort, and at Engineers and Geoscientists BC we believe that we achieve more by working together and sharing our knowledge. We are pleased to share this resource with you and encourage you to use it in any spaces where it can add value.

Use our [Social Media Kit](#) to share this resource through your network or re-share our [Twitter](#) or [LinkedIn](#) post.

Learn More About our Guide to Inclusive Practices

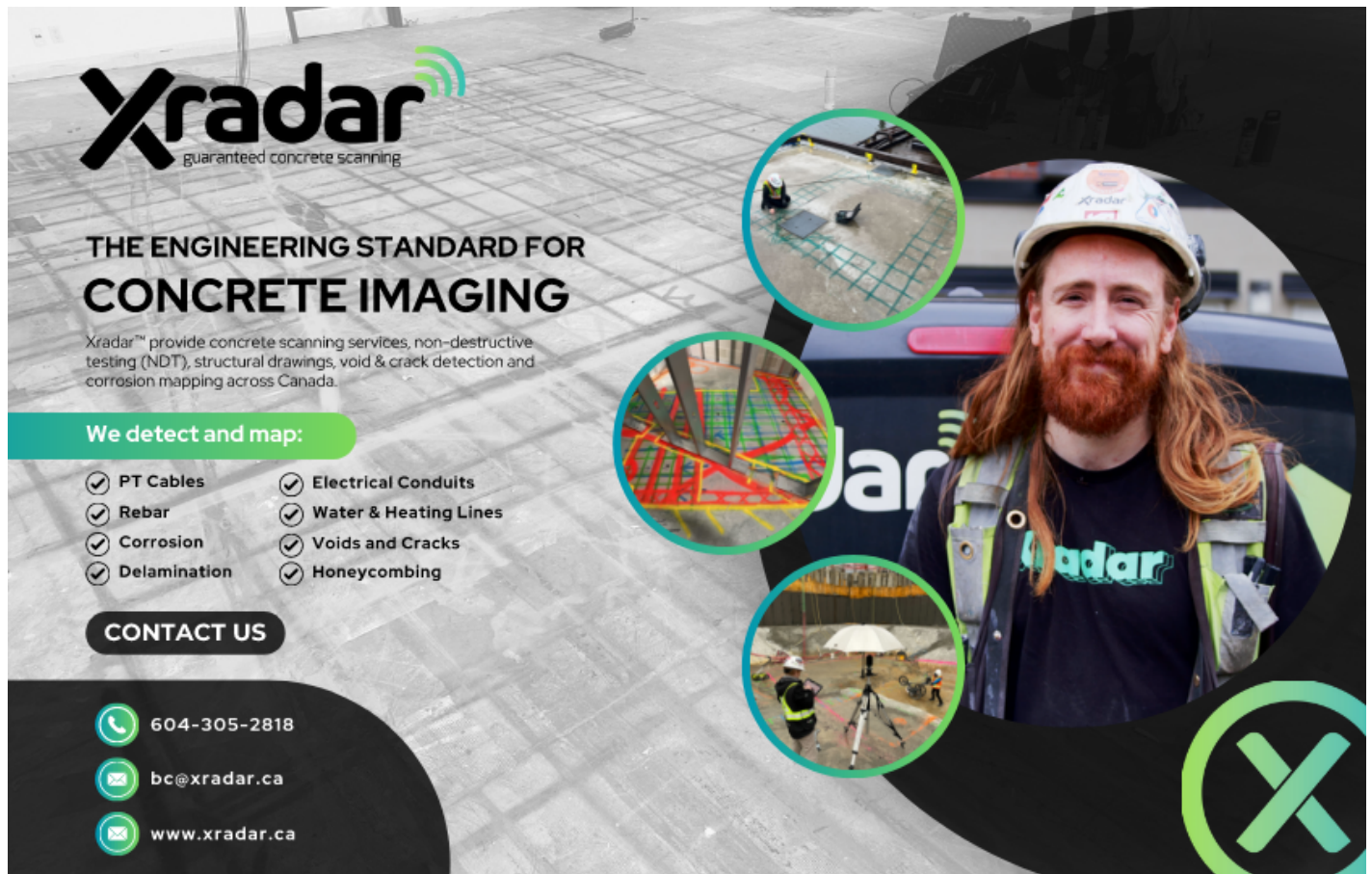
The Guide to Inclusive Practices includes sections on Inclusive Meeting Facilitation, Inclusive Presentations, Use of Pronouns, and Land Acknowledgments. We've also developed Core Concept sheets, which are 1-page documents that highlight many easy to implement practices.

To view the guide, Core Concept sheets, and learn more visit our [website](#).

QUESTIONS

If you have any questions about the Guide to Inclusive Practices or accompanying resources, please email:

diversity@egbc.ca.



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Northwest Conference



Darrell Staaleson
SE

What do you know about the Northwest Conference?

The Seattle Chapter of SEAW is excited to be the host for the 2023 Northwest Conference, “Innovation in Structural Engineering,” taking place this year at the Bellevue Hilton on September 14 and 15.

The Northwest Conference is held annually, although it was canceled for three years during the pandemic. The Northwest Conference serves all of the Structural Engineers Associations of the northwest area of the United States and into Canada, including Washington, Oregon, Idaho, Montana, and British Columbia.

The purpose of the Northwest Conference is to provide a forum for engineers in our region to learn from other engineers in the region and gain from their ideas and experiences, but also to build friendships and business networks, and strengthen our local Structural Engineers Associations. We want to uplift the members of our profession. Everyone should come away from the Conference inspired for the coming year. As a teacher of mine from long ago said, “I want for you to stand on my shoulders!”

Since inception, the organizations have taken turns hosting and planning the Northwest Conference. The past several conferences have been:

- 2015, Idaho, “Jump into the Future”
- 2016, Montana, “Back to School, Under the Big Sky”
- 2017, British Columbia, combined with the IABSE Symposium, “Engineering the Future”
- 2018, Spokane/South Central, “Knowledge is Power”

- 2019, Oregon, “Panic! In the Code Change”

The Northwest Conference Committee will decide who will host the Conference for 2024.

Of these events, one memorable and outstanding conference, in my opinion, was the Spokane/South Central “Knowledge is Power” conference in 2018. It was held in Richland and John Tate served as Conference Chair.

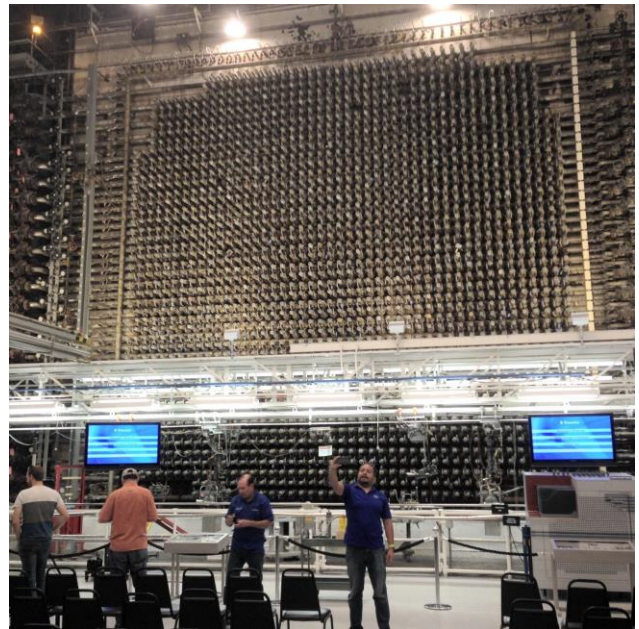
The NWCMA hosted a “hands-on” masonry apprentice training event for our young members. The masons demonstrated how to lay down a mortar bed: one deft hand flick and a nearly perfect mortar bed of about 24 inches – didn’t really look difficult at all. And then, the young engineers from YMG gave it a try. Um, well, they needed more practice! It was an excellent example of the intersection of engineering with construction. The masonry contractors also gave a short presentation about designing with “constructability” in mind. That was valuable for our young engineers and a good reminder for senior engineers.

At dinner, we had a presentation from a National Parks Ranger who had been an engineer in the nuclear industry. Upon retirement he transitioned to the NPS with focus in the Manhattan Project sites, one of which was the Hanford Site. At dinner, I had the pleasure of sitting next to our guest speaker. He talked about the Fukushima Nuclear Accident and the poor decisions that led to it. You never place the emergency backup generators in a location that makes them susceptible to the same hazard as the facility they are protecting! The generators were scheduled to be relocated above the inundation zone, but that doesn’t excuse the fact that they should never have been built at the low elevation in the first place. Do you really need a code to tell you that? The consequence of that poor decision was that one of the largest cities on the planet- population of 14 million- almost became a nuclear dead zone. That interesting and useful discussion resonated with me and changed my view of the concept of resilience. Then, his lecture later that evening presented history that I had not known and provided a great preparation for our visit the next day to the Hanford Site – Reactor B. My wife even flew over to visit Hanford, as well. We both greatly enjoyed the tour.

For this year, the conference program will include technical presentations by engineers from the Northwest region and vendor speakers. This year there will be 10 abstract presentations and 6 vendor speakers. At this writing, social events and technical tours are being developed. Look for highlights of these in a future Equilibrium!

If you have any questions or comments, feel free to contact any member of the Northwest Conference Steering Committee. Thank you to these individuals for all their hard work and dedication to this event!

- Chun Lau (Chair)
- Scott Douglas (Technical Subcommittee Chair)
- Michelle Yee
- Jessica Lim
- Shalini Prochazka
- Darrell Staaleson



SEAW Member Eduardo Avelar takes a selfie at the Hanford B Reactor during a site visit during the 2018 Northwest Conference. Photo by Darrell Staaleson.

For more information: seabc.ca/events/seattle-northwest-conference

**INNOVATION IN
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SEA NW Conference
September 14 - 15, 2023
Hilton Bellevue - Bellevue, WA

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Mark Your Calendar

Upcoming Seminars, Webinars and Events

Climate Change Impacts on Water Systems

Date: Wednesday June 7, 2023

Location: Webinar (18 seats available)

Time: 8:45 AM–9:00 AM Pacific Time: Registration
9:00 AM–10:30 AM Pacific Time: Webinar

For more info: egbc.ca/Events

Vancouver Island Branch Golf Tournament

Date: Friday June 9, 2023

Location: Cowichan Golf Club 4955 Trans Canada Hwy Duncan, BC

Time: 1:00 PM–8:00 PM Pacific Time
Registration deadline is June 2, 2023.

For more info: egbc.ca/Events

Business Data Analytics Tools and Techniques

Date: Friday June 9, 2023

Location: Webinar

Time: 8:15 AM–8:30 AM Pacific Time: Login
8:30 AM–4:30 PM Pacific Time: Webinar

For more info: egbc.ca/Events

People Management Excellence

Date: Friday June 9, 2023

Location: Webinar (18 Seats Available)

Time: Registration and Login: 8:15 AM–8:30 AM Pacific Time
Webinar: 8:30 AM–2:30 PM Pacific Time

For more info: egbc.ca/Events

Helium and Lithium Exploration in Western Canada

Date: Tuesday June 13, 2023

Location: Webinar

Time: 8:45 AM–9:00 AM Pacific Time: Login
9:00 AM–11:00 AM Pacific Time: Webinar

For more info: egbc.ca/Events

Victoria Branch AGM and Cider Visit

Date: Tuesday June 20, 2023 Registration Deadline June 14 (36 Seats Available)

Location: Sea Cider Farm & Ciderhouse 2487 Mt St Michael Rd Saanichton, BC V8M 1T7

Time: 5:30 PM–8:30 PM Pacific Time

For more info: egbc.ca/Events

Mentoring Program Webinar

Date: Thursday June 22, 2023

Location: Webinar

Time: 4:00 PM–6:00 PM

For more info: egbc.ca/Events

Save the Date! CCEE - PCEE 2023 Conference!

Date: June 25 – July 1, 2023

Location: Sheraton Wall Centre, 1088 Burrard St, Vancouver, BC, V6Z 2R9

For more info: Please check your emails in the coming weeks for more information regarding the conference.

Final Words

Editorial Information

The SEABC Newsletter is published by the Structural Engineers Association of British Columbia. The current and past issues are available on the SEABC website at www.seabc.ca.

The Newsletter is edited and managed by the SEABC Communications Committee.

- Committee Chair: David Harvey
- Newsletter Editor: Catherine Porter
- Editorial Assistant: Mark Budd
- Webmaster: Ricardo Ruiz

Submissions are welcomed and all SEABC members are encouraged to actively contribute to the Newsletter. Submissions, letters to the Editor, questions and comments can be sent to: newsletter@seabc.ca.

The Committee reserves the right to include or exclude submitted material and in some cases, edit submitted material to suit overall space requirements. If content is not to be edited, please advise so at submission time.

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