Dear attendees,

Welcome to beautiful Victoria, British Columbia and the 36th Annual Conference and Induction Dinner of the Canadian Academy of Engineering. We are coming together for these three days on the traditional territory of the lək̓ʷəŋən peoples and the lands of the Songhees, Esquimalt and W̱SÁNEĆ peoples whose historical relationships with the land continue to this day.

This is the first time the CAE Annual Conference has extended over two days. We wish to thank Fellows of the Academy and guests who are presenting on a wide range of topics. We would like to give a particular thanks to the faculty and administration of the University of Victoria, without whom this conference would not be possible.

Thank you,

Robert J. Crawhall  
Executive Director

Soheil Asgarpour  
Board President
Thank you to our Sponsors | Merci à nos commanditaires!

GOLD

McGill
University of Victoria

SILVER

McMaster University
Engineering
Western Engineering

UBC
Faculty of Applied Science

SCHULICH
School of Engineering

UNIVERSITY OF WATERLOO
Faculty of Engineering
# Schedule at a Glance

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 19</td>
<td>7:30 - 9:00 pm</td>
<td>Meet up with old acquaintances and form new ones</td>
<td>Terrace Ballroom</td>
</tr>
<tr>
<td>June 19</td>
<td>8:00 pm</td>
<td>Welcome and Land Acknowledgment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8:50 - 9:10 am</td>
<td>Welcome and Land Acknowledgment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9:10 - 10:30 am</td>
<td>Welcome and Land Acknowledgment</td>
<td></td>
</tr>
<tr>
<td>June 20</td>
<td>10:30 - 10:45 am</td>
<td>Break</td>
<td>Spirit Foyer</td>
</tr>
</tbody>
</table>

All sessions will take place in the Spirit Room

## Networking Breakfast

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 20</td>
<td>8:00 - 8:45 am</td>
<td>Meet up with old acquaintances and form new ones</td>
<td>Terrace Ballroom</td>
</tr>
</tbody>
</table>

## Welcome and Land Acknowledgment

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 20</td>
<td>8:50 - 9:10 am</td>
<td>Welcome and Land Acknowledgment</td>
<td></td>
</tr>
</tbody>
</table>

- **Dr. Soheil Asgarpour, Ph.D., P.Eng, FCIM, FCSSE, FCAE**, President of CAE and President and CEO at PTAC
- **Dr. Robert Crawhall, Ph.D., P.Eng, PMP, ICD.D, FCAE**, Executive Director at the Canadian Academy of Engineering

## Keynote Speakers and Dignitaries

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 20</td>
<td>9:10 - 10:30 am</td>
<td>Keynote Speakers and Dignitaries</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9:10 - 10:30 am</td>
<td>Keynote Speakers and Dignitaries</td>
<td></td>
</tr>
</tbody>
</table>

- **Dr. Mina Hoorfar, BASc, MASc, PhD, P.Eng., FCAE**, Dean of Engineering and Computer Science, and Professor, Mechanical Engineering at the University of Victoria
- **Hon. Dr. Senator Rosa Galvez, Ph.D., P.Eng, FEC, FCSCE, FCAE**, Senator at Senate of Canada
- **Dr. Alan Winter, PhD., FCAE**, President at Winteck Consulting Inc. and Adjunct Professor at the University of Victoria, Former BC Innovation Commissioner at the BC Provincial Government
- **The Honourable Bowinn Ma**, British Columbia’s Minister of Emergency Management and Climate Readiness

## Official Welcome

- **Dr. Soheil Asgarpour, Ph.D., P.Eng, FCIM, FCSSE, FCAE**, President of CAE and President and CEO at PTAC
- **Dr. Elizabeth Croft, Ph.D., P.Eng, FEC, FSAME, FCAE, FTSE**, Vice President, Academic and Provost at the University of Victoria
### Panel Discussion on Resilient Building

**June 20, 10:45 - 11:30 am**
- **Andrew Pape-Salmon, P.Eng., MRM, FCAE**, Adjunct Professor, Department of Civil Engineering at the University of Victoria and Executive Director at BC Ministry of Emergency Management and Climate Readiness
- **Christy Love, P.Eng., CPHC**, Principal, Senior Project Engineer at RDH Building Science Inc.

### CAE Programs Update

**June 20, 11:30 - 12:00 pm**
- **Dr. Robert Crawhall, PhD, P.Eng., PMP, ICD.D, FCAE**, Executive Director at the Canadian Academy of Engineering
- **Dr. Soheil Asgarpour, PhD, P.Eng, FCIM, FCAE, CAE**, President of CAE and President and CEO at PTAC
- **Dr. Oskar Sigvaldason, PhD., P.Eng., FCAE**, Chair of the CAE Future of Engineering Committee

### Networking Luncheon

**June 20, 12:00 - 1:00 pm**
*Meet up with old acquaintances and form new ones*
*Terrace Ballroom*

### Panel Discussion on Fusion and Fission Energy

**June 20, 1:00 - 2:30 pm**
- **Dr. Axel Meisen, C.M., PhD, P.Eng., EurIng, FCAE, FCIC**, President at Fusion Energy Council of Canada and Professor Emeritus at the University of British Columbia
- **Dr. Michel Laberge, PhD**, Founder and Chief Scientist at General Fusion Inc.
- **Mr. Bibake Uppal, MBA, MSc, BA**, Business Development Manager, Kyoto Fusioneering Ltd.
- **Dr. Igor Pioro, PhD, P.Eng., FCAE, FASME, CSME, EIC**, Professor, Faculty of Engineering and Applied Science at OntarioTech

**June 20, 2:30 - 2:45 pm**
*Break*
*Spirit Foyer*
### Panel Discussion on Clean Energy Pathways

#### June 20
#### 3:45 - 5:00 pm

- **Dr. David Wilkinson, Ph.D., P.Eng, C.M., FRSC, FCIC, FEIC, FCAE**, Professor and Canada Research Chair, Chemical and Biological Engineering at the University of British Columbia
- **Hon. Dr. Rosa Galvez, Ph.D., P.Eng, FEC, FCSCE, FCAE**, Senator at the Senate of Canada
- **Brad Buckham, PhD, P.Eng.**, Chair, Professor, Mechanical Engineering at the University of Victoria
- **Mark Warren, BASc, MBA**, Director, Business Innovation and Measurement at FortisBC

### Panel Discussion on Equity, Diversity and Inclusion in Engineering

#### June 20
#### 2:45 - 3:45 pm

- **Dr. Elizabeth Croft, Ph.D., P.Eng, FEC, FSAME, FTSE, FCAE**, Vice President, Academic and Provost at the University of Victoria
- **Ms. Jessica Vandenberghe, P.Eng, MSc, FEC, FGC(Hon)**, Assistant Dean, Community and Culture, Faculty of Engineering and Computer Science at the University of Victoria
- **Karen Savage, P.Eng., FEC, FCAE**, President at Horizon Engineering Inc.
- **Dr. Laleh Behjat, PhD, P.Eng., FCAE**, NSERC Cahir for Women in Science and Engineering (Prairie Region)
- **Dr. Kevin Hall, BSc, MSc, PhD, FRSN, MAICD, FCAE**, President and Vice Chancellor at the University of Victoria

### Gala Dinner and Fellow Induction Ceremony

#### June 20
#### 5:45 - 6:30 pm

Reception
Terrace Patio

#### June 20
#### 6:30 - 9:30 pm

Gala Dinner and Induction Ceremony
Terrace Ballroom
## SCHEDULE AT A GLANCE
### June 21, 2023

### Networking Breakfast

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 21</td>
<td>Meet up with old acquaintances and form new ones</td>
<td>Terrace Ballroom</td>
</tr>
<tr>
<td>8:00 - 8:45 am</td>
<td><strong>Networking Breakfast</strong></td>
<td></td>
</tr>
</tbody>
</table>

### Panel Discussion on Future Networks for Ubiquitous Intelligence

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 21</td>
<td><strong>Panel Discussion on Future Networks for Ubiquitous Intelligence</strong></td>
<td>Dr. Robert Crawhall, PhD, P.Eng., PMP, ICD.D, FCAE, Executive Director</td>
</tr>
<tr>
<td>8:45 - 9:45 am</td>
<td>at the Canadian Academy of Engineering</td>
<td>Dr. Alberto Leon-Garcia, PhD., FCAE, Professor, Department of Electrical and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Computer Engineering at the University of Toronto</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dr. Lin Cai, P.Eng., FEIC, FIEEE, RSC College Member, NSERC Steacie Fellow,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FCAE, Professor, Department of Electrical and Computer Engineering at the</td>
</tr>
<tr>
<td></td>
<td></td>
<td>University of Victoria</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dr. Song Guo, FIEEE, FCAE, Changjiang Chair Professor, Department of</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Computing at the Hong Kong Polytechnic University</td>
</tr>
</tbody>
</table>

### Panel Discussion on Electric Grids

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 21</td>
<td><strong>Panel Discussion on Electric Grids</strong></td>
<td>Mr. Guy van Uytven, P.Eng, FCAE, FCSSE, Power Systems Consultant</td>
</tr>
<tr>
<td>9:45 - 10:45 am</td>
<td>for the African Development Bank, Nairobi Kenya</td>
<td>Mr. Ken Putt, P.Eng, FCAE, FCSSE, FEC, FEIC, FGC, Independent Director</td>
</tr>
<tr>
<td></td>
<td></td>
<td>at PTAC</td>
</tr>
<tr>
<td>June 21</td>
<td><strong>Break</strong></td>
<td></td>
</tr>
<tr>
<td>10:45 - 11:00 am</td>
<td><strong>Spirit Foyer</strong></td>
<td></td>
</tr>
</tbody>
</table>

### Panel Discussion on Infrastructure Projects

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 21</td>
<td><strong>Panel Discussion on Infrastructure Projects</strong></td>
<td>Colin Smith, M.S., MBA, FEC, P.Eng., FCAE</td>
</tr>
<tr>
<td>11:00 - 12:00 pm</td>
<td>Vice Principal, Administration and Finances at McGill University</td>
<td>Dr. Yves Beauchamp, C.M., C.Q., PhD, P.Eng, FCAE, Vice Principal, Administration and Finances at McGill University</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Jesse Unke, P.Eng., PE, PMP, ENV SP, CCIP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dr. Thomas Froese, BASc, MASc, PhD, Honorary Affiliate Professor, Department of Civil Engineering at the University of Victoria</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>June 21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 12:00 - 1:00 pm | Networking Luncheon  
Meet up with old acquaintances and form new ones  
Terrace Ballroom |
| 1:00 - 1:45 pm | Panel Discussion on Engineering Capacity for the Energy Transition  
- Dr. Robert Crawhall, PhD, P.Eng., PMP, ICD.D, FCAE, Executive Director at the Canadian Academy of Engineering  
- Dr. Kevin Hall, BSc, MSc, PhD, FRSN, MAICD, FCAE, President and Vice Chancellor at the University of Victoria  
- Heather Kennedy P.Eng., FCAE, Corporate Director/Former Energy Executive |
| 1:45 - 1:55 pm | Break  
Spirit Foyer |
| 2:00 - 3:45 pm | Panel Discussion on Forestry  
- Dr. Ron Crotogino, PhD., FCAE, Retired  
- Bill Adams, BASc, Meng, MBA, FCAE, Vice President, Sustainability & Innovation at Mercer International  
- Dr. Ian de la Roche, PhD., Adjunct Professor at the University of British Columbia and Owner at Delaroche Consultancy  
- Dr. Tom Browne, PhD., FCAE, Principal at Tom Browne and Associates  
- Dr. Richard Berry, PhD, FCAE, Chief Technology Officer (retired) at CelluForce |
| 3:45 - 4:00 pm | Closing Remarks  
Dr. Mina Hoorfar, BASc, MASc, Ph.D., P.Eng, FCAE |
THE WORLD IS CHANGING RAPIDLY. WE’RE LEVELING UP.

Now more than ever, the world needs engineers and computer scientists to build a healthy, prosperous, and sustainable future for our children.

UVic Engineering and Computer Science is leading the way by pushing the edges of applied science, creating tangible solutions to real-world problems, and investing in dynamic, innovative new facilities that will allow us to educate more exceptional engineers and computer scientists—highly skilled, future-ready professionals with the grit and determination to solve the greatest challenges of our time. Join us as we build a more resilient and sustainable future for us all.

uvic.ca/ecs

ENGINEERING & COMPUTER SCIENCE at the UNIVERSITY OF VICTORIA
Advancing innovation. Building inspiration.

We’re developing the changemakers of tomorrow.

Get involved with the Schulich School of Engineering. Hire an intern, mentor students or attend an event!
Congratulations to Dr. Monica Emelko and Dr. Carolyn Ren for their outstanding contributions to engineering, and for being role models in their fields and communities. It is an honour to witness their induction into the Canadian Academy of Engineering.