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CSSE Newsletter

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President's Editorial

Dear Colleagues,

As we navigate the ever-evolving landscape of engineering and our society as a whole, the role of senior engineers has never been more critical. Our collective experience and knowledge are vital in addressing the complex challenges our society faces today. The Canadian Society of Senior Engineers (CSSE) remains committed to harnessing this wealth of expertise to make a meaningful impact.



Engagement within our community is essential. By actively participating in CSSE events and discussions, we not only stay connected with our peers but also contribute to the ongoing advancement of our profession. Let us continue to build and strengthen our networks, sharing insights and fostering collaborations that can drive innovation and excellence.

Moreover, as senior engineers, we have a responsibility to champion the next generation of leaders in our field. Mentorship and guidance are powerful tools that can shape the future of engineering. I encourage each of you to take an active role in nurturing young talent, ensuring they have the support and direction needed to succeed.

Together, let us uphold the values of our society, stay engaged, and lead by example as we build a brighter future for engineering in Canada.

Sincerely,

Bill Rosehart, P.Eng., PhD, FCSSE, FEIC, FCAE
President, Canadian Society of Senior Engineers
Provost and Vice President Academic, University of Guelph



CSSE Annual General Meeting (AGM)

The CSSE AGM was held via videoconference.

CSSE Board of Directors and Committees

Recruit a New Member!

If you have a friend who is not a CSSE member, simply refer them to the CSSE website at www.seniorengineers.ca

Changed Your Coordinates?

If you have a new mailing (or emailing) address, please inform the CSSE Administration Office at administrator@seniorengineers.ca or (613) 795-9363.

Officers:

President - Bill Rosehart
 Past President - Brent Smith
 President-elect - Tom Tiedje
 Vice President (East) - Dan MacDonald*
 Vice President (West) - Dena McMartin
 Secretary-Treasurer - Bruce Peachey
 Communications Officer - Ken Putt

Regional Directors/Committee Chairs:

Chair, History and Archives Committee - Suzelle Barrington
 Quebec - Vacant
 Vancouver Island & EIC HAF Committee - Robin Black
 Greater Vancouver - Aidan Gordon
 Atlantic Canada - Terry Hennigar
 Ontario - John Harris
 Montreal - Jim Nicell
 Manitoba - Alan Pollard
 N. Alberta - Ken Porteous
 Chair, Honours and Awards Committee - Colin Smith
 B.C. - Guy Van Uytven
 Saskatchewan - Pieter Van Vliet
 Chair, Charitable Donations Committee - Chan Wirasinghe (and S. Alberta)

Honorary Directors:

Nelson Ferguson
 Colin Smith
 Ken Putt
 James Becket

Newsletter Editor - Ken Putt

Webmaster - Alan Pollard

CSSE Annual General Meeting (AGM) (Continued)

COMMITTEES

AUDIT - Brent Smith, Chair; Colin Smith, Vice Chair; Bruce Peachey, ex Officio

BYLAWS - Ken Putt, Chair; Colin Smith, vice Chair; Pieter Van Vliet, Advisor

CHARITABLE DONATIONS - Chan Wirasinghe, Chair; Ken Putt, Vice Chair; Laleh Behjat

HISTORY and ARCHIVES - Suzelle Barrington

HONOUR and AWARDS - Colin Smith, Chair; Robin Black, John Harris, Terry Hennigar

OFFICERS - Bill Rosehart, Chair; Brent Smith, Tom Tiedje, Dan MacDonald, Dena McMartin, Bruce Peachey, Ken Putt

NOMINATIONS - Brent Smith, Chair; Ken Putt, Vice-Chair

ENGINEERING INSTITUTE of CANADA (EIC) REPRESENTATIVES

EIC COUNCIL - Bill Rosehart; CSSE Council Member

EIC HISTORY and ARCHIVES COMMITTEE - Suzelle Barrington; Chair; CSSE Committee Member

EIC HONOURS and AWARDS COMMITTEE (HAF) - Robin Black; CSSE Committee Member

*Dan MacDonald, P.Eng., FCSSE, FEC, a CSSE and EGNS Past President, was elected to the VP East position, vacant at the time of the AGM, by the Board of Directors in accordance with the CSSE-SCIS Bylaws.

CSSE Members in the News

William (Bill) Rosehart, PhD, P.Eng., FCSSE, FEIC, FCAE

City of Calgary Award - Education - CSSE Fellow and President **Bill Rosehart** was recognized with the 2024 City of Calgary Award for Education.

The City of Calgary - Education Award is awarded to an individual Calgarian who has enhanced learning opportunities for Calgarians or brought recognition to Calgary due to outstanding academic achievement in their field. The Calgary Awards are hosted by The City each year to recognize Calgarians and local organizations for their outstanding achievements and significant contributions to making our city a better place to live. <http://calgary.ca/calgaryawards>

University of Guelph - Provost and Vice President Academic - The University of Guelph has appointed **Bill Rosehart** as Provost and Vice President Academic August 1, 2024 for a five year term. <https://news.uoguelph.ca/2024/06/u-of-g-appoints-new-provost-and-vice-president-academic/>

If Members are aware of other CSSE Members who's recent accomplishments should be brought to Members' attention, contact current CSSE Newsletter editor **Ken Putt at kwputt@shaw.ca*

Canadian Academy of Engineering

The CAE, a member of the International Council of Academies of Engineering and Technological Sciences (CAETS), is engaged with the CSSE to create a CAE-CSSE Memorandum of Understanding (MOU) to provide a framework for

CSSE Members and CAE Fellows to collaborate more closely on initiatives of mutual interest.

Liaison: Ken Putt kwputt@shaw.ca.



CSSE Charitable Donations

CSSE Sponsored Award at Youth Science Canada Canada-Wide Science Fair

For many years, the Canadian Society of Senior Engineers, and recently with the Engineering Institute of Canada, has sponsored the Engineering Innovation Award as the top senior entry in Youth Science Canada's annual Canada-Wide Science Fair. In 2024, this inspirational event, featuring award winners from regional Science Fairs held across Canada, was held in Ottawa.

The 2024 EIC CSSE Engineering Innovation Award recipient was **Joti Gokaraju** of Saskatoon, Saskatchewan, who was awarded the CSSE's \$1,000 prize and Award Certificate for his project entitled, ***TouchTalk: A Novel Braille Communication Platform for the Deafblind.***

In **Joti's** words - The Deafblind community faces significant barriers in communicating, leading to isolation and depression. TouchTalk is a novel two-way braille communication platform for interactions between Deafblind and non-disabled individuals. A device was developed using custom-made 3D parts, a Raspberry Pi, a novel braille keyboard, and a universal braille disc display. Using AI for language processing, speech recognition, and computer vision, an app was designed for speech/image-to-braille and braille-to-speech conversion in English and French.

More information on **Joti's** incredible project can be found at:

<https://partner.projectboard.world/ysc/project/touchtalk-a-novel-braille-communication-platform-for-the-deafblind>

In Memorium

Francis (Frank) Corbett, eng., FCSSE, FEIC passed away July 15, 2024 at 97. **Frank** was a charter Director of CSSE transferring from the Engineering Institute of Canada Life Members Organization when CSSE was formed in 2002. For many years **Frank** served as a CSSE Director and attended all Annual General Meetings until his mobility became limiting. **Frank** helped organize the AGM in Montreal in 2009 and led the organizing committee for the CSSE AGM in Quebec City in 2013, the year he was awarded a CSSE Fellowship. For many years **Frank** provided the frames and helped in the mounting of the Fellowship certificates. He also worked assiduously in nominating deserving Quebec Engineers for CSSE Fellowships. **Frank** was awarded an EIC Fellowship in 2010.



Frank was a McGill Engineering graduate and a prestigious Athlone Fellow. He was one of many Electrical Engineers that participated in the Canadian General Electric Test Course and then worked for Alcan, Churchill Falls, and finally SNC, where he traveled the world as an expert in building and maintaining hydro-electric facilities.

Frank Corbett and CSSE Past President **Andy Jones** were both IEEE Life Members and attended many IEEE Life Members events together. **Frank** recruited many of his fellow IEEE Life Members in helping to create the CSSE-SCIS Montreal Branch.

*Thanks to **Andy Jones** for recognizing Fellow **Frank Corbett** herein.*

CSSE Regional News

Quebec

Contact **Suzelle Barrington**, PhD, P.Eng., FCAE, FCSSE for more information on the **Montreal Chapter** of the Canadian Academy of Engineering and the **Montreal CSSE Chapter**. Contact **Suzelle** at: suzelle.barrington@consumaj.com.

Manitoba

Contact **Dave Ennis**, FCSSE, Chair of the **CSSE Winnipeg Chapter** for information on the next meeting at or with your questions at dave.ennis18@outlook.com.

Alberta

CSEM/CSSE Calgary - CSSE Calgary members are invited to attend the CSEM monthly luncheons.

The Calgary Section of the Canadian Society for Engineering Management (CSEM-Calgary) conducts a series of luncheons on topics related to engineering management, held at 11:45 am once a month from October to May in the Tivoli Room, Danish Canadian Club, 727 11 Ave. SW, Calgary. To register go to <http://www.csem-scgi.org/calgary.html>.

CSSE Regional News (Continued)

The Edmonton Chapter meetings are held via Zoom™. They start at 12:45 Mountain Time and, depending on the number of questions, are over between 13:30 and 14:00. CSSE meetings are open to everyone. This notice can be forwarded to anyone who may be interested. The CSSE Edmonton Zoom Coordinator is **Tom Madsen** but if you have received this notice indirectly you need to email **Tom**, tcmdasen@telus.net, to register and to be added to the Edmonton Chapter direct email list for future meeting notices.

Tom Madsen sends out a meeting notice/invitation to those on the Edmonton CSSE Chapter direct email list a couple of weeks ahead of the meeting and asks invitees to inform him (register) if they plan to attend. The notice includes a brief biography of the speaker and an abstract of the presentation. On the day prior to the meeting **Tom** sends out the Zoom link to those who have indicated they wish to attend.

Fall 2024 Program

Thursday, September 19: Speaker - Mr. **Bruce Peachey**, P.Eng., FCSSE, FCIC, FEIC President, New Paradigm Engineering, "Update on Carbon Capture and Storage in Alberta"

Thursday, October 17: Speaker - Mr. **Bob Emmott**, LL.M, P.Eng., CEO, Maxim Power Corp, "Re-Powering the Milner Generating Station - Conversion from Coal to Natural Gas"

Thursday, November 21: Speaker - Mr. **Bruce Graham**, BSc., Executive Director, Friends of Calgary Airport to Banff Rail, "Developing a Passenger Rail Link from Calgary Airport to Banff with Stops in Downtown Calgary, Cochrane and Canmore"

British Columbia

The CSSE Vancouver Island Branch operates as the Vancouver Island Engineering Society (VIES) and meets the first Friday of each month from October through June via Zoom™. The program details with the speaker's biography and the presentation abstract are issued via a VIES Newsletter, typically two weeks prior to the presentation date, where the links are provided to register; one for CSSE/VIES Members and guests, the other for EGBC professionals who want EGBC to record their one (1) Professional Development Hour (PDH) for each session. Alternatively, register at www.viengsoc.ca.

Correspondence with the CSSE Administration Office

All "snail-mail" correspondence, including cheques, and enquiries, should be sent to:

The Canadian Society
of Senior Engineers
464 Briar Avenue
Ottawa, Ontario
K1H 5H6

administrator@seniorengineers.ca

Phone calls: 613-795-9363

Dues and donations can be paid securely by credit card by going to the "Members" page at the CSSE website
www.seniorengineers.ca

CSSE Regional News (Continued)

VIES 2024 Fall - Winter Program - Technical Speaker Series (TSS)

Date	Topics/Themes	Speaker
2024		
October 4 th	WEBB Update & Overview of Herzberg Programs and CASTOR UV Telescope Concept	Herzberg Institute Speakers Chris Willott (JWST) and Pat Côté (Castor) Victoria
November 1 st	The Continuing Development of Small Modular Reactors (SMRs)	Dr. Todd Allen , Chair and Professor, Department Chair of Nuclear Engineering and Radiological Sciences, University of Michigan, Ann Arbor Michigan
December 6 th	Mass Timber - Contributing to Zero Carbon Future	Thomas Wu , PhD, P.Eng. Partner, Structural Engineer, Dialog, Vancouver
2025		
January 10 th	Quantum Computing Evolution	Hausi A. Muller , PhD, P.Eng., FCSSE, FCAE, Faculty of Engineering and Computer Science University of Victoria hausi@cs.uvic.ca
February 7 th	Multi-energy, radiation imaging based on proprietary Cadmium Zinc Telluride (CZT) semiconductor imaging sensors	Mike Jackson Redlen Technologies https://www.redlen.com/ Victoria
March 7 th	Understanding the Cascadia Fault	Prof. Edwin Nissen Professor, Earth and Ocean Sciences http://web.uvic.ca/~enissen/index.html University of Victoria

VIES NEWS - Follow us on LinkedIn!

Stay connected with VIES by following our LinkedIn page, where timely updates are provided on VIES events. Relevant engineering news from around Vancouver Island and beyond is also shared to keep our engineering community informed and engaged.

The VIES LinkedIn presence is also a useful platform for accessing selected activities, discussions, and developments.

Access VIES there to be a part of this vibrant network and stay informed about VIES upcoming events and initiatives.

<https://www.linkedin.com/company/viengsoc>

CSSE Regional News (Continued)

Scholarships and Awards

VIES supports three endowed scholarships for Engineering and Computer Science students at UVic:

- A CSSE EIC Vancouver Island Award for graduates of area high schools;
<https://extrweb.uvic.ca/donate-online/csse-eic>
- A Bonnie and Ken Putt Award for women engineering students;
<http://extrweb.uvic.ca/donation/bonnie-ken-putt>
- A VIES Leaders Entrance Award to attract highly accomplished new engineering students.
<https://extrweb.uvic.ca/donate/vies-leadership>

Honours and Awards Committee

2024 CSSE Fellowship Awards

CSSE - Fellowships were awarded to twelve accomplished Canadian Engineers who had distinguished themselves in academic or engineering practice over a minimum of twenty years since graduation. Thanks to CSSE Members who nominated our 2024 cohort of accomplished Engineers and to the Honours and Awards Committee for their rigorous assessments, led by Chair **Colin Smith** colin.smith.ca@gmail.com.

CALL FOR 2025 CSSE FELLOWSHIP NOMINATIONS

The Honours and Awards Committee will accept nominations for 2025 CSSE Fellowships (FCSSE/MCSSE) until November 30, 2024. Late nominations will be returned for resubmission for 2026. Please give thought to nominating a worthy colleague and contact Chair **Colin Smith** at colin.smith.ca@gmail.com to receive nomination forms.

CALL FOR EIC FELLOWSHIP/MEDALS NOMINATIONS

The Engineering Institute of Canada (EIC), of which CSSE is a Constituent member, is also calling for nominations for 2025 EIC Fellow and EIC's prestigious 2025 senior medals. The deadline for 2025 award nominations is 24:00 (EST) on 15 November 2024.

Please send nominations to EIC's Executive Director at gosselin.eic@gmail.com. Any nominating documents sent to **Guy Gosselin** must be in MSWord, or unlocked PDF, to facilitate the assembly of committee packages (please do not forward CVs of nominees). Visit this page https://eic-ici.ca/honours_awards/nomination/ to review the rules and download the nomination form.

For more information on the EIC, including a list of awards and of past award recipients, please visit the EIC website https://eic-ici.ca/honours_awards/.

Papers by Members

Role of Humans in the Global Water Cycle and Impacts on Climate Change

by **Bruce Peachey**, P.Eng., FCIC, FCSSE and Prof. **Nobuo Maeda**, PhD, P.Eng.

Contemporary climate models only include the impact of water vapor as positive feedback on warming; the impact of direct anthropogenic emissions of water vapor has not been seriously considered.

Background

Recent climate change and increasingly scarce fresh water resources are two major environmental issues facing humanity. Water vapor is the most abundant greenhouse gas. Contemporary climate models only include the impact of water vapor as positive feedback on warming; the impact of direct anthropogenic emissions of water vapor has not been seriously considered.

Our recent publication used the NCEP/NCAR reanalysis data set to examine whether the Clausius-Clapeyron equation can form a basis for such positive feedback commonly assumed in the contemporary climate models.

<https://judithcurry.com/2024/08/04/role-of-humans-in-the-global-water-cycle-and-impacts-on-climate-change>

