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CSSE Newsletter



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President's Editorial

I am delighted to extend a warm and hearty welcome to all members as we launch the latest edition of the Canadian Society of Senior Engineers (CSSE) Newsletter. This newsletter is one way that we come together again to share knowledge, insights, and experiences within our remarkable community of distinguished and experienced engineers.

As we venture into the fall, the CSSE remains committed to fostering an environment that not only values the incredible contributions of our senior engineers but also supports and encourages their ongoing engagement and development. One of our hopes is to amplify the voice and impact that members can have in our communities.

This year we aim to grow membership in our society and increase opportunities for members to come together, both virtually and in-person. If you know someone who you feel would be a good member of CSSE or have ideas for a local presentation topic or Society initiative, please connect with myself or your regional Director (see www.seniorengineers.ca for list of Directors). If you have an idea for an event, please also reach out.

Increasing membership and opportunities for participation will make CSSE thrive. The invaluable wisdom and experience our members bring to CSSE and more importantly our communities is immeasurable.

Thank you for being an integral part of the vibrant engineering community in Canada.

Warm regards,

Bill Rosehart, P.Eng, PhD, FCSSE, FEIC, FCAE
President, Canadian Society of Senior Engineers
Dean & Professor, Schulich School of Engineering, University of Calgary



President Bill Rosehart

Canadian Academy of Engineering – Upcoming Activities

The CAE, a member of the International Council of Academies of Engineering and Technological Sciences (CAETS) is pleased to announce the CAETS Energy Community Report (Energy Report). This report, led by the French Academy of Technologies (NATF), examined energy technologies, policies, and initiatives leading to low-GHG emissions. The report's time horizon was ~ 2040. The report was written by over 60 Academy Fellows and other experts from 20 countries.



CAETS has decided to launch a follow-on study, called the Sequel Project, that would address the same industry sectors but with a time horizon beyond 2040 and extending past mid-century. The results of this work will be presented at the July, 2024 CAETS Annual Meeting to be held in Helsinki. CSSE Member and Fellow, **Axel Meisen**, PhD, P.Eng., FCAEM FCSSE will lead the Canadian Sequel Project.

New Member

Laleh Behjat, PhD, P.Eng., FCAE

Dr. **Laleh Behjat** is a professor at the Department of Electrical and Software Engineering at the University of Calgary, Canada and the Natural Sciences and Engineering Research Council of Canada (NSERC) Prairie Chair for Women in Science and Engineering. Her research focuses on developing mathematical techniques and software tools for automating the design of digital integrated circuits. She has won several awards for her work.

Dr. **Behjat** acted as an academic advisor for the Google Technical Development Guide and was a member of the Google's Council on Computer Science Education. She is an Associate Editor of the IEEE Transactions on Computer-Aided Design of Integrated Circuits, ACM Transactions on Design Automation of Electronic Systems, and Optimization in Engineering from Springer. Dr. **Behjat** is a Canadian Academy of Engineers Fellow.

Dr. **Behjat** is passionate about increasing the status of women in science, technology, engineering and mathematics (STEM). She was the recipient of the 2015 Association of Professional Engineers and Geoscientists of Alberta (APEGA) Women in Engineering Champion Award. Her team, Schulich Engineering Outreach Team, was also the recipient of the ASTech Leadership Excellence in Science and Technology Public Awareness Award. Dr. **Behjat** has founded WISE Planet, an executive change leadership program for early to mid-career women in science and engineering which has trained over 80 participants.

Pictured with Dr. **Laleh Behjat** (right) is Dr. **Emily Marasco**, Associate Dean Equity, Diversity, Inclusion and Accessibility at the U of C Schulich School of Engineering, Canada Mint invited guests of honour for the **Elsie MacGill** Commemorative Coin unveiling.



In Memorium

We regret to inform our CSSE colleagues that too many former CSSE Members have passed on since our last Newsletter.

Arnold Eyre, FCSSE was the motivating force that created the CSSE Ottawa Chapter. **Arnold** became the CSSE Secretary and recruited the first separate CSSE Treasurer and History and Archives Chair.

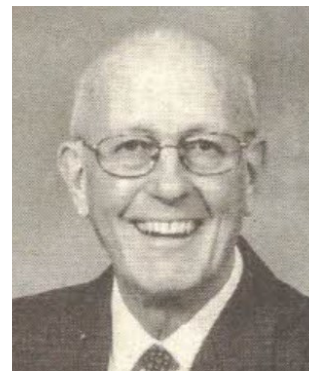
Arnold served seventeen years as an Officer in the Royal Canadian Navy, leaving on a point of principle as a Commander. **Arnold** followed his Royal Roads and RMC education at the Massachusetts Institute of Technology (MIT), where he did a post graduate degree in Naval Architecture. Following his naval career, he was a consultant for four years in the private sector before founding Promaxis Systems Inc. (formerly Eyretechnics Limited) in 1971, which is successfully operating to this day. **Arnold** was known for his irreverent sense of humour, his high energy level, and his 'can do' attitude.

James L. Gordon, FCSSE was a stalwart of the Montreal CSSE-SCIS Chapter for many years.

Jim authored or co-authored 90 papers and 44 articles on a large variety of subjects ranging from submergence at intakes to powerhouse concrete volume, cavitation in turbines, generator inertia and costing of hydropower projects. He worked on the design of over 45 hydro projects, and was awarded the Rickey medal by the ASCE. As an independent consultant, his work assignments ranged from investigating turbine foundation micro-movements to acting on review boards for major Canadian utilities. He also developed software for RETScreen and HydroHelp.

Jon Hubert Felix Jennekens, O.C., FCAE, FCSSE was a co-founder with his RMC classmate, **Arnold Eyre, FCSSE**, a past CSSE Secretary, of the Ottawa CSSE Chapter. **Jon** was a CSSE Past President and Director.

Following Canadian Army service in Korea, **Jon** began his career with Atomic Energy Canada Limited (AECL) and spent his distinguished career in nuclear-related technology, safety, non-proliferation monitoring, and leadership roles. **Jon** became the President, CEO, and Board Chair of the Canadian Nuclear Safety Commission prior to moving to the United Nations Atomic Energy Commission where he rose to the number two



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.

In Memorium (Continued)

position in leadership. Amongst his many nuclear non-proliferation roles, **Jon** chaired the Nuclear Safety Advisory Group for the Korean Peninsula. Amongst **Jon's** many voluntary activities in support of the nuclear industry were the following: Chair, Ontario Hydro Technical Advisory Panel on Nuclear Safety; AECL Research and Development Advisory Panel; as well as the Safety Review Group of the International Bank for Reconstruction and Development.

Nick Malychuk, FCSSE, FEC, FGC (Hon) was a stalwart of the CSSE Edmonton Chapter and a long time CSSE Director.

Nick, as a dedicated CSSE Director, attended Board meetings from Halifax to Victoria. He was an integral part of the CSSE Edmonton group, looking after organizing the venue for luncheon meetings and assisting in securing event speakers. Prior to **Nick's** engaged CSSE involvement, he was an executive member and a President of the Edmonton Branch of the Engineering Institute of Canada. **Nick** was also an active volunteer with APEGA, where he also served on almost all of the Associations Committees. For years he served on the APEGA Outreach Program and visited hundreds of Classrooms expounding on the advantages of an Engineering Education. For this he was awarded the Volunteer Award by the Seniors Association of Edmonton.



Nick was a volunteer with Scouts Canada and served in many positions both locally, nationally and internationally receiving first the Silver Acorn Award and later the Silver Wolf Award, the highest Scout Award, from the Chief Scout, the Governor General of Canada.

He served for years on the Edmonton Landlord and Tenant Board and for years volunteered with Habitat for Humanity as they built and provided housing for the less fortunate in Edmonton.

Following a career with Canadian Phoenix Steel, where he rose to be the Chief Engineer, **Nick** moved to Syncrude Canada where he retired as the manager of the Research Department's Physical Plant.

D. Bruce McGibbon, Colonel (Retired), ndc, PEng, SBStJ, CD was an active Member and supporter in the CSSE Vancouver Island Branch prior to moving to Ottawa where he was also an engaged CSSE Member.

Bruce had a long and distinguished career in the Canadian Armed Forces. He is a graduate of the Royal Military College in electrical engineering. Bruce completed his graduate studies in space sciences with the US Army Air Defense School, as well as military science and technology at the Royal Military School of Science in the UK. He was a graduate and faculty member of the National Defense College, where he taught strategic planning for Canada. **Bruce's** military career highlight was commanding the 1 RCHA in Lahr, Germany.

Following his military career, he was a successful and sought after program manager and director, including time at Bombardier Aerospace and Canadair where he was responsible for long-range drone and helicopter programs.



In retirement he served on various boards where he played an active role in supporting contemporary engineering activities, but his special pride was mentoring and coaching emerging leaders. Bruce wrote a sought-after book on issues and recommendations on improving Canada's military procurement processes.

In Memorium (Continued)

Fred Otto, FCSSE was a long time CSSE Director and Chaired the CSSE Honours and Awards Committee for many years.

Dr. **Fred Otto** was an outstanding teacher, researcher and administrator at the University of Alberta where he served as Professor of Chemical Engineering, Chair of the Department of Chemical Engineering and Dean of the Faculty of Engineering. In addition to his university duties, Fred was very active in the profession. He was President of APEGA and on the Board of Engineers Canada. For many years, **Fred** was the CSSE Director for Northern Alberta and was an important factor in keeping the Edmonton Chapter relevant and active.

In addition to his University and professional responsibilities **Fred** sat on the boards of numerous organizations both business and philanthropic. He was a true gentleman who earned the respect of everyone with whom he worked. One of **Fred's** passions was fostering the interest of young people in the engineering. This prompted him to start an engineering summer camp program at the University of Alberta called Discover E. Young students participated in week long summer camps in which they worked on simple fun type engineering projects. Over the years, this program has become extremely popular with over 1000 annual campers. These camps are now offered in over 70 locations throughout Alberta, British Columbia, Saskatchewan and the north. The CSSE has supported this charitable initiative for some two decades.

The Faculty of Engineering has decided that henceforth the Discover E Program will be called the **Fred Otto** Discover E Program.



Members in the News

CSSE Fellow, **Michelle Mahovlich**, P.Eng., P.Geo., FCSSE, was elected Chair of **Engineers and Geoscientists of British Columbia** (EGBC). Michelle previously served as Vice-Chair on the EGBC Board. Prior to being elected to the Board in 2020, she was the Vice-Chair on the Investigations Committee and a member of the Municipal Engineering Division Executive. *Photo: Tom Tiedje, CSSE President Elect, Mayor Stew Young, Michelle Mahovlich, Colin Smith, Awards Chair*



Five CSSE Fellows were recognized by the **Canadian Academy of Engineering** at its 2023 AGM by being elected as new CAE Fellows (FCAE), as follows:

- **Marcia Friesen**, PhD, P.Eng., FCSSE, Dean, Price Faculty of Engineering, University of Manitoba
- **Kevin Hall**, PhD, P.Eng., FCSSE, President and Vice Chancellor, University of Victoria
- **Mina Hoorfar**, PhD, P.Eng., FCSME, FCSSE, Dean. Engineering and Computer Science, University of Victoria
- **Karen Savage**, P.Eng., FCSSE, President, Horizon Engineering
- **Guy Van Uytven**, M.Sc., MBA, P.Eng., FCSSE, International Power Grid Consultant

Regional News

Quebec

The **Montreal Chapter** of the Canadian Academy of Engineering will be holding a meeting in December to which CSSE Members will be welcome to attend. Contact **Suzelle Barrington**, PhD, P.Eng., FCAE, FCSSE for more information at suzelle.barrington@consumaj.com.

Manitoba

The **Manitoba CSSE Chapter** held an in-person and hybrid zoom meeting on September 28, 2023, in Winnipeg. The event featured a presentation by Dr. **Robert Parsons** titled, *Not getting to Net Zero: Canada's Misdirected and Woeful Performance on Emissions Reduction*. The thrust of the presentation was a bit controversial with its timing coming before the media controversy on the Federal Government's carbon tax which developed later. Of relevance for those of us in Manitoba was the issue of "getting the grid to net zero." Dr. **Parsons** suggests that we are essentially there already, but we too will be impacted significantly into the future by emerging electrical applications and how grids across Canada, including Manitoba's, expand to meet new demands. As one might expect from the title, the Q&A session was quite spirited.

See the Engineers Geoscientists Manitoba link to the next CSSE event, *On the Road to Abandoned Engineering Works*, with **Gordon Goldsborough** on December 12, 2023, at <https://www.enggeomb.ca/Events.html#Event2914>

For further information or questions on the next meeting, please contact **Dave Ennis**, at dave.ennis19@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>.

November 14

The Greenline LRT Project
Darshpreet Bhatti P.Eng., CEO
Calgary Green Line LRT

December 12

Calgary Airport - Banff Rail (CABR)
Bruce Graham, Executive Director, CABR

The **CSSE Edmonton Chapter** holds monthly Zoom meetings with an invited speaker. **Tom Madsen** is the Zoom Coordinator and sends out monthly meeting invitations which provide more details on the speaker and topic a couple of weeks prior to meeting. Meetings are normally held on the third Thursday of the month starting at 12:45 PM Mountain Time and with Q and As the meeting is wrapped up by 1:45 to 2:00. Due to speaker availability it is periodically necessary to move the meeting to a different day, usually the Wednesday preceding the Thursday or the Friday following the Thursday.

Regional News (Continued)

Non CSSE members are welcome to join our Zoom meetings. If you are aware of individuals whom you think would be interested in participating in these meetings please forward this notice to them. Anyone not on our mailing list who would like to receive the more detailed monthly meeting invitations should contact **Tom**, tcmadsen@telus.net, and ask to have their name added to our mailing list.

Thursday, November 16

Speaker: Dr **Allen Offenberger**, Professor Emeritus,
Department of Electrical and Computer Engineering, University of Alberta
Topic: Nuclear Fusion, Progress to Date and Remaining Challenges

British Columbia

CSSE Vancouver Island Branch/Vancouver Island Engineering Society (VIES) Program

2023/24 VIES - Technical Speaker Series & Special Events:

December 1, 2023

Tidal Energy - BC Implementation Opportunities
Speaker: Chair, Professor **Brad Buckham**, UVic (Tidal Energy Programs, North Island)

January 5, 2024

Deep Space Biomedical Engineering
Speaker: **Tristan Richmond**, Lead (Health Beyond Initiative), Canadian Space Agency

February 2, 2024

Carbon Capture in Off-shore Undersea
Rock Formations
Speaker: Dr. **Kate Moran**, CEO, OC
Ocean Networks Canada

March 1, 2024

BC's AI/Robotics Opportunities for Industry
Speaker: **Geordie Rose**, Co-Founder, CEO
Sanctuary AI, Vancouver (to be confirmed)

April 12, 2024

Hydrogen Powered Locomotive
Speaker: Dr. **Kyle Mulligan**, AVP (Operation
Technologies), CP Rail, Calgary

May 3, 2024

Kicking Horse Canyon Highway Improvement Project
Speaker: (tbd)

June 7, 2024

How Energy Companies are Preparing to Meet
"Net Zero" Goals
Speaker: **Bill Whitelaw**, Managing Director, Strategy
and Sustainability Geologic Systems, Calgary

VIES News - Follow us on LinkedIn!

Stay connected with VIES by following our LinkedIn page, where we continue to provide timely updates on our events and share relevant engineering news from around Vancouver Island and beyond. We believe in keeping our community informed and engaged. Our LinkedIn presence is an essential platform for staying up to date with our latest activities, discussions, and developments. Join us there to be a part of our vibrant network and stay informed about our upcoming events and initiatives. <https://www.linkedin.com/company/viengsoc>

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

Regional News (Continued)

Scholarships and Awards - Matching Fund

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

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

Income from our Technical Speakers Series program has allowed VIES to contribute \$5000 to the VIES Leaders Entrance award this summer bringing its endowment to the critical \$50,000 threshold needed to generate sufficient income to support one \$2,000 scholarship/year.

VIES has recently decided to make a second \$5000 contribution to scholarships in 2023. CSSE Member donor's choice of which scholarship to support will determine where the VIES matching funds go.

UVic will provide an income tax receipt. A donation of securities with a capital gain can be a tax-efficient way to contribute. The VIES scholarship committee would be pleased to assist if you have ideas for new scholarships.

Honours and Awards Committee

2024 CSSE Fellowship Awards Nomination - **Deadline:** December 31, 2023

CSSE - Fellows (up to 10 awarded): Open to all engineers who have distinguished themselves in academic or practice pursuits over a minimum of twenty years since graduation. Nominations must be submitted by current CSSE members. For further information, contact Chair Colin Smith at colin.smith.ca@gmail.com.