Issue 4
December 2020

NEWSLETTER

CNS UPDATE

MESSAGE FROM THE PRESIDENT

NEWSLETTER CONTENTS

As the year 2020 comes to an end, we reflect on the challenges we faced because of the Covid-19 pandemic. We had to cancel all our in-person events for the year. Under the guidance of the Covid-19 recovery Task Force, we quickly pivoted to having CNS events as virtual.

We held two very successful virtual conferences: 1) "Artificial Intelligence, Machine Learning and Innovative Technologies Symposium" and the G4SR-2 Virtual Summit. These conferences provided international forums for participants to discuss new developments, share knowledge and learn innovative ideas.

In addition, we held CNS online courses: 1) "CANDU Reactor Technology", 2) Nuclear-for-Everyone Café webinars, 3) the CANDU Chemistry Course and 4) on going G4SR webinars.
The overwhelmingly enthusiastic national and international participation and extremely positive feedback from these events is a testimony to the important role that the CNS continues to play by enabling the exchange and sharing of scientific knowledge for all those interested in the nuclear industry.

We have appointed a CNS website reform task force to provide recommendations to modernize and make the CNS website more user friendly, appealing and intuitive. CNS needs your continued support to fulfill its vision and mandate. I urge you to renew your CNS membership, or join again if your membership has lapsed. You can do this by visiting the CNS website (www.cns-snc.ca), which also contains more information about CNS activities, available vacancies and opportunities for members to become actively involved in CNS Divisions, Branches and Committees. You can provide your feedback by e-mail to office@cns-snc.ca.

Lastly thank you to all for your contributions to the CNS. On behalf of the CNS I wish you all Greetings of the Season, Merry Christmas, and a healthy and safe New Year.

CNS POST-COVID-19 TASKFORCE

The following updates and summarizes the various initiatives of the Task Force.

- Obtained Licence for Cisco WebEx software for CNS

- Various CNS Divisions planned and organized CNS virtual events:
  - Virtual Symposium on AI, ML, Big Data Analysis and Innovative Technologies in Nuclear
  - G4SR Virtual Summit and associated webinars

- CNS courses held
  - CANDU Nuclear Technology
  - CANDU Chemistry
  - Nuclear-for-Everyone webinar series

- A Task Force under the Education Committee is to:
  - recommend enhancements of CNS existing courses and plan new ones, in collaboration with UNENE and other organizations
  - review and recommend fair honoraria for CNS course instructors

- A committee has been struck on reformation of the CNS website to modernize it, make it more user friendly, intuitive, searchable and appealing. This committee is chaired by Arthur Situm. Arthur has conducted a survey of the membership to obtain feedback and has reported the progress of his committee to the CNS Executive.

- Suggestion to create a CNS promotional Video for use in CNS booth in events and on the website.

OVERVIEW OF CNS GOVERNANCE

In order to provide an overview of how the CNS is governed, the following documents are listed with a brief summary of each that are used by CNS to run its affairs. The details are available on the CNS website.

CNS by-laws

The CNS, being a non-profit federal corporation, is governed by its by-laws. These by-laws address the following key topics.

- **FINANCIAL MATTERS** (Banking Arrangements, Public Accountant and Financial Review, Annual Financial Statements, Borrowing)
- **MEMBERS** (Single Class and Conditions of Membership, Rights of Members, Membership Dues, Termination of Membership)
- **MEETINGS OF MEMBERS** (Annual Meetings, Special Meetings, Place of Meetings, Special Business, Notice of Meetings, Record Date, Waiving Notice, Persons Entitled to be Present, Chairperson of the Meeting, Quorum, Participation at Meetings by Electronic Means, Voting by Electronic Means, Votes to Govern, Show of Hands, Ballots, Absentee Voting by Proxy, Resolution in Lieu of Meeting, Adjournment)
- **COUNCIL** (Qualifications, Election and Term, Consent, Ceasing to Hold Office, Resignation, Removal, Filling Vacancies, Remuneration of Officers, Agents, Employees)
- **MEETINGS OF THE COUNCIL** (Place of Meetings, Calling of Meetings, Notice of Meeting, Waiving Notice, First Meeting of New Council, Regular Meetings, Quorum, Participation at Meeting by Telephone or Electronic Means, No Alternate Council Members, Chairperson of the Meeting, Votes to Govern, Dissent at Meeting, Dissent of Absent Council Member, Resolutions in Writing, Meetings in Camera, Disclosure of Interest, Confidentiality, Delegation,Committees)
- **OFFICERS** (Appointment, Term of Office, Vacancy in Office, Remuneration of Officers, Agents and Attorneys, Disclosure of Conflict of Interest)
- **PROTECTION OF COUNCIL MEMBERS, OFFICERS AND OTHERS** (Duties of Council Members and Officers, Limitation of Liability, Indemnity of Council Members and Officers,I nsurance, Advances)
- **NOTICES** (Method of Giving Notices, Computation of Time, Undelivered Notices)
- **AMENDMENTS** (Amendment of Articles, Amendment of By-laws)
- **IDENTIFICATION AND REPEAL OF FORMER BY-LAWS** (Repeal of Former General Operating By-law)

CNS Policies and Procedures

CNS policies and procedures address various topics that have evolved over the years. Some of these are outdated and need updating. Some key ones are listed below.

- Honours and Awards Policy, 2013
- POLICY ON TRAVEL and OTHER EXPENSES, Revision 14, September 13, 2019
- CNS Accounting Structure, -2015
- Protocol for Election to Council of the Canadian Nuclear Society
- CNS Code of Conduct
- CNS Conflict of Interest Policy
- Policy for the Management of CNS Contracts and Purchase Orders

CNS INFO KIT (CNS COUNCIL INFORMATION & GUIDELINES)

This document is intended to provide a summary of how the CNS Council is organized and operates. The document provides:

- Background information about the Society in general
- Background information on the makeup and operation of Council
- What is expected of Council members?
- Roles and responsibilities of CNS Committees and Divisions
- The CNS Strategic Plan

APPENDICES

- I. List of Nuclear Societies with Cooperation Agreements with CNS
- II. List of INSC Members.
- III. The CNS Bulletin (publication of which is currently under review)

CONFERENCE MANUAL

Since its creation in 1979, the Canadian Nuclear Society has organized a large number of conferences and courses. There are several reasons for the CNS to be in the conference business:

Organizing conferences follows naturally from the CNS stated Mission:

- Support and promote Nuclear Science, Engineering and Technology, and related fields, by:
  - Acting as a forum for the exchange of ideas and information.
  - Advancing education, knowledge and understanding.
  - Enhancing and maintaining the professional and technical capabilities of those involved in the field, particularly in the Canadian context.

Conferences provide a very valuable service both to CNS members and to the Canadian nuclear industry at large.

CNS membership fees represent only a small fraction of the revenue needed by the Society to carry out its activities. Organizing technically excellent conferences and courses for the nuclear community is necessary for the CNS to gain revenue.

Conferences jointly organized are an effective way to work cohesively with other societies or industry organizations to gain industry visibility and traction.

Purpose

The purpose of the Conference Manual is to provide guidance and information to conference organizers to prepare for and execute conferences of high quality with appropriate record keeping. Conference Chairs have the authority to deviate from these guidelines to accommodate special circumstances or innovative ideas based on concurrence with the CNS Executive. These should be described in the respective Conference Proposal.

The CNS Program Committee Chairs are expected to review this manual at least every two years or as needed.

The CNS Financial Accounting Structure

The purpose of this document is to provide an outline of the accounting structure that is used by the CNS for the management of its finances – including budgeting and tracking of revenues and expenditures.

STRATEGIC PLAN

Strategic initiatives aim to ensure the sustainability of the CNS for the next generation by focusing on:

- Activities directly aligned with the mission, and
- Business support infrastructure

While some strategic initiatives currently under way will continue, the primary thrust for 2020-21 will be more tactical in nature, to recover from the impact of Covid-19The Strategic Plan includes statements on the CNS MissionVisionValuesSome of these were detailed in the CNS Update Newsletter Issue 1.

CNS Member Attends the World Nuclear University School on Radiation Technologies, with Support from the CNS

(Jawad Haroon)

2019 marked the 5th World Nuclear University School on Radiation Technologies (RT School). The RT School is a leadership development program for professionals and researchers in the radiation technologies field. In the 2019 gathering, WNU welcomed a total of 28 Fellows from an impressive 20 countries.

Jawad Haroon, a PhD student from Ontario Tech University, was the only Canadian to attend this event. He received support from Ontario Tech University and the CNS Scholarship Committee also approved additional funding to support his attendance.

CNS routinely allocates funds to support student activities through their scholarship program, which is available to graduate and undergraduate students studying at Canadian universities. An application to the CNS Scholarship Committee was made by Jawad Haroon and the committee agreed that supporting his attendance fits into Society's aim of supporting nuclear-related training and education for its members.

The two-week-long program was held from 14 to 25 October, 2019 in Obninsk, Russia, in collobration with Rosatom Technical Academy and the IAEA. The program was commenced by Patricia Wieland - WNU, Yuriy Seleznev – Rosatom Technical Academy, Joao Alberto Osso Junior – IAEA, Vladimir Artisyuk – Rosatom, Kath Smith – ANSTO and Natesan Ramamoorthy – NIAS.

In her welcoming address, Patricia Wieland touched upon some of the major societal problems we face today, such as climate change and poor nutrition, and the pivotal role science and international collaboration plays in providing innovative solutions. She also expressed the need to bridge the gap between science and policy, in order to implement science-based solutions to these challenges. She added that scientists should be literate in policy to ensure their work is on the policy agenda; policy makers should be literate in science, to ensure they fully understand the impact of their decisions. Strong leaders can bridge this gap, and build trust between the scientific community and policy makers. The RT School aimed to develop the leadership and communication skills necessary for furthering the beneficial applications of radiation technologies.

Week 1 – Research Developments, Regulatory Frameworks and Current and Future Radiation Applications

Week 1 featured lectures by prominent experts and distinguished speakers on radioisotpes and radiation technologies. The discussions covered a wide spectrum of topics relevant to radiation technologies including:

- Operations, research, development, and regulatory frameworks, including production of radioisotopes, quality assurance and control, safety and security, transport, waste management, and supply chain.
- Current and future applications, including nuclear techniques in healthcare, industrial process management, food and agriculture, environmental protection, and life sciences.

Week 2 – Technical Visits and Network for Innovation in Nuclear Applications

Week 2 comprised of a module on Network for Innovation in Nuclear Applications (NINA) in addition to technical visits to radiation technology related sites including a research reactor site producing and processing isotopes, a food irradiation facility and a medical radiological centre. The NINA module was an opportunity for attendees to collaborate in teams to investigate important global nuclear issues, and to draw from their education and experience to bring new light to them. During this module, the Fellows contributed their unique perspectives and innovative ideas. The output of the teams was compiled into a magazine, which was later published on the WNU website. For RT School 2019, the three topics were:

- Global outlook of Ac-225/Bi-213 production facilities,
- Planning the start-up of an industrial company in the radiation technology field, and
- Theranostics in the detection and management of distant recurrences of prostate cancer.

Great Success of G4SR-2 Virtual Summit

(Wilson Lam, Ben Rouben)

The G4SR-2 Virtual Summit was held online Nov. 18 and 19, 2020. The reason for this Summit was to replace the in-person G4SR-2 Conference which was to be held in this same month and which was postponed to October 2021, on account of Covid-19. The idea was to keep strong momentum going on the issue of Generation 4 and Small Modular Reactors, following the very successful G4SR-1 Conference in 2018. The theme of the Virtual Summit was "Enabling Early Movers in Small Modular Reactors (SMR) Deployment". The morning Plenary session on Nov. 18 was originally planned to feature the Launch of Canada's SMR Action Plan, however this Launch was postponed but the Session still included a strong positive message from the Federal Government on SMRs. In addition, Nov. 18 included an exciting Panel Discussion on "Collaboration on SMRs", with 4 Provincial Ministers participating (from Ontario, New Brunswick, Saskatchewan and Alberta).

There were also Keynote Speeches by Shannon Quinn (VP, AECL) and Rumina Velshi (CNSC President). The afternoon of Nov. 18, and both morning and afternoon of Nov. 19 continued on very timely and important topics, including (only as examples) 4 keynote speakers (OECD, UK, US, Canada) in an very important panel on International Collaborations on SMR Deployment, and Plenary Sessions on Advancing SMR Demonstration and Deployment (both in Canada and in the USA), Strategies for Minimizing or Recycling Nuclear Waste, SMRs in New Brunswick, Microreactors, SMR Hybrid Energy Systems & Hydrogen, and Indigenous Engagement.

Registration for the Summit was very high. There were just under 750 total registrations (including the complimentary Nov. 18 morning and the other, paid, sessions). Registrants were from 21 different countries! Feedback on the technical content of the Summit was extremely positive and congratulatory. The Natural Resources Ministry expressed great pleasure with the outcome. A great number of other attendees sent e-mails of congratulations on the quality and organization of the event. The Summit was reported very positively in an article in Nuclear Engineering international.

Sponsorship was equally successful, with 20 financial sponsors. The Host Sponsor, Canadian Nuclear Laboratories (CNL), was highly impressed by the quality of the Summit and pledged to provide Host Sponsorship again in the future. "Electronic pages" were provided to sponsors, where they could post promotional videos and brochures. In addition, as a bonus, visual networking was arranged, turning the electronic pages into "virtual booths". Sponsors were very pleased with the arrangements.

The Summit put Canada in the SMR limelight in a very positive way, and gave the CNS a high profile, underscoring its organizational capability.

The success of the Summit was the result of the dedicated and untiring efforts, and strong teamwork, of everyone on the organizing committee, including the tireless dedication and innovation from CNS Webmaster and the high quality professional production of the Summit by Palomar Productions.

G4SR-2 Webinars: Webinars beyond December are under planning, please stay tuned!

GREAT ENGAGEMENT WITH NUCLEAR COMMUNITY AND PROVISION OF TRAINING VIA SERIES OF NUCLEAR-FOR-EVERYONE WEBINARS

(Matt Dalzell)

The Nuclear-for-Everyone Café is a webinar series drawing on topics from the Society's Nuclear- 101 and Nuclear-for-Everyone outreach programs. The series has been a great success, with more than 95 people on average taking in the five webinars presented to date and participating in the question-and-answer sessions. Participants have included CNS members, students, workers in the nuclear sector, employees from government departments and utilities, and the broader public - from across Canada.

Topics have included Radiation, presented by Peter Ottensmeyer; Energy and the Environment, presented by Kimberly Mitchell and Matt Dalzell; Nuclear Reactor Basics with Ben Rouben and Alex Gurevich; Nuclear Medicine and Radiobiology with Chris Thome and Doug Boreham; and Safety and Accidents, presented by Stephen Yu and Kimberly Mitchell. The presentations have been ably supported by Kate Emms, Arthur Situm and CNS webmaster Elmir Lekovic.

The 2020 portion of our series will end on December 17 with Talking Nuclear: A History of Nuclear Development in Canada and around the World with Peter Ozemoyah and Ben Rouben. The series will then reconvene in January 2021 with webinars on SMRs, Waste and Used Fuel, Risk Communications, and Indigenous perspectives.

NUCLEAR SCIENCE AND ENGINEERING DIVISION (NSED) REPORT

CNS CANDU TECHNOLOGY ONLINE COURSE EXCEEDS EXPECTATIONS

(Wei Shen)

The CNS CANDU Technology Online Course has been successfully held on November 13, 2020. There were 144 paid registrants: 116 from Canada, 24 from Europe, 2 from Korea, and 2 from USA. Registrants come from 38 different organizations locally and globally – a great of promotion of CNS and CANDU to the international colleagues. Detailed statistics of registrants can be found in the next page.

Though the revenue is not the main driver for the CNS, the effort to have the online course is considered as a significant positive sign from the revenue perspective compared with our traditional 2-day and 3-day in-person courses.

After the course, we received 64 course evaluation forms in total which is a sign of the significance of the course to the attendees. Most of the feedbacks are positive and many of them are extremely positive. They were expecting to attend another one. Overall, I would treat the evaluation forms as assert for us and especially for the CNS to design our future courses to make the courses more suitable for most attendees.

Lessons learned (by experience) for those who want to have a first-hand experience in the future:

1. Be prepared that more effort is needed on an online course than on an in-person course, before, during, and after the course.
2. Interactivity with 100+ registrants is challenging and time-consuming, especially as many of them are new to WebEx Events. Expect to have to deal with hundreds of questions during the course and after the course – besides oral Q&A sessions during the course, we have also provided written responses to 40+ questions we received during the event.
3. As a paid event, extra effort is needed to educate registrants and lecturers in advance on how to actively participate on line via WebEx. A WebEx test session is encouraged not only for the students, but also for lecturers.
4. It is challenging and time-consuming to find a suitable and efficient way to prevent non-paid registrants joining the course.
5. A course certificate should be delivered to those who attended the course only. Note that it is challenging and time-consuming to check who attended the course and those who did not. For our course, 140 out of 144 attended the course online.
6. Co-hosts and a back-up plan are essential as wi-fi disconnection could happen to anyone anytime.
7. Carefully select a suitable WebEx platform based on the number of registrants. We used WebEx Events to accommodate a large number of registrations with less dynamic stress.
8. It is harder to collect the course evaluation forms than in an in-person course.
9. You have to think about when and how to share the training material with registrants.
10. A one-day course could be more attractive than a 3-day course (less time away from the office).

I would like to commend the Lecturers' commitment and their excellent presentations. Help from Ben Rouben, Elmir Lekovic and Prof. Peter Ottensmeyer are also appreciated.

OVERWHELMING DEMAND FOR CANDU SYSTEM CHEMISTRY COURSE

(Olga Plazhchenko)

The virtual CANDU Chemistry course was a one-day comprehensive overview of the synergy between chemistry and material degradation in various plant systems. Topics included a closer look at the chemistry specifications in the PHT system, the moderator, the steam cycle, and several auxiliaries, with a discussion of the forms of corrosion that affect common materials of constructions in these systems. Participants gained an understanding of chemistry control objectives and gained an appreciation for the relationship between the chemistry, design, and system materials.

The full-day event took place over Webex and attracted over 50 participants from a variety of industry and academic backgrounds. Students and young academics participated from the University of New Brunswick, the University of Toronto, and McMaster University. Several of the attendees were from the utilities, including NB Power and OPG. In addition, there was great representation from Canadian Nuclear Laboratories (CNL) and the Canadian Nuclear Safety Commission (CNSC). The course also attracted international participation via the Electric Power Research Institute (EPRI), the Korea Atomic Energy Research Institute (KAERI), and Framatome.

The course resulted in many insightful discussions during the Q&A periods, with active engagement from the participants. The event was led by three instructors, Dr. Olga Palazhchenko (Faculty of Chemical Engineering at UNB-CNER), Dr. Pam Yakabuskie (Chemistry Group at CNL), and Mr. Jordan Lyons (Reactor Safety Group at PLNGS).

ANS M&C 2023

(Wei Shen)

The ANS Mathematics and Computation Division (MCD) has requested submissions from interested groups to hold the M&C Topical Meeting in 2023. The CNS Nuclear Science and Engineering Division has made a submission. Because of the pandemic, the ANS extended the bid-submission due date from October 31 to December 31. Consequently, an online meeting was arranged for the bidding Organization Committee (consisting of about 10 people) to discuss and suggest possible updates to improve the bidding proposal. The CNS bid is being updated and the final version will be sent out this month. The bid will be formally presented for a vote to the ANS Mathematics and Computation Division (MCD) in early January 2021.

PLANNING FOR THE CNS CANDU TECHNOLOGY AND SAFETY COURSE

(Wei Shen)

The 3-day CNS CANDU Technology and Safety course (see attached brochure), scheduled from March 22-24, 2021, at Courtyard by Marriott Downtown Toronto has to be postponed on account of the pandemic. We have contacted the hotel to defer the in-person training from March 2021 to March 2022. In the meantime, considering the very positive outcome of the Short Online Course on CANDU Technology, held in November, CNS NSED is planning to have other 1-day online courses in 2021, dates to be determined.

40TH ANNUAL CONFERENCE OF THE CNS AND 45TH ANNUAL CNS/CNA STUDENT CONFERENCE

2021 JUNE 6-9, ONLINE
CALL FOR PAPERS

The Canadian Nuclear Society will host its 40th Annual Conference from June 6 to 9, 2021. This conference provides a forum for communicating progress, achievements and new ideas across a broad range of nuclear technology areas. Topics of interest are listed on the following page. Out of an abundance of caution in view of the COVID-19 situation, the conference will be held virtually.

The Conference will feature:

- Plenary sessions with invited speakers to address significant industry developments.
- An embedded Symposium on Small Modular Reactors addressing all aspects of this emerging technology.
- Technical sessions with subject-matter experts from utilities, suppliers, the regulator, academia, federal laboratories and agencies to present the latest advancements in nuclear science and technology.
- Exhibits with industrial leaders showcasing their latest nuclear products and technology.
- A Student Conference with student posters.
- Social (virtual) features that facilitate discussions and networking on subjects of common interests.

2021 Annual Conference Submission Guidelines:

- Papers must present original material or a review of a significant area.
- Abstracts should be a maximum of 200 words in length. They must include the title of the presentation, the authors and their affiliation, and the essence of the work which will be presented.
- The presentations in the Technical Sessions will be selected on the basis of the abstracts submitted.
- Full papers will be peer reviewed prior to the conference, and should be a maximum of 15 pages
- By submitting a paper, you agree to it being presented at the Conference and that the paper and the presentation material may be published in the Conference Proceedings.
- Slide presentations must be consistent with a presentation time of 15 minutes. If necessary, additional information can be presented in slides appended at the end of the presentation slides.
- The submission link and templates for abstracts and full papers are available at the Conference website: http://cns-annual-conference.org/
- At least one of the authors must register for the Conference by May 1, 2021 for the paper to be included in the Conference Program

2021 Annual Conference Important Dates:

- Abstract submission: January 22, 2021
- Full paper submitted for review: February 28, 2021
- Final paper submission for the Conference Proceedings: April 09, 2021
- Submission of slide deck for presentation at the conference: May 7, 2021

General Enquiries: Paul Spekkens, Technical Program Chair
E-mail: anncon2021@cns-snc.ca; Tel: (416) 458-3661

CALL FOR PAPERS | TECHNICAL TOPICS

Small Modular Reactors	Deployment opportunities, design, licensing and deployment challenges. SMR concepts and designs; on-grid and off-grid applications in mining and remote locations.
New Build and Life Extension	New build programs; International collaborations; Regulatory policy and risk assessment; Life extension and license renewal; Design and construction; New-site licensing; Advanced systems and components; Passive safety
Energy Policy and Global Consensus	Policy development; International and regional cooperation; Energy mix; Safeguards; Sustainability; Climate change; Addressing public acceptance; Education; Communications; Outreach
Competitive Challenges and Cost Reduction	Design and construction; Manufacturing and modularity; Economics and financing; Supply chain assurance; Market and competitive challenges
Operations and Aging Management	Operating Experience; Maintenance; Operational risk assessment; Outage management; Fuel and equipment performance; Equipment Reliability enhancement; On-line Condition Monitoring; Obsolescence; Component replacement; Supply chain
Enhancing Safety and Security	Severe accidents; Accident management and analysis; Emergency planning; Plant security; Safety culture; Stress-testing; Criticality Safety Analysis; Probabilistic Risk assessment; Regulatory perspective; Nuclear security; Non-proliferation
Environmental Protection and Waste Management	Designing for environmental protection; Assessment of environmental effects; Decommissioning and environmental remediation; Waste stream management and reduction; Progress in repository development; Interim used fuel storage strategies; Waste treatment, packaging and transportation
New Technology, Research and Development	Advanced reactor physics, radiation physics; thermal hydraulics; Fusion; Hydrogen production; Materials Science for new and existing designs; Efficiency enhancements; Space, Mining and other novel applications; New nuclear codes and standards
Fuel Cycles	Uranium and thorium mining, milling, refining, conversion and enrichment; Uranium and Thorium fuel manufacturing; Fault-tolerant fuel designs; Open and closed fuel cycles; Proliferation-resistant fuels
Medical and Biological Benefits	Medical and biological systems; Treatments and protocols; New isotope manufacture; Novel accelerators and target development; Supply assurance; Handling waste streams; Economics; International trends; Isotope production and use; Agricultural applications

The Canadian Nuclear Society (CNS) is pleased to offer three types of scholarships in 2021 to promote Nuclear Science and Engineering to students at Canadian universities.

Graduate School Entrance Scholarships ($3500)

- Designed to encourage undergraduate students to enter a graduate program related to Nuclear Science and Engineering at a Canadian university.
- Eligibility: You must be enrolled in a full-time undergraduate program at a Canadian University and be a member of the CNS.
- The duration of the graduate program must be at least two years and is expected to lead to a Master's or a PhD degree.

Undergraduate Student Research Scholarships ($2000)

- Designed to encourage undergraduate students to participate in research in Nuclear Science and Engineering during the summer months.
- Eligibility: You must be enrolled in a full-time undergraduate program at a Canadian University for at least two years and be a member of the CNS.
- The scholarship is to be matched by at least $4300 from the supervisor for a total of at least $6300.

Special Scholarships (up to $1000)

- Awarded on a case-by-case basis to eligible students (graduate and undergraduate) to allow them to participate in events and activities related to nuclear science and technology.

Additional Information:

- · The number of available scholarships in each category will depend on the demand and the overall budget available.
- · The recipients of the scholarships will be selected based on their academic standing and other information to be supplied with the application.
- · The Scholarship Committee of the Canadian Nuclear Society will collect and review the submissions and make the award decisions.
- · Details of the scholarships and the procedure for application can be found on the CNS web site at www.cns-snc.ca/Scholarships
- · The deadline for submission of the application is February 19th, 2021.

La Société Nucléaire Canadienne (SNC) est heureuse d'offrir trois genres de bourses en 2021 afin d'encourager les étudiants dans les universités canadiennes à étudier la science et le génie nucléaire.

Bourse d'entrée aux études supérieures : 3,500$

- Les buts de ces bourses est d'encourager les étudiants à s'inscrire aux études supérieures en science et génie nucléaire dans une université canadienne.
- Éligibilité : Vous devez être présentement inscrit(e) à plein-temps à un programme poursuivant la licence dans une université canadienne, et devez être membre de la SNC.
- L'échéancier du programme en études supérieures doit couvrir une période minimale de deux ans, et devrait mener à une maîtrise ou à un doctorat.

Bourse de recherche pour étudiants poursuivant la licence : 2,000$

- Le but de ces bourses est d'encourager les étudiants poursuivant la licence à participer en recherche en science et génie nucléaire pendant l'été.
- Éligibilité : Vous devez être inscrit(e) à plein-temps à un programme d'au moins 2 ans poursuivant la licence dans une université canadienne, et devez être membre de la SNC.
- La bourse doit être complémentée par un montant d'au moins 4,300$ de la part du directeur de la recherche, pour un total d'au moins 6,300$.

Bourses spéciales (allant jusqu'à 1,000$)

- Ces bourses sont offertes à des étudiants (licence et supérieure) au cas par cas, afin de leur donner l'occasion de participer à des événements et activités liés à la science ou à la technologie nucléaire.

Renseignements additionnels :

- ·Le nombre de bourses disponibles dans chaque catégorie dépendra de la demande ainsi que du budget total disponible.
- Les gagnant(e)s des bourses seront sélectionné(e)s à partir de la qualité de leur dossier académique, ainsi que d'autres données à être fournies en même temps que la demande de bourse.
- Le Comité des bourses de la Société Nucléaire Canadienne recevra et étudiera les candidatures, et attribuera les bourses.
- Les détails des bourses et les procédures de demande sont disponibles sur le site web de la SNC à www.cns-snc.ca/bourses.
- La date limite pour la soumission des demandes de bourse est le 19 février, 2021.

WE WISH YOU A YEAR OF
JOY AND BLESSINGS FOR 2021