



Nuclear Science Week™ 2020

INTERNATIONAL IMPACT REPORT

NUCLEAR SCIENCE WEEK 2020
October 19-23, 2020

www.nuclearscienceweek.org

report issued February 28, 2021

About this Report: This report represents a compendium of the many hours of effort that has gone into a remarkable public outreach effort to disseminate current, accurate information about nuclear science, it's impact on our world and its history during the observance of Nuclear

Science Week in 2020. As we know, the year of 2020 was deeply impacted by the pandemic of Covid-19 or Coronavirus. This devastating health crises has changed much of how public interaction occurs world-wide from planning meetings and events to receptions, seminars and classroom visitation and site tours. All of these changes required nimble planning and incredible ingenuity from the places where nuclear science is discussed and where work in the field takes place. Almost all of the events held in celebration and observance in 2020 were done remotely this past year to keep every participant safe and to limit direct interaction against the spread of Corona Virus.

This International Impact Report has been developed to record the many places where Nuclear Science Week was observed, the groups that participated and organized these events; and the numbers of people, mostly members of the public, that participated. The year 2020 represents the eleventh anniversary of this event and annual time that NSW has been observed and the scale of it as a week for public discourse and learning continues to grow as evidenced by this report of impact. It is hoped that this report will be used to record interactions, entice larger groups to engage, to encourage more discussion, to transmit more knowledge and excite more students about nuclear science and related STEM fields as potential future career pathways. Although this report hopes to be extensive, the report cannot have captured every action taken during NSW 2020. For those that were not included, we apologize for this oversight of awareness and invite communication of exciting events that will be held at the 2021 events.

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1) About Nuclear Science Week: Nuclear Science Week continues to grow in importance as a primarily non-technical outreach forum for communities to discuss nuclear science and issues that concern it. Even in the face of the pandemic, those dedicated individuals that see Nuclear Science Week as an annual opportunity to disseminate information dug down deeply and came up with unique outreach options to utilize for a vibrant discussion. In fact, because so much of NSW was on-line in 2020, many more people may have engaged in the event dialogue and viewed the programming being presented world-wide. As a non-technical meeting, NSW can engage community leaders, politician, policy-makers, law-makers in understanding issues related to nuclear science in fields of energy production, medicine, industrial manufacturing, defense, space exploration and myriad other applications. There are numerous technical forums that take place for scientists, engineers, policy analysts, equipment manufacturers and sales associates held around the nation and world. Each are geared to the field represented and are targeted to those working directly in that area. There are even very specific conferences that deal with certain aspects of the technical efforts around nuclear power generation, medical application, waste management, defense industries and communication of these important technical areas. But there is not an open forum dedicated to conversation, discourse, comparing of perspectives and new ideas, learning and sharing of information in a community-based manner except Nuclear Science Week.

Nuclear Science Week continues to increase in interest and with an increasing number of participants world-wide. There is no similar international observance or real recognition of an annual need that was unmet for a time of discourse about this like Nuclear Science Week represents. But, due to the incredible pride of the many professionals in the vast nuclear field of effort, the interest of educators, parents and students, nuclear science week has become an important annual opportunity to speak out and to ask questions, learn more about this critically important energy resource. There is a lot of disinformation or incorrect information out there about nuclear energy and having the time and place to share accurate facts is vital for all of us. Nuclear Science Week is not a “professionals” level meeting, nor an industry conference; instead it is a “pipeline” event that helps grow interest and share accurate information and place it in the hands of those that can take up careers in STEM and related fields. NSW “pre-loads” interested citizens into the conversation about the role of nuclear energy in this world. Here they learn about effects on climate issues, energy production and distribution, breakthroughs in medical technologies, space applications, national defense and manufacturing and research that hold so much potential for our future. I hope that you have a team of excited people that want to learn more, or you wish to share your work with others in nuclear science; Nuclear Science week is for you!

2) A word of thanks to our sponsors: Nuclear Science Week would not be possible without the deep support from so many corporate, professional, governmental, media and individual partners. It is because each of these organizations, large and small, all across the globe who see the value in educating the public about the critical role that nuclear science plays in our world that the vast group of planners have financial capacity to bring

this exciting energy resource forward for examination and understanding. We thank each person that accepted the challenge to assist in obtaining this support and those leaders in organizations that felt this work worthy of such support. A complete list of sponsors can be found in the report. 2020 represents the third year of a multi-year sponsorship and partnership in presenting the events in the United States. The Chair wishes to thank Palo Verde Generating Station for this and future support in continuing Nuclear Science Week.

- 3) A Message from the Steering Chair:** Nuclear Science Week is getting bigger and better utilized, many great voices are joining in to the conversation about the exciting world of nuclear. Each person helps us to improve the planning processes to create learning opportunities and showcase great science and acknowledge innovation. I want to thank and recognize our superb International Steering Committee of hard-working professionals from around the globe in so many places and fields of work. These efforts, individual and in teams, make NSW the most effective opportunity for broad general communication with the non-technical audiences that we know exists. It is this interested general public, the regular people that we need to speak to, to listen to, to talk with and share with. They have a need for current accurate information about the role of nuclear energy as a resource that is trusted and can be counted upon. These folks need to have an accurate grasp of this science as future decision-makers and current citizens. Our International Steering Committee team helps us reach these people in eight different countries now. Again, thanks to each of you for your continued commitment. I would also like to extend deep appreciation for a strong and continuing partnership with The American Nuclear Society. The ANS and its fine staff utilize NSW as a communication opportunity to reach professionals, constituents and the public and offer leadership to those thousands of professionals in sections all across the US who put on programming in observance of Nuclear Science Week.

Jim Walther
Chair, International Steering Committee
Nuclear Science Week

4) The Members of the International Steering Committee for Nuclear Science Week 2020

- **Derek Bass:** Wilmington BIG Event Chair, ANS Section Chair, System Engineer, GE Hitachi Nuclear Energy
- **James Beirschbach:** Jensen Hughes
- **Hannah Murphy :** **Studio Stillwater**, Social Media & Graphics, National Museum of Nuclear Science & History
- **Nziunga Brown:** Executive Director, WIN Canada

- **Regan Callan**, PSEG
- **Brendan Daly**: PSEG
- **Ryan Dean**: Southern Generating Co.
- **Sarah DeSilva**, GE/Hitachi, Wilmington NC Team
- **Dr. Jason Donev**: University of Calgary, Canada events team lead
- **Susan Downs**: Business Operations Analysis Specialist, Talen Energy / Susquehanna Nuclear LLC and U.S. Women in Nuclear
- **Michelle Durant**: Australian Institute of Nuclear Science and Engineering, organizer Australian programs
- **Julie Ezold**, Oak Ridge National Labs
- **Leslie Fraser**: Director of Development, National Museum of Nuclear Science & History
- **Jennifer Hayden**: Big U.S. Event Co-chair 2018; Director of Communications, National Museum of Nuclear Science & History
- **Janice Lindegard**: Education and Community Outreach Specialist; American Nuclear Society
- **Arun Khuttan**, UK Team
- **Amanda Lang**, US NAYGN, Duke Energy
- **Kathleen Lyon**, American Museum of Science & Energy, Oak Ridge TN
- **Meghan Mathews**: Wilmington BIG Event Fundraising, Commodity Fulfillment Leader, GE Hitachi Nuclear Energy
- **Tracy Marc**: American Nuclear Society
- **HaliAnne McGee-Hilbert**, Pacific Northwest National Laboratory
- **Mindy Mets**: NWI Program, Director of Regional Workforce Programs, Savannah River Site Community Reuse Organization
- **Katelyn Morales**, US Department of Energy
- **Maria Pfeffer**: Oak Ridge National Labs
- **Chris Perfetti**, University of New Mexico
- **Kory Raftrey**: Palo Verde Generating Station, Big U.S. Event Co-chair 2018
- **Melonie Roberts**, Oak Ridge National Labs
- **Melody Rodriguez**: Palo Verde Generating Station, Big U.S. Event Co-chair 2018
- **Kim Saxon**: Assistant Coordinator, Savannah River Site Community Reuse Organization
- **Laura Scheele**, Idaho National Labs
- **Luisa Vargas Suarez**: University of Calgary, Calgary Canada
- **Zach Summer**, University of Calgary, Calgary Canada
- **Jeff Terry**: Professor of Physics, Illinois Institute of Technology
- **Marissa Thornton**: Environmental Protection Agency
- **Alisa Trunzo**: US Department of Energy, Communications Lead for Nuclear Energy
- **Jim Walther**: Museum Director and International Steering Committee Chair, National Museum of Nuclear Science & History
- **Joshua Wheeler**, Exelon Energy
- **Theresa Wigner**, PSEG
- **Jamie Williams**: Manager of Grass Roots and Outreach Programs, Nuclear Energy Institute
- **Chris Wolfe**: SCANA, Wilmington 2016 Event Team, NAYGN Liaison

- **Natalie Wood**, Entergy Nuclear, NAYGN
- **Alex Woodworth**, New Brunswick Power, NB, Canada
- **Andrew Worrall**: Oak Ridge National Lab

5) Supporting and Participating Organizations: Nuclear Science Week would like to thank the following organizations and associations for financial and in-kind support and engagement for events held in 2020.

Sponsorship for THE BIG U.S. program of 2020
The following corporate partners brought NSW 2020 to reality

Palo Verde Generating Station
 Entergy
 Southern Company
 NuScale Power
 Terra Power LLC
 Idaho National Labs
 Exelon
 General Atomics
 Arizona Public Service Co.

The following organizations are recognized as additional financial and planning partners for 2020

Aiken Works
 Aiken Technical College
 American Museum of Science & Energy
 American Nuclear Society
 Applied Research Center
 Area Health Education Center (GA)
 AREVA
 Argonne National Laboratory
 Arizona Public Service
 Augusta Technical College
 Augusta University
 Australian Nuclear Association
 Australian Institute of Nuclear Science and Engineering
 Australian Nuclear Science and Technology Organisation
 Australian Young Generation in Nuclear
 Bechtel
 BWX Technologies
 Canadian Institute on Nuclear Physics
 Canadian Nuclear Laboratories
 Canadian Nuclear Society

Canberra
Citizens for Nuclear Technology Awareness
Duke Energy
Dominion Energy
Entergy
Exelon
GE-Hitachi
General Atomics
Georgia Cyber Center
Georgia Power
HOLTEC International
Idaho National Labs
Idaho Local Section, American Nuclear Society
Idaho Women in Nuclear
Illinois Institute of Technology
INPO
Jensen-Hughes
Massachusetts Institute of Technology
Mothers for Nuclear
MTU America, Inc.
NASA
National Museum of Nuclear Science & History
North American Young Generation in Nuclear
Nuscale Power
Nuclear Energy Institute
Oak Ridge National Laboratories
Pacific Northwest National Laboratory
PPL
Palo Verde Generating Station
PSEG
Rothney Astrophysical Observatory
Ruth Patrick Science Education Center
Sandia National Laboratories
Savannah River Nuclear Solutions
Savannah River Remediation
Savannah River Site
Savannah River Site Community Reuse Organization
Savannah River Site Museum
Security Onion Solutions

Society of Nuclear Medicine and Molecular Imaging
Southern Nuclear Generating Co.
Students for Nuclear
Terra Power

TRIUMF, Saskatchewan, CANADA
U. S. Women in Nuclear
United States Department of Energy
United States Environmental Protection Agency
University of Calgary, Dept. of Physics and Astronomy, Alberta, CANADA
University of Georgia Savannah River Ecology Laboratory
University of Idaho
University of New Mexico
University of North Carolina, Wilmington
University of Regina, CANADA, Fedoruk Centre
University of South Carolina, Aiken
URENCO USA
Women in Nuclear, Canada
Young Generation in Nuclear, Canada
X-Energy

6) Nuclear Science Week Observances world-wide:

- a. There were numerous observances of Nuclear Science Week in large and small communities across the world in October of 2020. Most were remotely created and available on-line, the groups placing their program into the master calendar listings on the Nuclear Science Week website. This site is where all interested parties looked for details of specific site or individual programs. Some smaller groups held limited in-person observances or programming, many did not. The International Steering Committee wishes to express gratitude to each and every coordinator, contributor, sponsor, supporter and participant in all and any Nuclear Science Week events in 2020.
- b. United States Observances and the United States BIG Event for 2020: The National US Big event was to be coordinated and held in Atlanta Georgia by a dedicated group of local professionals. But, due to Covid restrictions and safety protocols, all portions of the BIG US observance were held on-line. A unique program was created and directed for students and teachers that featured a news segment type television set with hos and student anchors. The International Steering Committee wishes to thanks Melody Rodriguez, Kory Raftery and the excellent professionals at Sneaky Big Production Studios, host Ms. Ashley Chaney and anchors Mickey Raftery and Gabriella Anderson.

Themes for the 3 days of presentation continued to feature the following topic areas.

- Transformative Healthcare
- Innovation & Technology
- Carbon-Free Energy
- Space Exploration
- Global Leadership

Nuclear Science Week 2020 would like to express appreciation and thanks to
Presenting Sponsor of the BIG Event program –

Palo Verde Generating Station



News Release
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Albuquerque, New Mexico 87123
(505) 245-2137 Fax: (505) 242-4537

For Release: Immediate Release | Contact: Jennifer Hayden, 505-245-2137, ext. 102, or jhayden@nuclearmuseum.org

Nuclear Science Week 2020 Goes Virtual

Think Clean. Think Solutions. Think Nuclear.

Albuquerque, NM – Recognizing the current state of the world due to COVID-19 and the need to create meaningful content for students who are learning on a variety of platforms in a variety of places, Nuclear Science Week 2020 will utilize a first of its kind educational method. Creating a streaming platform called “Nuclear Network,” organizers worked with partners in government, academia and the private sector to write, shoot and edit three educational news magazine shows that will be available on demand at nuclearscienceweek.org on October 20th – 22nd.

Nuclear Science Week focuses on five major benefits of nuclear science: Carbon-Free Energy, Global Leadership, Transformative Healthcare, Innovation & Technology and Space Exploration. Working with the Smithsonian Affiliated National Museum of Nuclear Science and History, Palo Verde Generating Station and Southern Company served as the Co-Presenting Sponsors in 2020. These companies led an impressive team of sponsors, partners and key contributors coming from each other five nuclear science benefits and include MIT, NASA, the U.S. Navy, the Department of Energy, Idaho National Laboratories, Arizona Public Service, Entergy, Exelon, General Atomics, the Nuclear Energy Institute, NuScale Power, and Terrapower.

“The quality of people, and the caliber of partnerships we have working together on this year’s virtual platform is really unmatched in the 11 plus years we’ve been holding Nuclear Science Week as an international event,” said Jim Walther, museum director at the National Museum of Nuclear Science and History. “We are so excited to release this streaming broadcast content that features the best and brightest in all fields of nuclear science and technology in a way that will be both fun and engaging to students from ages five to 105.”

The streaming shows will be hosted by Ashley Chaney, a national host, voice-over actor and science enthusiast, and by two 6th grade science-loving kid anchors from Arizona, Gabriella Anderson and Mickey Raftery. The kid anchors have been interviewing experts from all of the benefits of nuclear science.

Each year prior to 2020, an American city or geographical region was chosen to host Nuclear Science Week and educate the public on the values nuclear science brings to society. Prior to challenges with COVID-19, Atlanta, GA, was selected as the national host city for 2020. But in transitioning to a virtual event, the Nuclear Science Week team activated multiple social media platforms and created streaming news segments, virtual plant tours, interviews with innovators in the nuclear industry and STEM projects/experiments to replace the in-person experience. Much more will be available for free to anyone around the world on nuclearscienceweek.org.

Nuclear Science Week (NSW) is an international and national, broadly observed celebration to focus local, regional, national and international interest on all aspects of nuclear science. This is the 11th annual celebration. More information can be found at NuclearScienceWeek.org. Please contact Jennifer Hayden at 505-245-2137, extension 102, with questions.

###

2020 and Current Activities held at **past United States BIG Event sites:**

Nuclear Science Week has been observed each year since 2010 and each organizing group is encouraged to continue to present programming celebrating Nuclear Science as able, some with large and complex programming, others smaller. Below are representative samples of past sites.

Albuquerque, New Mexico (US BIG Event held 2010, 2018): For NSW 2020 in Albuquerque at The National Museum of Nuclear Science & History, continues to be a vibrant place for nuclear education through numerous partnerships at The National Museum of Nuclear Science & History. Program partners included American Nuclear Society Trinity Section, Sandia National Labs, American Society of Radiologic Technologists, Air Force Research Laboratories. Nuclear Science Week at the National Museum of Nuclear Science & History. Team consisted of members of the education department, volunteer coordinator, museum's administrative coordinator, and several volunteer docents.

Lisa Guida
Director of Education
National Museum of Nuclear Science & History

Washington DC 2019, US BIG EVENT celebration:

2020 DOE Emerging Professionals NUCLEAR TECH CONNECT EVENT

(note: this portion of programming is solely the content of The U.S. Department of Energy, no financial support for this event portion was provided by the NSW Committee.)

NSW related events continued on Thursday October 22 as the Department of Energy hosts its "Emerging Professionals Nuclear Tech Connect Event" an annual opportunity to hear from the field on a wide range of current issues and topics of interest to those in the nuclear fields.

NUCLEAR TECH CONNECT



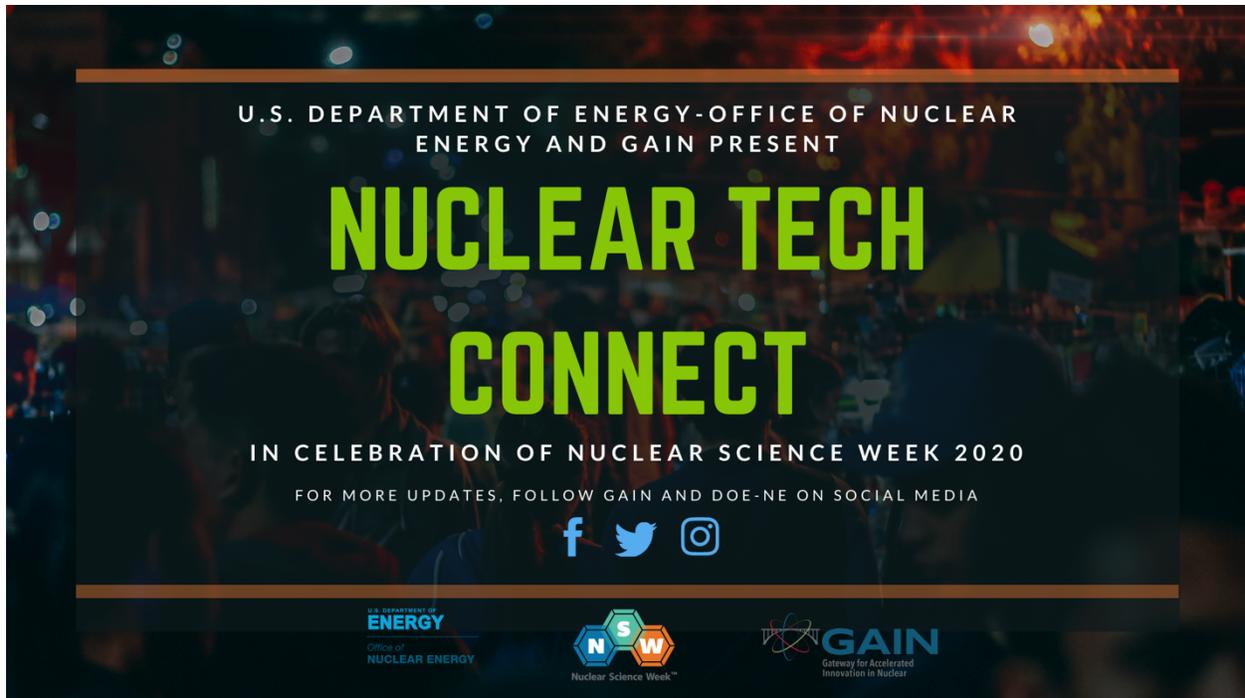
Clean. Reliable. **Nuclear.**



GAIN

Gateway for Accelerated
Innovation in Nuclear

Sign up today
Oct.
21 & 22
2020



Nuclear Tech Connect Summary

As part of the larger virtual *Nuclear Science Week*, [The Department of Energy – Office of Nuclear Energy \(DOE-NE\)](#) and [Gateway for Accelerated Innovation in Nuclear \(GAIN\)](#) hosted *Nuclear Tech Connect*. The event spanned two days during [Nuclear Science Week](#)—Wednesday, October 21 through Thursday, October 22. These two days featured conversations on carbon-free energy and technology innovation—moderated by Christine King and Rita Baranwal. Furthermore, there were opportunities to network with speakers and attendees, visit a virtual exhibit hall, and partake in a happy-hour discussion on humans, technology and the environment with the Executive Director of [VTR](#) and founder of [Eco:Logic](#), Kemal Pasamehmetoglu.

Nuclear Science Week is a national and international, broadly observed week-long outreach celebration focused on local, regional, national and international interest around all things nuclear science. It takes place each year on the third week of October and each day of the week-long event provides myriad of opportunities to learn about the contributions and innovation in nuclear science.

Here is a quick snapshot of some of the major metrics:

Nuclear Tech Connect	
Users/Attendance (Total number of unique uses across devices)	323
Login Adoption ((No. of confirmed attendees/No. of Invited Attendees) * 100)	65.5%
All Engagement (Total number of actions across all users taken with the app)	4.07K
User Contributors (Total number of attendee messages and social shares)	505
Minutes Open (Total time spent in minutes, users used the app)	3.67K
Navigation Icon Taps (Total number of taps for all navigation icons)	1.3K
Banner taps (Total taps on sponsor banners)	79

Here are a few additional observations:

- **Most engaging Speaker** was **Rita Baranwal**
- **Most engaging session** was the **‘Featured Session: Carbon-Free Energy**

Partners: Gateway for Accelerated Innovation in Nuclear

Planning committee persons: Alisa Trunzo and Katelyn Morales from the Department of Energy – Office of Nuclear Energy

Location: Virtual, Crowdcompass by Cvent

Times and dates: Oct. 21-22 from 9:00am – 4:30pm EST

Chicago, Illinois (US BIG Event held 2012): Dr. Jeff Terry of Illinois Institute of Technology again planned and executed a comprehensive school outreach day in the Chicago area with several partnering organizations. The team visited 5 school districts in 3 states to give a talk called Power is Everything. We have 1 talk remaining at a 6th school district scheduled. We have had some issues dealing with the increasingly difficult background checks that the school districts are implementing. We may have to try to find funds in the future to pay for substitute teachers and busses and bring students to campus. We were in front of about 600 students in the 5 districts that we have visited so far. We expect to get another 30 or so in the last one which will put us over 600 in the Chicago area.

Aiken, South Carolina (US BIG Event held 2013): The fine team in Aiken again organized one of the nation’s largest observances of NSW. Lead by Mindy Mets and Kim Saxon, the team at Savannah River Site Community Reuse Organization look upon NSW as an

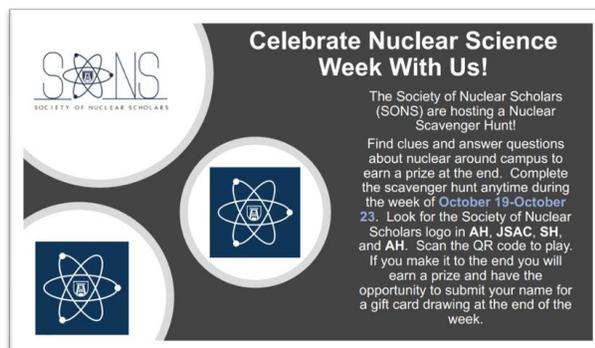
important opportunity to get out into their communities and hold tours, talk, screen movies, open new exhibits and teach students.



**2020
NSW Regional Impact Report
Georgia & South Carolina**



Augusta University – Summerville Campus (Augusta, GA)
Nuclear Scavenger Hunt
October 19 – 23, 2020
30 participants (college students)



Savannah River Site (Aiken, SC)

Virtual Field Trip
"Wet Wonders" Come On! Get on the Bus!

A journey to a "Wet Wonders" adventure at Savannah River Site to study biotic factors that determine the health of a pond. Roundtrip 14 minutes!

For keys to the bus, complete the short form at:

<https://www.surveymonkey.com/r/VirtualTripWetWondersSRS>

<https://www.wrdw.com/2020/11/10/virtual-field-trips-to-the-savannah-river-site-become-reality/>

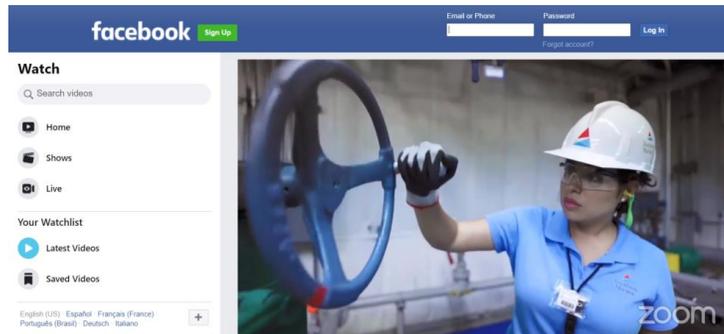


(Source: SRS/SRNS)

Southern Nuclear Plant Vogtle (Waynesboro, GA)

Facebook Live
Careers in Nuclear Energy
October 22, 2020

<https://www.facebook.com/southernnuclear/videos/358795548717771/>



Conducted a virtual program with Lewiston Elementary School (Columbia County, GA) to about 25 teachers and students.

The NAYGN Public Outreach Committee held a drawing/coloring contest for students in grades K-3 to celebrate Nuclear Science Week.

Purchased and made available to employees and local teachers/students Southern Nuclear protective face coverings with three different nuclear messages.

Science Education Enrichment Day (Aiken, SC)

Virtual STEM Expo
October 12 – 16, 2020

Over 35 STEM Exhibitor Pages
Presentations
Student-Centered STEM Resources
Trivia Scavenger Hunt (Prizes Awarded)



STEM Career Connections® (GA & SC)
 Virtual Event
 October 26 – November 13, 2020
 Hosted By: SRS Community Reuse Organization

The SRSCRO adapted the popular STEM Career Connections® event to a virtual format with engaging speakers and topics. Experts from the Georgia Cyber Center, Security Onion Solutions, Augusta University, Plant Vogtle, Savannah River Site and MTU America explained the inside scoop on local careers with a background of unique video from local workplaces. Over 1,000 high school students/educators from 23 high schools have started using the video as part of their career education for local students.

The video available on YouTube at <https://youtu.be/3BXYYwLjsMc>



Citizens for Nuclear Technology Awareness Oyster Roast & Low Country Boil (Aiken, SC)
 Young professional fundraiser
 October 17, 2020
 120 attendees (young professionals & general public)



Citizens for Nuclear Technology Awareness Nuclear Blitz (Aiken, SC)

Virtual Event

(high school physics/chemistry students and educators)



Savannah River Site Museum (Aiken, SC)

Museum Tour

October 21 – 24, 2020

93 visitors

The SRS Museum is committed to informing the public about the history of the SRS by:

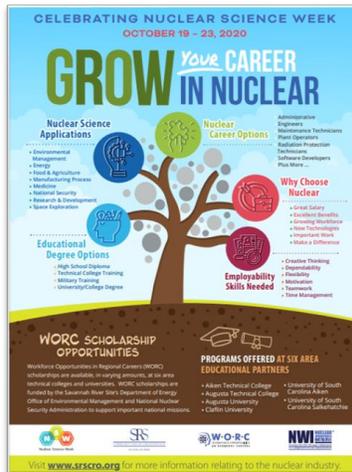
- Creating interest in the museum and excitement about its activities
- Attracting visitors to the museum
- Linking the museum to other museums and historical/educational organizations
- Generating excitement about careers in STEM fields

The exhibit "6,000 Stories." interprets the history of the residents within Aiken and Barnwell county communities that were displaced from their lands to make room for the construction of the Savannah River Plant in 1950.



<https://www.facebook.com/srs.heritage/videos/vb.387664784637239/648623835966092/?type=2&theater>

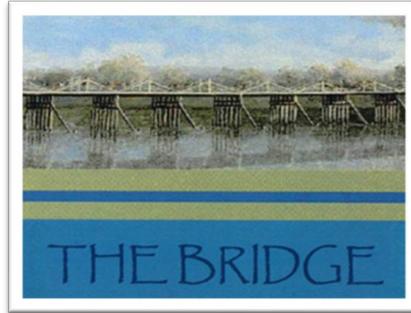
Nuclear Career Pathway Posters
 Promotional marketing
 200 (distributed to local schools)



Citizens for Nuclear Technology Awareness & Aiken Standard NSW Newspaper Insert
 Promotional marketing
 30,000 (Sunday circulations)



SRS Community Reuse Organization “The Bridge” Electronic Newsletter
Promotional marketing



SRS Community Reuse Organization NSW Regional Website
Promotional marketing



Ruth Patrick Science Education Center “Spectrum” Electronic Newsletter
Promotional marketing



2020 NSW Regional Coordination Committee Members, Aiken SC

Andy Albenesius	Savannah River Nuclear Solutions
Ryan Dean	Southern Nuclear
Greg Fennessy	USC Salkehatchie
Shanketa Glover	Savannah River Nuclear Solutions (SRS WIN)
Jean Grover	Augusta University
Graham Jones	American Nuclear Society
Joel Leopard	Southern Nuclear
Jim Marra	Citizens for Nuclear Technology Awareness
Mike McCracken	Southern Nuclear
Heather McWilliams	Department of Energy Savannah River
Tina Melton	Savannah River Remediation
Mindy Mets	SRS Community Reuse Organization
Lauren Miller	SRS Museum
Kim Mitchell	Savannah River Nuclear Solutions
Alison Molnar	Citizens for Nuclear Technology Awareness
Dr. Joe Newton	Augusta University
Dr. Greg Passmore	Augusta University
PJ Perea	SRS Ecology Lab
Julie Petersen	Department of Energy Savannah River
Kim Saxon	SRS Community Reuse Organization
Dr. Gary Senn	RPSEC USC Aiken
Nora Swanson	Southern Nuclear

Seattle, Washington (US BIG Event held 2014): The team previously located in the Pacific Northwest area of the U.S. has dispersed and relocated to other places. Therefore, a strong group in this important part of our nation is sought to take up the programming that was begun in 2014. The NSW Steering Committee is seeking a group interested in creating programming in the Northwest region.

Knoxville & Oak Ridge, Tennessee (US BIG Event held 2015) "Nuclear Science" was the monthly topic of AMSE's Family Science Saturdays held on both October 12 and 26, 2020 from 2-4 pm. Participating parents and children used Geiger counters to complete some of the activities required for the Boy Scout's Nuclear Science Merit Badge. During the October 26 session, we featured some new demonstrations that will continue to be used for future merit

badge programs. First, a terrarium-sized cloud chamber used thorium rocks to make contrails (see attached video) so that visitors could actually "see" radioactivity. In addition, in conjunction with a small-scale Seebeck Effect model used to show how plutonium-based radioisotope thermoelectric generators work, a Stirling engine model demonstrated how future uranium-based reactors may convert heat from radioactive decay into electricity for communities on the moon. It is estimated that we hosted about dozen participants total.

Kathleen Lyon
Science Educator
115 Main Street East
Oak Ridge, TN 37830

Wilmington, North Carolina (US BIG Event held 2016):

The team in Wilmington presented a number of events to observe NSW 2020.
A Scout Merit Badging program was offered (boys and girls together)
A broad STEM Day (students of all ages) was created.
Tours of Brunswick Nuclear Plant (pending site approval)
Panel discussion at the Lifelong Learning Center (50-70 participants)
Screening of documentary Pandora's Promise

Idaho Falls, Idaho (US BIG Event held 2017)

The event in Idaho Falls in 2020 was produced by an able team of professionals from numerous organizations including great support from Idaho National Labs, a lead sponsor in the programming.

Other Events in the United States:

PSEG Team: The Kingsway students are STEM students, all Juniors. Kingsway Regional High School is located in Woolwich Township, NJ. The event, hosted by PSEG Nuclear Principle Environmental Engineer Brendan Daly.



Kingsway Regional Highschool students during NSW Fieldtrip visit



Kingsway school presentation and tour- attendance: 18 students+ 2 teachers

“Eighteen Kingsway Regional High School STEM students (Juniors) visited PSEG Nuclear’s Energy and Environmental Resource Center (EERC) and Salem/Hope Creek Generating Stations on October 8, 2019. The visit started with an overview of how electricity is produced (including by fossil fuels, renewables, and nuclear fission), what it takes to permit and construct a new nuclear plant, and the benefits of nuclear power. This was followed by a tour of the educational exhibits in the EERC, Hope Creek’s control room simulator and cooling tower, and the site’s dry cask storage pad.”

Other U.S. Based observances for 2020

This was part of the Carolinas Regional Conference – all school visits took place virtually.

Total outreach: 432 students

Total hours (including planning): 42 hours

We reached **hundreds** of students from Indiana to North & South Carolina to Wisconsin ages 6 to 18 (grades 1, 5, 8-12).

Grade	Date & Time	Teacher	Volunteer	# of Students
1 st	Fri Oct 23 11am	Boswell	Rogger & Kristie	12
5 th	Friday Oct 23	Hutchinson	Amanda Lang	20
8th grade science	1st period 8:20-9:12 Fri Oct 23	Chrisman	Tyler Andrews	15
8th grade science	2nd period 9:17-10:07 Fri Oct 23	Chrisman	Tyler Andrews	15
8th grade science	3rd period 10:12- 11:02 Fri Oct 23	Chrisman	Tyler Andrews	15
8th grade science	5th period 12:47- 1:37 Fri Oct 23	Chrisman	Chuck Morris & Jack Lemmer	15
8th grade science	6th period 1:42- 2:32 Fri Oct 23	Chrisman	Chuck Morris & Jack Lemmer	15
8th grade science	7th period 2:37- 3:28 Fri Oct 23	Chrisman	Chuck Morris & Jack Lemmer	15
9-12	Tuesday Oct 27 1-2pm	Evans	Tom Myers & Jon Gomes	20
9-13	Friday Oct 23 9:30am	Hilton	Dan & Lee	90
9-14	Friday Oct 23 11:10am	Hilton	Amanda Lang	90
9-15	Friday Oct 23 12:50pm	Hilton	Will	90
11-12 organic chem	Friday October 23 930am-10:45am	Rauls	Amanda	20

Other Special Programming developed and presented:

The graphic features a dark blue background with stylized icons of human eyes in teal and brains in orange. There are also white circles and four-pointed stars scattered throughout. The text is arranged in a clean, modern layout with horizontal lines separating sections.

"If I Understood You, Would I Have This Look on My Face?"

SCIENCE COMMUNICATION SERIES

Three Part Series Leading Up to
#NuclearSciWeek 2020!

OCTOBER 1 | 11AM-12PM ET
OCTOBER 13 | 1PM-2PM ET
OCTOBER 15 | 2PM-4PM ET

Register for each session at links above

The logo for NAYGN, where the 'A' is a green triangle pointing upwards, and the other letters are black.

- 7) **International Teams and Observances:** Nuclear Science Week is growing in its observance in numerous countries. The International Steering wishes to thank all of Nuclear Science partner organizations world-wide for planning and execution of well attended events, programs, lectures, tours and presentations. Below are some examples:
- a. **Canada:** Our Canadian NSW partners continue to grow in number and to develop deeper programming opportunities., The International Steering Committee wishes to recognize Dr. Jason Donev of the University of Calgary, Alberta for his tireless energy and effort to expand NSW across all Canadian provinces in Universities and technical organizations. His efforts have led to increased awareness and more partnerships in Canada.

Nuclear Science week 2020, Canadian Contributions

Canadians across the country contributed to International Nuclear Science Week, with all of the efforts focusing on online delivery of content because of the COVID-19 pandemic. This allowed for a very different approach and many of the lessons learned will carry forward in future years. This online delivery was a boon to reaching out across such a geographically large country, with nuclear expertise concentrated in specific locations. We intend to continue to use online delivery to overcome the limitations of distance.

Canada wide

Our Canada wide initiative was hosted by our national organization, the Canadian Nuclear society. The Canadian Nuclear Society's Education and Communications Committee presented its third Nuclear for Everyone Cafe by webinar. The series draws on topics from the CNS outreach programs Nuclear 101 and Nuclear for Everyone. Dr. Ben Rouben, former executive director of the CNS and Dr. Alexander Gurevich of Humber College presented a talk on "Nuclear Reactor Basics." For this event, 110 participants from across Canada participated.

This event was Thursday October 22nd from 15:00 to 16:30 EDT on nuclear reactor basics. This was a 45-minute presentation with 45 minutes taken up with questions and discussions.

Matthew Dalzell from Western Economic Diversification Canada in Saskatchewan hosted. The success of this led to planning a series of talks:

- Oct 22 Nuclear Reactor Basics
- Nov 5 Nuclear Medicine and Radiobiology
- Dec 3 Nuclear Safety, Accidents and Waste
- Dec 17 Talking Nuclear: History in Canada and the World
- New Year: Small Modular Reactors
- New Year: Nuclear, Risk and Public Engagement

Additionally, the CNS office promoted the popular 'How Science Fiction has influenced the public's view of Nuclear Science and Technology' series by to its members:

- [Part 1 of 5.](#)

- [Part 2 of 5.](#)
- [Part 3 of 5.](#)
- [Part 4 of 5.](#)
- [Part 5 of 5.](#)

Saskatchewan

Fedoruk Centre and CSIP NNSW contribution for 2020

As part of National Nuclear Science Week October 19-23, 2020, the Sylvia Fedoruk Canadian Centre for Nuclear Innovation (Fedoruk Centre – <https://www.fedorukcentre.ca>) hosted the 11th Annual *nuclearFACTS* Peer-to-Peer Forum 2020 event on October 20 and 21, by “Zoom”, supported by the Centre for the Study of Science and Innovation Policy (CSIP - <https://www.schoolofpublicpolicy.sk.ca/csip/>). About 35 participants each day heard presentations by leaders of Fedoruk Centre Projects that were funded through the 2018 and 2019 Calls for Proposals, as well as leaders of three Projects funded by the “CSIP” Program partnership between the Fedoruk Centre and the Johnson Shoyama Graduate School for Public Policy. The registration list included participants from both of Saskatchewan’s universities (U of Saskatchewan and U of Regina), Sask Polytechnic, officials for the government of Saskatchewan and the government of Canada, students and some attendees from other organizations. Positive feedback was received about the online format, conduct of the meeting, and mix of Project topics.

NuclearFACTS
2020 PEER-TO-PEER FORUM

NuclearFACTS Peer-to-Peer Forum brings together supported project leaders to showcase their research to peers and members of the nuclear research community, and to receive feedback on their project impacts and highlights. Join us for this year’s online forum!

October 20 & 21
8:30 – 11:30 a.m.
Delivered online.

Register online at:
https://nuclearfacts_2020.eventbrite.ca

Fedoruk Centre
SYLVIA FEDORUK CANADIAN CENTRE FOR NUCLEAR INNOVATION

JOHNSON SHOYAMA
Centre for the Study of Science and Innovation Policy
UREGINA • USASK

Figure 1 – Invitation to participate in nuclearFACTS

Alberta

The University of Calgary team, led by **Prof. Jason Donev**, posted seven ‘Knowing Nuclear’ videos made by the University of Calgary team:

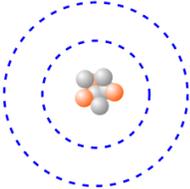
<https://cns-snc.ca/knowning-nuclear>

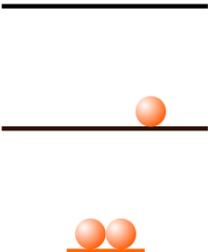
This collection of videos allowed the Nuclear Science Week team to post a new video every day of Nuclear Science Week. Additionally, our team developed an interactive chart of the nuclides educational simulation based on the very successful University of Colorado PhET simulation ([build an atom](#)).

This simulation helps students understand the relationship between number of protons, number of neutrons, chemical species and stability. To increase our reach, the team translated the simulation into a number of languages:

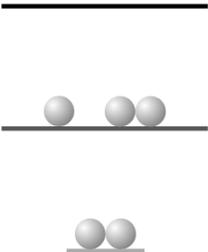
- [Build a Nucleus \(English\)](#)
- [Build a Nucleus \(Spanish\)](#)
- [Build a Nucleus \(French\)](#)
- [Build a Nucleus \(Italian\)](#)
- [Build a Nucleus \(Portuguese\)](#)
- [Build a Nucleus \(Portuguese - Brazil\)](#)
- [Build a Nucleus \(German\)](#)
- [Build a Nucleus \(Dutch\)](#)
- [Build a Nucleus \(Simplified Chinese\)](#)
- [Build a Nucleus \(Arabic\)](#)

Lithium





Protons



Neutrons

Symbol -

8

Li

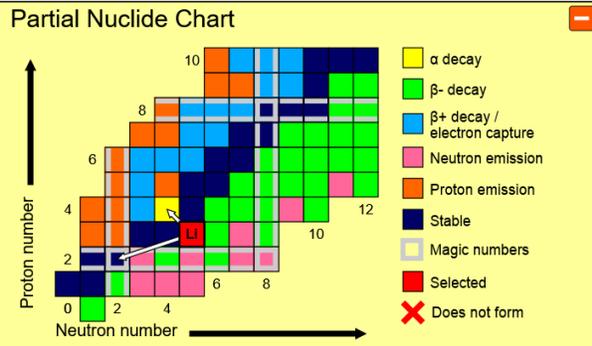
3

Lithium - 8

Element -

H	He																
Li	Be											B	C	N	O	F	Ne
Na	Mg											Al	Si	P	S	Cl	Ar
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe
Cs	Ba	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn
Fr	Ra	Ac	Rf	Db	Sg	Bh	Hs	Mt	Ds	Rg	Cn	Nh	Fl	Mc	Lv	Ts	Og

Partial Nuclide Chart -



Show

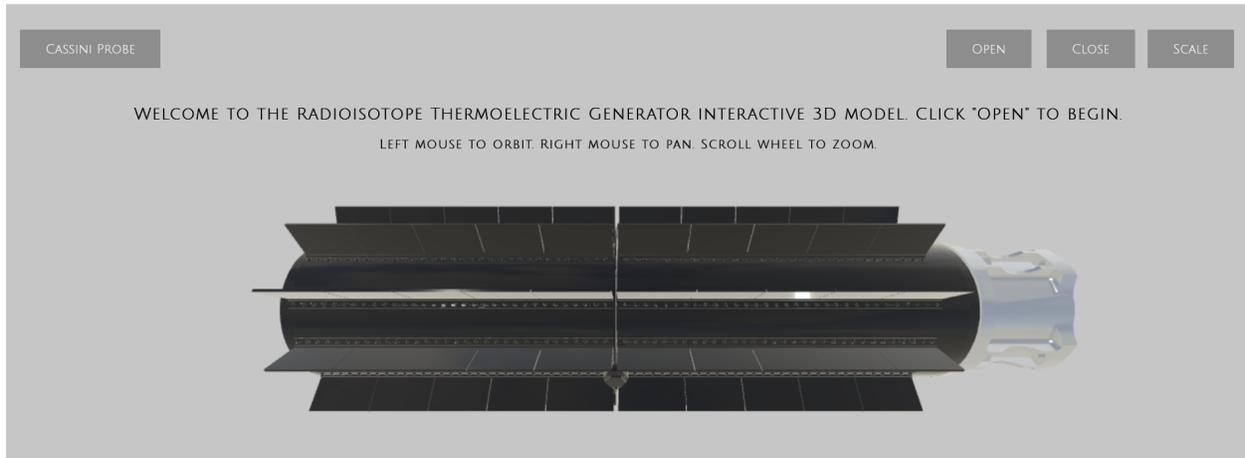
Stable/Unstable

The success of this project has led us to start translating energyeducation.ca into French and Spanish, please contact Jason Donev, if you have suggestions for translating the information about electricity generation and nuclear power.

Three dimensional models of nuclear technology were also created for students to explore nuclear technology from their phones:

- [Deep Geological Repository \(Inside Tunnel\)](#)
- [Deep Geological Repository \(Whole facility\)](#)
- [Calandria](#)
- [PWR fuel bundle](#)
- [RTG](#)
- [Linear accelerator](#)

- [Dry above ground nuclear storage](#)
- [Deep Geological Repository Storage](#)



At the University of Alberta, a new NA-YGN chapter was launched for the students there.

New Brunswick

The **NB Power** team published a blog post to highlight the career on one of our female shift supervisor and the Point Lepreau Nuclear Generating Station <https://www.nbpower.com/blog/en/posts/2020/october/leah-belding-s-career-path-at-point-lepreau-from-local-youth-to-nuclear-professional> we promoted the post on their social media channels (Facebook, Twitter and LinkedIn) to drive traffic to it.



The interest in this blog post has led them to plan on creating a video of similar content for next year to encourage people, especially women, to pursue a career in nuclear science and technology.

Ontario

The CNS Chalk River Branch held its 1st ever Virtual Lecture Series in celebration of Nuclear Science Week (October 19-23, 2020) and it was a great success.

Nuclear Science Week is an international, broadly-observed week long celebration to focus local, regional and national interest on all aspects of nuclear science.

The virtual lecture series reviewed the accomplishments of the ZEEP and ZED-2 zero energy test reactors that paved the way for the Canadian nuclear industry and to this day support safe operation of the CANDU fleet while providing support for the advanced reactor fleet of tomorrow. The two lectures were:

October 20, 2020 at 7pm: The 75th Anniversary of ZEEP – Morgan Brown (CNL)

Click here for the presentation (PDF 32.6MB). **Click here** for the event recording (MP4 107.7MB)

October 21, 2020 at 7pm: ZED-2: 60+ Years of Success – Luke Yaraskavitch (CNL)

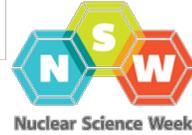
Click here for the presentation(PDF 10.5MB). **Click here** for the event recording (MP4 97.4MB)

The virtual lectures were successful as we had more than 70 registrants for each of the two talks and 46 and 36 attendees for the ZEEP and ZED-2 lectures respectively. The talk poster is also attached in case it is helpful.



Canadian Nuclear Society /
Société Nucléaire Canadienne

“Supporting nuclear science and technology for over 25 years”
“plus de 25 ans de promotion de la science et de la technologie nucléaires”



Canadian Nuclear Society – Chalk River Branch Virtual Lecture Series:

The 75th Anniversary of ZEEP – Morgan Brown
(October 20, 2020 @7:00 pm)

+

ZED-2: 60+ Years of Success – Luke Yaraskavitch
(October 21, 2020 @7:00 pm)

The CNS Chalk River Branch is celebrating Nuclear Science Week (October 19-23, 2020) with a two-part virtual lecture series celebrating Canadian research reactors. This series will review the accomplishments of the ZEEP and ZED-2 zero energy test reactors that paved the way for the Canadian nuclear industry and to this day support safe operation of the CANDU fleet while providing support for the advanced reactor fleet of tomorrow.

Nuclear Science Week is a national broadly-observed week long celebration to focus local, regional and national interest on all aspects of nuclear science.

This event will be held via WEBEX (Please email Andrew.Morreale@cnl.ca for registration links)

October 20, 2020 at 7pm: The 75th Anniversary of ZEEP – Morgan Brown (CNL)

October 21, 2020 at 7pm: ZED-2: 60+ Years of Success – Luke Yaraskavitch (CNL)

Mr. Morgan Brown is a research engineer in the Systems and Safety Analysis Branch at Canadian Nuclear Laboratories (CNL). Mr. Brown holds a B.Eng from Queens and an M.Eng from Carleton both in Mechanical Engineering. He joined Atomic Energy of Canada Limited (AECL) at Whiteshell in 1989, working on fuel channel behaviour under accident conditions, and gas mixing in containment. Since moving to Chalk River in 2001 he has focused severe accident analysis of CANDU reactors. Mr. Brown is also a P.Eng with the Professional Engineers of Ontario (PEO), a Fellow of the Canadian Nuclear Society, and secretary of SPCNH (Society for the Preservation of Canada’s Nuclear Heritage, www.nuclearheritage.ca). SPCNH is collecting historical records, pictures and artefacts of Canada’s nuclear history, with a long-term goal of establishing a Canadian national nuclear museum and archives.



Mr. Luke Yaraskavitch is a physicist in the Applied Physics Branch at Canadian Nuclear Laboratories (CNL). He received both his BSc. and MSc. degrees in Physics from the University of Waterloo, where his MSc. thesis was in the area of experimental condensed matter physics. He joined CNL in late 2015, and is a member of the Experimental Reactor Physics section, the primary users of the ZED-2 facility. The focus of his work is largely on proposing, planning, and analyzing experiments performed in ZED-2. In recent years, these experiments have included transient and advanced fuel cycle components, such as thorium-based fuels. Over his short career at CNL thus far, he has come to be fascinated by Chalk River history, especially that of ZED-2.



Further information: CNS Chalk River Branch Chair, Andrew Morreale (Andrew.Morreale@cnl.ca)

In Ontario:



3rd CNS Student Job Fair

The job fair was held on Thursday, October 10th, from 4pm to 8pm, at McMaster University – CIBC Hall, Hamilton, Ontario. Event was organized by C. Tasker-Shaw and Rachele Ireson of McMaster University.

A total of 22 booths were occupied by 17 employers and 5 support organizations. Two organizations chose to sponsor the event beyond the cost of a booth (\$2k for ‘Gold’, \$1k for ‘Silver’).

Gold Sponsor



Silver Sponsor



The objective of the event was to create an opportunity for college and university students to personally engage with nuclear industry service providers who are actively searching for new personnel. In addition, this allowed us to showcase our industry, industry-education partnerships and college-university partnerships. **Based on the participants’ feedback, we believe that we met our objective.**

Furthermore, McMaster University would like this to be an annual event. Participation numbers are as follows:

342 students attended –

- 85% McMaster University

- 14% Other Universities
- 1% Mohawk College

There were 27 exhibit booths:

- 12 Employers
- 2 Educational Institutions
- 5 Industry Organizations
- Coach's Corner



In Alberta:

For Nuclear Science Week 2020 the University of Calgary launched a series of videos called 'Knowing Nuclear'. The entire video playlist can be found [here](#). These videos discuss what isotopes are and how they are used in our modern society. These videos were watched hundreds of times and are now part of the CNS outreach website (see [here](#)). We are still in the process of translating these videos into French for wider use.

Please See "Knowing Nuclear" on Youtube and on www.cns.snc.ca

- b. **The United Kingdom:** Programming in the UK is set to increase for 2019 as teams there re-energize around new development. A leader in the Nuclear Community in England, Kirsty Gogan of Energy for Humanity has been a strong partner.
- c. **Australia:** The teams in Australia have grown to share NSW in new communities. Thanks for the unflagging efforts by AINSE and Michelle Durant, BSc, BFA in Administration and Managing Director of Australian Institute of Nuclear Science and Engineering.

Australia - Nuclear Science Week

Nuclear Science Week Celebrations in Australia

AINSE was pleased to host online celebrations for Australia to participate in Nuclear Science Week, an international celebration of nuclear science. AINSE celebrated the week by combining this event with the annual AINSE Postgraduate Orientation Week, in which AINSE hosted thirty-three Postgraduate Research Award (PGRA) Scholars and Residential Student Scholarship (RSS) holders from October 19 to October 21 2020. Due to the ongoing COVID-19 pandemic, the Orientation Week was hosted entirely online, via Zoom videoconferencing, for the first time in the event's history.

AINSE again collaborated with the Australian Young Generation in Nuclear (AusYGN), the Women in Nuclear (WiN) Australia chapter, and the National Museum of Nuclear Science and History in Albuquerque to deliver a series of social events in celebration of Nuclear Science Week. These events included an online trivia evening and, new to the 2020 program, a fun "2 Minute Thesis"-style competition in which students were challenged to present an overview of their research in under 2 minutes by sharing their screen and using only simple graphical tools such as MS Paint.

In moving to an online format, the 2020 celebrations preserved the elements of previous face-to-face programs. Over the course of the three-day event, a series of presentations and panel discussions with ANSTO researchers and research leaders provided the new cohort of AINSE postgraduate students with a detailed overview of ANSTO's landmark research infrastructure and ongoing research projects in the areas of Environment, Human Health, and the Nuclear Fuel Cycle. ANSTO's Discovery Centre provided students with the opportunity to virtually tour a selection of ANSTO's research infrastructure at Lucas Heights, including the Australian Centre for Neutron Scattering and the Centre for Accelerator Science. International guests were invited to join the celebrations online for the first time since Australia has been involved in Nuclear Science Week.

Students were also able to attend an online science communication workshop to assist them in promoting their ongoing work through AINSE, and hear from past PGRA and RSS recipients about their experiences working with AINSE and ANSTO. On the final day of the program, ANSTO co-supervisors met with their students via Zoom breakout rooms to provide online introductions to their individual research areas. AINSE staff were also available throughout the morning to answer any final questions from the students.

8) Social Media impact and impressions: Social Media has increased in content and importance as a communications tool to share ideas, build excitement and create relationships both professional and personally in our work and world. In recognition of the prominence and importance of social media as an outreach and connection tool, the International Steering Committee wishes to express gratitude to the following people that worked tirelessly to move information in real-time during NSW to maximize the content reach and inspire many new followers to participate in presentations and learning.

a. The International Steering Committee wishes to thank a larger group of supporters that assisted in the push for greater impact through Social Media.

b. Social Media analytics and impact report for 2020 (all sites included) .

The impact of social media on communications is undeniable and impressive. Each year has shown an increase in interest and participation in the numerous platforms that are used during the events. Below are analytics for Instagram and twitter that show the scale of communication reach during the 2020 event time period. Nuclear Science Week Steering Committee would like to thank all of those that posted, liked, reposted and commented on the pages and content areas about the events that took place.

Reach for 2020 exceeded last year and reached over **52M impressions** during the month of October 2020. A huge outreach through technologies indeed!!

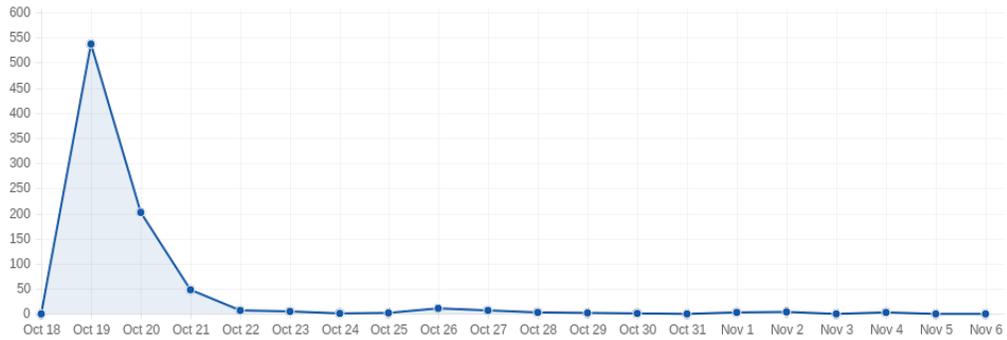
Media Impressions Report 2020

Thank you for purchasing a premium press release submission with Newswire. This report will provide all the vital information regarding your press release submission and distribution as well as giving detailed traffic statistics.

Content	Nuclear Science Week 2020 Goes Virtual				
Published	Oct 19, 2020 09:00 MDT				
2676 ¹	4015+ ²	132	558 ³	0 ⁴	0
Views	Impressions	Published	Google	Twitter	Facebook

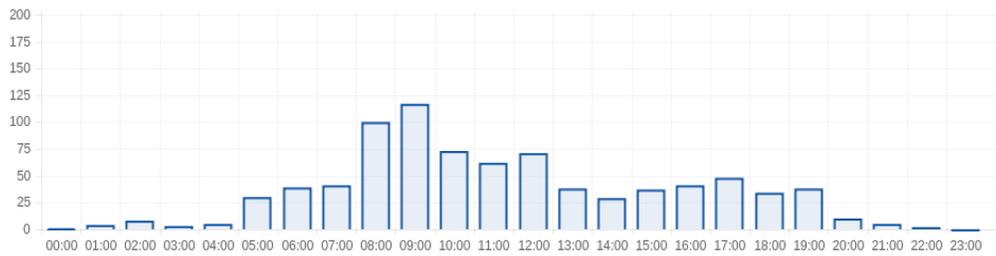
1. The charts below only include views recorded with our tracking pixel that is included on your Newswire campaigns.
2. The number of times the content is viewed, or has the potential to be viewed, that we can track.
3. Value can differ due to your google history, location and other factors. Updated hourly.
4. Considers tweets containing the title or link within the last 7 days.

Press Release Views by Date



Press Release Views by Time of Day

Time data is shown using the your following timezone: MST





SOCIAL MEDIA REPORT 2020

Based on data from October 11-31, 2020.



 **+151 Followers**
3,261 Followers

207 Posts
87,458 Engagements
205,605 Reach
387,166 Impressions

Facebook Ads

44,241 Engagements
275,649 Reach
3,661 Link Clicks

 **+163 Followers**
1,116 Followers

26 Posts
728 Engagements
7,623 Reach
8,529 Impressions

 **+176 Followers**
2,180 Followers

603 Posts
1,235 Engagements
930,468 Reach
2,036,299 Impressions
204 Contributors

#NuclearScienceWeek  **2,337,865** Reach - **9,324,188** Impressions
1,394 Posts - **625** Contributors

#NuclearSciWeek   **7,284** Engagements - **8,242,334** Reach - **19,990,112** Impressions
2,538 Posts - **842** Tweets - **1,696** Retweets - **972** Contributors

TOTALS

Based on data from October 11-31, 2020.

836
Posts

96,705
Engagements

11,723,895
Reach

31,746,294
Impressions

1,176
Contributors

###