

Canadian Nuclear Achievement Awards

Prix canadiens
pour contributions nucléaires
exceptionnelles



Canadian Nuclear Society/
Canadian Nuclear Association
2020 Awards

2020 June

Gaëtan Thomas
Ian McRae Award



Mr. Gaëtan Thomas is currently the President and Chief Executive Officer at New Brunswick Power, and has previously held the role of Chief Nuclear Officer and Vice President Nuclear. Throughout his career, he has advanced nuclear energy as a manager, administrator, public servant and top-level communicator.

Mr. Thomas is known as a leader who engages with staff at all levels of the organization, facilitating a culture of innovation and excellence. He demonstrated determination and persistence in leading his team through completion of the Point Lepreau Refurbishment project and start-up, giving the station an extended 30 years of operation. He built a foundation of safety and operational excellence upon which the company could flourish and grow. In 2019, Point Lepreau achieved the highest industry standards as assessed by the World Association of Nuclear Operators (WANO).

Mr. Thomas is also a leader within the broader industry. His roles have included Chair of the New Brunswick Energy Marketing Corporation, Board member of Plug 'n Drive, and Chairman of the WANO Atlanta Centre. Additionally, he has been selected by Atlantic Business Magazine as one of the region's Top 50 CEOs, and was selected as one of the Most Influential Acadians by L'Acadie Nouvelle.

In recent years, Mr. Thomas has been instrumental in positioning New Brunswick Power as a leader in the development and deployment of Small Modular Reactors (SMRs). He has successfully worked with the New Brunswick government to encourage investment in SMR technology.

Mr. Gaëtan Thomas is being presented with the Ian McRae Award for his leadership at Point Lepreau Nuclear Station and his contributions to positioning New Brunswick Power as a leader in the development of Small Modular Reactors.

Michael Kozluk
Harold A. Smith Outstanding Contribution Award



Mr. Michael J. Kozluk has made an outstanding contribution to the understanding of the structural integrity of CANDU pressure vessels and piping. A respected authority in the areas of fracture mechanics, leak-before-break methodology, and “pipe whip” and “jet impingement” assessment of high-energy piping systems, Mr. Kozluk has enabled the Canadian nuclear industry to establish sound major component structural integrity and life cycle management programs.

After graduating from the University of Waterloo in 1978 with an MEng in mechanical engineering, Mr. Kozluk joined Ontario Hydro as a stress analyst. His career progressed through numerous reorganizations at OPG and Kinectrics, until 2002 when he joined AECL. He retired from AECL in 2009 as a principal engineer in the Component Integrity Branch, and has been consulting to the industry since then.

Mr. Kozluk played a leadership role in developing fitness-for-service guidelines for CANDU steam generators tubes and feeders. He also played a key role in developing standard industry and regulatory tools for Large Break Loss-of-Coolant Accident (LBLOCA) analysis. For most of his career, Mr. Kozluk was the “go-to” person for driving the resolution of emergent issues affecting much of the primary pressure boundary in CANDU reactors. His contributions provided a pragmatic and technically sound approach to address some of the most complex safety issues faced by the Canadian nuclear industry.

The high level of credibility that Mr. Kozluk developed over the years reflects his relentless engineering rigour, combined with a positive attitude and willingness to communicate broadly about his approach to engineering. Not least in importance, he has continued throughout his career to be a mentor and role model to young engineers.

Mr. Michael J. Kozluk is being presented with the Harold A. Smith Outstanding Contribution Award for extensive contributions to the understanding of the structural integrity of CANDU major components, including the development of fitness-for-service guidelines.

Paul Thompson
Harold A. Smith Outstanding Contribution Award



Mr. Paul Thompson has made extensive contributions, both technical and non-technical to the Canadian nuclear industry over his 40-year career.

Mr. Thompson graduated from Queen's University in 1979 from Engineering Mathematics, specializing in the fields of Thermal Sciences and Nuclear Engineering. He started his career at AECL, where he was involved in research, safety analysis and licensing. In the mid-1980s he moved to New Brunswick Power, where he spent the rest of his prolific career. Amongst many contributions at NB Power, he developed and implemented licensing strategies to recover from and restart the reactor following the primary heat transport wood cover incident, and the first feeder cracking. He also directed the demonstration irradiation of CANFLEX fuel, and contributed extensively to the Point Lepreau life extension projects.

After the plant refurbishment was completed, he continued to support plant operation and filled various positions, including Deputy Chief Nuclear Officer. Since retiring in 2019, he has acted as a Senior Strategic Advisor for NB Power, responsible for assessing the strategies for the development of Small Modular Reactors (SMRs) in New Brunswick. Mr. Thompson's efforts have contributed to the signing in 2019 of a Memorandum of Understanding between New Brunswick, Ontario and Saskatchewan to collaborate on the development and deployment of SMRs in Canada.

In addition to his many leadership roles at NB Power, Mr. Thompson has also been a regular interface with the CNSC at hearings, served as a Board Member for the CANDU Owners Group (COG), and also a Board member for the Centre for Nuclear Energy Research, a research arm of the University of New Brunswick.

Mr. Paul Thompson is being presented with the Harold A. Smith Outstanding Contribution Award for his extensive contributions to the Canadian nuclear industry, in particular nuclear power plant safety, plant life extension, and the development and deployment of Small Modular Reactors (SMRs).

Les White ***Innovative Achievement Award***



Mr. Les White retired in 2004 from CAE, after 35 years of service. Through his accomplishments, he left an ever-lasting imprint on CAE, its successor organization L3Harris, and all of their engineers. With his vision and leadership, Mr. White introduced an impactful innovation in the development of nuclear power plant simulators – the use of graphical object-based simulation remaining the industry standard today for the development of nuclear plant training simulators. Nuclear plant training simulators accurately replicate the control room hardware of a nuclear generating unit as well as the real time response of the unit under normal, abnormal and emergency conditions.

A pioneer in nuclear power plant simulators, Mr. White developed software models for the Pickering Nuclear Generating Station A (NGS-A) simulator starting in 1973, and was the project engineer through to implementation in 1976. This involved developing many computing capabilities from scratch. The evolution continued with the development of the simulators for Bruce A, Bruce B, Darlington, Point Lepreau, and Gentilly stations.

In the late 1980s, he introduced a vision to develop nuclear power plant simulations with a graphical, object-based simulation environment—something that had never been done before – and spearheaded its development. In 1991, that vision became ROSE® - the Real-time Object-oriented Simulation Environment. This innovation resolved the primary three challenges with simulator development: long timelines, inconsistent depth of simulation, and the inability to easily make changes or update the systems to reflect the plant. Today, the product is known as Orchid® Modelling Environment and remains L3Harris' flagship software environment for developing CANDU, Light Water Reactor, Gas Cooled Reactor and Small Modular Reactor plant simulators globally.

Canadian EPREV Working Committee John S. Hewitt Team Achievement Award



Left to Right (Top Row): Richard Hadden, Bernie Beaudin, Laura Anderson, Dominique Nsengiyumva, Michelle Smith. Left to Right (Middle Row): Brian Ahier, Emma Fuchs, Daniel MacDonald, Andrea Bellingham, Wendy Ellis. Left to Right (Bottom Row): Chris Cole, Dominic Mendoza, Peter Wright, Roger Shepard, Nick Reicker.

In June of 2019 Canada became the first G7 nation to host an International Atomic Energy Agency (IAEA) Emergency Preparedness Review (EPREV) mission, which assessed Canada's national preparedness and ability to deal with a nuclear or radiological emergency. An IAEA team of experts from ten countries conducted the mission, led by a senior expert from the USA.

Preparations for the mission began two years earlier in February 2017, when Canada requested to host the mission. The preparatory requirements were enormous and required a diverse team that was not only dedicated to the cause, but could remain flexible, innovative and receptive to new ideas. The members of Canada's EPREV Working Committee are, from Health Canada: Brian Ahier, Dominique Nsengiyumva, and Peter Wright; from the Canadian Nuclear Safety Commission (CNSC): Laura Anderson, Christopher Cole, Dominic Mendoza, Bernie Beaudin, Daniel Macdonald, Andrea Bellingham, and Michelle Smith; from the Office of the Fire Marshal and Emergency Management Ontario: Emma Fuchs; from the Regional Municipality of Durham: Wendy Ellis; from NB Power, Point Lepreau Generating Station: Nick Reicker; from the New Brunswick Emergency Measures Organization: Roger Shepard; and from Ontario Power Generation: Richard Hadden.

The IAEA team of experts viewed the Canadian mission as a model of excellence for other member states wishing to host an EPREV mission, from its self-assessment to its organization, through to execution. At the conclusion of the mission, the IAEA review team commended Canada for having a well-developed and mature preparedness system in place, and for its robust implementation of the IAEA Safety Standards.

The success of the EPREV Mission to Canada is attributed to the dedicated efforts and excellent collaboration across various levels of federal and provincial government in Canada.

Pickering Radiation Protection Team John S. Hewitt Team Achievement Award



Left to Right: Nisha Chackungal, Karen McDougall, Mary Duarte, Robert Bagatto, Ryan Cooke

In 2019 the OPG Pickering Radiation Protection (RP) team developed a unique indicator that measures RP human performance, targeting the station's performance in radiation protection at the individual department level. OPG's stations utilize the industry standard set of RP indicators measured at the station level; however, when there are gaps to excellence it is more challenging to decipher which departments require support in order to improve RP human performance.

To solve this problem, the Pickering RP team developed the RP Excellence Index (RPEI). This innovative tool, based on nine individual RP human performance metrics, enables the various departments at the station to assess their respective performance and create action plans that are targeted to drive excellence. Furthermore, every department is rated with the same methodology, making it easy to compare performance.

The Pickering RP team has shared this indicator with other CANDU plants through the CANDU Owners Group (COG), and was invited by INPO to share it with the US nuclear industry. Currently the RPEI is being implemented across OPG's nuclear fleet, and is being piloted at Bruce Power.

The implementation of the RPEI has had a positive impact: radiation protection performance at Pickering and Darlington has improved with the implementation of this innovative new metric, particularly with the targeted initiatives to address specific gap areas. Overall, the RPEI has provided increased granularity to identify department focus areas, and optimized the strategic deployment of initiatives to continually improve performance at the sites.

Kathleen Duguay
Education & Communication Award



Ms. Kathleen Duguay has over 30 years of experience at New Brunswick Power.

Throughout her career, she worked tirelessly and unassumingly to communicate and educate the public about nuclear power and the operation of the Point Lepreau Generating Station. She has worked to build trust and respect with the First Nations, local community, general public, special interest groups, workers, contractors, government and media.

She played a major role in bringing an outside perspective into the industry, to improve awareness and understanding, and to influence the way business is performed. Through her innate ability and openness to actively listen and connect with people, and through her exemplary leadership skills, she puts a human face on the local nuclear community in New Brunswick. As part of the public communication program, Ms. Duguay developed various newsletters, brochures, school age-specific materials, plant updates and videos that showcase the power plant throughout its lifecycle, with a strong focus on the safety of workers, public, and the environment.

With her wealth of knowledge in communications and strategic vision, she championed a “learning to read” program at local schools, with the help of volunteers from the Point Lepreau Station. Furthermore, she has hosted countless tours of the station, from local students to international delegations, all sharing an interest in learning more about the CANDU 6 reactor.

Tracy Primeau
Education & Communication Award



Ms. Tracy Primeau holds a Bachelor of Arts from University of Waterloo and is an active alumni member of St. Paul's Collage and their Indigenous program. She has been an advocate for nuclear power for over 30 years.

Ms. Primeau began her career in 1990 at the Ontario Power Generation Pickering Nuclear Generating Station as a Nuclear Operator in Training, and was qualified as a Nuclear Operator at Pickering A in 1992. Four years later, she moved to Bruce Power, as a qualified Nuclear Operator at Bruce A, progressing to Shift Manager in 2010. She is one of the few women to become a CNSC licensed operator at Bruce Power.

Throughout her career she has been a tireless communicator, having been an active member of Women in Nuclear (WiN) Canada, where she currently holds a WiN Canada Board position. She has also participated in numerous activities with local communities, including job fairs at local indigenous communities, STEM camps, public awareness and education sessions.

Ms. Primeau is also a mentor and role model to many WiN Canada members, often sharing insights from her nuclear career at conferences, professional development events and other initiatives.

Women in Nuclear (WiN) Canada Education & Communication Award



The Women in Nuclear (WiN) Canada team is recognized for helping to reshape the perception of the nuclear industry in our communities, and for providing mentorship, training, and leadership opportunities for women in STEM-related careers in the industry.

Since it was first formed in 2004, WiN Canada and its chapters have served a crucial role in communicating with the public about nuclear technology, and in leading and encouraging women to take on more senior roles, as well as contributing to their professional and personal development. Over the years, WiN Canada organized many excellent events and training opportunities that have been available to both members of the nuclear community and the public.

WiN Canada has been actively engaging in conversations with women about the benefits and risks of nuclear technology. They have taken on the challenge of changing public perceptions of nuclear-related technologies and radiation applications, preparing their members to help the public better understand the industry and positioning them for effective and constructive dialogue.

In 2019, WiN Canada launched its “Presenting with Confidence” webinar across several Chapters, providing members with strategies to boost their confidence when engaging with a variety of audiences. Moreover, they play a key role in supporting national initiatives such as “Equal by 30” and “The Electricity Human Resources Canada Leadership Accord for Gender Diversity”, which aim to increase the representation of women in the workforce and in leadership roles.

Wilson Lam
Education & Communication Award



Mr. Wilson Lam is a Senior Technical Advisor to the Ontario Minister of Energy on matters related to nuclear energy. In his current role, he is leading the Small Modular Reactors policy file and advising government officials and stakeholders on nuclear technology, nuclear innovation and regulatory requirements on policy matters related to Ontario long-term energy planning, new build, nuclear refurbishment, CANDU spent fuel recycling, and nuclear emergency response plan.

Mr. Lam has over 30 years of experience in the nuclear industry, starting from the design and construction of the Bruce B Nuclear Generating Station, and continuing as a nuclear simulation expert. As a simulation expert, he developed a suite of PC-based educational simulators for water-cooled Gen III+ reactors to assist the International Atomic Energy Agency member states in educating their nuclear professionals. His CANDU 9 simulator has been used as the key educational tool at UOIT and McMaster University.

Mr. Lam's influence in the nuclear community over the years reflects his relentlessly positive attitude and his willingness to communicate broadly about the future of the Canadian nuclear industry. His contributions to the SMR Roadmap Project Steering Committee have been invaluable and aided in continuous progress to ensure the successful completion of the Steering Committee's goals.

***The Team Responsible for Producing the Documentary
“Of Great Service: The Story of National Research Universal”
Education & Communication Award***



The team responsible for producing the documentary “Of Great Service: The Story of National Research Universal” is being recognized for effectively disseminating the story of the NRU Reactor and the people who worked there for a wide audience in Canada and internationally.

This documentary has improved understanding of the historical significance and the decades of scientific contributions of the NRU reactor, by connecting the audience with the people who supported the safe operation of the reactor over the years. Collectively, the film has been screened in person to more than 3500 people, across Canada and the United States. Feedback received has been extraordinarily positive, with many comments on the quality of storytelling, a new appreciation for the facility and the team that worked there, as well as the respectful way that the story of the closure of the NRU reactor was told.

To further the reach of this important story, the film was also posted online and made available through several streaming platforms, being watched more than 4500 times since its uploading in 2019. In addition, it has been added to the McIntyre Media library, where it is available for screening in schools, and it was made available on Amazon Prime in both United States and United Kingdom.

Kris Mohan
Fellow of CNS



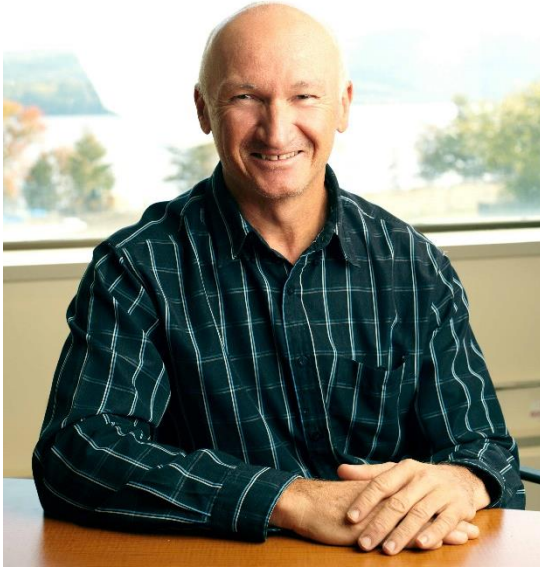
Mr. Kris Mohan holds a degree in mechanical engineering from McMaster University and a MBA from McGill. He served as a CNS Council member from 1997 to 2018. He was the Co-Chair/Chair of the International Liaison Committee from 1999 – 2018, and was instrumental in growing it to over 20 sister international societies with whom CNS has agreements. Additionally, Mr. Mohan took a lead role in organizing various conferences, frequently as the Sponsorship Chair/Co-Chair. Finally, he was an active member of the Contracts Committee.

Mr. Mohan had a distinguished career in the nuclear industry, first in Canada and then in the United States. He worked for AECL from 1977 to 2004, progressing from a project engineer on Korean Wolsung 1 to the Proposals Manager for Engineering Services. His personal reputation centers on his conviction, empathy, and sense of decency. He is respected professionally for his detailed knowledge of contract management, government interfaces, and CANDU design.

In 2005, Mr. Mohan was appointed a Canadian Citizenship Judge. In performing this role, he has consistently demonstrated a high level of integrity and diligence. In 2006, he led a team of judges in detecting and eliminating widespread fraud in citizenship applications, for which he was recognized by Governor General David Johnston for his efforts. Mr. Mohan served the maximum term in this role, stepping down in 2012.

In 2012, he joined WizNucleus, a U.S. company specializing in regulatory affairs for nuclear plants. Before retiring from WizNucleus in 2014, Mr. Mohan was the Company's Vice President of Strategic Affairs. He remains a member of their advisory board.

Metin Yetisir
Fellow of CNS

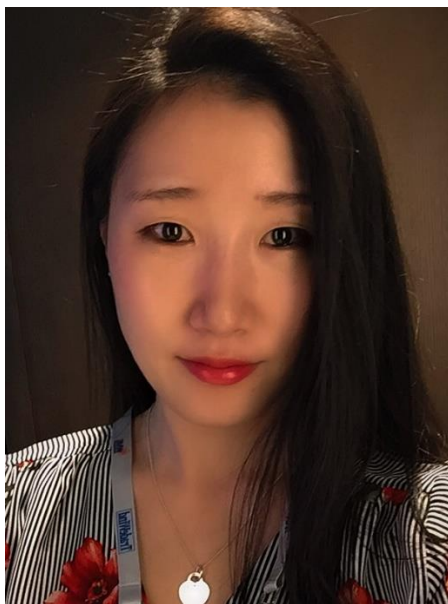


Dr. Metin Yetisir holds a Master's degree in Engineering Physics and a PhD in Mechanical Engineering from McMaster University. He is currently a Principle Scientist and the Section Head of the Advanced Reactor Technology Section at Canadian Nuclear Laboratories.

His technical expertise includes Small Modular Reactors (SMRs), Advanced Reactors, safety concepts, CANDU reactor systems and components, vibration, thermalhydraulics, heat transfer and residual stresses. His research work on SMRs and Supercritical Water-Cooled Reactor (SCWR) concepts has been recognized both in Canada and internationally, Dr. Yetisir being the lead contributor to three patents on the Canadian SCWR concept. Throughout his work, Dr. Yetisir has demonstrated impressive technical capabilities, mature judgement, and breadth of experience, having published more than 70 conference papers, 11 peer-reviewed journal publications and 4 patents related to nuclear reactors and components.

He has been an active CNS member for more than 10 years, having successfully chaired and organized numerous CNS Conferences, workshops and technical meetings. Amongst the most notable conferences is the International Technical Meeting on Small Reactors, which Dr. Yetisir helped organize starting with 2010, after recognizing the potential impact of Small Modular Reactors and Gen IV reactor technologies to Canada. This conference has gained increased interest and attendance from Canada and internationally, currently being a highly successful recurring CNS technical conference.

Youn Gyeong Shin
R.E. Jervis Award



Ms. Youn Gyeong Shin is a PhD student in the Department of Chemistry at Western University. She has a Bachelor of Science from York University, and transferred from the Master's program at Western University to the PhD program in 2015.

Ms. Shin's current research area is corrosion in the presence of continuous flux of ionizing radiation, with particular focus on long-term predictions of corrosion of container materials for interim storage and permanent disposal of used nuclear fuel. Her research has produced a substantial amount of information of value to the Canadian and international nuclear industry, being awarded the Roy G. Post Foundation Scholarship in 2019, by the International Waste Management Organization.

During her PhD studies, Ms. Shin has proven to be an exceptional student and a great asset to the interdisciplinary study of corrosion in Dr. Clara's Wren group. She has demonstrated strong leadership skills, is highly-motivated, very resourceful and a self-starter. Her research has resulted in over 12 peer-reviewed publications and numerous presentations at national and international conferences.

Michael Binder
CNS President's Award



Dr. Michael Binder holds a PhD in physics from the University of Alberta. Throughout his extensive career in the federal public service, Dr. Binder has held senior positions at Industry Canada, the Department of Communications, the Office of the Comptroller General of Canada, Canada Mortgage and Housing Corporation, the Ministry of State for Urban Affairs, and the Defence Research Board.

In 2008 he was appointed President and Chief Executive Officer of the Canadian Nuclear Safety Commission (CNSC), a role he maintained until his retirement in 2018. Under his leadership the CNSC was modernized, ensuring that it evolved with the nuclear industry and enabling it to effectively and efficiently meet its mandate. He has displayed an outstanding ability to articulate a vision, overcome adversity, and provide dynamic, innovative and inspirational leadership, while ensuring that nuclear safety is achieved. The path he has forged has built the foundation for strong nuclear regulation for years to come, and has strengthened the global nuclear safety regime by promoting and encouraging international accountability and transparency.

For his visionary leadership skills, his dedication and outstanding contributions to the nuclear community, Dr. Binder is awarded the Canadian Nuclear Society President's Award.

2019 - 2020 CNS/CNA Honours and Awards Committee

The following members of the H&A Committee took part in the review of the submitted nominations, and/or contributed to the text and assembly of this H&A Brochure:

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Canadian Nuclear Laboratories, CNS/CNA H & A Chair

Mr. John Gorman

CNA President

Mr. Keith Stratton

Stratton Consulting Inc., CNS President

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