

Northwest Territories and Nunavut Association
of Professional Engineers and Geoscientists

2020 NAPEG Annual General Meeting, Awards Banquet and Professional Development Symposium



AGM - March 11 | Awards Banquet - March 12
PD Symposium - March 12 and 13, 2020

**“Climate Change: Infrastructure,
Adaptation and Professional Practice”**

The Explorer Hotel, Yellowknife, NT

Wednesday, March 11 - Annual General Meetings - Katimavik D

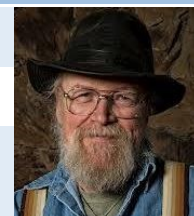
Evening	5:00 - 6:00	NAPEG Annual General Meeting
	6:00 - 6:15	Education Foundation Annual General Meeting
	6:15 - 8:00	President's Reception

Thursday, March 12 - NAPEG PD Symposium - Katimavik B, C and D

Morning	8:00 - 8:45	Registration and Refreshments	
	8:45 - 9:00	Welcome - Philip Lewis, P.Eng., Chair, NAPEG Professional Development Committee Opening Remarks - Justin Hazenberg, P.Eng., NAPEG President Special Guest - The Honourable Katrina Nokleby, P.Eng., Minister of Industry, Tourism and Investment; Minister of Infrastructure; Minister Responsible for WSCC, Government of the Northwest Territories	
	9:00 - 10:00	Keynote Speaker Our Changing North and the Practices and Politics that Must Follow The Honourable Rosa Galvez, Ph.D., P.Eng. (QC), FEC, FCSCE, Independent Senator, The Senate of Canada	
	10:00 - 10:30	Health Break, Networking and Prize Draw	
	10:30 - 11:15	Well-Functioning Infrastructure is a Prerequisite for Business Development in Greenland's Outlying Districts Kåre Hendriksen, Ph.D., Associate professor Ph.D., Arctic Technology Centre, Technical University of Denmark	
	11:15 - 12:00	An Overview of NRC's Projects in the North Andrew Colombo, PhD., P.Eng. (ON), Research Officer, National Research Council of Canada	
	12:00 - 1:00	Lunch and Prize Draw Award of Merit Video Presentation (as recorded by Engineers Canada)	
	1:00 - 1:45	Going Paperless is the Goal, Digital Signatures are the Solution Nada Belhadfa, LL.B, M.Sc., Director, Digital Transformation, Solutions Notarius inc.	
	Afternoon	1:45 - 2:30	Northern Building Retrofit Economy, the Climate Crisis as a Market Opportunity and Scandinavian Climate Solutions Applicable in the North William Gagnon, BEng., Cornell Fellow, Engineer for climate action, decarbonization specialist, green buildings specialist
		2:30 - 3:00	Health Break, Networking and Prize Draw
3:00 - 3:45		Engineering and Geoscience Act Revision Ed Hoeve, P.Eng., FEC, Geotechnical Engineer, HovEng Consulting Ltd.	
	3:45 - 4:00	Day 1 Wrap Up - Chair, NAPEG PD Committee	

Thursday, March 12 - NAPEG Awards Banquet - Katimavik B and C

Evening	6:15 - 7:00	Cocktails
	7:00 - 8:00	Awards
	8:00 - 10:00	Dinner and Speaker Walt Humphries - What I did on my Summer Vacations



Friday, March 13 - NAPEG PD Symposium - Katimavik B, C and D

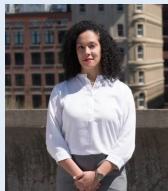
Morning	8:30 - 9:00	Refreshments
	9:00 - 9:15	Welcome and Review of Passport Questions Philip Lewis, P.Eng., Chair, NAPEG Professional Development Committee
	9:15 - 9:45	Integrating Climate Change into Engineering Practice - A National Perspective David Lapp, FCAE, FEC P.Eng. (ON), Manager, Globalization and Sustainable Development, Engineers Canada
	9:45 - 10:15	Permafrost Dynamics in a Changing Climate Steve Kokelj, Ph.D., Permafrost Scientist, Northwest Territories Geological Survey, Government of the Northwest Territories
	10:15 - 10:45	Health Break, Networking and Prize Draw
	10:45 - 11:15	Raising the Bar in a Warming World: New Tools to Adapt to Permafrost Thaw Kala Pendakur, Sector Specialist, Strategy and Stakeholder Engagement Branch, Standards Council of Canada
	11:15 - 12:00	The Canadian Centre for Climate Services: A New Resource to Support Climate Change Decision Making Brian Sieben, Northern Climate Services Liaison, Environment and Climate Change Canada , and Catherine Lee, Physical Science Officer, Environment and Climate Change Canada
Afternoon	12:00 - 1:00	Lunch, Prize Draw and Talk - AuroraSat-1: NT's First Satellite Patrick Gall, EIT, Engineering & Technology Projects Technician, Aurora Research Institute
	1:30 - 4:00	Tour - Prince of Wales Northern Heritage Centre *Please sign up for the Tour at the registration desk *Due to the close proximity of the Prince of Wales Northern Heritage Centre, NAPEG will not be providing transportation for the tour this year

Friday, March 13 - MIT Social - Flavour Trader (Museum Restaurant)

Evening	2:30 - 5:00	Social and Passport Prize Draw
		*The Passport Draw will be at 4:00 at Flavour Trader (Museum Restaurant) at the Prince of Wales Northern Heritage Centre

Speaker Biographies

Nada Belhadfa, LL.B, M.Sc.,



Ms. Nada Belhadfa is Director, Digital Transformation at Solutions Notarius inc., a Montreal-based company that provides high reliability electronic and digital signatures solutions to professionals and organizations throughout Canada. Ms. Belhadfa holds a Bachelor of Civil Law (LL.B) from Laval University and a Master in E-Commerce (M.Sc) from University of Montreal/ HEC Montreal. She is a member of the Quebec Bar and is presently on her second term on the board of directors of the Young Bar of Montreal.

Andrew Colombo, PhD., P.Eng. (ON)

Andrew received his M.A.Sc. and Ph.D. degrees in environmental engineering from the University of Toronto, where he also served several years as an adjunct professor. Following a post-doctoral fellowship at the Technical University of Bari (Italy), he has been at the National Research Council of Canada (NRC) the last nine years doing research in the areas of water distribution, buried utilities, asset management, and northern community water supply and sewage. He is currently the team lead for the Urban Infrastructure Group within NRC's Construction Research Center.



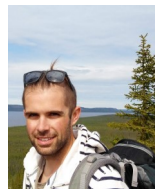
William Gagnon, BEng., Cornell Fellow



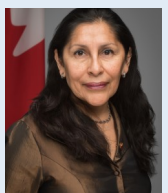
William Gagnon is a building engineer, green buildings specialist and decarbonization expert. William holds two LEED (Leadership in Energy and Environmental Design) professional accreditation, the Living Future accreditation, and he is registered as an ECO Canada Ept. He completed a building engineering degree (Concordia University), grad-level studies in sustainable carbon management (Université du Québec à Chicoutimi) and a Climate Fellowship from Cornell University. In his previous work with Ecology North, William developed the strategy for the Northern Building Retrofit Economy. He now sits with the CDÉTNO where he works on accelerating the creation of green jobs and circular economy through innovation.

Patrick Gall, MIT

Patrick starting working at Aurora Research Institute in 2017 concentrating on expanding existing energy research projects. In mid 2018, Aurora College was successful in their application to the Canadian Space Agency to be part of the Canadian CubeSat Project along with 14 other institutions across Canada. Since then, Patrick has been leading payload development for the Aurora College CubeSat Team, working together with partners at Yukon College, University of Alberta, and Natural Resources Canada to design, assemble, and integrate a 2U CubeSat.



The Honourable Rosa Galvez, Ph.D., P.Eng. (QC), FEC, FCSCE



Rosa Galvez, originally from Peru, is one of Canada's leading experts in pollution control and its effect on human health. She has a Ph.D. in Environmental Engineering from McGill University and has been a professor at Université Laval à Québec since 1994, heading the Civil and Water Engineering Department from 2010 to 2016. She specializes in water and soil decontamination, waste management and residues, and environmental impact and risk assessment. Throughout her career, she has been requested by private, governmental and community organizations to offer expert advice. She has also advised a number of international organizations including on Canada-US and Quebec-Vermont agreements regarding the protection of the Great Lakes and the St. Lawrence River. She also conducted an important study on the catastrophic oil spill at Lac-Mégantic. Senator Galvez is a member of the Ordre des ingénieurs du Québec, the Canadian Society for Civil Engineering and Engineers Without Borders. Her research has led her around the world to countries such as France, Italy, Belgium, Japan and China. Senator Galvez was appointed to the Senate on December 6, 2016, representing Québec (Bedford).

“Education is not the filling of a pail, but the lighting of a fire.”

— William Butler Yeats

Speaker Biographies

Kåre Hendriksen, Ph.D.

For more than three decades, Kåre Hendriksen has traveled, worked and researched in Greenland, and he has been responsible for field studies in more than 90% of the country's settlements. Kåre Hendriksen is a researcher at Arctic Technology Centre (ARTEK) and teacher at the Arctic Engineering Education that the Technical University of Denmark conducts in Sisimiut, Greenland. Approximately 20 students are enrolled annually, primary from Greenland and Denmark. Kåre Hendriksen's research and teaching deals with the interrelation of national and municipal planning and infrastructure, focusing on the significance of socio-technical infrastructures for local business development and local development dynamics. During recent years, the primary focus has been on the organization of electricity, water and transport in the Greenlandic island operating communities, which are heavily influenced by the Arctic climate, and the construction damages to buildings and Infrastructure in Greenland's northernmost town of Qaanaaq due to the permafrost.



Ed Hoeve, P.Eng., FEC



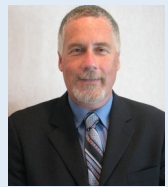
Ed is a geotechnical engineer with 37 years of Northern experience, the last 31 of those gained while living in Yellowknife. He has been active with NAPEG throughout this time. He has served on Council, is a past President, and served as NAPEG's CCPE (now Engineers Canada) director. In the context of today's presentation on a regulatory update, he served on the previous iteration of the Act and Bylaw Revision Committee that gave us the current version of the Act, which came into force in 2008, after 8 years of effort. He is on the current committee, which began its work about 4 years ago. Ed has served on NAPEG's Discipline Committee since 1998 and chaired the committee between 2000 and 2007. He has also previously served on the Limitations Act Committee, and being the glutton for punishment that he is, hopes to one day see that resurrected.

Steve Kokelj, Ph.D.

Dr. Steve Kokelj is a Permafrost Scientist with the Northwest Territories Geological Survey, Government of the Northwest Territories. For over 20 years he has led northern-based research and monitoring projects which have brought together scientists, engineers, project managers, regulators and community members to investigate permafrost conditions and impacts of environmental change on northern landscapes and infrastructure. This research highlights some of the most rapidly changing permafrost landscapes in the world. Steve has been recognized for his scientific contributions and his communication of results to northerners.



David Lapp, FCAE, FEC P.Eng. (ON)



David graduated with a degree in geological engineering from the University of Toronto in 1978. He joined Engineers Canada in July 1997, supporting the work of the Qualifications Board in the creation and updating of several national practice guidelines on climate change and sustainability and most recently the White Paper on Environmental Engineering. His current work focuses on infrastructure, environment, sustainability and climate change issues and their impact on the practice of engineering. David provides advice, training, technical and administrative support for the PIEVC Protocol. He has been involved in the development of several climate and sustainability short courses including Sustainability in Practice, Climate Law, Asset Management, Risk Assessment and the PIEVC Protocol.

Catherine Lee

Catherine is based in Yellowknife and is a Physical Science Officer with the new Canadian Centre for Climate Services of Environment and Climate Change Canada. Catherine was an intern for the Canadian Centre for Climate Services in Gatineau prior to relocating to northern Canada. Catherine is a recent graduate of the Master of Environmental Science program at the University of Toronto, specializing in Climate Change Impact Assessment.



Speaker Biographies continued on next page...

Speaker Biographies

Kala Pendakur



Kala Pendakur is a Sector Specialist with the Standards Council of Canada. Her role involves working with Canada's national standardization network, researchers, engineers, and others to develop and implement standardization solutions that boost infrastructure resilience and create stronger communities for Canadians. She primarily works on initiatives that support the adaptation of buildings and community infrastructure in Canada's Territories to the warming climate, changing permafrost conditions, and more frequent extreme weather events. Prior to joining SCC, Kala completed an MA in Economics at McGill University, and worked as a Research Associate with the Conference Board of Canada focusing on Northern and Indigenous policy issues.

Brian Sieben

Brian is based in Yellowknife and is the Northern Climate Services Liaison with the new Canadian Centre for Climate Services of Environment and Climate Change Canada. He is currently on interchange from the Government of the Northwest Territories where he has been a climate change adaptation specialist since 2010. Brian first became involved in studying climate change impacts in the NWT in the mid-1990s, when as part of his UBC MSc, he was involved in Environment Canada's Mackenzie Basin Impacts Study that looked at climate change impacts in the Mackenzie River drainage basin.



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Engineering and Geoscience Professions Act Revision

On November 30, 2019, NAPEG held its annual Strategic Planning Meeting to review the outcomes of their 2017-2020 Strategic Plan and seek feedback from members on the proposed revisions to the Engineering and Geoscience Professions Act.

The Main Objectives included in the 2017-2020 Strategic Plan include:

1. Review and propose revisions to the Engineering and Geoscience Professions Act
2. Improve Communications and Outreach with Governments, the Public, and Members
3. Position NAPEG for Long-term Success and Sustainability
4. Focus on Continuing Professional Development
5. Grow Volunteer Base and Strengthen Volunteer Relationships

As the majority of the Objectives are on track, the priority focus area for the remainder of this plan will be to work towards positioning NAPEG for long-term success and sustainability. In addition, as this is the last year for the 2017-2020 Strategic Plan, participants provided input on additional strategic activities that should be considered for NAPEG'S 2021-2024 Strategic Plan.

In December 2019, a letter introducing the proposed revisions to the NAPEG Acts was sent to the Director, Policy and Planning, Department of Justice, Government of the Northwest Territories by NAPEG Council, the Executive Director, and the Ad Hoc Act and Bylaw Revision Committee.

The Proposed revisions were within the following areas of the Acts:

- Operating Name
- Member / Licensee
- Limited Licensee
- Mobility of Members-In-Training
- Continuing Professional Development
- Discipline Committee - Public Member
- Discipline Decisions - Sanctions/Publication
- Discipline and Enforcement Penalties
- Annual Renewal

Call for Volunteers

NAPEG has a number of opportunities to serve on various Committees. Service on a committee enables you to develop your leadership skills and use your expertise and experience to help guide NAPEG initiatives, policies, and publications. We are currently looking for volunteers for the following Committees:

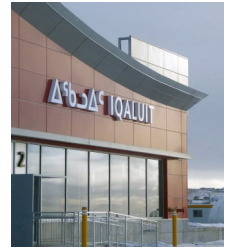
- Professional Development
- MIT and New Professionals
- Membership and Enforcement
- Outreach
- Environment
- Professional Practice

2020 Awards

Professional Award of Merit in Engineering

Iqaluit International Airport Improvement Project

This award is presented in recognition of innovative and comprehensive engineering for the improvements to the Iqaluit International Airport. The Iqaluit airport is a critical element of infrastructure in arctic Canada and is key to maintenance of services, national and international safety, and sovereignty of Canada. The facility meets or exceeds all of the objectives that were defined by the Government of Nunavut when contracting the engineering services.



Professional Award of Merit in Geoscience

Inuvik Tuktoyaktuk Highway Project



This award is presented in recognition of the comprehensive and advanced geoscience that contributed to the successful development of the Inuvik Tuktoyaktuk Highway (ITH). The ITH - NT Highway 10 is a 140-km long highway constructed between the northern edge of the community of Inuvik and the southern edge of Tuktoyaktuk. It is the only public highway in Canada connecting the southern Canadian road system to the arctic coast. It is truly a unique project in Canada and the world as it opens Canada up from Sea to Sea to Sea.

Environmental Award of Excellence

Nunami Stantec Limited - Iqaluit Emergency Water Supply 2018 and 2019 Project

Community Service Award

K. Peter Vician, P.Eng.

Community Service Award

De Beers Canada Inc.

Member-In-Training Award

Oliver P. Hodgins, EIT

Professional Service Award

Sudhir K. Jha, P.Eng., FEC

President's Award

Karen D. Costello, P.Geo., FGC

Distinguished Life Membership

Ian M. Drinnan, P.Eng., FEC

Science Teaching Award

Thana Rahim, École Saint Patrick High School