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WINTER 2020

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Jason Mann, P.Geo.

Opportunity, Value, and Change

When I looked back at the prior President's Messages, I found each was unique and personal. Some marked Association milestones, like our Centennial, or the creation of forward-looking plans to operationalize an equity and representation program. I have enjoyed the unique opportunity to work alongside Council and participate in healthy deliberation, and to help with recent accomplishments, where I could.

Opportunity is important. As an Association , regulation is an end by which we live. We ensure a standard of practice for delivery of good problem solving and functional projects. However, in the long view, we also need to ensure that our owners are given the potential for realizing their best outcomes.

There needs to be a diverse set of practitioner backgrounds, perspectives, resources, and skillsets. As an Association, we need to continue to build out the roster.

The creation of value requires a cost. The cost expended for something is occasionally misinterpreted as its value. As an Association, we need to communicate and engage, so our owners understand what we do, and the value attached. The value created by working toward all Association ends also requires a cost, that all practitioners carry.

Change can be difficult, but it is essential for survival. There are important lessons learned from those who have come before us, with systems in place, and history that is vital to understand. But let us all look forward, also. Change creates a pathway to make progress, or improvements to an existing circumstance. Complex and deep-rooted matters can take time to mobilize and might be accompanied by outdated or subjective points of view.

> Participate in the discussion, be present, purposeful, and involved.

As an Association, we need to continue to embrace change and participate in healthy deliberation around it. If we were unable or disinterested, or if we simply wait too long, we will be left behind.

I have seen in my career what is possible when there is collaboration, the acceptance of reasonable risk, and the courage to be innovative and embrace change. When we steel ourselves, focus, and support each other when it is really hard, there is very little that cannot be solved. This path not only develops skillsets, but coming through as a team generates a strong sense of pride and enthusiasm for what we do, and, ideally, provides value for our owners that strengthens the opportunity to take on the next problem or project.

None of these themes are new, but, to me, they are important because none of us in engineering or geoscience functions in isolation; it is a community. A diverse set of backgrounds, viewpoints, and opinions within our community around these themes is quite important, as well, because not everyone shares the same tolerance for the costs and changes that deliver value and opportunity. However, when we arrive at a plan to do something, having given it due course in analysis, evaluation, and debate, we set a course – as a community of practitioners, or as an Association – and we follow through.

Participate in the discussion, be present, purposeful, and involved. Be thoughtful, rather than simply reactive or divisive. With these goals in mind, as a self-regulated profession, we undoubtedly will continue to govern (and not simply manage) our Association into a bright future! I look forward to a challenging and fulfilling term.

If you have any questions or comments, please e-mail me at *President@EngGeoMB.ca.*

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G. Koropatnick, P.Eng., FEC, CEO and Registrar

Making It **Personal**

Working from home

for the past nine months has been interesting, to say the least. Initially, I began collecting thoughts from daily reflections about the pandemic and related topics. Today, many months later, working from home seems somewhat routine. Dare I say, "normal"? For the most part, it has been good. I hope your experience has been good too. In total transparency, you should know that I don't have any responsibilities for children at home or elder care. I acknowledge that many of you are faced with a long list of new duties in addition to your job. Hang in there!

It seems I've had more time to think about the two priorities the Association has been working on: increasing the number of women in the profession and adding more Indigenous practitioners. I've asked myself, "Do you understand these issues enough to make a difference?" It's difficult to envision a different future if you don't have a good grasp on the present, and the steps needed for change. Anderson and Ackerman[1] in their book *Beyond Change Management* say that, in order for lasting change to occur, the people involved must change their mindset.

> It's difficult to envision a different future if you don't have a good grasp on the present, and the steps needed for change.

Mindset

What is your mindset on the idea that men and women participate equally in engineering and geoscience? Right now, women represent only 11% of the practitioners within the Association. What about Indigenous representation? Less than 1% of practitioners are Indigenous. The numbers do not reflect society in Manitoba, where 50% are women and 18% are Indigenous. For a long time, the mindset was defined by the sentiment, "engineering is for boys, not girls", and comments like "What's all the fuss about? It's always been that way." However, there are many examples from history where similar attitudes and mindsets have changed. Slavery has been gone from North America since shortly after Abraham Lincoln made the Emancipation Proclamation in 1863. Women were not allowed to vote in Manitoba until 1916. Laws with respect to personal rights, building codes, healthcare, and many others have come about because citizens decreed change.

Reconciliation

In our summer issue, I asked you what you were doing about reconciliation? Have you made the effort to become informed on this important issue? The histories of Manitoba and Canada were not accurately presented in my K-12 education. The lessons taught were largely one-sided. I've mentioned in the past that I sat in my grade 6 class next to a "Sixties Scoop" student, and had no idea what was going on. Since then, we've learned that Indigenous children were taken from their parents and forced to live in foster homes. The stories of residential school survivors have come to light, and it is shocking to learn about this part of our history.

I did some reading this summer. I stumbled upon two books that gave me some insights into the political and social context of the Victorian era: *Victoria the Queen*[2] *and Emperor of the North: Sir George Simpson and the Remarkable Story of the Hudson's Bay Company*[3]. These two books present a detailed picture of colonization and the two centuries prior to the founding of Canada and Manitoba. Strangely, both described the roles of women and indigenous people with remarkable details from personal journals of Queen Victoria, Sir George Simpson, and others.

Family History

During the pandemic lock-down, I spent some time researching my family history. One surprising detail I discovered was my great-great-great-grandfather settled in Manitoba in 1870 – the year of the Red River Rebellion, incorporation of Manitoba and signing of the numbered treaties. A century later, my father was one of the engineers who built the Grand Rapids Generating Station. These two bits of family history cause me to look at reconciliation in a personal way. What did my ancestors actually see back in 1870? I remember stories told by my father about the beauty

and grandeur of Grand Rapids before the dam. All of this makes me respond to reconciliation with a sense of debt to the indigenous people of our region and country.

Make It Personal

What about you? I acknowledge that not everyone has a personal part in the same way. Have you looked into the history of Manitoba? Have you considered reconciliation and whether you have a part in it? For many engineers and geoscientists, their projects, exploration, and career work have had lasting effects on the land and people.

Engineers Geoscientists Manitoba is committed to two strategic priorities, increasing more women in the profession and adding more Indigenous practitioners to the register. The Association has partnered with many groups, and is committed to the goals of equality and representation. There are many opportunities where you can participate.

Did you know that the Association has an Indigenous Members Chapter? Practitioners of all backgrounds have a role to play to make this Chapter a success. Learn more about the Chapter at *http://enggeomb.ca/IndigenousChapter.html.*

Did you know that 194 women are actively meeting for mentoring? Since 2015, the Women in Engineering and Geoscience Mentorship Program has supported hundreds of students and interns by matching them with professional members to expand their networking opportunities. I invite you to consider these two priorities in light of your personal history and situation. Your feedback is invited and welcomed. If you have any thoughts on anything you read in the KP, please email me at *GKoropatnick@EngGeoMB.ca.* Have a great day!

Endnotes

1 *Beyond Change Management: How to Achieve Breakthrough Results Through Conscious Change Leadership.* By Dean Anderson, Linda Ackerman Anderson. Pfeiffer, San Francisco, 2010.
2 *Victoria the Queen.* Julia Baird, Random House, 2016
3 *Emperor of the North: Sir George Simpson and the Remarkable Story of the Hudson's Bay Company.* James Raffan, Harper Collins, 2010

Manitoba Trailblazers –
Engineers and Geoscientists Make Our Lives Better

Dr. James Blatz is a professor of civil engineering in the Price Faculty of Engineering at the University of Manitoba and President & CEO of TREK Geotechnical Inc., a Canadian geotechnical engineering consulting firm operating nationally. Dr. Blatz's research contributions are in the areas of understanding the performance of temporary flood protection works, risk-based design for geotechnical infrastructure, and the performance of deep foundations. Over 10 years ago, Dr. Blatz founded TREK Geotechnical Inc. with two partners and provided leadership through its growth to over 35 employees. Eight years after its start, TREK went on to earn a spot in Canadian Business magazine's Growth 500: The Complete Ranking of Canada's Fastest-Growing Companies. In 2005, Dr. Blatz was recognized for his contributions by Engineers Geoscientists Manitoba with the Early Achievement Award and again in 2006 with the Engineers Canada's Young Engineer Achievement Award.

A graduate of Queen's University's chemical engineering program, **Alana Gauthier** is a Senior Project Manager at WSP Canada and a true supporter of increasing diversity in the engineering field. In 2012, she was chosen to speak at the Manitoba Legislative Building on "Women's Role as Mentors". In 2015, Alana became the first female president of the Association of Consulting Engineering Companies of Manitoba (ACEC-MB), where she promoted and convinced the ACEC-MB board to support the establishment of the Technical Women in Consulting Engineering (TWICE) Committee. TWICE is the first organization of its kind in Canada. Its mission is to provide strategic advice on matters related to increasing diversity in consulting engineering, specifically increasing the retention of women. In 2018, Alana was awarded the Judith Weiszmann Women in Engineering Champion. It is with the help of dedicated engineers like Alana that the Association will be able to reach its 30 by 30 goal.

Ethel Fernandez was born and raised in the Philippines, where she obtained her bachelor's degree in electronics and communications engineering. After seven years of working in the electronics manufacturing industry as a quality engineer, Ethel immigrated to Canada. Obtaining her professional engineering registration in Manitoba provided her with the opportunity to continue to work as a quality engineer for the Royal Canadian Mint, where she was recently tasked to prepare the Winnipeg team for their first remote/virtual ISO 9001:2015 recertification audit. As a way of expressing gratitude, she gives back to the Association and the community by volunteering. Ethel is the only woman to have chaired the Filipino Members Chapter, during which time she initiated the Chapter's community involvement through group volunteering at local charities and helped create the annual multi-chapter summer activity. She continues to give back by serving on the Experience Review Committee.

Dr. Edward Phillips Fetherstonhaugh was born in Montreal in 1879 and educated at McGill University. He began his career as a draftsman and lectured at McGill before moving west to join the Canadian Westinghouse Company in Winnipeg. In 1909, he was appointed as a professor of electrical engineering at the University of Manitoba. He would go on to become the Dean of Engineering and Architecture in 1921, the faculty from which he would eventually retire with 40 years of service, 25 years as Dean. Nicknamed "Crazy Fethers" for his almost foolhardy courage during his service overseas, he served in the Canadian Engineers during the First World War and, later, as Commanding Officer of the Canadian Officers in Training Corps at the University of Manitoba. He was a member of the National Research Council of Canada from 1936-1945 and President of the Engineering Institute of Canada in 1945. Dr. Fetherstonhaugh received honorary degrees from McGill and the University of Manitoba. He died in Winnipeg in 1959. Alumni of the University of Manitoba may be familiar with the Fetherstonhaugh High Voltage Laboratory, which was later renamed when the original building in the Engineering and Information Technology Complex was named in Dr. Fetherstonhaugh's honour in 1987.

Timothy Klaas decided to become an engineer when he was working for a non-profit in Sudan and met engineers working on Khartoum's water treatment system. He was impressed with how much their work was changing lives. Now a professional engineer and project manager at Sigfusson Northern, Tim is managing the construction of a water treatment system for Shoal Lake 40 First Nation, road repair and replacement at Pikangikum First Nation, and other infrastructure projects that improve life in northern communities. He's driven by the Association's motto of "My life's work makes life work better".

Born in Winnipeg in 1930, **Lionel Kilburn** earned his bachelor's, master's, and doctorate degrees in geology from the University of Manitoba, receiving the Gold Medal for outstanding research in geology. He started and ended his career with Falconbridge Nickel Mines, working his way from underground geologist to Vice-President Exploration, Development and Precious Metals Operations. Lionel remained active in the field after retiring from Falconbridge and would eventually run a private prospecting company, keeping him busy in the field, lab, and office looking for "the next big ore body". He wrote and published many technical papers, including the Geoscience Factor Method (Kilburn Method) for the valuation of mineral properties. In 2015, he was awarded the Robert Elver Mineral Economics Award in recognition of his seminal work in mineral property valuation in Canada. Lionel died in Winnipeg in April 2020.

Roberta Radons is the Head of the Transmission Line Design Section at Manitoba Hydro, leading a multi-disciplinary team in the design of safe and reliable transmission lines. Roberta enjoys combining engineering innovation with her love of history, culture, and environmentalism. This allows her to mitigate stakeholder concerns associated with transmission line development such as optimizing tower locations to respect historic and cultural sites in Manitoba on the Pine Falls – Manigotagan Project, protecting moose habitat through custom structures and clearing methods on Bipole III, and supporting green energy initiatives by connecting the St. Joseph Wind Farm to Manitoba Hydro's grid. Roberta inspires young women to consider a career in engineering as a longstanding mentor with the Women in Engineering and Geoscience Mentorship Program, and is currently serving as the President of the Manitoba Hydro Professional Engineers Association.

DR. PHILIP FERGUSON...

Pushing the Boundaries of Aerospace

BY R. LEWIS

By any stretch of the imagination, the idea of space and space exploration is a rather lofty one; but that has hardly stopped Dr. Philip Ferguson from pursuing it relentlessly.

"One of the things we always talk about is to make space accessible to people or make space for innovation," said the classically trained aerospace engineer who heads the Space Technology and Advanced Research Laboratory (STARLab), a collaborative enterprise of the University of Manitoba, Magellan Aerospace, and the Natural Sciences and Engineering Research Council of Canada.

And there's a ring of truth and a sobering reality in those words. After all, space isn't simply a local spot around the corner that just anyone can set foot in. Any venture into the unknown that is space is an expensive and time-consuming project. The goal of the work by people like Dr. Ferguson is to remove those barriers, even if the process is a slow and painstaking one.

Just what is it about space that makes it so intriguing? Why the need to make space a more attainable goal? "Many groups across Canada and in the world, but particularly in Manitoba, stand to benefit from space remote sensing or space assets." Dr. Ferguson says that typical applications range from remote sensing to communications and basic science. Northern Canada is a key target area for future space missions, given the potential impact of northern shipping routes as climate change affects the ice distribution in the north.

Canada's foray into space exploration is something of a well-kept secret. Dr. Ferguson sees this as unfortunate. Canada, more specifically Manitoba, has had a key leadership role in developing, deploying, and operating radar-sensing satellites in space since the late 1950s with Winnipeg having been ground zero for space exploration. The work at STARLab, however, is promising to change that.

"We like to think in my lab that space technology is, in a way, empowering our province," he said.

Manitoba's space technology has certainly come a long way from its first launch of the Black Brant Sounding Rocket back in 1959. In those days, satellites could almost fill the breadth and depth of a room. Today, the same technology packs perhaps even more of a punch in space exploration, but comes in the size of a shoebox.

"The technology was completely out of reach, but now we have the ability to make small satellites," said Ferguson. And not only are these satellites smaller, but they're also cheaper to operate too. What once would cost upwards of half a million dollars to construct, today costs only about $200,000 from conception to deployment. The advancement in technology has also reduced the design time on these launch projects. Where development and deployment of satellites, such as RADARSAT, were decade-long projects, today's shoebox-sized satellites cut that timeline down to a mere two years.

Of course, Canada isn't the only country making strides in space exploration and aerospace engineering. The United States is known for its missions in space, as is Russia. Australia and Asia are also leading space exploration missions. But while these other countries may seem like greener pastures to hungry, bright-eyed, and bushy-tailed aspiring aerospace engineers, Dr. Ferguson is convinced that Canada has so much to offer yet.

While he spends much of his time at STARLab coming up with new and innovative ways for the province to take over the world of aerospace engineering, he still manages to tear himself away from the laboratory to interact with his students. A typical working week for the associate professor can include anything from meeting with graduate students to discuss their research, to reviewing and writing journal and conference papers, to teaching a course each semester.

"While I have TAs, it's important to me that I mark all of the tests that the students write because I want to have that connection with my students."

That connection to his students is perhaps, not surprisingly, what Dr. Ferguson has valued more than anything in his career as an aerospace engineer.

"It's by far the most rewarding to see a student be able to go from walking into my office and saying 'Hey, I'm interested in space,' to establishing a project, writing a proposal, working their way through the scientific process… it's so rewarding. I love seeing that because, at the end of the day, my legacy won't be the papers that I write. It won't be the lab that I created. It won't even be the course material; it's the students. They are the people who will pioneer the next generation in space engineering," said Dr. Ferguson.

And the professor doesn't keep all the fun or hard work at STARLab to himself either. His students are heavily involved in the work at the laboratory, where they are constantly focusing on developing

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Engineering

new technology and space systems, which improve access to space. Among their goals is building capacity, a concept that he recently explored along with his colleagues in a paper titled, "Capacity Building through Academic/Industrial Cooperation in Space Systems Research".[1]

Capacity building refers to the establishment of specific skills, people, facilities, and companies that enable an industry. Dr. Ferguson believes that in addition to integrating new technology into space missions, capacity building is one of the key challenges facing the Canadian space industry. To date, funding from aerospace companies such as Magellan Aerospace and the federal government have been instrumental in advancing space engineering. However, without future government and privately funded space missions to use the capacity that we develop, we risk losing it.

This is a key driving force behind Dr. Ferguson's efforts to build up aerospace engineering in Manitoba, and Canada as a whole. The more accessible space technology is, the easier it is for industry to monetize it and expand our capabilities. Dr. Ferguson's never-say-die mentality is also something that he hopes students in the field of aerospace engineering will adopt.

"Be curious. Be stubborn. A big part of my role is trying to break the mould of what people think is a typical aerospace engineer… We've sort of gotten stuck in the same way of building space systems that we've been building for the last 60 years… So, I think a piece of advice that I would give is to not try to be a follower; try to be a leader. Don't be afraid to stick your neck out and ask why; a lot of this goes back to just being curious."

Another dream project on Dr. Ferguson's wish list is finding ways in which drones can be used as a tool for extra-terrestrial exploration. With the advancement in the areas of drone control and remote sensing, he believes these technologies can be linked together and that there is a real opportunity to make strides towards that end.

Because so much of what aerospace engineering is all about is multidisciplinary, drawing from all the fields of engineering, Dr. Ferguson also hopes to one day see an aerospace department at the University of Manitoba.

If you're wondering where he finds the time to teach, advise students, run an innovative space systems lab, write papers, and even sit on boards such as the Manitoba Aerospace Liaison Group, among others, it's all a fine balancing act that Dr. Ferguson has mastered over his 20-year career. When he's not doing any of the above, you're likely to find him spending time with his family on their hobby farm where they live off the land and the fruits of their labour, and where he hunts and fishes. This is just one fascinating titbit about Dr. Ferguson, who also revealed his desire to have been an astronaut but couldn't due to being colour blind.

One thing that Dr. Ferguson hopes to keep doing in his career is pushing the boundaries of engineering: "Engineers – we exist to solve problems. We exist to take scientific and engineering principles and apply them to things that benefit society and make us safe and make us prosperous. And to me, this is just so fundamental."

Endnotes

1 *https://casi.ca/resources/Documents/ASTRO/2019/Abstracts/63.pdf*

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Water

as a Dangerous Investment Opportunity

By A. Los

In the film adaptation of Dr. Seuss', *The Lorax*, we are introduced to the colourful, yet artificial city – *Thneedville*. The residents of this walled city live blissfully oblivious to their capitalist society, where even the air they breathe is a commodity which can be purchased in convenient and "clean" plastic bottles. Although this world seems far-fetched and comical, we face a painful realization when we compare it to the world we live in today. In our society, rather than selling bottles of clean air, we have declared another crucial source of life as a major economic commodity: water.

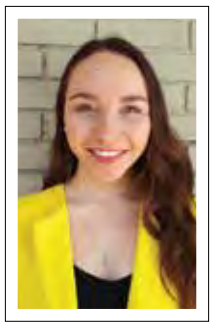
Today, water is being privately invested in and traded on the stock market as if it were as trivial as Nike shoes. The popular investment website Investopedia quotes, "We know water is the source of life. But it can also be a source for portfolio diversification"[1] and professionals are encouraged to invest in what Richard Sandor, who is widely recognized as the "father of financial futures",[2] predicts to be "THE commodity of the twenty-first century".

The rise in water's investment potential threatens our already-limited access to it. By signing over water rights and ownership to private investors and corporations, we transfer immense power to a market that, more often than not, fights for profit over people. Public and, therefore, government control over water is the only way to ensure that democratic and transparent decisions are made regarding the distribution and use of this precious resource.

Water, like air, belongs to the earth and to all species; no one has the right to appropriate it or profit from it at someone else's expense.[3] Canada has more than its fair global share of natural freshwater resources. This makes it attractive to large beverage corporations, such as Nestlé or Dasani. For example, in Southern Ontario, upstream of the Six Nations Reserve, Nestlé pumps and stores natural water using the non-existent authority of two expired permits. Ironically, most of the residents in that area live without access to potable water.[4] A similar situation unfolded in 2018 where Nestlé siphoned 45 million gallons of pristine spring water from Strawberry Creek in California. The beverage corporation took the community's local drinking water source and bottled it to sell elsewhere. Another example occurred not far away, in Maine, where the State Supreme Court upheld a deal with Nestlé, giving them the rights to pump between 75 and 220 million gallons of water from a well in Fryeburg for the next 45 years. It is worth noting that Nestlé, or members of its organizations, donated $634,000 to Maine politicians between 2001 and 2012, according to *The Guardian*.[5] This kind of corruption over water resources can be seen across the globe, and will only become even more of a political issue as our human population and water pollution increases over the next decade.

With the looming danger of climate change threatening our way of life, the world water crisis will pose the most immediate threat to the highest number of lives on Earth. We, as individuals have an evolutionary duty to protect and share the very resource that allows for our existence. As engineers, we have the power to protect water resources and our environment. Therefore, it is our responsibility to do so for the good of society.

Engineers aim to find good solutions to complex problems and are taught to consider all stakeholders when implementing their ideas. Every decision should be made with the protection of water in mind because the protection of water is directly equivalent to the protection of human life. As written by Dr. Seuss in *The Lorax*, "Unless someone like you cares a whole awful lot, nothing is going to get better, it's not."



Anetta Los is a fourth-year civil engineering student enrolled at the University of Manitoba with interests in environmental sustainability as well as water resources. She was a co-chair of the December 6th Memorial Design Competition and is an executive member of the American Concrete Institute U of M Chapter. Her other interests include sailing, rock climbing and cross-country skiing.

Endnotes:

1 McWhinney, James. *Water Investments: How to Invest in Water.* Investopedia, Jun 25, 2019
2 Resolution signed by William F. O'Connor (Chairman of the Board). Board of Trade of the City of Chicago. July 21, 1992
3 Barlow, Maude. *Blue Gold: The Battle Against Corporate Theft of the World's Water.* Stoddart Publishing Co. Limited, 2002
4 Shimo, Alexandra. "While Nestlé extracts millions of litres from their land, residents have no drinking water" The Guardian, 4 Oct, 2018, https://www.theguardian.com/global/2018/oct/04/ontario-six-nations-nestle-running-water. Accessed 18 Jan. 2020.
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2021 Student Writers Scholarship

This scholarship, sponsored by Craig Kelman & Associates, encourages student members of Engineers Geoscientists Manitoba to engage with the Association's quarterly magazine by submitting articles they have written. Each year, one student will receive $500 towards their engineering and geoscience studies as well as have their article featured in *The Keystone Professional*.

The deadline to submit an article for the 2021 Student Writers Scholarship is January 20, 2021. For more info visit *http://www.enggeomb.ca/Scholarships.html*.

Introducing...

JA

The New President

SON MANN P.Geo.

By R. Lewis

The engineering and geoscience professions have undoubtedly faced their share of challenges because of the COVID-19 pandemic this year. Despite those challenges, the Association is moving forward with its mandates, one of which is the ushering in of a new president. For the next year, that responsibility will fall on Jason Mann.

A geoscientist by profession, Jason's venture into this unique field started at a young age, spending time at the family farm and at the lake. The freedom to explore those places led to a curiosity about nature and the land. Those childhood opportunities would later turn into something more substantial during his university years, when an introductory geology course would lead him to the discovery of a lifelong passion and career.

Born and raised in Winnipeg, Jason has lived, studied, and worked in Manitoba all his life. While completing his undergraduate studies in geoscience, he took up summer work with the province's drilling exploration programs of the early 1990s. Doors opened for him to work among a team of geologists specializing in mapping and mineral exploration projects in some remote locations of the province. By 1998, he had completed his master's degree and began working with the Geological Survey of Canada. A year later, he moved on to KGS Group, a multidisciplinary engineering consulting firm, where he remains today, heading up the Environmental Services Department. His work has afforded him unique opportunities to work in much of Canada and on projects that took him to the Arctic and into South America.

With an already full career, managing teams of practitioners and technical work specialized in site remediation, surficial geological mapping, groundwater and hydrogeology, Jason has found time to give back to the profession.

In 2017, he successfully ran for Council, where, during his first term, he worked on the Ownership Linkage and Finance Committees. Since then, he has also served as Chair and Vice-Chair of the Finance Committee. For Jason, despite the commitments that come with a full-time career and maintaining a happy and healthy family life, he is certain that there is always some room left to give something back to the communities and organizations which have impacted and shaped his journey.

President Jason Mann, P.Geo. with colleague Boro Lukajic, P.Eng., FEIC, on a project site in the Yukon.

Now, taking on the mantle of President, he not only feels honoured and humbled by the appointment, but hopeful for the future. He is committed to carrying on the work that Past Presidents have already started. The weight of the responsibility is also a sobering one for him. The COVID-19 pandemic, for one, is on the minds of just about everyone, but he believes that those challenges can be managed with careful planning.

"The Association has demonstrated excellent preparedness and has continued to function effectively", he stated.

Jason believes that strategic planning has been key to the Association's success thus far, maintaining a robust operation and effective regulation practices, while building enthusiasm to meet all of the Association's goals. While many of us can be reluctant to accept change, he sees embracing it as a critical element of success and survival, particularly in the world of technology with its advances, and our reliance upon it now more than ever.

Times as challenging as the ones we now live in can also prove to be the greatest test of how resilient our systems and organizations are, and how well we respond to change. Jason is convinced that the Association will continue to excel, provided sound planning and preparation are maintained.

Another area where he sees opportunities is in awareness and placing the spotlight on the engineering and geoscience fields. Communication, he believes, is key to making this a reality and in getting the unique stories of those within these fields out to our owners, and among those who are exploring the disciplines as career paths, and introducing others to potential career opportunities.

All in all, the opportunities that have come Jason's way aren't lost upon him. From the challenges to the rewards in a career as diverse and technical as geoscience has provided him, he appreciates the fortuitousness of the path he's chosen and how he has been able to help others along the way.

"For me now, there is nothing better than helping those who have come after me to have the same opportunity for interesting and rewarding work, and providing the opportunity for teams of people to excel, while delivering on all expectations of what you set out to do. This is what motivates me", he said.

From coaching colleagues to engaging with communities, nothing beats the satisfaction of delivering on expectations and building character in the process for him. "When there is tolerable risk involved, and, more specifically, when we are managing a risk to solve a problem for our owners, it's all the better."

Despite the satisfaction derived from these experiences he has had and the relationships he has built over the years, Jason is hardly settled. With all the seemingly untapped potential for future engineers and geoscientists, he sees continued efforts to recognize and promote these fields as an important step forward for the Association, and believes that the way to do so is through the steady pursuit of the Association's strategic plan.

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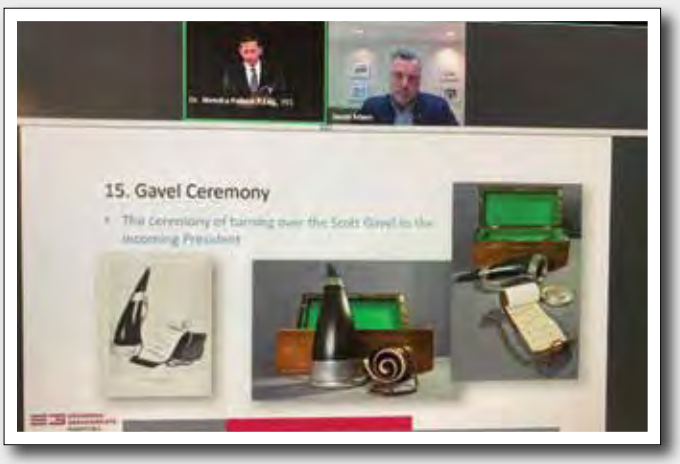
2020 Annual General Meeting

On October 15, 2020, Engineers Geoscientists Manitoba hosted its first virtual Annual General Meeting. Attendees from across the country and beyond participated from their office, home, or wherever they chose. Here's a behind-the-scenes view of the AGM.

Passing of the Scott Gavel.

Behind the scenes at our 2020 virtual Annual General Meeting.

CEO & Registrar Grant Koropatnick, P.Eng., FEC and 2020 Council President Dr. Jitendra Paliwal, P.Eng., FEC at the AGM tech rehearsal.



Passing of the Scott Gavel from President Dr. Jitendra Palliwal, P.Eng., FEC to Incoming President Jason Mann, P.Geo.

Congratulations to the following members on their election to Council:

Linda Murphy, P.Geo.
John Sawatzky, P.Eng.
Ian Smallwood, P.Eng.
Efrem Teklemariam, P.Eng. FEC
Michelle Wadelius, P.Eng.

Meet Your New Councillors

John Sawatzky, P.Eng.
Elected Councillor (2020-2022)

Degree(s) and Discipline
B.Sc. Mechanical Engineering

Years of Experience: 37

Area of Practice/ Sector of Work
Manufacturing engineering

Employer: Monarch Industries

Why I Choose to Serve on Council
The field of engineering has provided me with gainful employment for 37 years. It is time for me to give back to the Association and my fellow engineers by serving them as a councillor.

My Biggest Asset
I am thorough in my work and consider all aspects of a situation before making a decision.

What is one thing that most people don't know about you?
I recently rebuilt the engine of my 1949 case tractor that I use for looking after my small acreage.

Michelle Wadelius, P.Eng.
Elected Councillor (2020-2022)

Degree(s) and Discipline
B. Sc. Civil Engineering

Years of Experience: 13

Area of Practice/ Sector of Work
Bridge/Structural Engineering

Employer: WSP

Why I Choose to Serve on Council
I love working in engineering and want to give back to the profession that has provided me with so many opportunities. I would like to bring a perspective from the private sector and learn about the governance of our profession. I enjoy new challenges and want to contribute to Engineers Geoscientists Manitoba in a positive way.

My Biggest Asset
I'm enthusiastic and work well with others. In a team environment I try to listen to others, assist to foster an environment where people can share their ideas openly, and encourage others to engage in good discussions.

What is one thing that most people don't know about you?
I was very musical growing up. I used to teach piano and played first violin in my school orchestra. I purchased an accordion this spring that I'm slowly learning how to play.

2020-2021 Engineers Geoscientists Manitoba Council

2020 INGENIUM CONFERENCE **RECAP**

Ingenium

*Where **great minds** meet to form **great ideas***

Every year at Ingenium, the Association holds a Recognition Wine and Cheese Reception to honour Association Past Presidents, Life Members, Honorary Life Members, and those receiving their Fellowships of Engineers Canada (FEC) and Geoscientists Canada Fellowship (FGC). While we were not able to honour these members in-person this year, gift baskets were delivered to the 2020 recipients to allow them to celebrate their accomplishments at home.

2020 Honorary Life Membership

The granting of Honorary Life Membership (By-law Clause 7.1.4) recognizes many years of meritorious service rendered to the Association or the profession. This year's award was bestowed on Allan Ball, P. Eng., FEC.

Allan graduated from Red River College with a diploma in mechanical engineering technology in 1974. He worked in the consulting and control businesses before enrolling in the Association's examination program in 1982. After completing 16 exams or their equivalents and submitting a thesis, Allan obtained his professional status in 1990. During these eight years, Allan spent virtually every year attending engineering courses at the University of Manitoba. Upon registration, Allan immediately became a member of the Communications Committee and was active on the Committee until 1997, during which time he wrote numerous articles for *The Keystone Professional*.

During the 1990s, Allan was active on ad-hoc committees dealing with the issues of electronic seals and guidelines for their use. Between 1997 and 2001, he served two terms on Council, and in 2001, was appointed Council representative on the Investigation Committee. Allan enjoyed the working assignments on the Investigations Committee and remained involved after his last term of Council was completed. In 2006, he accepted the Chair position of the Investigation Committee and remained in that position until he retired from the Committee in 2019. During his period as Committee Chair, he was also part of the Association's Nominations Committee. In 2009, Allan was recognized as a Fellow of Engineers Canada (FEC). In late 2019, he was appointed to the Discipline Committee. As a firm believer in returning something to the profession that provided him with an exciting career, Allan has contributed as an Association volunteer for 30 years.

Allan has also been involved with the Association of Consulting Engineers Companies of Manitoba (ACEC-MB), sitting on the Industrial Liaison Committee in the late 1990s, and the Energy Committee in the mid-2010s. He also sat on the Mechanical Engineering Technology Advisory Board at Red River College for 10 years, providing industry input to the College's mechanical department. Between 2014 and 2019, he was a member of the Friends of Engineering.

Allan recently retired from his roles as Quality Manager and Associate at Hatch Ltd, a prominent Canadian engineering consulting firm. During his 40-year career with Wardrop Engineering, Acres Manitoba, and Hatch, he worked on a wide range of projects across Canada and North America, in hydroelectric and diesel generation, underground mining, ore and chemical processing, steel, nuclear, petroleum, and manufacturing industries. In the latter part of his career at Hatch, Allan held the positions of Project Manager, Engineering Manager, and Quality Lead. He was responsible for the quality and the advancement of ISO 9000 standards in five Hatch offices across the country. He ended his full-time work career as Quality Lead for the design of Manitoba Hydro's Keeyask Generating Station.

In his community, Allan has been deeply involved in the operation of his church, having served in roles such as Board Chair, Trustee member, Trustee Chair, Property Development Taskforce Chair, sound technician, as well as providing project management and safe practice direction for church work projects.

Allan resides in Winnipeg with his wife, Susan. They have three grown children and six grandchildren. They enjoy spending time with their family (now via social distancing), leisure biking, and walking. Allan also enjoys carpentry, photography, hi-fi, and motorsports.

In recognition of his meritorious service to the profession and the Association, Engineers Geoscientists Manitoba is pleased to bestow Honorary Life Membership on Allan Ball.

Engineers Canada Fellowships

The fellowships honour individuals who have given noteworthy service to the engineering profession through their work with either Engineers Canada or its provincial and territorial engineering regulators. This year, three members were presented with their Engineers Canada Fellowships.

Carolyn Geddert, P.Eng., FEC

Carolyn is the Director of the Price Faculty of Engineering Cooperative Education and Industrial Internship Program (Co-op/IIP) at the University of Manitoba. She began her work at the University as an Engineer in Residence in 2004, and has directed the Co-op/IIP since 2011. In this role, Carolyn introduces the Association to students in their first year of engineering. Before joining the University, Carolyn worked in the manufacturing industry for Phillips & Temro Industries and Price Industries in Winnipeg.

Throughout her career, Carolyn has volunteered at the Association. Her earliest contributions were back in the 1990s as part of the Women's Advisory Council. This group developed a resource for female engineers and employers to help navigate a return to work and reduced work arrangements known as the "Flexible Workplace Document". Recently, she served one term as an elected councillor and during that time participated in the Nominating and Executive Committees as well as the By-law Review Task Group.

Robert O'Toole, P.Eng., FEC

After graduating from the Faculty of Engineering at the University of Manitoba in 1985, Robert began his career at Crosier Kilgour and Partners, Consulting Structural Engineers in Winnipeg. By 1995, he became a partner and remained with the firm throughout his career, retiring in 2018. Robert feels fortunate to have been exposed to an extensive variety of large- and small-scale projects across Western Canada and Nunavut. In addition to Manitoba, he was also licensed to practice in Saskatchewan and British Columbia.

Robert has served on the Discipline Committee since 2010. He credits the knowledge gained throughout his career to the experiences he has been exposed which allowed him to uphold a reasonable and practical approach to dealing with the cases presented on the Committee. He maintains his registered professional engineer status with the Association and plans to continue assisting with the Discipline Committee in the future.

Grantley King, P.Eng., FEC

Grantley is the Manager for Alternative Delivery within WSP Canada Group Ltd (WSP) Transportation Business Line. He has more than 23 years of experience, 17 of which are with WSP in transportation projects, including project management activities on design-build projects, design and construction inspection of bridge elements, and gate chambers, both in Canada and internationally. An adept problem solver who has generously used his skills to help others, Grantley's collaborative management style enabled different teams to work together for mutual benefit.

Beyond his facets of technical expertise, Grantley enjoys giving back to the profession. He has been actively involved in volunteering as a member of Engineers Geoscientists Manitoba Experience Review Committee since 2010. In addition to his volunteer services with the Association, Grantley also volunteered as the 2020 Fall Conference Chair of the Project Management Institute Manitoba Chapter. In 2015, Grantley was the recipient of the Association of Consulting Engineering Companies of Manitoba (ACEC-MB) Engineering Action Award.

INGENIUM **2020**

By G. Keatch

Most Association events had to be postponed or cancelled in 2020, but the Ingenium Professional Development Seminars took place in October and were bigger than ever!

Thanks to a new virtual platform, practitioners and presenters could participate from anywhere in the world, with the adapted four-day schedule allowing registrants to mix seminar sessions with their work commitments. Attendees no longer had to choose between concurrent sessions but could tune in to as many of the four live keynotes and eight live breakout sessions as they wanted. The inclusion of an On-Demand Library also allowed access to an additional 11 exclusive seminar topics, which could be viewed at any time. In case attendees missed any live sessions, or wanted to revisit them, recordings of all the live seminars and their respective Q&A sections were added to the On-Demand Library following the conference. To ensure maximum flexibility and potential learning opportunities, all the on-demand content will remain available until January 17, 2021.

As a nod to Engineers Geoscientists Manitoba's Centennial year, the registration fee was just $100 plus GST for Ingenium 2020 and plenty of practitioners saw the value in this professional development event resulting in record-breaking registrations. At the start of the conference week, over 280 people had registered to attend, and that number continues to climb as others sign up to access the On-Demand Library.

The conference week was kicked off in style by an engaging keynote with CBC's Bob McDonald on the topic of *Surviving the Third Millenium,* which attracted more than 150 viewers and sparked insightful and challenging questions from the audience. Each of the four days started with a keynote speaker which was followed by two breakout sessions on a variety of technical and soft skill topics, from *Circular Economy: Lithium-ion Battery Recycling* to *Delivering Audience-Focused Presentations.*

In addition to the professional development content, the conference program offered attendees the opportunity to participate in a Wellness Break featuring chair-based yoga stretches and meditation, aimed at soothing aching bodies and tired minds. Attendees who were missing the usual Ingenium lunch buffet could also opt in to have a locally catered lunch delivered at a subsidized cost thanks to our Lunch Sponsor, Canada Life.

The Ingenium Task Group thanks all the presenters, sponsors, and attendees of Ingenium 2020 for their support of the new virtual format and are already looking forward to planning Ingenium 2021!

2020 Keynote Topics

- Surviving the Third Millennium with Bob McDonald
- Leadership – Insights for Thinking Differently with Randy Grieser
- Overcoming Imposter Phenomenon with Dr. Brenda Lee
- The Issues of Political Correctness and Where Do We Go from Here? with Dr. Reece Malone

Technology played a major role in bringing about this year's Ingenium 2020 conference. While most of the conference was conducted virtually, a few members of staff were on hand to make sure everything proceeded without a glitch.

2020 Live Seminar Topics

- Basic Principles Approach: Beaucage Project Case Study with Julia Singh, P.Geo.
- Building Manitoba: 100 Years of Engineering & Geoscience with Ryan Bernier, P.Eng.
- Circular Economy: Lithium-ion Battery Recycling with Douglas Froese
- Delivering Audience-Focused Presentations with Lisa Moretto
- Developing a Competence Framework for Asset Dependent Companies with Suzane Greeman
- Engineering a Secure Retirement Plan with Eliott Einarson
- Organizational Behaviour from an Engineer's Perspective with Kimberly Dodds, P.Eng.
- The Business of Non-Destructive Testing from a Management Perspective with Bonnie Pankratz

2020 On-Demand Seminar Topics

- Cultivating Your Career in the Oil & Gas and Mining Industries
  1. Securities background and role of Qualified Person (QP) with Ganpat Lodha, P.Geo., FGC
  2. The Mining Cycle-Environmental Assessment and Licensing of Mining Projects in Manitoba with Peter Mraz, P.Eng. and Siobhan Burland Ross, P.Eng.
  3. Oil & Gas Reserve Disclosure: NI 51-101 Compliant Reporting with Daniel Barchyn, P.Eng.
  4. Mineral Properties and Mining: National Instrument 43-101 Standards for Disclosure of Mineral Project with Ganpat Lodha, P.Geo., FGC
- Impact of Glazing on Building Energy Use and Thermal Comfort with Melanie Chatfield, P.Eng., and Michael Reimer, EIT
- Looking at Legislation: Past, Present and Future with Michael Gregoire, P.Eng., FEC
- Mind the Gap: Gender and Sexuality in Engineering with Rhys Herzberg
- Performance of Highway Embankments in the Arctic under Climate Change Conditions with Dr. Marolo Alfaro, P.Eng.
- Professionalism in Engineering with Grant Koropatnick, P.Eng., FEC
- The Bigger Picture: Equity and Representation Initiatives at the Association with Nicole Everett and Lisa Stepnuk, EIT
- Traditional Indigenous Technology with Randy Herrmann, P.Eng., FEC

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Bob McDonald of CBC's *Quirks and Quarks* was one of the keynote speaker for this year's Ingenium conference. Bob talked about the challenges that humankind faces today and how our professions hold the key to solving some of these problems. The talk was aptly titled Surviving the Third Millennium.

President Jason Mann, right, and Ingenium Keynote Speaker Dr. Reece Malone, discuss the topic The Issues of Political Correctness.

While the buffet-style lunch presentation that takes place at every Ingenium Conference was forfeited this year in favour of individualized lunches, the presentation and the food were as good as in years past.

Did you miss Ingenium 2020? It's not too late!

To get access to the Ingenium On-Demand Library, featuring recordings of all the live sessions as well as exclusive on-demand content, visit *www.EngGeoMB.ca/Ingenium* before January 8, 2021. For just $100 plus GST, you can access over 15 hours of professional development seminars to watch at your leisure.

Nigerian MEMBERS CHAPTER

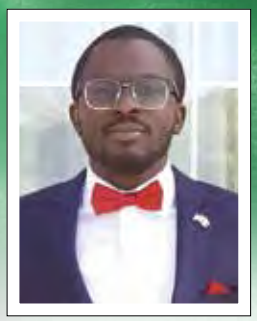
BY R. LEWIS

Nigerian Chapter President,
Victor Adindu, P.Eng

Nigerian Chapter Vice President,
Johnson Aina, P.Eng

Nigerian Chapter Public Relations Officer,
Olawale Jegede, P.Eng

Nigerian Chapter Secretary,
Victoria Kokobili, EIT



Nigerian Chapter Treasurer,
Onisokonikumen Sampson, P.Eng.

Becoming an engineer is, in and of itself, no small feat. When the classes are finished and you have donned the gown and collected that certificate that spells out to everyone else that you've put in the work, what comes next? You deserve a chance on the same playing field as others who have done it before, but where do you start? Navigating those steps after graduation, or after entering Canada, in the case of new immigrants, can not only be a challenge, it can be a downright headache when you simply do not know where to go or begin, or with whom to network. It's part of the reason Victor Adindu started the Nigerian Members Chapter.

The Association's most recently started chapter, which was approved on January 20, 2020, is working towards bridging the gap between new engineers and the Association. It is also instrumental in preparing new engineers for the Canadian workplace; familiarizing them with aspects of Canadian culture, which may differ from their own; and preparing them for integration into what could feel like foreign territory.

Among the Chapter's objectives are as follows:

- To cultivate the Chapter members' interest in the Association.
- To assist Chapter members in preparing for the academic and professional requirements of the Association.
- To help Chapter members resolve issues, which may be peculiar to them.
- To facilitate the ability to network for the purpose of the much-talked-about Canadian work experience, career progression, etc.
- To enable the sensitization of community members, students, and friends with information regarding the profession and its impact on the society at large and cultivating interest in the profession.
- To facilitate the mentorship of members going through the registration process, e.g., report writing.

When Adindu started the Chapter, which now sits at about 50 members, his goal was to create a space where fellow Nigerians could work together for the betterment of the profession and for the solidarity of a group with the shared identity of having a home away from home. While the pandemic has thrown a wrench in the works of the Chapter's membership and networking drives, it hasn't slowed down their plans or vision for the future; activities continue virtually.

As the Chapter pushes forward despite the challenges, one of the biggest tasks on its agenda is encouraging immigrant engineers to not abandon their certification on arrival in Canada. The Chapter is also working at encouraging more women to consider engineering and geoscience as a profession, through scholarship programs. Other ways the Chapter is stoking enthusiasm for the profession is through career talks, which target new immigrants, and assisting with resume building, and other skillsets, which can prove useful to those wishing to enter the engineering and geoscience fields.

While the bar may be set high for those who envision a career in engineering or geoscience, the advent of the Nigerian Members Chapter can hopefully help new immigrants and students of Nigerian origin rest a little easier. Knowing that they not only have this resource available to them, but also the camaraderie of fellow professionals who've walked the road before them, and who speak their cultural language, will no doubt make navigating the ins and outs of their next career steps a lot more deliberate.

For more information on the Nigerian Members Chapter at *http://www.EngGeoMB.ca/NigerianChapter.html*

Building Regional Adaptation Capacity and Expertise (BRACE) Program – ***Climate Resiliency Capacity Building for Manitoba Decision Makers***

The BRACE program led by Natural Resources Canada, is a five-year (2017-2022), $18 million initiative under the Adaptation and Climate Resilience pillar of the Pan-Canadian Framework on Clean Growth and Climate Change. The BRACE program aims to build capacity within and across targeted sectors and regions to understand, assess and reduce the risks posed by a changing climate. The program works in partnership with the provinces and responds to unique climate change adaptation needs and priorities across Canada.

In May 2018, the Manitoba government began this partnership with a series of BRACE engagement sessions with municipalities and infrastructure owners, Indigenous communities, and the business community. A key recommendation of this process was the need for a training program to support professional development on climate change adaptation.

Earlier in the same year, the Association created a Sustainable Development Task Group under the guidance of the Government Relations Department to advise, assist, support, and advocate for the sustainable development initiatives in the professions. Early in its development, the Task Group began to work collaboratively with the Manitoba government to review initiatives to integrate climate and social impacts consideration in infrastructure and engineering design, products, and processes.

In early 2019, the Association was successful in receiving grant funding to develop a scoping and strategic framework to implement the engineering and infrastructure elements of the BRACE program curriculum development and delivery. This work was completed in mid-2019 and submitted to the Manitoba government. More recently, the Association began working on the BRACE project for engineers and infrastructure decision-makers, which is to design and develop a comprehensive training and capacity enhancement package. This BRACE project will be completed in collaboration with other sectors in Manitoba and will add to the resume of BRACE projects across Canada. Currently, 19 projects initiated by several other jurisdictions, institutions, and organizations with over 10 million strategic investments are funded under the BRACE program.

The project will be managed within the Association's Government Relations

framework and reporting structure and delivered by three advisory committees: the Sustainable Development Task Group, BRACE Infrastructure Project Working Group, and the Indigenous Professionals Initiative Committee.

Key members of the project team include:

Project Manager – Curt Hull, P. Eng.

Curt Hull has decades of experience in project management and is one of the most widely recognized voices for climate change information and solution in the province. Curt has worked with Climate Change Connection and Climate Reality Project Canada (CRPC) over the past 13 years. He will be fulfilling this project management role as an independent contractor along with continuing to work part-time with Climate Change Connection and on the CRPC Board of Directors.

Technical Advisor – Jeff O'Driscoll, P. Eng.

Jeff O'Driscoll is one of only seven Canadian engineers to have achieved the Infrastructure Resilience Professional certification from Engineers Canada. This gives the team a unique advantage as they hope to include rejuvenation of this certification program as part of their BRACE infrastructure project outcomes. Furthermore, he has been able to put his knowledge into practice in Manitoba and other parts of Canada.

Research Assistant – Trina Semenchuk

Trina Semenchuk is a leader in the undergraduate engineering program at the University of Manitoba and is well on her way to being a leader on climate change solutions. As President of the University of Manitoba Efficient and Renewable Technology Hub (UMEARTH), she directs and assists the initiatives of this engineering-student-run sustainability organization.

Supporting team members including the Director of Government Relations, Scott Sarna; Director of Equity and Representation, Lisa Stepnuk; Indigenous Professionals Initiative Coordinator, Nicole Everett; Government Relations Administrative Assistant, Suling Dong; Senior Advisor, Tom Goldsborough; and Academic Advisor, Dr. Marcia Friesen.

The project will be completed over a two-year timeframe. Currently, the project team is finalizing a project working plan and refining the Terms of References for the BRACE Infrastructure Project Working Group. For further information about the BRACE Infrastructure Project or if you would like to provide recommendations, contact Scott Sarna at *SSarna@EngGeoMB.ca.*

NOTICE

Under the *Engineering and Geoscientific Professions Act* and the Association's Discipline By-law

This is notice that, on July 27, 2020, Mr. W. Hanuschak, P.Eng. consented to the registration of a conviction and issuance of a reprimand on a charge of professional misconduct in accordance with section 35(1)(f) of the *Engineering and Geoscientific Professions Act.*

The conviction arises out of Mr. Hanuschak's involvement in providing engineering services for foundation underpinning for a private residence in Winnipeg.

In the course of his involvement in this project Mr. Hanuschak:

1. failed to properly review the design and provide appropriate details for the placement of the piles, prior to applying his seal;
2. sealed a design which relied on information obtained by others not responsible to him; and
3. failed to conduct a site visit at any point during the project to confirm the details of the design or the conformance of the installed piles with the design.

Around the University of Manitoba campus

Dr. Halden retires as Dean of the Clayton H. Riddell Faculty of Environment, Earth, and Resources

The Clayton H. Riddell Faculty of Environment, Earth, and Resources said farewell to Dean Dr. Norm Halden this summer. During his 12 years as Dean, the Riddell Faculty saw significant growth in enrollment, research funding, and cutting edge facilities.

Dr. Halden received numerous awards throughout his career and most recently the Associations 2019 Technical Excellence Award. He played a key role in the design and development of the Northern Manitoba Mining Academy. He has also served on the Premier's Economic Advisory Council and is currently the presiding member of the Manitoba Mines Board.

The Association sends its best wishes to Dr. Halden and welcomes incoming Dean Dr. Stephan Pflugmacher Lima.

PhD student, James Bartz wins two national awards

Congratulations to our member and University of Manitoba civil engineering PhD student, James Bartz, P.Eng., who was awarded not one, but two, national awards in August 2020. His presentation titled, "Load Testing of Piles Subject to Negative Skin Friction", which is also the focus of his PhD thesis, earned him the Canadian Geotechnical Society's top prize in the oral category at the Society's 2020 online competition. Bartz was also awarded a Manulife Scholarship by Engineers Canada. This program offers three scholarships, of $12,500 each, annually to provide financial assistance to engineers returning to university for further study or research in an engineering field.

New Dean of the Price Faculty of Engineering

Congratulations to Dr. Marcia Friesen, P.Eng. on her appointment as Dean of the Price Faculty of Engineering effective January 1, 2021 to December 31, 2025. Dr. Friesen will also hold an appointment as tenured Associate Professor in the Center of Engineering Professional Practice & Engineering. Congratulations to Dr. Marcia Friesen, P.Eng. on her appointment as Dean of the Price Faculty of Engineering, effective January 1, 2021, to December 31, 2025. Dr. Friesen will also hold an appointment as tenured Associate Professor in the Center of Engineering Professional Practice & Engineering.

The ballots on the voting for the By-law changes were counted in accordance with the Association's By-law 16.6.10 on Friday, October 9, 2020.

By-Law Proposals:	Pass/ Fail	For	Against	Abstained
2020 Council Proposed By-law changes – By-law 9 Retired Members	PASS	819	138	98
2020 Member Proposed By-law changes – By-law 10.1 Dues and Fees	PASS	848	147	60

Welcome New Members

A.M.K.H. Abdelrahman
R. Almojuela
L.K. Aschenbrener
B.R. Ashrafi
V. Balasubramanian
E.A. Baliat
W.M. Basiouny
J.S. Baylis
E. Boostanabadi-Maralan
G. Borisov
C.J. Branton
B.G. Cade
W.Y. Cai
K.D. Caithness
A. Cocuz
J.S. Conrad
S. Cui
D.L. Delaloye
A.D. Densmore
N.J. Dietrich
D.M.E. Domansky
E. Dragan
D.M.T. Dy
K.J. Eckstrand
D.C. Edossa
N. Esmaeili
E.E. Essel
A. Farhoudpour
M.B. Feige
N. Firoozy
C.J. Forsyth
B.W. Freber
D.C.G. Froese
H.D. Ganske
Y. Gelfat
H. Gerami
S.L. Gilmour
B.F. Gobeille
Y. Haghgoo
Z.M. Harrison
R.D. Hatherly
F.A. Hempel
N.L. Huang
B. Jamali-Firouzabadi
M. Jolicoeur
J.D. Kempson
M. Keshavarz Khorasgani
N. Khalil
M. Khoshdarregi
J.C. Koop
D.A. Leroux
S.R.J. Little
J.M. Logan
H. Lu
Y.T.B. Ma
J.L.B.P. Macaraeg
D.A.R. Mackay
K.T. Mak
G.Q. Malkowich
K.R. Maschke
N.M. Melendez
D. Mercier
Y.A.M. Metwally
C.D. Miller
G.M. Montgomery
D.N. Moschini
P.T. Mugova
Y.M. Mullen
M. Nakhai
D.K. Nenadov
K.R. Nepal
J.G. Newton
M.J. Nikkel
A. Nirmal
M. Nuruzzaman
J.T. Olafson
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Professional Development and the "New Normal"

At its meeting in September of this year, the Continuing Competency Committee considered the issue of ProDev reporting during these unprecedented times. Several members had already requested that targets for the ProDev Reporting Program be reduced for 2020, and our fellow regulator, APEGA, had already made a move in that direction. The decision by the Continuing Competency Committee was to follow suit and allowed for reductions in both the number of categories and the overall target for 2020.

Contemplating this question resulted in some healthy discussion about ProDev opportunities while Manitoba and the rest of the world addresses the pandemic. Without a doubt, travel restrictions have played a major factor in preventing practitioners from attending conferences hosted in another province. This was one of the major factors leading to the decision to reduce the number of categories.

Another major factor was recognition of the fact that many physical gatherings have been cancelled. Without these events, there has been a reduced number of volunteer opportunities.

A prime example on this front was the cancellation of physical gatherings for Engineers Geoscientists Manitoba's Ingenium, which normally occurs at the Winnipeg Convention Centre in October, and which traditionally summons volunteers from across the membership.

Now that Ingenium has come and gone, it has highlighted how COVID has resulted in a "new normal" for so many aspects of our lives. This new normal can be challenging, in that it forces us to operate differently. Some of these changes, however, have provided positive outcomes.

Like most conferences, Ingenium was held virtually this year. This change allowed the organizers to consider a new format altogether. Instead of a single, full-day event that required participants to leave their workplace, Ingenium sessions were spread out over several days and allowed us to attend from the location of our choice. Additionally, those who registered to "attend" can view the recordings of the sessions at any time.

Many, many other conferences have followed this model, which has created a level of flexibility that we, as attendees, haven't seen before. One positive change is that this new normal allows attendees to mould their attendance at the conference around their personal schedule, instead of modifying their personal schedule to attend. Also, since attendance occurs online, it allows us to attend conferences that we couldn't have previously attended due to the costs of travel, the time required for travel, or other circumstances such as crossing a border.

Formal education opportunities are also moving online. Now, more than ever, it is easier to take that course that you've been thinking about completing for years. A course that used to occur once a year in Winnipeg is now available to all of us multiple times throughout the year.

Throughout this year, my wife has been using the expression, "I'm ready for precedented times". I love this phrase because it gets to the heart of our frustrations from dealing with COVID-19 restrictions and a desire to once again experience life-long traditions. However, there have been some positive changes that we can embrace.

How have your ProDev activities been affected during 2020? Have you discovered new ways to attain professional development? If so, I'd be happy to hear about them.

As always, I appreciate comments and discussion about standards issues. If you'd like to talk about the above topic or any other area of concern, please do not hesitate to contact me at *MGregoire@EngGeoMB.ca.*

DID YOU KNOW?

For all practitioners, the target number of categories in 2020 will be two instead of the standard three categories. In addition, **the overall target number of hours for all practitioners will be reduced to 215** for any reporting period that includes the 2020 calendar year.

DID YOU KNOW?

Did you know that you can still register to **access over 15 hours** of ProDev content saved in Ingenium's On-Demand Library via the Association website?

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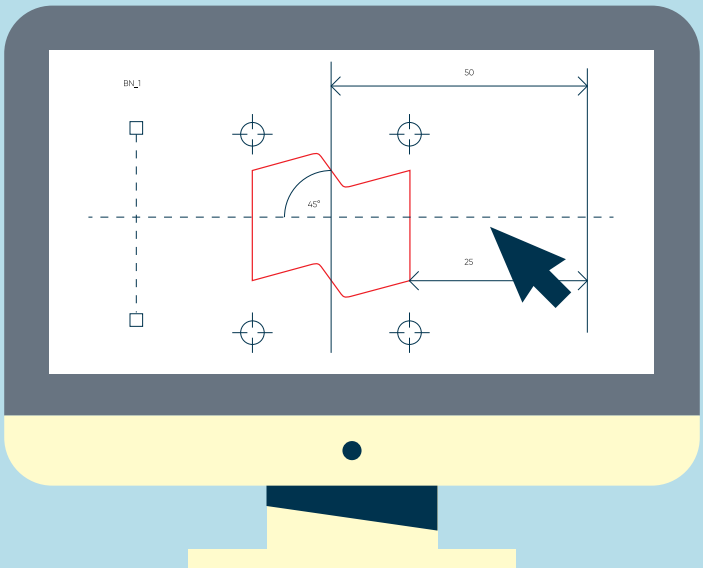

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