

PEG

SUMMER 2016

Dr. Steve E. Hrudehy, P.Eng.

APEGA's
97th
President



*The Association of Professional
Engineers and Geoscientists of Alberta*

apega.ca



WE SPECIALIZE IN SIMPLE, COST-EFFECTIVE AND RELIABLE FACILITY DESIGNS.

Gold-plated designs are out of place under any market conditions. That's why we focus on cost-effective engineering that simplifies facility operations and maintenance. We streamline equipment and design specifications to remove costly overdesign and minimize complexity.

Put our experience to work for your project.
Learn more at vistaprojects.com





SUMMER 2016

FEATURED PHOTO:
PAGE 10>>



34



52



68

FEATURES

- 8 & 9 New Council, Summit Recipients
- 10 Meet the President
- 15 Council Nominations Begin
- 40 What's Next in Legislative Review?
- 49 All About apega.ca
- 68 Science Plus Youth Equals This

DEPARTMENTS

- 4 President's Notebook
- 6 Interim CEO's Message
- 20 Movers & Shakers
- 34 Professional Development
- 52 Good Works
- 60 And You Are
- 65 Viewfinder
- 72 AEF Campaign Connection
- 75 Focal Point
- 82 Member Benefits
- 84 Record

COVER PHOTO:
Kurtis Kristianson, Spindrift Photography



PRINTED IN CANADA

PEG

VOLUME 7 | NUMBER 2 | SUMMER 2016

(Print) ISSN 1923-0044

(Online) ISSN 1923-0052

Editor **George Lee** ✉ glee@apega.ca

Administrative Assistant **Catherine Hiemstra** ✉ chiemstra@apega.ca

COUNCIL

President **Dr. Steve E. Hrudehy**, *P.Eng., FEC, FCAE, FSRA* (Canmore)
President-Elect **Jane Tink**, *P.Eng., FEC, FGC (Hon.)* (Okotoks)
Vice-President **John Rhind**, *P.Geol.* (Calgary)
Past-President **Connie Parenteau**, *P.Eng., FEC, FGC (Hon.)* (St. Albert)
Councillors **Natasha Avila**, *P.Eng.* (Cold Lake)
Dr. Jeff DiBattista, *P.Eng., MBA* (Edmonton)
Lisa Doig, *P.Eng., FEC, FGC (Hon.)* (Calgary)
Jennifer Enns, *P.Eng.* (Calgary)
George Eynon, *P.Geo., FGC, FEC (Hon.)* (Calgary)
Darren Hardy, *P.Eng.* (Calgary)
Dr. Brad Hayes, *P.Geol., FGC* (Calgary)
Dr. Timothy Joseph, *P.Eng., FCIM* (Edmonton)
Mahsoo Naderi-Dasoar, *P.Eng., M.Sc., PMP* (Edmonton)
Manon Plante, *P.Eng., MDS, CDI* (St. Albert)
Art Washuta, *P.Eng.* (Edmonton)
Terry Waters, *P.Eng.* (Calgary)
Public Representatives **Ross J. Harris**, *FCA, ICDD*
Robert Lloyd, *QC*
Mary Phillips-Rickey, *FCA*

NATIONAL ORGANIZATIONS

Engineers Canada Directors **Connie Parenteau**, *P.Eng., FEC, FGC (Hon.)*
Larry Staples, *P.Eng., FEC, FGC (Hon.)*
Geoscientists Canada Director **George Eynon**, *P.Geo., FGC, FEC (Hon.)*

BRANCH CHAIRS

Calgary **Johnathon Bain**, *P.Eng.* calgarybranch@apega.ca
Central Alberta **Stephen Huber**, *P.Eng.* centralalbertabbranch@apega.ca
Edmonton **Jim McCuaig**, *P.Eng.* edmontonbranch@apega.ca
Fort McMurray **Jason Vanderzwaag**, *P.Eng.* fortmcmurraybranch@apega.ca
Lakeland **Christopher Penny**, *P.Eng.* lakelandbranch@apega.ca
Lethbridge **Olivia Sieniewicz**, *P.Eng.* lethbridgebranch@apega.ca
Medicine Hat **Said Said Yussuf**, *P.Eng.* medicinehatbranch@apega.ca
Peace Region **Brian Morrison**, *P.Eng.* peaceregionbranch@apega.ca
Vermilion River **Kashif Dada**, *P.Eng.* vermillionriverbranch@apega.ca
Yellowhead **Ana Paula Mayumi Tanaka**, *P.Eng.* yellowheadbranch@apega.ca

US POSTMASTER: PEG (ISSN 1923-0044) is published quarterly in Spring, Summer, Fall and Winter, by the Association of Professional Engineers and Geoscientists of Alberta, c/o US Agent-Transborder Mail 4708 Caldwell Rd E, Edgewood, WA 98372-9221. \$15 of the annual membership dues applies to the yearly subscription of The PEG. Periodicals postage paid at Puyallup, WA, and at additional mailing offices. US POSTMASTER, send address changes to PEG c/o Transborder Mail, PO Box 6016, Federal Way, WA 98063-6016, USA.

The publisher has signed an affiliation agreement with the Canadian Copyright Licensing Agency.

Please return Canadian undeliverables to: APEGA, 1500 Scotia One, 10060 Jasper Ave., Edmonton, AB T5J 4A2. Publications Mail Sales Product Agreement No. 40062712

Opinions published in *The PEG* do not necessarily reflect the opinions or policy of APEGA or its Council. Editorial inquiries: glee@apega.ca. Advertising inquiries: chiemstra@apega.ca.

STAFF LEADERSHIP

EXECUTIVE

Interim Chief Executive Officer **Heidi Yang**, *P.Eng., FEC, FGC (Hon.)*
Director, Executive & Government Relations **Pat Lobregt**, *FEC (Hon.), FGC (Hon.)*
Director of Operations **Krista Nelson-Marciano**, *BA*

REGULATORY

Registrar **Carol Moen**, *P.Eng.*

MEMBER SERVICES

Acting Director, Member Services **Mohamed El Daly**, *M.Sc.*

COMMUNICATIONS

Director, Communications **Philip Mulder**, *APR, FEC (Hon.), FGC (Hon.)*

CORPORATE SERVICES

Director, Corporate Services **D.S. (Pal) Mann**, *P.Eng.*

APEGA CONTACT INFO

HEAD OFFICE

1500 Scotia One
10060 Jasper Avenue NW
Edmonton AB T5J 4A2
PH 780-426-3990
TOLL FREE 1-800-661-7020
FAX 780-426-1877
www.apega.ca
email@apega.ca

CALGARY OFFICE

2200 Scotia Centre
700 Second Street SW
Calgary AB T2P 2W1
PH 403-262-7714
TOLL FREE 1-888-262-3688
FAX 403-269-2787

Thank You x 8,289

In this year's APEGA Council Election, 8,289 Members cast their votes. That's a turnout of about 15 per cent. If you're represented in that group, we truly appreciate that you exercised your franchise.

Still, we think an organization of APEGA's stature can do much better. Each year, we work hard to provide more useful information about candidates. We also continue to refine the electronic voting process to make it more user-friendly. And after each election, we gather your comments to guide this program of continuous improvement.

Would you help us? Please take the short survey at apega.ca to tell us why you did or did not vote. You can link to the survey through the election page of apega.ca.

In the meantime, let's hear it for the corporate leaders on this list. Each of the following major Permit Holders below had a professional turnout of at least 30 per cent.

AMEC Foster Wheeler Canada Ltd.

ATCO Structures & Logistics Ltd.

Beck Engineering (1992) Ltd

Belloy Petroleum Consulting

Canadian Fertilizers Limited

Canbriam Energy Inc.

**Celanese EVA Performance
Polymers Inc.**

City of Lethbridge

Evrax Inc. NA Canada

John Crane Canada Inc

Keywest Projects Ltd.

MaXfield Inc

Newalta Corporation

OEM Remanufacturing Company

Opus Stewart Weir Ltd.

Raytheon Canada Limited

**Ryder Scott Company Petroleum
Engineers**

Scheffer Andrew Ltd.

Sproule Project Management Limited

Sproule U.S. Limited

Sproule Unconventional Limited

Strathcona County

Teck Coal Limited

**ThyssenKrupp Industrial Solutions
(Canada) Inc.**

TR Canada Inc.

Vantage Engineering Inc.

Zedi Inc.

Why did you vote
in the 2016 APEGA
Election?

Or

Why didn't you vote
in the 2016 APEGA
Election?



Visit apega.ca and take our
short survey now



Let's Apply our Knowledge and Innovation to Moving Alberta Forward

BY **DR. STEVE E. HRUDEY**, P.ENG., FEC, FCAE, FSRA
APEGA President

As I contemplate the challenges I'll face chairing the governing Council for the largest self-regulating professional organization in Western Canada, I'm reminded of what has always been at the foundation of our professions — applying scientific knowledge and evidence to diverse problems. Most of us can likely agree that this essential skill is fundamental to what we find challenging and rewarding about our professions.

Whether large or small, complex or simple, solutions must start with a serious and comprehensive focus on defining and thoroughly understanding the true dimensions of a problem. The most elegant solution in history will have limited value, possibly even negative consequences, if it is not directed at the authentic problem. When we're faced with the practical realities of providing professional services in an increasingly competitive and global market place, it can be challenging to avoid defining problems in terms of what we know best — the adage that if you are most skilled with a hammer, every problem may look like a nail.

Albert Einstein once said: "If I had an hour to solve a problem, I'd spend 55 minutes thinking about the problem and five minutes thinking about solutions." This particularly rings true as the pace of technological development continues to accelerate. Focusing our intellectual energy and adequate resources on problem identification often gives rise to the insights necessary to generate truly innovative and effective solutions. One of the things that distinguishes applied scientists from theoretical scientists is the savvy to know when our knowledge is close enough

for an effective solution, even if it is not the ultimate truth. Engineers put people on the moon by relying on calculations based on Newtonian mechanics, without needing the corrections arising from Einstein's Theory of Relativity. Our judgment is essential in knowing when an answer is close enough to the truth to achieve our objectives.

As a retired academic, I readily acknowledge that our professional education generally does not excel at fostering problem identification. More emphasis tends to be placed on teaching an ever-expanding body of knowledge. (Student design projects and competitions, which require a major investment of teaching resources to deliver, are an obvious and effective exception.) One of the most compelling lessons I learned in my first job after graduation is that there are no answers in the back of a textbook that solve complex, real-world problems. Perhaps we need to let future Professional Members in on this insight, while they are still in primary learning mode as students and Members-in-Training.

Our professions face enormous challenges caused by current economic conditions. We have been subject to boom and bust cycles for as long as I can remember. Only a handful of my 50 graduating classmates in mechanical engineering in 1970 had job offers. Knowing that our professions are strongly affected by economic cycles allows us to be cautiously optimistic about the future, because we know that conditions inevitably change. However, we cannot simply presume that the boom of recent years will return to Alberta in the same fashion.



We also need to be aware that bad economic times do not spread their pain equally among our Professional Members. Some disciplines (geophysics, for example) have been disproportionately affected.

APEGA needs to recognize all of these realities. We are certainly open to receiving constructive and creative suggestions from our membership about feasible measures we can consider. (My email address appears at the end of this column.)

At the risk of being trite, I note that difficult times also create opportunities. Jeff Bezos, founder and CEO of Amazon, observed: "I think frugality drives innovation, just like other constraints do. One of the only ways to get out of a tight box is to invent your way out." Great inventions and other transformative innovations need not be candidates for patent protection. Innovation is all about looking at how you do things in a different light — one that may result in greater efficiency or superior outcomes.

Steve Jobs said that innovation "comes from people meeting up in the hallways, or calling each other at 10:30 at night with a new idea, or because they realized something that shoots holes in how we've been thinking about a problem." Innovation cannot be mandated — you cannot schedule an hour a day to innovate. This kind of critical insight happens only if an organization routinely encourages creative interchange among its professionals.

For most of the past decade, worldwide investment has been beating a path to Alberta. This kind of external demand leads to economic growth and high employment. However, the inevitable shortage in professional capacity that comes with high external demand may force innovation to take a back seat to simply coping.

Clearly, as we have learned from more than one boom-bust cycle, Alberta does need to do more to diversify our economy. Some of our best and brightest still find it necessary to move elsewhere to find employment in specialized technological fields. We need to continue to take advantage of the can-do mentality that Albertans have always demonstrated, in bad times and good, to expand our technological horizons.

Our Members have certainly been innovative in solving problems facing Alberta, and they work creatively around the world, as well. With about 68,000 full Professional Members and Members-in-Training, APEGA's register represents about 1.6 per cent of Alberta's population. Given our training, education and skills, and our experience making technology work for the benefit of society, what group of professionals in Alberta is better placed to lead our pursuit of economic diversification?

APEGA must, above all else, be the accountable regulator of our professional

performance and conduct. That means APEGA itself cannot drive the pursuit of diversification, but we can certainly serve as a vehicle to inform our membership and Alberta's leaders about the innovation and diversification successes of our Members.

I invite all our Members to share with us your insights and advice about how we can innovate our way to a better future in Alberta. Our annual Summit Awards are an excellent way to celebrate the innovative achievements of our Members, so please remember to keep them in mind as a way to recognize your peers and colleagues in 2017. Nominations are now open, so please check apega.ca for more information.

You, the skilled Professional Engineers and Geoscientists of Alberta, are the largest and most renewable of all resources that this province has at its disposal. Our political leaders may not fully recognize this truth, but I dedicate my energy and time for my term as your President to making sure that the countless innovation and diversification success stories of our professions are widely heard and commonly understood across Alberta.

Questions or comments?

president@apega.ca

CEO DEPARTS APEGA

As you may well know by now, Mark Flint, P.Eng., is no longer the CEO of APEGA nor on the organization's staff. This change is effective May 12, and I announced it on behalf of APEGA's Council on the same day. We informed staff, and then we informed Members and the public on our website and in a news release. We also distributed an e-PEG Extra to Members.

I'd like to assure you that business proceeds as usual at our offices in Edmonton and Calgary. As we go through the process of establishing long-term leadership, I have every confidence in Interim CEO Heidi Yang, P.Eng., FEC, FGC (Hon.), along with our entire Senior Leadership Team and, indeed, the rest of our competent and motivated staff. APEGA will continue to serve the interests of the public and you, our Members, during this transition.

Heidi brings extensive leadership experience to the table. She was already part of our Senior Leadership Team as the Director, Member Services, a position she accepted in 2014 when she joined the staff of APEGA. A Professional Engineer for 17 years, she held many leadership positions during two decades with Weyerhaeuser in Grande Prairie.

I hope you'll understand that, for reasons of privacy, we will not be providing further information about Mark's departure. Council and the Executive of APEGA wish Mark well and thank him for his contributions as CEO.

Service, Regulation, and Commitment Continue Unabated After Leadership Change

BY **HEIDI YANG, P.ENG., FEC, FGC (HON.)**
Interim CEO

On May 12, APEGA Members and staff learned that Mark Flint, P.Eng., was no longer our CEO and no longer employed by APEGA. This was an unexpected development for all employees, including management, and I'm sure it was for Members, too. The situation demands a significant adjustment for those of us at APEGA who work, lead, serve, and regulate on behalf of the public and you, our Members, but let me assure you that we are up to the task.

On a personal and professional level, this is certainly a change for me. President Dr. Steve E. Hrudey, P.Eng., FEC, FCAE, FSRA, announced Mr. Flint's departure on a Thursday. The next day, he announced that I would be the Interim CEO. I certainly did not begin the work week thinking anything like this would happen! Since then, I have been on the proverbial learning curve — a busy and challenging place, to be sure. But each day I gain confidence in myself in this role and an appreciation of the breadth of knowledge and skill I can count upon in all operational areas of APEGA.

From the perspective of Members and applicants, business carries on as usual. We have very capable and dedicated staff and volunteers doing great work for APEGA, and nothing changes on that front. We continue to respond to issues as they arise. We continue to deliver all our regulatory duties in service to the public interest. And we continue to do our best to meet the needs of you, our Members. At the same time, we encourage your ongoing engagement in the professions of geoscience and engineering. We will continue to move forward.

The circumstances are not ideal for anyone moving into a new position, even on interim basis. However, I was happy to accept my new role and excited by the opportunities it presents. Professional Engineering and Geoscience are great professions. I volunteered for APEGA to help keep them great. Then I accepted the position of Director, Member Services, to further serve our professions. And I now I have accepted the Interim CEO position for those same reasons.

This is indeed a huge honour and a huge responsibility, and I promise I'll continue to, first and foremost, serve you and the public.

As you know, privacy and confidentiality require that APEGA provide few details on Mark's departure. I join the President and Council in thanking him for his contributions to APEGA and in wishing him the best. And on behalf of management and staff, I pass along the same sentiment.

Our organizational structure features a strong and cohesive Senior Leadership Team (SLT), which I was part of before the announcement, as Director, Member Services. As the Interim CEO, I will lead the SLT and the rest of the APEGA organization. My former spot on the SLT will be filled and looked after by Mohamed El Daly, M.Sc., who moves up from Director of Outreach & Product Services to Acting Director, Member Services. And Hana Marinkovic, Assistant Director, Outreach & Product Services, fills Mohamed's position to become the department's Acting Director.

I have great confidence in both Mohamed and Hana and know that Member Services is in good hands.

A question you probably still want answered is: why should we, as Members of APEGA, have confidence in Heidi Yang? It's a fair question. After all, I've been on the staff of APEGA for a relatively short time, about two years. However, my team and I have accomplished a lot in that period, essentially refocusing and reshaping Member Services. Great improvements have come out of that and those will continue.

Before I started as an APEGA director, I was strongly engaged in APEGA and deeply understood how it operated. A Professional Engineer for 17 years, I chaired the Peace Region Branch, and then I served a three-year term on Council, setting strategic direction for APEGA. This governance experience will serve me well, as I work closely with Council to lead APEGA in delivering on that strategic direction.

For two decades, I worked for Weyerhaeuser in Grande Prairie. My leadership roles there began soon after I was hired and continued until I left. I've managed projects and led operational units to effectively meet their safety and performance goals. In my last role at Weyerhaeuser, I was a

member of the Plant Leadership Team, and the Customer Service and Quality Manager for the site.

As interim CEO, I am committed to keeping APEGA moving forward until such time that a permanent CEO is appointed. Weyerhaeuser and APEGA Council have confidence in me, and so can you.

FORT MCMURRAY AND YOU

Obviously, my adjustment pales in comparison to what Members and others in the Fort McMurray region are going through. As I write this, the fire has crossed into Saskatchewan and is about



500,000 hectares in size. New evacuations have occurred at about a dozen camps and worksites, and many folks do not know what they'll find when they return to Wood Buffalo.

For any of you who were evacuated, I hope this edition of *The PEG* finds you safe and perhaps even back in your own home.

For those of you who lost your homes to the fire, I really can't imagine what you're going through, and I wish you all the best in extremely trying times.

At APEGA, we're doing our best not to compound your problems. I can't confirm all the details while meeting *The PEG's* deadline, but I can tell you that we've looked at every aspect of our interactions with Members and applicants to make sure that you're not penalized for your misfortune. You've got enough to worry about right now without having to think about your relationship with us.

Let's start with applicants. Once they have begun the application process, potential Members normally have 90 days to complete it. That 90-day clock is no longer ticking, however, for any applicants from the Fort McMurray area. Furthermore, examination candidates from the affected area who were scheduled to write technical exams in May will now do so in December.

If you are a Member affected by the fire, here are a couple of notes specifically for you. If you've received previous notices about your APEGA membership dues being overdue, please call us. Your dues will be temporarily suspended. If you registered for an APEGA professional development seminar and are unable to attend, cancel at any time — even after the event — for a full refund.

Challenging times, for sure. Please email me with any concerns you have, regarding the Fort McMurray situation or anything else to do with APEGA. I'll do my best to help you or connect you to someone who can.

Questions?

ceo@apega.ca

APEGA 2016-2017 Executive Committee and Council

EXECUTIVE COMMITTEE



Steve E. Hrudey
P.Eng., PhD, DSc(Eng),
FEC, FCAE, FSRA
President



Connie Parenteau
P.Eng., FEC, FGC (Hon.)
Past-President



Jane Tink*
P.Eng., FEC, FGC (Hon.)
President-Elect



John Rhind
P.Geol.
Vice-President

COUNCILLORS



Brad Hayes
P.Geol., PhD, FGC



Natasha Avila**
P.Eng.



Art Washuta
P.Eng.



George Eynon
P.Geo., FGC, FEC (Hon.)



Timothy Joseph*
P.Eng., PhD, FCIM



Jeff DiBattista
P.Eng., PhD, MBA



Terence Waters
P.Eng.



Darren Hardy*
P.Eng.



Manon Plante*
P.Eng., MDS, CD1



Jennifer Enns
P.Eng.



Lisa Doig
P.Eng., FEC, FGC (Hon.)



Mahsoo Naderi-Dasoor
P.Eng., MSc, PMP

PUBLIC MEMBERS OF COUNCIL



Mary Phillips-Rickey
FCA



Robert Lloyd
QC



Ross Harris
FCA, ICD.D

*newly elected
**last name on ballot was Pounder

2016 Summit Award Recipients

The Summit Awards honour and recognize the contributions APEGA Members make to the engineering and geoscience professions and to society. Congratulations to all award recipients!

Centennial Leadership Award



J.J. Roger Cheng
P.Eng., PhD

In recognition of the highest distinction relating to engineering or geoscience as an executive or director of a continuing enterprise.

Environment and Sustainability Award



Lourdes Luge
P.Eng.

In recognition of excellence in the preservation of the environment and the practice of sustainable development.

Outstanding Mentor Award



Arden Spachynski
P.Eng.

In recognition of exceptional achievement as a mentor.

Community Service Award



Paul Bauman
P.Eng., P.Geoph.

In recognition of an outstanding contribution made to society.

Early Accomplishment Award



Leon Prebeau-Menezes
P.Eng.

In recognition of exceptional achievement in the early years of a professional career.

Excellence in Education Award



Aminah Robinson Fayek
P.Eng., PhD

In recognition of exemplary contributions to teaching and learning.

Frank Spragins Technical Award



Kamal Botros
P.Eng., PhD

In recognition of integrity and expertise, and for outstanding accomplishments in fields related to engineering or geoscience.

Research Excellence Award



Jacques Georgy
P.Eng., PhD

In recognition of innovative research in the professions that improves our economic and social well-being.

Honorary Membership Award



Robin Gardiner

In recognition of service to the engineering or geoscience professions resulting in the betterment of society.

Women in Engineering and Geoscience Champion Award

Calgary Women in Klohn Committee

Karen Sagar, P.Eng.; Lucy Philip, P.Eng.;
Chelsea Wisheart, M.I.T; Michelle Van Elsberg, CHRP;
Vanessa Bellardinelli, APEGA applicant.

In recognition of achievement as a champion of women in engineering and geoscience.

Project Achievement Award

City of Red Deer's South Red Deer Regional Wastewater System Designed by Stantec

In recognition of a substantial contribution to technical progress and the betterment of society.

Meet the President



Dr. Steve E. Hrudehy, P.Eng., FEC, FCAE, FSRA

You just completed a three-year term as an APEGA Councillor and have served on several different APEGA committees over the past 16 years. Why did you run for President? Why is it important for you to volunteer with APEGA and be involved in the self-governance of the professions?

Steve Hrudehy: I thoroughly enjoyed my three years on Council, largely because of the excellent quality of people our Members consistently elect to govern the APEGA professions. I am also enjoying the challenges associated with the substantive changes we have addressed over that period.

Many of the changes have to do with how we cope with the massive influx of new registrants, year upon year. The number of applications dropped to under

8,000 in 2015 — still a huge number — but by 2014 had grown to over 9,000.

We've also been implementing new approaches to Council governance, with a greater focus on generative Council discussions. Included was the streamlining of the Council committee structure, reducing the number of committees from 11 to just four.

I can honestly say that while I was serving on Council I had no intention of running for Executive — that's how fulfilling I found the role of Councillor. However, some of our past Presidents are very persuasive! Throughout my career I have believed that our best leaders take on tasks like being President out of a sense of duty more than any recognition-based motivation. I am primarily motivated by the opportunity to serve our professions, which have provided me with enormous opportunities and satisfaction.

I firmly believe that practising a profession that is duty bound to serve the public is a privilege. That privilege must be honoured by participating actively in a process of self-regulation that allows us to ensure that we collectively perform to high standards of integrity and excellence.

What are your top priorities as APEGA's 97th President? And why are they important?

SH APEGA Members are major players in Alberta's economy. I believe that APEGA needs to be acutely aware of how the current downturn is affecting our Members and how we can continue to effectively discharge our responsibilities to the public under the *Engineering and Geoscience Professions Act (EGP Act)* during these trying times. We need to be open to learning about the realities our Members are experiencing

“I firmly believe that a key element of APEGA’s self-regulation mandate can be to promote pride in our professions among our Members. If we all exhibit that pride, we will be motivated to lodge complaints about any Member who is failing to perform up to the ethical and practice standards we collectively demand.”

and considering any relevant initiatives that we might adopt in these circumstances. I believe that our Members are uniquely well placed to drive innovation and creativity, which can help Alberta weather the current downturn and seize opportunities to become stronger than ever.

APEGA only exists in its current role because of the authority vested in us by the *EGP Act*. We have been undertaking a major review of our legislation with extensive consultation of our membership to prepare recommendations to the Government of Alberta for the first major overhaul of the Act in over 30 years. During the coming year we need to tackle the General Regulation, which contains most of the operational detail for exercising APEGA powers, and our Bylaws, which provide the procedural details for our governance and operations. These activities are critical to APEGA being able to deal effectively with current and future challenges for our professions. I will do my utmost to engage our Council and our Membership in providing continuing input to this process to ensure that we present the best possible recommendations to the Government of Alberta.

The challenges facing APEGA are only likely to grow as external factors like outsourcing make regulation of professional practice more complex. APEGA has protected the public by initially being diligent about those we admit to practise our professions. APEGA has taken important steps to improve our investigative processes to ensure we can be responsive to complaints about unprofessional conduct and unskilled practice. We are evaluating our practice review and Continuing Professional Development programs.

However, we cannot realistically expect that APEGA can ever have the staff capacity

to ensure a totally preventive regime. Consequently, our Members need to identify those among us who should be investigated before the public finds it necessary to file a complaint. I firmly believe that a key element of APEGA’s self-regulation mandate can be to promote pride in our professions among our Members. If we all exhibit that pride, we will be motivated to lodge complaints about any Member who is failing to perform up to the ethical and practice standards we collectively demand.

You bring an interesting perspective to the legislative review process, having spent over 40 years protecting the public interest through your work on drinking water safety, in environmental risk consulting, and on the Alberta Environmental Appeals Board. How will your knowledge in these areas help inform the legislative review process?

SH As I noted earlier, the legislative review process is of particular importance to me. My views guiding my career have been driven by the perspective I learned from my Dad. That is, that personal integrity is the most important characteristic that anyone must honour and demonstrate in a career. I accepted the Cabinet appointment to serve as an administrative law judge in 1996 for the Alberta Environmental Appeals Board (EAB). Frankly, in the beginning, I didn’t fully understand what I was taking on. I quickly learned that natural justice, the foundation of conflict resolution in a civil society, was engrained in all aspects of the EAB and was something that I was inherently comfortable respecting.

The EAB often provided findings that were contrary to the expectations of

appellants, but EAB-sponsored, third-party surveys of participants consistently showed that appellants believed that they had been heard and treated fairly. My 13 years on the EAB, including four as its chair, provided me with an excellent opportunity to hone my listening skills and develop my ability to make reasonable and fair judgments within the constraints of the legislation about complex disputes. An ability to listen and understand others is a skill we are all challenged with achieving in a world where technological distractions and information overload abound. In my experience, most conflict arises from inadequate listening skills, including a tendency for others to hear not what you are actually saying but what they expect you to say. There is no magic answer to this challenge, but awareness of its importance is a significant first step to improving understanding and reducing avoidable conflict.

Another experience with a long-lasting impact on my career and on me personally was my participation from August 2000 to May 2002 on the Research Advisory Panel to Justice Dennis O’Connor, Commissioner of the Walkerton Inquiry. Justice O’Connor is a remarkable man who demonstrated exemplary character as a judge entrusted with finding the truth in a terrible tragedy. In addition to over 2,000 drinking water consumers suffering serious illness, seven died and 27 (half between the ages of one and four) developed a serious kidney ailment with potential life-long consequences — all from consuming contaminated drinking water from a public water system. There was enormous pressure from the Ontario Provincial Government to place the blame solely on the operators, but Justice O’Connor recognized that, above many other contributing factors, the provincial

regulatory system had failed miserably. The harshest criticism was reserved for those who had failed in their duty of care to ensure safe drinking water.

That experience has guided a large component of my research, publishing, and professional speaking, including co-authoring with my wife, Elizabeth, two major, internationally acclaimed books documenting case studies of drinking water contamination. Although the failures in Walkerton and most of the case studies we have written about have not primarily involved errors by Professional Engineering and Professional Geoscience, the case study experiences resonate with me. Relating those case studies to some disasters that *have* involved our professions — for example, the Elliot Lake Algo Centre Mall collapse — reinforces the critical importance of what we do.

What does self-regulation mean to you as a professional?

SH Self-regulation is a privilege, not a right, and it can only be sustained for our professions if we continue to place the public interest above the self-interests of our Members. There are precedents in Canada for governments taking away the privilege of self-regulation if they lose confidence in the ability of a profession to keep the public interest paramount.

Certainly, self-regulation must be much more than each Member just regulating him or herself. Self-regulation means that we are regulated by our peers, who collectively through APEGA establish and maintain the standards and procedures that we use to judge our professional competence and ethical practice. We all have a responsibility to ensure that our professional colleagues and professional contacts are held to the high standards we collectively set to protect the public.

Self-regulation also means that APEGA must be more than just an agency funded by its Members' licence dues to pursue a mandate to regulate them. There is us! The *EGP Act* created APEGA by authorizing us to elect our own Council and made it directly accountable to the Government of Alberta to ensure, by appropriate oversight, that APEGA functions to protect the public effectively



“An ability to listen and understand others is a skill we are all challenged with achieving in a world where technological distractions and information overload abound. In my experience, most conflict arises from inadequate listening skills, including a tendency for others to hear not what you are actually saying but what they expect you to say. There is no magic answer to this challenge, but awareness of its importance is a significant first step to improving understanding and reducing avoidable conflict.”

by means of our collective commitment. Self-regulation requires an enormous level of volunteer commitment from our Members to serve many functions. We have been fortunate to achieve remarkable levels of volunteer contribution. Maintaining and enhancing those

contributions is an ongoing challenge.

Finally, because our elected Council is ultimately accountable for APEGA's ability to deliver its regulatory, public protection, and Member services, our annual election of Council Members is at the core of our ability to effectively self-regulate.

What are some of the challenges facing APEGA and the professions of engineering and geoscience? How should APEGA address them?

SH We are facing a challenging year ahead that clearly has serious implications for many of our Members and for APEGA itself. I can reassure Members that they are well represented on Council by Members who know the realities of professional practice and the challenges of our economic cycles.

APEGA has come through a decade of unprecedented growth, which has driven priorities to streamline registration. Major efficiencies have been achieved and are continuing. We recognize a need to align our registration fee structure to recover the costs of processing each type of application.

We have come to recognize needs for improvements in investigative, discipline, and appeals processes to provide more timely responses, while acting to ensure that natural justice governs all that we do. We are also looking at our practice review processes, and we recognize a need to enhance ethics core values in our Continuing Professional Development programs. Ethics principles provide the

common and essential framework for guiding the diverse range of professional practice that APEGA must regulate. If we can all be confident that our Members fully embrace our *Code of Ethics* — including that Members “shall undertake only work that they are competent to perform by virtue of their training and experience” — trouble can be prevented, regardless of the wide range of activities that our Members pursue.

Despite all our challenges, APEGA must continue to demonstrate that our professions are worthy of being granted the privilege of self-regulation. This clearly requires a high degree of personal responsibility and accountability by each of our Members.

There’s been much discussion recently about the need for innovation to diversify Alberta’s economy. How can APEGA professionals be leaders in this area? What do professionals need to do differently or better to spur innovation in their fields?

SH I have addressed this topic in more detail in my President’s Notebook in this issue of *The PEG*, but I’ll touch on it here, too. I firmly believe our

Members are better equipped than any other professions to innovate and lead diversification in Alberta. We only need to recognize how important our skills are to this province and spark our creativity towards supporting greater economic diversification.

What does being a leader mean to you? How would you define your leadership style?

SH I believe that being a leader means accepting and honouring an unwavering commitment to the cause that I am taking on. During my career, I have always primarily sought to lead any initiative I have taken on by personal example, rather than by exhortation or other motivational means. I am pleased to note that I expect that leading APEGA will be rewarding because of the excellent and committed leadership APEGA has received in the past, the excellent and informed contributions of our Council, the remarkable contributions of our volunteers, and the dedication and professionalism of our staff.

You live in Canmore and saw firsthand the effects of flooding along Cougar Creek in June 2013. You

“I can honestly say that while I was serving on Council I had no intention of running for Executive — that’s how fulfilling I found the role of Councillor. However, some of our past Presidents are very persuasive!”





also served on an expert panel that made recommendations on how to protect people and property from future flooding in Calgary. How did that experience impact your views on the role that professionals have in reducing climate change impacts and risks, especially when it comes to public infrastructure?

SH Our professions will always encounter challenges when dealing with public safety issues, particularly those that require substantial foresight, such as flood mitigation and protection. Special interests inevitably abound. Whenever we are dealing with risk that carries complexity and considerable uncertainty, seeking sensible foresight will usually be an uphill battle. There will be no shortage of those who may be seeking short-term gain to advocate allowing others to bear longer-term risks, such as developing and selling in a flood plain. One tangible benefit of recent climate change debates is a greater focus on planning and building with risk and uncertainty in mind.

Our Members need to hone their communication skills to explain to decision-makers such difficult concepts as a predicted one-in-300-year flood that could happen next year and even two years in a row. Some advocacy groups will claim unmanageable uncertainty

“Our professions will always encounter challenges when dealing with public safety issues, particularly those that require substantial foresight, such as flood mitigation and protection. Special interests inevitably abound. Whenever we are dealing with risk that carries complexity and considerable uncertainty, seeking sensible foresight will usually be an uphill battle.”

to promote ill-defined applications of a precautionary principle, because it can be inherently more persuasive than an honest understanding of uncertainty. We have to remain remarkably patient and persistent to avoid responding to uninformed and unethical claims with our own claims of certainty that may not be justified.

What is your vision for improving the profile of Professional Engineers and Professional Geoscientists? Why is this important?

SH Any moves to improve our profile with others must surely start with our own view of ourselves. I firmly believe that we must focus on instilling pride in our professions, because that has the potential to ensure that we collectively will not tolerate inferior behaviour by others. Who better to prevent the public from experiencing unethical or incompetent practice than our own Members? Who else will have enough pride in our professions to prevent those who fail to meet our collective standards from being allowed to inflict harm on the public? We are equipped to exercise this duty, and we need to let the public know that.

When you aren't working as a consultant or volunteering for APEGA, what keeps you busy?

SH I maintain an office at the University of Alberta, where I hold research funding and support a few

graduate students. I have not severed my connections there, even though I am no longer employed by the university. Unfortunately, I have stopped curling and golfing, after suffering some joint injuries, but I maintain hope of resurrecting one or both of these in future. Hiking, cross-country skiing, and occasional fly-fishing are pursuits I enjoy in the mountains, but I certainly need to make much more time for these while I am still able to enjoy them. Maybe next year?

Is there anything you want to say that these questions haven't covered?

SH Teaching and public speaking have been an important part of my career, as some of you will know. I would love to disseminate the message about our professions and what we have to offer to the people of Alberta. If any of our Members have any speaking engagements for an Alberta audience that could benefit from a presentation by the President of APEGA, please do not hesitate to contact me or APEGA staff. I promise to do my best to respond positively to such requests.

Finally, I would like to appeal to those Members who are able to but have not yet volunteered for APEGA to explore the numerous opportunities available to our Members. APEGA can only continue to perform to its high standards if our Members are willing and able to be involved, and contribute to our ongoing success.

Nominating Process Begins Now

Serving on Council is one of the most important volunteer opportunities APEGA has to offer. If this challenging, rewarding, and fulfilling commitment is for you, now is the time to make your decision — the search for candidates to run in the 2017 APEGA Election starts now.

Members seeking election must submit their nominations in time to be considered by APEGA's Nominating Committee. Nominations close October 19, but you should start now. Strong preparation will give you the best chance of being endorsed by the Nominating Committee and elected by your peers.

Details here and over the next three pages provide the basics of what you'll need to prepare a nomination and what a Council commitment requires. Full information appears online at apega.ca and in a special election area of the Member Self-Service Centre, accessible through the website. The self-nominating period begins Sunday, July 10.

APEGA no longer accepts paper nominations. Instead, we accept them electronically through the Member Self-Service Centre.

You'll need to prepare a variety of materials (some mandatory and some not) and gather the endorsements of 25 other Professional Members.

The APEGA Nominating Committee is charged with ensuring recommended candidates represent a strong combination of attributes for good governance and succession. Through its own networks, the committee searches for potential candidates to endorse. It also draws upon self-nominated candidates. Before the election, the committee arrives its list of candidates — Members the committee has decided are willing, suitable, and available for Council governance and succession.

Names of all qualified and properly nominated candidates will appear on the 2017 ballot, regardless of whether they receive the Nominating Committee's endorsement.

Every year, at least four Professional Members are elected to Council. Members also choose a President-Elect and a Vice-President each year, who will lead Council and join the immediate Past-President on the APEGA Executive Committee. Not including the Executive Committee, Council is made up of 12 Professional Members and three public members. The Government of Alberta appoints public members to be the eyes and ears of the public.

APEGA must receive nominations by October 19, 2016, at 11:59 p.m. That allows time for nominations to reach the Nominating Committee 180 days before the next APEGA Annual General Meeting, on April 28, 2017, which APEGA's bylaws require.

Once the Member Self-Service Centre begins accepting nominations on July 10, each potential nominee will be able to go in and out of the site to develop his or her nomination in draft, before finalizing it and clicking submit. Once submit is clicked, the nomination is final and locked from changes.

The collection of signatures takes place digitally, which makes it easier for potential nominees in areas without large pools of Members in their local networks.

APEGA runs background checks on all potential nominees, a term you will need to accept during the electronic process. Also, two or more Members of the Nominating Committee will, as a panel, interview each nominee to review the information provided. Interview results become part of the committee's process in deciding who to endorse.

What it Takes to be a Good Councillor

Your Council commitment is three years and will take up a lot of your time. Before you start, it's a good idea to be certain the job is for you. Following are two lists to help you decide.

CHARACTERISTICS OF A GREAT COUNCILLOR

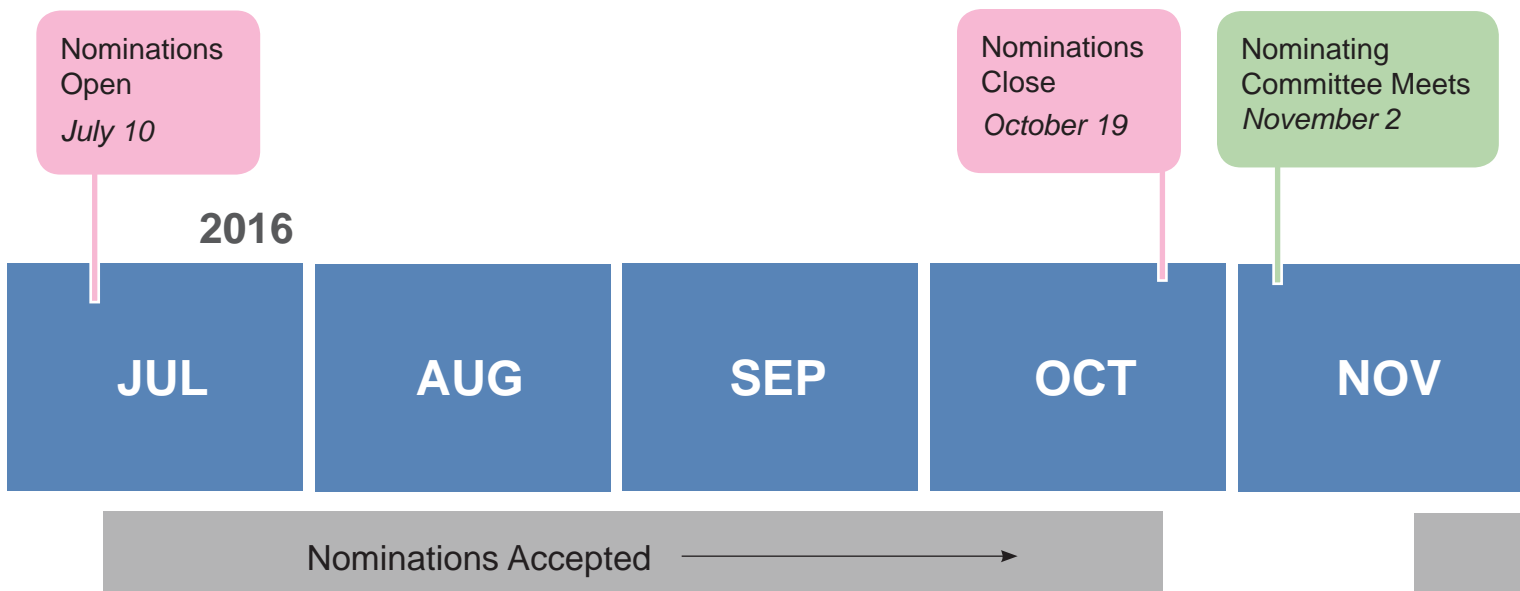
1. Experience in professional practice
2. Basic understanding of the principles behind professional regulation
3. Familiarity with board management and governance
4. Balanced perspective and problem-solving attitude
5. Particular knowledge of important issues or underrepresented groups
6. Strong champion of professionalism and of APEGA
7. Track record as a contributor
8. Willing to commit time to APEGA

TOP COUNCIL NEEDS

Council and the APEGA Nominating Committee have identified the top nine needs for the 2017 Council. You don't have to meet all nine criteria — or any of them — to run. This is simply meant as a guide to help you know what the Nominating Committee is looking for when it comes up with its endorsements.

1. Business and Organizational Experience
2. Governance Experience
3. Risk Management Understanding
4. APEGA/ASET Experience
5. Financial Literacy
6. Regulatory Experience
7. Varied Experience and Background
8. Strategic Planning Experience
9. Work Experience (minimum 10 years)

TIMELINE: Nominations and Election 2017



Next Steps in Creating a Great Nomination

You're certain that you've got the time, dedication, and personal attributes to be an effective participant in the governance of your professions.

To top it off, you've got a skillset you know will be strategically useful to APEGA Council.

All that adds up to you not only qualifying as a candidate and but also having a good chance of being endorsed by the Nominating Committee. So, what now?

On July 10, you can start the actual process of uploading your nomination materials to the Member Self-Service Centre of apega.ca. It's a step-by-step process with a save-draft function, and it requires thought and preparation. You'll need to:

- read all materials on the site
- fulfill all mandatory requirements
- consider the non-mandatory requirements and fulfill those you decide are important
- work offline to get everything ready

MANDATORY REQUIREMENTS

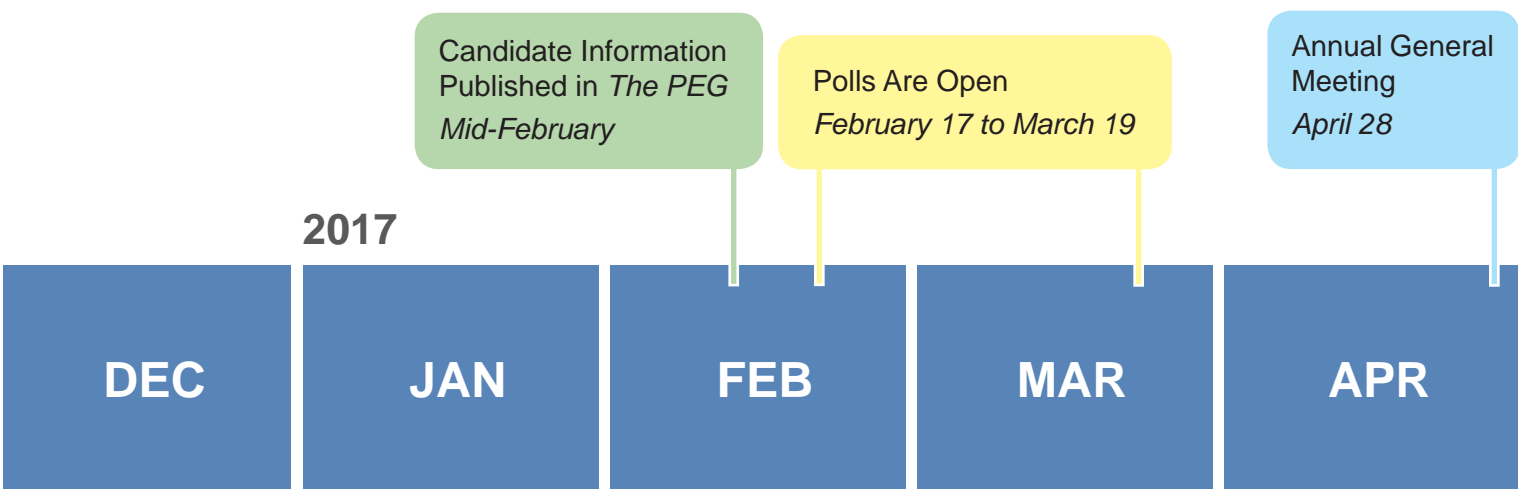
- Reach out to 25 Professional Members in good standing to support your nomination. Let them know that they'll be contacted electronically to confirm their support.
- Find or have taken a print-quality photograph of yourself — a headshot.
- Write a 750-word personal statement. Make sure it includes the information you think is important for voters to know about you.
- To help the Nominating Committee in its review, write an explanation of why you want to run for Council. You can type it online or copy-and-paste it in, once the nomination site is open.
- Also for the Nominating Committee's review, rate various skills and attributes from 1 to 7 (1 being lowest, 7 being highest).

NON-MANDATORY REQUIREMENTS

- Polish and post your resume. It will be available online for voters to read, but it **will not** be published in *The PEG*.
- Gather and submit any supporting documentation you think is important. This information will be available online for voters to read, but it **will not** be published in *The PEG*.
- Have a video shot of you promoting yourself as a candidate. We recommend keeping it short and to-the-point – up to two minutes long. We will post the video online.

Before your materials are accepted for publication and advancement to the Nominating Committee, APEGA will review them for professionalism and appropriateness.

And now – get busy!



Candidate Information Available
 e-PEGs, e-PEG Extras, social media, apega.ca



Duties and Responsibilities of a Council Member

Council Members have six core duties.

1. Duty of Care

- Act honestly
- Act in good faith
- Act in the best interests of APEGA
- Avoid conflict of interest

2. Duty of Knowledge

- Understand the legislation governing Professional Engineers and Geoscientists in Alberta and the responsibilities of self-governance
- Understand APEGA's mission and vision
- Understand APEGA's strategic and business plans
- Understand APEGA's governance model
- Be familiar with APEGA's governance manual

3. Duty of Diligence and Skill

- Be as informed about APEGA issues as is reasonably possible
- Identify external factors that may affect APEGA
- Prepare for, attend, and participate in all required meetings
- Use individual expertise in the best interests of APEGA

4. Duty to Manage

- Establish policies, provide guidance, and measure results
- Delegate implementation of activities to the Chief Executive Officer

5. Duty to Participate

- Participate in the development and renewal of APEGA's strategic plan
- Serve on selected APEGA task forces or committees
- Attend the Annual General Meeting and Summit Awards Gala
- Attend APEGA and Branch meetings as a representative of Council
- Mentor new Council Members and assist in their orientation
- Vote at meetings

6. Duty to Represent Council

- Provide a fair hearing to any APEGA Member regarding APEGA policies and administration
- Present Council decisions and actions in a positive and supportive manner
- Direct concerns to the Chief Executive Officer or the President if unable to provide an adequate explanation
- Attend selected other events, such as government functions, on behalf of Council

Characteristics of a Great Councillor

- ✓ Experience in professional practice
- ✓ Basic understanding of the principles behind professional regulation
- ✓ Familiarity with board and management governance
- ✓ Balanced perspective and problem-solving attitude
- ✓ Particular knowledge of important issues or under-represented groups
- ✓ Strong champion of professionalism and of APEGA
- ✓ Track record as a contributor
- ✓ Willing to commit time to APEGA

Characteristics of a Great President-Elect (1ST Vice-President)

- ✓ Recognized as a leader within the professions
- ✓ Track record of participating with APEGA or technical societies, or executive-level experience in professional practice
- ✓ Skilled leader — visionary, effective communicator, internal consensus builder, external diplomat
- ✓ Familiar with board and management governance, as well as forming and implementing policy and strategy
- ✓ Passionate champion of professionalism and of APEGA
- ✓ Energy and enthusiasm to do the work of Council
- ✓ Willing and able to commit significant time to APEGA (with the support of family and the backing of employer)

Activity

Activity	Councillor	Vice-President	President-Elect	President
Council meetings 4 all-day meetings ½ day preparation for each	6 days	6 days	6 days	6 days
Strategic retreat	2 days	2 days	2 days	2 days
Executive Committee meetings 4 all-day meetings 1 day preparation for each	—	8 days	8 days	8 days
Other committee meetings 1 day of preparation for each	8 days	8 days	8 days	24 days
Other meetings, briefings, and presentations	4 days	9 days	9 days	75 days
Total	20 days	33 days	33 days	115 days

IMPOSSIBLE TIMELINES. COMPLEX SITE. DIFFICULT SOIL CONDITIONS.

Count us in.

Foundation Piling ♦ Excavation Support ♦ Ground Improvement

Keller thrives on challenges and excels where others struggle. Backed by the largest and most comprehensive independent ground engineering specialist in the world and with full-service capabilities and over 30 years of local on-site experience, Keller Canada provides the largest variety of deep foundation piling, earth retention/shoring and ground improvement solutions in the country. Engage us early to experience the true benefits of value engineering.

Lower your total install costs today.

♦ KellerCanada.com

Acheson, AB, Corporate Office
2-53016 Hwy 60 T7X 5A7
P: (780) 960-6700
F: (780) 960-6725

THINK SAFE

KELLER
Canada

Movers & Shakers

CEA AWARDS SHOWCASE APEGA MEMBER ACHIEVEMENTS

Whether she's designing pedestrian-friendly streets, planning future public transit routes, or maximizing on-street parking, **René Rosvold, P.Eng.**, is always looking for innovative ways to help communities improve their transportation networks. She's doing a good job of it, too — more than a good job. In fact, Ms. Rosvold received the Harold L. Morrison Rising Young Professional Award at the 2016 Consulting Engineers of Alberta (CEA) Showcase Awards in February.

A project manager and transportation planning engineer with **CIMA+** in Calgary, Ms. Rosvold graduated from the University of Calgary in 2005 with a civil engineering degree. Since then, she's worked on a variety of transportation planning projects, most recently creating transportation master plans for Sylvan Lake in central Alberta and North Battleford, Sask.

"I have been fortunate to have great mentors and have been involved in diverse and interesting projects throughout my career," says Ms. Rosvold on her LinkedIn summary. "I have lots of learning left to do and I am looking forward to gaining more experience in project management, public consultation, and roadway design and safety."

Also recognized at the Showcase Awards were **Dick Walkers, P.Eng.**, **FEC, FGC (Hon.)**, and **Don Chambers, P.Eng.**, who jointly received CEA's



René Rosvold, P.Eng. . .
. . .a rising young professional

Lieutenant Governor's Award for Distinguished Achievement.

The duo founded **Walters Chambers & Associates** in 1984 at the height of a recession. They not only persevered but achieved great success, spending the next 30 years providing structural engineering design services for clients across Canada and the U.S., and around the globe.

Both are civil engineering graduates from the University of Alberta who went on to finish

master's degrees in civil engineering — Mr. Walters at the U of A and Mr. Chambers at the University of London in the U.K.

Before they became business partners, Mr. Walters and Mr. Chambers were colleagues at B.W. Brooker Engineering in Edmonton, working on projects like the LRT system and the Shaw Convention Centre. Still, times were tough and projects were hard to come by.

"So we thought that if we weren't going to get paid working for somebody else, we might as well not get paid working for ourselves. And we could build something that we believed in and do it our way," Mr. Walters says in a story in *Canadian Consulting Engineer* magazine.

Keeping the business small — it's never had more than 25 employees — enabled Walters Chambers & Associates to do what they loved most: hands-on engineering. As Mr. Chambers explains: "We made a point of not getting big. We stayed small, so either Dick or I would be aware of any project going on. It worked out quite nicely."

Both found time to volunteer with the Consulting Engineers of Alberta and APEGA. Mr. Walters has volunteered with the regulator for more than 25 years, serving as an APEGA Vice-President and as a Council Member, and

CONTINUED ON PAGE 22 >>



WHO WILL BE CELEBRATED NEXT?

It's actually up to you.

Without nominations, deserving Professional Engineers and Professional Geoscientists will go unrecognized at the annual, preeminent event of our professions — **The Summit Awards Gala.**

Nominate greatness so our accomplished Members can be celebrated for their contributions to society. Nominate a peer, a colleague, or even a project. Our new shareable digital nomination form makes it easier than ever.

BE AMONG EXCELLENCE. BE AT THE SUMMIT.



SUMMIT AWARDS NOMINATIONS

Final submissions due **September 15, 2016.**
NOMINATE NOW!



The Association of Professional
Engineers and Geoscientists of Alberta

For more information visit apegasummit.ca/nominate



CONTINUED FROM PAGE 20 >>

sitting on numerous committees. Mr. Chambers was active for several years on APEGA's Joint Board of Practice.

Mr. Walters continues as a director at the company he cofounded. His son, **Richard Walters, P.Eng.**, is president. Mr. Chambers, an APEGA Life Member, jokes that these days he's the president of Retirement Inc., an enterprise that allows him to enjoy hobbies like pottery, woodworking, and backcountry skiing.

IN THEIR WORK CLOTHES

Woodwork and other hobbies are all in a day's work for Don Chambers, P.Eng., who calls himself the president of Retirement Inc. these days. Dick Walters, P.Eng., FEC, FGC (Hon.), (inset) continues as a director of Walters Chambers & Associates, a consulting company he and Mr. Chambers cofounded in 1984. The two jointly received CEA's Lieutenant Governor's Award for Distinguished Achievement, at this year's Showcase Awards. For the full list of recipients, visit www.cea.ca.



THURBER ENGINEERING LTD.

Appointments

Shawn George Russell, DEC, B.A.Sc, P.Eng. (Associate, Edmonton)

Shawn completed his first College Diploma at the Cégep de Sainte-Foy in 1989 and obtained his B.A.Sc. in Civil Engineering from l'Université Laval in 1998, and is currently completing his M.Eng. at the University of Alberta. He joined Thurber's Fort McMurray office in 2004, serving as office manager and resident geotechnical engineer. He relocated to Thurber's Edmonton office in 2006, and currently provides geotechnical engineering services for a range of industrial, municipal and transportation infrastructure projects. His main areas of expertise include construction project management, foundation analysis and design, slope stability analysis, the characterization of landslides, the design of landslide stabilization measures and geotechnical instrumentation.



Luis A. Martinez, M.Eng., P.Eng. (Associate, Calgary)



Luis completed his B.Eng. in Civil Engineering in 1995 at Ricardo Palma University in Peru, and his M.Eng. in Geotechnical Engineering at the University of Alberta in 2006. He Joined Thurber's Calgary office in 2012, and currently provides senior level geotechnical services to a wide range of industrial and infrastructure developments and transportation projects. His main areas of expertise include design of foundations, slope stabilization, retaining walls and temporary shoring, and soil-structure interaction analysis.

Pawandeep Sandher, M.Eng., P.Eng. (Associate, Edmonton)

Pawandeep completed his B.E. in Civil Engineering in 1996 from Punjabi University (India), and his M.Eng. in Soil Mechanics and Foundation Engineering from Punjab Technical University (India) in 2003. Pawandeep joined Thurber's Edmonton office in 2004, and currently provides geotechnical engineering services for a wide range of industrial and commercial projects. His main areas of expertise include site investigation, foundation analysis and design, pile construction monitoring and materials testing.



Lucas Barr, M.Eng., P.Eng. (Associate, Calgary)



Lucas joined Thurber in 2002 after completing his Dipl. in Civil Engineering Technology in 2002 at SAIT, and later pursued his B.Sc. in Civil Engineering in 2005 at Lakehead University in Thunder Bay, Ontario. He then completed his M.Eng. in Geotechnical Engineering in 2011 at the University of Calgary after which he did a brief stint working for an oil sands mining company. He re-joined Thurber's Calgary office in 2013. His main areas of expertise include identification and assessment of geohazards and their impact on existing and new infrastructure, site investigation, slope stability and stabilization methods, trenchless technology, foundation design and construction, and geotechnical instrumentation.

Iain DC Gidley, M.Sc., P.Eng. (Associate, Calgary)

Iain completed his B.Sc. in Civil Engineering in 2006 and M.Sc. in Geotechnical Engineering in 2009 at the University of Calgary. He joined Thurber's Calgary office in 2009. Iain has been involved in a variety of geotechnical services for municipal, oil and gas pipeline, Oil Sands and other mining clients. His areas of expertise include geotechnical instrumentation program design and interpretation, construction monitoring, two and three dimensional stress deformation analysis, slope stability analysis, foundation design and advanced laboratory testing. Iain also has several publications with topics ranging from the behaviour of clays, soil structure interaction modelling, to Oil Sands Tailings technology development.



thurber.ca

**NEW ENGINEERING DEAN
AT UNIVERSITY OF ALBERTA
FOCUSES ON INNOVATION,
PROGRAMS, PARTNERSHIPS**

His interim position is interim no more — **Fraser Forbes, P.Eng., PhD**, is the new Dean of the University of Alberta's Faculty of Engineering. He was appointed to a five-year term on May 16. Prior to the announcement, he was the interim dean for almost a year, taking over for **David Lynch, P.Eng., PhD, FEC, FGC (Hon.)**, who moved out of the position in June 2015 after 21 years at the helm.

Dr. Forbes was chosen for his expertise in teaching, research, and

governance. He joined the U of A in 1996 as a professor in the Department of Chemical and Materials Engineering, becoming its chair in 2002. He's continued to actively pursue research interests in process modelling and identification, process control, and engineering optimization, while also serving on the U of A's Chairs Council Executive and the President's Advisory Council of Chairs.

He's taking over where Dr. Lynch left off, continuing to grow the faculty while pursuing ambitious goals. Dr. Lynch, a longtime APEGA volunteer and past recipient of the Centennial Leadership Summit Award, continues

with the university as a professor in the Department of Chemical and Materials Engineering.

"During the next five years our focus will be on maintaining and, where possible, accelerating our momentum, hiring the highest-quality people, providing the highest-quality spaces to students and researchers, and continuing our long history of exceptional teaching and research programs," Dr. Forbes notes on the faculty website.

Part of that focus is developing a culture of innovation and entrepreneurship among the faculty's students, as well as creating innovative new educational programs for undergraduate



Dr. Fraser Forbes, P.Eng. . .
...five-year appointment as the U of A Dean of Engineering

—photo by Demetrios Giannitsios Photography

and graduate students, and professionals. "Our ambition is to create programs and partnerships with other faculties to the benefit of all University of Alberta students."

Dr. Forbes is up to the challenge. During his time as Chair of the Chemical and Materials Engineering Department, graduate student enrolment grew by over 250 per cent, while undergraduate enrolment grew by 200 per cent in materials engineering and more than 50 per cent in chemical engineering. He also oversaw a major renovation of the Chemical and Materials Engineering building, the establishment of numerous research chairs, and the formation of three large research centres.

Dr. Forbes, originally from Ontario, earned his bachelor's and master's degrees in chemical engineering at the University of Waterloo and his PhD at McMaster University. He worked in industry as a process automation engineer and also as a consultant. He's also an APEGA volunteer and a past APEGA Education Foundation volunteer.

AWARDS RECOGNIZE BEST IN WOOD CONSTRUCTION AND DESIGN

Wood is a sustainable and affordable building material. And it's beautiful, too. Those are among the key messages of the annual Wood WORKS! Alberta Prairie Wood Design Awards. Among the companies living up to those words are half a dozen APEGA Permit Holders on the list of 2016 recipients. The gala recognizes projects that push the boundaries in wood construction, through design excellence, advocacy, and innovation.

APEGA Permit Holders honoured this year, with the projects that earned them the recognition, are:

- **Equilibrium Consulting Inc.** — Fort McMurray Airport terminal
- **CH2M Hill** — Meadows Community Recreation Centre and Meadows Branch Library in Edmonton
- **Stantec** — Kingsway/Royal Alex LRT Station in Edmonton



NATURAL BEAUTY

Fort McMurray's new airport terminal was one of the recipients of the Wood WORKS! Alberta Prairie Wood Design Awards. In the roof, it features wood panels known as cross-laminated timber.

-photo courtesy Equilibrium Consulting Inc.

- **Chernenko Engineering Ltd.** — Borden Park Pavilion in Edmonton
- **ISL Engineering and Land Services** — Fort McMurray Historical Society forest service shed
- **Fast + Epp Structural Engineers** — Bow River Bridge in Banff

The PEG highlights the involvement of APEGA Permit Holders. But the engineering firms shared each award with the architects, clients, general contractors, and wood suppliers involved.

Wood WORKS! is a program of the Canadian Wood Council.



Engineering Group International Corp

EGI is a highly experienced team of engineers in all disciplines with a proven record and history in Oil and Gas Facilities and Plants Pre-commissioning.

We produce and develop all related check-lists and procedures — Mechanical, Electrical, Instrument, Control and Civil.

Also full hand-in-hand with operations support until Mission Accomplished!

We provide all types of drafting services. We can create drawings for your next project from scratch, based on your requirements, whether based on an existing facility or a green field facility.

Contact us now at: 1-888-909-9976 info@eng.gi.com

Find out more at www.eng-gi.com

LAMBERT

Intellectual • Property • Law

Protect your invention.

www.lambertlaw.ca

Contact Tony Lambert 780-448-0604



ALL ABOUT ROOSTER FEET AND RENEWABLE ENERGY

When a university's president honours students for leadership, engineering students are bound to be among them. That's certainly the case this year at the University of Calgary, with two graduates of the Schulich School of Engineering on the list of recipients of the President's Award for Excellence in Leadership — one who made the news last summer for developing prosthetic feet for a rooster, and one who shares his passion for renewable energy and his knowledge of climate change, bolstered by research trips to the Arctic and Antarctica.

Now, one of the above clips may seem more important than the other. But please stick with us for the full context.

Douglas Kondro, who was an APEGA Student Member in the APEGA Student Advantage Program while studying at the U of C, changed the life of one rooster that had lost its toes to

CONTINUED ON PAGE 29 >>



PRESIDENT'S AWARD RECIPIENT — AND FRIEND University of Calgary President's Award recipient Douglas Kondro is a graduate of the Schulich School of Engineering. Also shown: the headline-grabbing rooster Foghorn, with his pretty blue feet.

-photo courtesy Riley Brandt/University of Calgary

OPTIMIZE

Your Design Solutions for Light-Frame Multi-Storey Construction Including Mid-Rise Buildings

Seismic and wind events pose serious threats to structural integrity and safety. Building structures with a continuous load path can mean the difference between withstanding these types of natural disasters – or not.

All wood-framed buildings need to be designed to resist shearwall overturning and roof-uplift forces. For one-and two-storey structures, structural connectors (straps, hurricane ties and holdowns) have been the traditional answer. With the growth in light-frame, multi-storey wood structures including mid-rise buildings, continuous rod systems have become an increasingly popular load-resistant solution.

Simpson Strong-Tie® Strong-Rod™ continuous rod tiedown systems are designed to restrain both lateral and uplift loads, while maintaining reasonable costs on material and labour. Our continuous rod tiedown systems address the many design factors that need to be considered to ensure proper performance against shearwall overturning, such as rod elongation, wood shrinkage, construction settling, shrinkage compensating device deflection, incremental loads, cumulative tension loads, and anchorage. Our continuous rod tiedown system for Canada is the Anchor Tiedown System for shearwall overturning restraint (Strong-Rod™ ATS).

Strong-Rod ATS Systems have been extensively tested by engineers at our state-of-the-art, accredited labs. Our testing and expertise are crucial in providing customers with code-listed solutions. The take-up devices used in the system are code-listed in the United States under evaluation report ICC-ES ESR-2320.

Because no two buildings are alike, Simpson Strong-Tie offers many design methods using components and systems to help you meet your complex design challenges.

Let us help you optimize your designs. For more information about our Strong-Rod continuous rod tiedown solutions or traditional connector solutions, call (800) 999-5099 or download our new *Strong-Rod Systems Catalogue* for Canada at strongtie.com/literature/canada.html.



A YEAR *can* CHANGE EVERYTHING



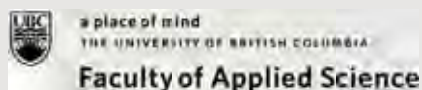
MEL

Master of
Engineering
Leadership

UBC'S MASTER OF ENGINEERING LEADERSHIP This one-year degree program combines intensive technical training with a focus on enhancing individual leadership ability. If you want to excel in your career, broaden your technical perspectives and gain new business skills—this program is for you!

Degree Programs Offered Include: Advanced Materials Manufacturing · Clean Energy Engineering · Dependable Software Systems · Green Bio-Products · Integrated Water Management · Naval Architecture & Marine Engineering · Urban Systems.

mel.ubc.ca



CONTINUED FROM PAGE 26 >>



PRESIDENT'S AWARD RECIPIENT
 University of Calgary President's Award recipient Connor Scheu, E.I.T. is a graduate of the Schulich School of Engineering.
 -photo courtesy Iceland School of Energy/Golli

frostbite. A mechanical engineering student specializing in biomedical engineering, Mr. Kondro collaborated with veterinarians in the university's Faculty of Veterinary Medicine, creating the feet using a 3D printer. Thanks to his design, which used wild turkey feet as a model, Foghorn is living out his days on a farm near Didsbury.

That was a headline-grabber — who can resist a happy rooster story? Of course, it's not the only reason Mr. Kondo was recognized. He took a lead role in a human surgical simulator project, training incoming interns on lab equipment, and he was part of three academic studies related to the biomedical field. He was also involved in school athletics as a member of the Dinos cross country team, and he volunteered with the Dino Youth Athletics program.

Mr. Kondro spent a year in Switzerland as an engineering intern, studied in Greece, and was part of a team of university volunteers who built homes for impoverished families in Tijuana.

Connor Scheu, E.I.T., was featured in the fall 2015 edition of *The PEG* after receiving the Engineers Canada Gold Medal Student Award. A civil engineering graduate with an energy and environmental specialization, his passion for renewable energy was spurred by student research trips to the Arctic and Antarctica, where he learned firsthand about the effects of climate change. Mr. Scheu shared his experiences by using public speaking engagements to promote

GIC CANADA
 SPECIALIZING IN CAREER DEVELOPMENT FOR TECHNICAL PROFESSIONALS

Public Classes
 Online
 Private In-House Workshops
 Live Webinars
 Distance Learning

gic-edu.com

SAGA ENGINEERING | Partners in Excellence

Geotechnical | Structural | Environmental
 Material Testing

SAGAengineering.ca

Edmonton 780-801-2727
 Calgary 403-648-1784

Alpha Adroit

Geotechnical Engineering
 Material Testing

www.alphaadroit.ca
 780-708-4110 | 403-918-4110

sustainable thinking. He also mentored his peers at the university through the Emerging Leaders Program and the Schulich Scholar Program, and in the Scholars Academy.

Sports are another passion. He's competed in rowing at the national level and teaches both youth and adults how to row. He also enjoys distance running and is a black belt in Shito Ryu karate.

Mr. Scheu graduated in December and is working at Shell in project services. "I'm keen to leverage Shell's intensive and generous new graduate program so that I can learn the real-world project skills that will enable me to give back to society, and ideally help Alberta remain competitive through the energy transition," he says.

STUDENT AWARD PARTICULARLY SWEET FOR ASSISTANT PROFESSOR

Being recognized with an award is always an honour, but for assistant professor **Kajsa Duke, P.Eng., PhD**, it's even more special when it comes from her students. That's what happened in May, when Dr. Duke received the University of Alberta Faculty of Engineering Undergraduate Teaching Award.

"I put a large amount of work and effort into teaching," she says in a U of A news story. "I'm thrilled to get this award."

She was one of six professors and 13 graduate students presented with teaching and research awards from the faculty for their dedication to student success.

Dr. Duke, a mechanical engineering professor, teaches two undergrad courses. One is a second-year course on computer-assisted design. Besides learning software and drawings, students make use of recent manufacturing techniques like 3D printing, laser cutting, and standard machining. In her other course, fourth-year students complete a team project using the knowledge they've gained during their first three years at school.

The second-year class is linked to another course, which has students learn to design, build, and race robotic vehicles. It's not just fun — it teaches them the fundamentals of how to design for manufacturing. And the fourth-year course is more about directing than teaching. Students in this class develop an engineering solution for a real client, often from industry or academia.

"This is the class where I kind of tell the students I can't really help them anymore because they're going to be the experts on their projects," she says. This year, three teams from the Capstone Design class will showcase their projects at national and international conferences, by competing in student design competitions.

Outside of teaching, Dr. Duke's research is in the

area of biomechanics with a strong focus on orthopedics and design. This has included designing a new surgical table and doing other work to make scoliosis surgery safer. Another area she's focusing on is using 3D metal printing to make custom pelvic fracture plates.

Dr. Duke has a B.Sc. in mechanical engineering and a master's in mechanical and biomedical engineering, both from the U of A. She took her PhD in biomedical engineering from École Polytechnique in Montreal.



Dr. Kajsa Duke, P.Eng. . .
. . .high marks from students
—photo by Demetrios Giannitsios Photography



Alpha Adroit

Geotechnical Engineering
Material Testing

www.alphaadroit.ca
780-708-4110 | 403-918-4110

Heritage RESPs

Get up to **\$9,200**
in government
education grants*

- RESP experts for over **50 years**
- Over **\$2.54 billion** in assets under management
- **1, 3, 5 & 10 year returns** are **5.1%, 3.86%, 4.93% & 4.61%** respectively (as at June 30, 2015)

Find out more about APEGA member benefits at HeritageRESP.com/APEGA.

To learn more, please contact: **Gordon Branden**
at **403.667.2341** or Gordon_Branden@HeritageRESP.com

* Certain conditions apply. See prospectus for full details.
Heritage Education Funds RESPs are offered by Prospectus only. Heritage Education Funds is the trade name of Heritage Education Funds Inc.



CLEAR COMMUNICATIONS

**Speak so
they will
Listen!**

Learn the 'tricks' to speaking
with a Canadian accent.

Enhance speaking skills and
productivity.

CONTACT: 780.469.2456 • peggy@talkeasyu.com
Learn more at: www.clearcommunications-ab.com

Movers & Shakers

BETTER MAPS FOR APPS LAND RESEARCHER A GOOGLE AWARD

For the second time in two years, University of Calgary assistant professor **Ruisheng Wang, P.Eng., PhD**, has won a Google Research Award for his work developing more realistic 3D maps. The award comes with a US \$59,500 prize to support his research, which involves developing computer algorithms that combine mobile street-view images with aerial images from Google Earth. This allows the creation of more detailed 3D building models that show not just a roof or flat facade, but also fine details like windows, doors, and eaves.

With the growth of web-based 3D maps, detail is in demand. "3D navigation apps in cities



Dr. Ruisheng Wang, P.Eng. . .
. . .Google takes notice

MACHINE DESIGN FIRM FOR SALE

A small vibrant mechanical engineering firm in Southern Alberta is seeking an enthusiastic entrepreneur to lead the company to the next level. With over 40 loyal clients providing a steady income for 7 employees (3 P.Eng., 3 Eng. Tech. and 1 office admin.) the investment risk is low.

This mechanical engineering company specializes in oil and gas well servicing equipment, storage and transport tanks, custom transport trailers and decks, waste and recycling containers and vehicles, irrigation control gates, and food processing equipment. The company is qualified to certify equipment in accordance with many CSA, API, OH&S and ASME standards. The company is equipped with the latest technology for 3D solid modelling design (SolidWorks and Pro/ENGINEER), finite element stress analysis (COSMOSWorks), API storage tank design (AMETank), and project accounting (QuickBooks).

The owners will consider either a share or asset sale. Submit enquiries to simon.hann@hantecheng.com or phone 403-329-1134.



TD Insurance Meloche Monnex



Get more out of your
APEGA membership.

Members can save on insurance rates.



Because you've earned it.

At TD Insurance we believe your efforts should be recognized. That's why, as a member of The Association of Professional Engineers and Geoscientists of Alberta, you have access to the TD Insurance Meloche Monnex program, which offers you insurance coverage and highly personalized service, along with additional discounts. **Request a quote and find out how much you could save!**

Take advantage of your group privileges:

You could save \$415* or more when you combine your home and auto insurance with us.

HOME | AUTO

Ask for your quote today at 1-866-269-1371
or visit melochemonnex.com/apega



The TD Insurance Meloche Monnex program is underwritten by SECURITY NATIONAL INSURANCE COMPANY. It is distributed by Meloche Monnex Insurance and Financial Services Inc. in Quebec, by Meloche Monnex Financial Services Inc. in Ontario, and by TD Insurance Direct Agency Inc. in the rest of Canada. Our address: 50 Place Crémazie, Montreal (Quebec) H2P 1B6.

Due to provincial legislation, our auto and recreational vehicle insurance program is not offered in British Columbia, Manitoba or Saskatchewan.

*Nationally, 90% of all of our clients who belong to a professional or an alumni group (underwritten by SECURITY NATIONAL INSURANCE COMPANY) or an employer group (underwritten by PRIMMUM INSURANCE COMPANY) that have an agreement with us and who insure a home (excluding rentals and condos) and a car on July 31, 2015 saved \$415 when compared to the premiums they would have paid with the same insurer without the preferred insurance rate for groups and the multi-product discount. Savings are not guaranteed and may vary based on the client's profile.

© The TD logo and other TD trade-marks are the property of The Toronto-Dominion Bank.

need detailed urban scenes,” Dr. Wang explains in a U of C news story. “[Users] need to know about building facades, roads, sidewalks, trees, and parking spaces.”

His project was one of 950 proposals from 55 countries and 350 universities submitted for the award. Only 151 were funded.

His earlier Google award, in 2014, came with a US \$35,000 cheque, helping Dr. Wang develop mapping technology that makes it easier for people to find building entryways.

Dr. Wang joined the Geomatics Engineering Department at the Schulich School of Engineering in 2012. Before that he was an industrial researcher at HERE Maps (formerly NAVTEQ) in Chicago. He has a PhD in electrical and computer engineering from McGill University, an MScE in geomatics engineering from the University of New Brunswick, and a bachelor’s degree in photogrammetry and remote sensing from Wuhan University in China.

INVENTORS RECEIVE \$100,000 BOOST TO COMMERCIALIZE BONE MODELS

If it feels like bone, acts like bone, and responds like bone — it might actually be synthetic. Tactile Bone — invented by a biomedical engineering team at the University of Calgary and a spine surgeon — allows orthopedic surgical residents completing their medical training to practise their surgical techniques on lifelike bone models.

Most surgical residents typically learn in the operating room on real patients. That’s because other options, like cadavers and other synthetic bone products currently on the market, are not always considered good training options. Tactile Bone, on the other hand, replicates real bone density, weight, and resistance to instrument forces. It can even be X-rayed.

In test trials, surgeons were impressed with how realistic the Tactile Bone spinal models were. So were judges with TENET I2C (Innovation to Commercialization), a Dragon’s Den-style competition held in April at the U of C campus. The competition, which aims to help medical entrepreneurs get their ideas to market, was organized by the McCaig Institute for Bone and Joint Health and supported by TENET Medical Engineering, Alberta Innovates – Health Solutions, the Haskayne School of Business, the Hunter Centre for Entrepreneurship and Innovation, and Innovate Calgary.

Four teams competed, with judges awarding the Tactile Bone inventors — U of C biomedical engineering associate professor **Dr. Carolyn Anglin, P.Eng.**, biomedical engineering master’s student Aubrey Blair-Pattison, and orthopedic surgeon Dr. Rick Hu — a \$100,000 prize to help the co-inventors commercialize their product. Their startup, Ammolite BioModels, will use the seed money to scale up manufacturing.

It’s not all about the spine, though. Other products are also in the works, including femur, hip, and knee models. The models will allow doctors to better prepare for surgery and ultimately

Movers & Shakers





make operations safer for patients.

Tactile Bone's creation was truly multidisciplinary. In addition to engineers and doctors, U of C business professor Chad Saunders and artist Christine Jansen were involved in the product's development.

Dr. Anglin has a bachelor's degree in system design engineering from the University of Waterloo, a master's in mechanical engineering from the University of British Columbia, and a PhD in mechanical engineering from Queen's University. Ms. Blair-Pattison is working on her master's in biomedical engineering at the U of C and has a B.Sc. in mechanical engineering from the University of New Mexico.

NEW APEGA PRESIDENT WEARS BIG GRIN, BIG NUMBER

APEGA's newest President has something in common with Edmonton Oilers phenom Connor McDavid: the number 97. **Dr. Steve E. Hrudehy, P.Eng., FEC, FCAE, FSRA**, is the regulator's 97th President. And McDavid skates for the NHL hockey team with a big 97 on his back.

After being sworn in at the APEGA Annual General Meeting on April 22, Dr. Hrudehy drew particular attention to his numerical kinship with the star forward. Saying that a sense of humour is always important in meeting challenges, Dr. Hrudehy brought Summit 2016 to a close by unveiling his own APEGA Number 97 jersey. "With no apologies to the Flames fans in the audience, I'm remarkably happy to be the 97th President of APEGA."

Before a crowd of more than 200 Members and other attendees at the AGM at the Shaw Conference Centre,

BONES ABOUT IT
Dr. Carolyn Anglin, P.Eng., (left) and Aubrey Blair-Pattison display an example of their invention, Tactile Bone.
-photo courtesy Riley Brandt/University of Calgary

Dr. Hrudehy officially accepted his post as the elected leader of APEGA. Joining the renowned water quality expert on the 2016 Executive are **Jane Tink, P.Eng., FEC, FGC (Hon.)**, as President-Elect, and **John Rhind, P.Geol.**, as Vice-President. **Connie Parenteau, P.Eng., FEC, FGC (Hon.)**, is now Past-President.

Jersey aside, the new President had a serious message to deliver. Dr. Hrudehy said: "I recognize that this is truly a great honour and an immense responsibility. Engineering and the geosciences are professions that our society depends upon for creating and supporting the remarkable quality of life that we enjoy. We should all be rightfully proud of the exceptional value and safety that we deliver for society when we fully discharge our ethical and technical responsibilities."

Members chose Dr. Hrudehy as President-Elect over a year ago in the 2015 APEGA Election. This year, Ms. Tink, Mr. Rhind, and five Councillors were elected. *See page 8 for photos and names of the complete Executive and Council.*


Alpha Adroit
Geotechnical Engineering
Material Testing
www.alphaadroit.ca
780-708-4110 | 403-918-4110

CONSULTING PRACTICE FOR SALE
Live in one of the best locations in Canada!
Thriving professional Consulting Structural Engineering practice in Victoria BC. Established 1980 and covering residential, commercial and light industrial projects in BC, mostly located on southern Vancouver Island. Available from June 2016, terms negotiable.
Contact romc@telus.net with subject = Acquisition

Where the Twain Meet

During APEGA Summit 2016 Annual General Meeting and Conference, APEGA co-presenters discussed the regulatory requirements of the Continuing Professional Development program and how it intersects with non-regulatory professional development opportunities for Members. Through an interactive conference session, real-life examples were discussed and Members shared the insights they gained from the session. Here, we've captured some of Members' major takeaways

The words professional development apply to two different but aligned functions at APEGA. One is a regulatory role under the Continuing Professional Development (CPD) program – mandating Members' engagement in professional learning throughout their careers. The other is the provision of optional professional development sessions, which APEGA offers Members to help them enhance their practice and earn Professional Development Hours (PDHs).

APEGA Summit 2016 Annual General Meeting and Conference included one and a half days of professional development, April 21 and 22 in Edmonton. One unique session brought together these two facets of professional development for APEGA Members.

The co-presenters were Gavin Chan, P.Eng., Assistant Director, Regulatory Operations, who's directly involved in mandatory CPD for APEGA, and Karen Carleton, M.Ed., M.Sc., Professional Development & Mentoring Manager, who leads the PD program, which hosts sessions and conferences. Both members of the APEGA management team regularly field questions about how the two programs are related, and what Members need to do to meet their CPD requirement. As a result, their session, CPD & PD: What You Need to Know, was born.

What did attendees learn from the session? Here and on several pages that follow are five Members' top takeaways.

Looking for Qualified Engineers or Geoscientists?

jobboard.apega.ca



Our job board is exclusive to APEGA Members.

Save time by getting your job posting in front of the right candidates.

Visit the job board today or email jobboard@apega.ca.



//

My number one takeaway from the Continuing Professional Development session is greater clarity in reporting

my CPD activities. Karen and Gavin gave a comprehensive, fun, and engaging presentation, with plenty of sage advice and helpful tips. For

instance, by utilizing APEGA's CPD activity spreadsheet, I can better plan and organize my CPD activities going forward. Thank you!

//



-WILLIAM ORR, P.GEO.
Edmonton
Manager Resource Evaluations
Alberta Energy

CONTINUED ON PAGE 37 >>



Alpha Adroit
Geotechnical Engineering
Material Testing
www.alphaadroit.ca
780-708-4110 | 403-918-4110



New PD Sessions Kick Off in September

Earn your CDP hours!


Want to boost your professional knowledge and skills for today's work environment?

Through our professional development sessions, you will gain practical insights and be armed with new tools for project management, leadership and management, and more.

Start checking our website in mid-July for new PD sessions.


apega.ca/members/events





Family Friendly | Open to the Public | Free Admission
A Geoscience Outreach Exhibition

Thank you to everyone who participated in ESFS 2016!
 Save the date for the Earth Science for Society
 Exhibition next year: March 19 - 21, 2017
esfscanada.com

Hosted by:
 CSEG
 Foundation

COME JOIN US FOR FUN AND FRIENDSHIP!

The **PEGG Women's Club of Calgary** began in 1944 and is the longest surviving club of its kind in Alberta. Today the Club boasts a membership of close to 200 and at least a third of the membership is actively involved in organizing events and activities.



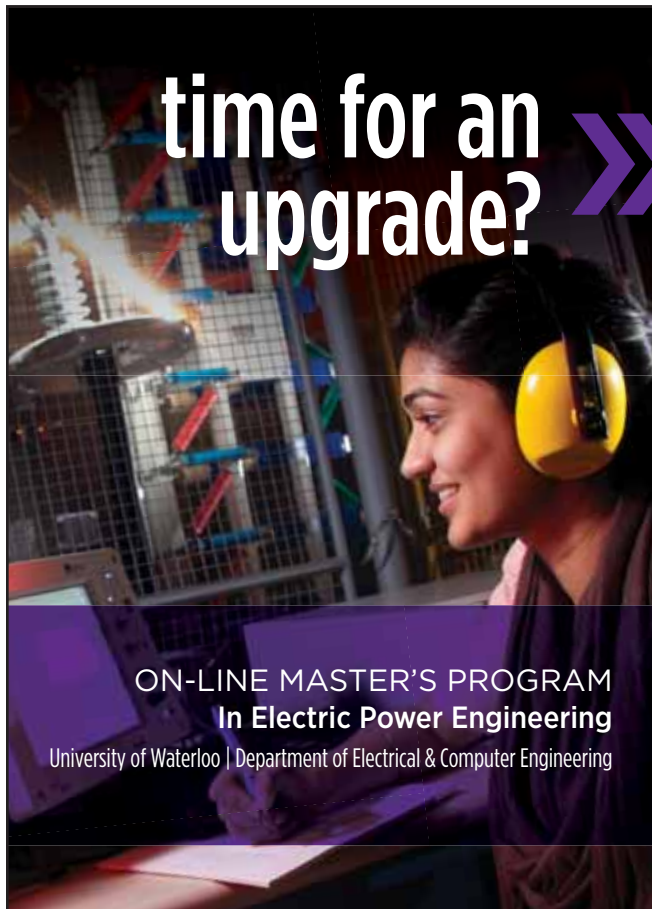
The Club welcomes women of all ages who are associated with APEGA: practitioners as well as wives, partners, widows and divorcees of active or retired APEGA members. The purpose of the Club is to promote friendship amongst the members through participation in the Club's many fun and educational events and activities. Each year the Club holds six major events. Underpinning the main events are the weekly and monthly activities of the various sub-groups. In addition, one-of-a-kind activities and excursions are offered throughout the year.

We also support the engineering and geosciences professions by donating, annually, two \$1,000 bursaries to the University of Calgary benefitting students in the Schulich School of Engineering and Faculty of Science. The 2015 recipients are a 2nd and a 3rd year student, both of whom are in the Faculty of Chemical Engineering.

In September we hold a membership registration coffee party and welcome new members. The membership fee is \$25 annually and this year's coffee party is being held at the Silver Springs Golf Club on Friday September 9th. Contact Kathi Hamilton for more information.

www.peggwomen.org

info@peggwomen.org



time for an upgrade? >>>

**ON-LINE MASTER'S PROGRAM
 In Electric Power Engineering**
 University of Waterloo | Department of Electrical & Computer Engineering

Since graduation, you've upgraded your computer, your cell phone and probably even your car. What about you? Isn't it time you thought about upgrading your knowledge and skills?

Upgrade — your way — with an on-line Master's program.

The on-line Master's program in Electric Power Engineering in the Department of Electrical & Computer Engineering, University of Waterloo, offers advanced, state-of-the-art, training in Electric Power Engineering. The Program is designed for engineering personnel from the electric power industry, electrical engineering graduates, and other professionals looking to upgrade and accelerate their career in the power and energy sector. The program offers a full spectrum of courses, offered over three terms each year, which are relevant to the power industry. Courses are taught by world-class faculty members from the Department's Power & Energy Systems Group; one of the best power engineering research groups in North America.

Program Information

One of the following three program options is available to all program participants:

- » **Master of Engineering (MEng) in Electric Power Engineering:**
 Awarded on completion of 9 courses
- » **Graduate Diploma (GDip) in Electric Power Engineering:**
 Awarded on completion of 6 courses
- » **Certificate of Completion:** Awarded on completion of a single course.

The MEng and GDip Programs are fully approved by the Ontario Council on Graduate Studies. For more information on course schedules, fees, and other details, please visit ece.uwaterloo.ca/onlineMEng.



C009963

//

One of my main takeaways — not just from the CPD session but from all the sessions — was how important safety risk management and accountability are for professionals. A program of continuous learning is critical to that. We have a lot of power to influence how people interact with technology. If we don't do so in a responsible manner, we cannot be taken seriously by the public. APEGA's emphasis on this was demonstrated by the content and quality of the sessions at the conference. Sessions on regulatory compliance were a great opportunity to not only learn about regulations but also to network with other professionals and share knowledge. I also thoroughly enjoyed



//

I've always tracked my CPD hours using a simple spreadsheet that I made when I first registered as a P.Eng. Today I learned that APEGA has a spreadsheet available for download from apega.ca called the Detailed Activity Record. This tool lists the applicable credit rules and limits for each category. It also helps you track your hours, including allowable carryover hours for future years.

//

-RYAN NORTHCOTT, P.ENG.
Edmonton
Design Engineer
Profire Combustion Inc.

CONTINUED ON PAGE 39 >>



the session on creativity and innovation for engineers; what a fun session and a great reminder for us to not take ourselves so seriously all the time!

//

-MEGAN FINSTAD, P.ENG.
St. Albert
Improvement Engineer
Dow Chemicals Canada



Alpha Adroit
Geotechnical Engineering
Material Testing
www.alphaadroit.ca
780-708-4110 | 403-918-4110

ENHANCE YOUR TECHNICAL KNOWLEDGE

Chemical · Civil · Construction · Electrical · Environmental · Industrial · Mechanical

Choose from over 90 seminars this summer and fall in locations across Canada – plus over 18 webinars.

Every EPIC course is designed and taught by a leading professional with extensive experience.



Learn. Grow. Succeed. Discover EPIC today.
epictraining.ca/peg // 1.877.223.6919

EPIC



Corporate training services tailored to your business

Explore professional development, customized training, and other services to increase productivity, enhance customer service, improve employee engagement, and much more.

Take advantage of the Canada-Alberta Job Grant, which pays 2/3 of eligible training costs, and make training easier on your bottom line.

Learn more
780.644.6480
norquest.ca/corporate

Step Forward

- ▶ Classes for working professionals
- ▶ Flexible, part-time, and online

MADE in UALBERTA

Courses, seminars, and certificates in:
Environmental Resource Management
Occupational Health and Safety
Construction Administration
Applied Land Use Planning
Applied Geostatistics
+ 300 courses in other disciplines

uab.ca/hsep

 UNIVERSITY OF ALBERTA
FACULTY OF EXTENSION

SPONSORSHIP DRIVE

2016 APEGA Calgary Branch Annual Golf Tournament

The APEGA Calgary Branch is seeking sponsorship support for our annual golf tournament.

Sponsorships help keep participation costs low, which in turn increase Member participation. There are many categories available for sponsorship to meet your company's needs.

Please join us as a supporter and take advantage of valuable networking opportunities at the tournament.

Sponsorship commitment deadline is August 1, 2016.

APEGA CALGARY BRANCH ANNUAL GOLF TOURNAMENT

Lynx Ridge Golf Club on Tuesday, August 30, 2016

Registration & Driving Range at 8:00 a.m.

Play at 8:30 a.m.

Lunch to follow

Call the Calgary APEGA Office at 403-262-7714 for complete details!



//

The CPD seminar covered all aspects of APEGA’s expectations, which would undoubtedly benefit all active Professional Members, irrespective of their engineering backgrounds, in fulfilling the purpose of the CPD requirements. Among the information outlined were the recording activities. These were remarkable takeaway tips for any Professional Member. CPD requirements focus on public demand and lay great emphasis on professionals to be accountable for the lifelong learning process. This enhances and contributes to our key contribution of carrying out our professional practice while keeping in mind the safety and welfare of the public. Since every Member’s CPD plan is regulated and includes mandatory proficiencies, attending the program was a great way to start fulfilling future CPD requirements, both on individual and organizational levels.

//

-CHANDRA ACHARYA, P.ENG.

Medicine Hat

Senior Geotechnical Engineer

Parkland Geotechnical Consulting Ltd.



//

The session was valuable for me to understand how professional practice CPD hours apply to Members in leadership roles — roles which may focus you less on your own engineering work and more on overseeing work completed by others. My greatest takeaway? Understanding that the time you spend overseeing other engineers while they complete their work, and having some influence on this work, can be counted for professional practice hours.

//

-MEAGHAN JANSSEN, P.ENG.

Edmonton

Senior Engineer, Standards

ATCO Gas, Pipelines & Liquids Global Business Unit



Directions for Immigrants in
Trades and Professional Careers

403-770-5155

www.directionsforimmigrants.ca

**NPPE & FE Study Groups
offered at no cost* in Calgary**

For internationally educated

engineers & geoscientists

Directions for Immigrants is operated by Bow Valley College.

This Service has been funded by the Government of Alberta and the Government of Canada.

*For eligible clients

Next Up for APEGA's Legislative Review: Permit Holder Criteria, Document Authentication — and More



Changes being proposed for the *Engineering and Geoscience Professions Act* will, if accepted by the Government of Alberta, directly affect how APEGA Members and Permit Holders do business. That's why it's so important that APEGA professionals — and the engineering and geoscience Permit Holders they work for — have their say

It's been over three decades since the *Engineering and Geoscience Professions Act (EGP Act)* had its last major update. That's a long time in the life of a province and in the evolution of the engineering and geoscience professions.

APEGA, as one of the province's self-regulating professions, wants to make sure its governing legislation continues to protect the public interest and reflect current business and industry practices. That's why APEGA's Council considers the review of the legislation a key strategic priority, and that's why we're working with the Government of Alberta (GOA) on the development of the new legislation.

Over the past 18 months, more than 4,000 Members have taken part in a series of stakeholder consultations that reviewed dozens of topics — everything from membership categories to investigative processes. Discussions will restart in October, when we'll dig into Permit Holder criteria, authentication of professional documents, and additional tools for self-regulation, among other topics.

Participation has been impressive so far. And we hope it continues, with even more Members and Permit Holders taking the opportunity to help shape the future of their professions by becoming engaged in the legislative review process.

WE'RE LISTENING

Members Daniel Wong, P.Eng., Laura Chutny, P.Eng., and Helder Afonso, P.Eng., were among those who attended the most recent consultations, in the winter of 2016. They provided feedback on proposed recommendations to improve standards for Member and Permit Holder professional practice reviews. As Responsible Members for three different APEGA Permit Holders, their duties include keeping up-to-date on any legislative changes.

Mr. Wong attended a session in Calgary on behalf of his employer, AltaLink — but also out of personal interest. "It's

very important for all APEGA Members to participate in the discussions, understand the process, and provide input. You should look at the issues being discussed to see if they could impact your operations or professional practice," says Mr. Wong, a senior specialist, protection and control.

He had concerns about a recommendation regarding the creation of practice review panels. The panels, working on behalf of APEGA's Practice Review Committee, will be able to make orders about practice review findings. It had been proposed that practice review panel decisions would be final. But at its March meeting, APEGA Council heard Members' concerns and revised the recommendation so that practice review panel decisions can be appealed.

LEGISLATIVE REVIEW: HOW IT WORKS

The Government of Alberta has encouraged APEGA to update the *EGP Act* and keep officials informed of our progress.

Three phases make up the legislative review. Phase one, nearing completion, is a review of the Act. Phase two will bring forward proposed recommendations to the EGP General Regulations based on the proposed recommendations for the new *EGP Act*. Proposed recommendations for the regulations will be brought to Members in late 2016 and throughout 2017. Phase three is the bylaws for those, which will follow in 2019.

On an ongoing basis, proposed recommendations endorsed by APEGA Council are sent to the Government of Alberta for its consideration. The list can be found on the legislative review website, available through apega.ca.

Also at a Calgary session was Ms. Chutny, a managing partner and senior process engineer with Process Ecology Inc. “What gets decided here will shape how we practise for the next 10, 20, or more years, so it’s best to have input now,” she explains. “As professionals, we can shape what the legislation looks like in real practice.”

Looking ahead to the fall of 2016, she’s especially interested in one of the topics: more clearly defined criteria for obtaining a Permit to Practice. “The issue of contractors — who is covered by what permit if we are subcontracting or hiring subcontractors ourselves — is a challenge. This needs to be really clear, as it’s not right now,” she says.

In Edmonton, Mr. Afonso attended a session as a representative of Associated Engineering. He’s the Vice-President and General Manager of the company’s Alberta North operations. Membership engagement is critical to the success of the legislative review, he says, especially for consulting engineering companies like Associated Engineering.

Mr. Afonso says changes to the *EGP Act* will enhance the professions. The new Act will help Members develop technically and help the province retain professionals and other technical resources.

“Inherent in Professional Engineering is our obligation to be socially responsible and technically proficient in our areas of practice, and to deliver quality services with objectivity and corporate integrity,” he says. “The legislative review must adopt balanced yet practical changes that uphold these virtues through the application of innovative solutions with long-term value for the public — while also allowing engineering companies to thrive and achieve business success.”

COMMENTS OR QUESTIONS?

legislative-review@apega.ca

Looking Back

COUNCIL ENDORSES WINTER RECOMMENDATIONS – WITH A CHANGE BASED ON MEMBER FEEDBACK

At a March 23 meeting, APEGA’s Council endorsed the proposed recommendations in the *We’re Listening: Winter 2016 Consultation Summary*. The report can be found online at apegalegislativereview.ca. It includes full details on proposed recommendations to improve standards for Member and Permit Holder professional practice reviews.

Feedback gathered from Members and Permit Holders during the winter consultations is included in the report. Topics reviewed and endorsed by Council include:

- authority of the Practice Review Committee (PRC)
- Member and Permit Holder compliance with practice standards and bulletins
- authority of practice reviewers
- authority of practice reviewers to make recommendations for improved professional practice
- creation of practice review panels to make orders related to practice review findings
- authority of practice reviewers to refer matters to practice review panels
- types of orders

Council revised one proposed recommendation related to the authority of practice review panels. It had been proposed that decisions of practice review panels would be final. After Council’s revision — and consistent with Member feedback — the new proposed recommendation states that a practice review panel decision can be appealed.

Looking Ahead

REGISTRATION OPENS JULY 30 FOR FALL 2016 CONSULTATIONS

To date, we’ve held three consultation rounds with Members and Permit Holders — spring of 2015, fall of 2015, winter of 2016.

This fall, in October and November, a fourth round of consultation takes place. Topics are still being refined, but they will include:

- criteria for obtaining a Permit to Practice
- authentication of professional documents
- additional tools for self-regulation

As well, there will be further discussion related to the authority of APEGA practice reviewers and investigators to clarify questions brought forward by Members during earlier consultations.

Face-to-face consultation sessions will be held in:

- Edmonton, October 18 and 19, and November 8
- Calgary, November 1, 2, and 15

Four webinars and two videoconferences are planned for:

- October 25 and 26
- November 10, 15, 17, and 23

All Members and Permit Holders are invited to attend a free two-hour session. Members may claim credit under the APEGA Continuing Professional Development Program for their participation. Registration opens July 30 at apegalegislativereview.ca.

Bridge

Change over within 60 days of your existing group health plan end-date — with no medical questionnaire.

NEW Professional Retiree Health & Dental Insurance Plan

Base

Guaranteed acceptance — with no medical exam when you apply.

Comprehensive

Coverage with the highest maximums in many benefit categories.

SPECIAL LIMITED-TIME OFFER!

If you're retiring or starting your own business, Engineers Canada offers three NEW Professional Retiree Health & Dental coverage options. And right now, you can still apply for our Bridge plan — with no medical exam — even if you don't have a group plan at work, or even if it ended more than 60 days ago. Apply for Bridge before July 28, 2016 and your acceptance will be guaranteed!

PROFESSIONAL RETIREE
HEALTH & DENTAL INSURANCE PLAN

1 877 598-2273

professionalretiree.com/apega



Sponsored by:

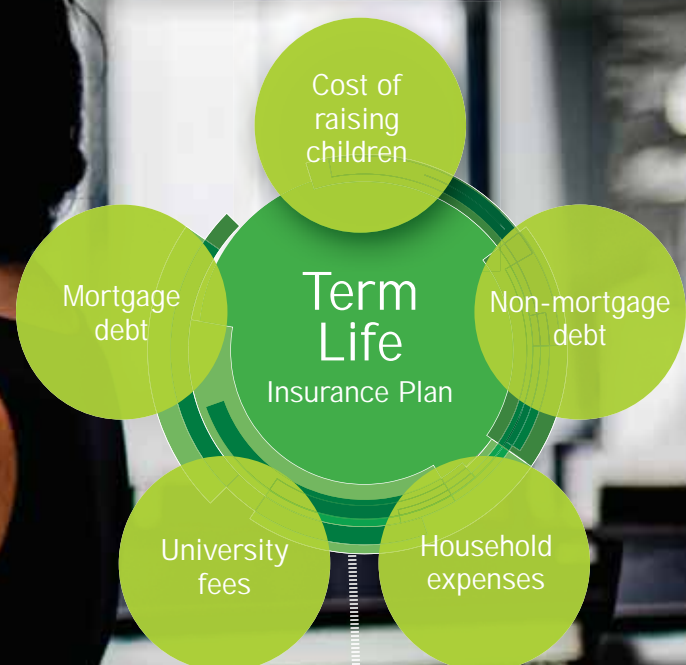
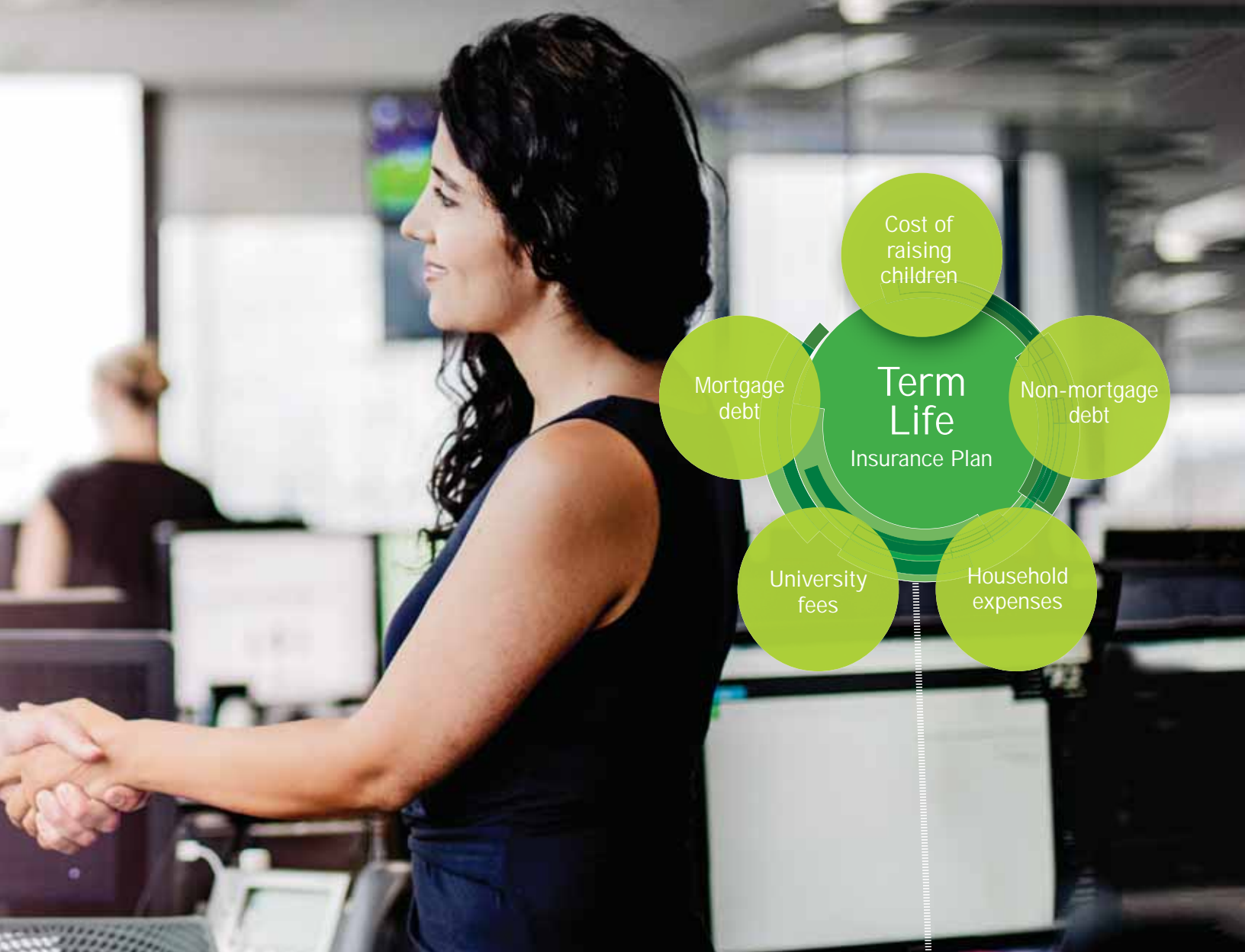
engineerscanada
ingénieurscanada



Manulife and the Block Design are trademarks of The Manufacturers Life Insurance Company and are used Underwritten by The Manufacturers Life Insurance Company (Manulife), P.O. Box 4213 Stn A, Toronto, Ont.

The Manufacturers Life Insurance

plans could give you fewer things to worry about?



Up to \$1.5 million in coverage: The loss of a primary earner can have a major impact on those left behind who may still need to pay for major ongoing expenses. That's why the Engineers Canada-sponsored Term Life Insurance Plan was created exclusively for engineers and geoscientists to help protect those who count on you in more ways than one.



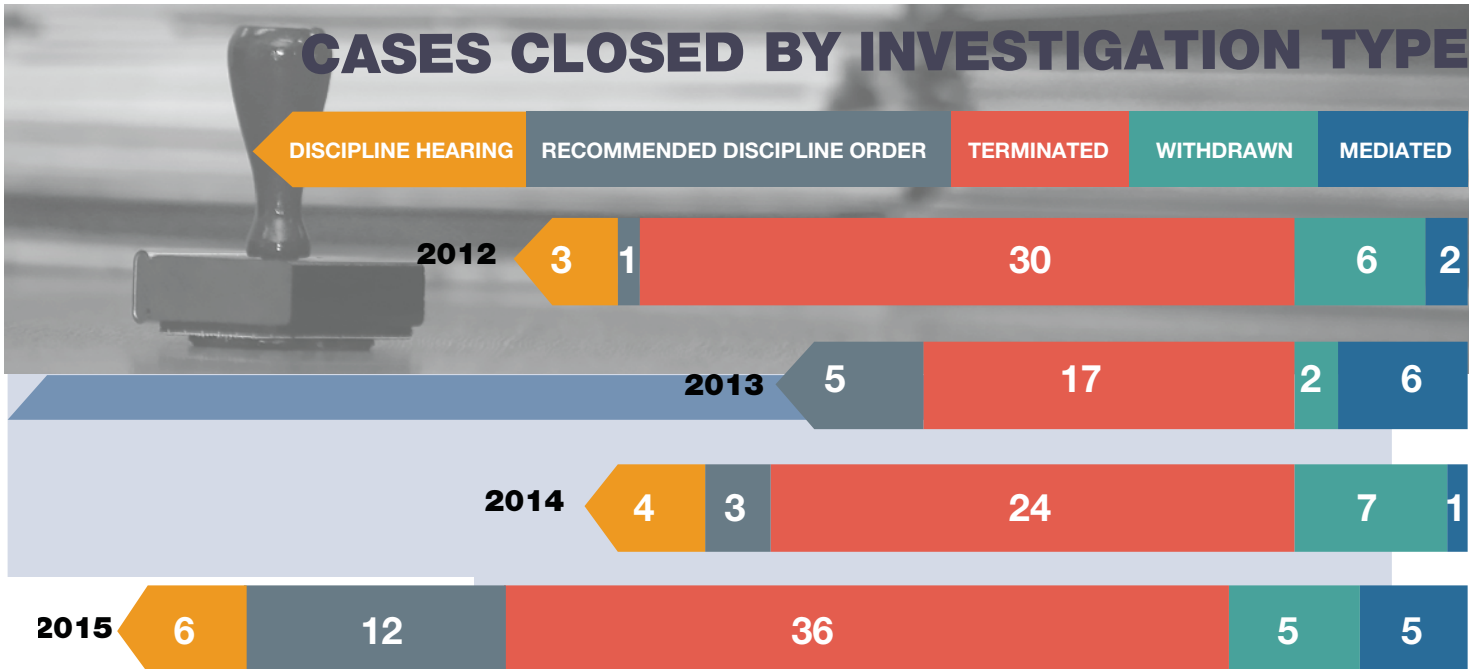
by it, and by its affiliates under licence. © 2016 The Manufacturers Life Insurance Company. All rights reserved. Ontario M5W 5M3.

ce Company

TERM LIFE
INSURANCE

1 877 598-2273

manulife.com/apega



Under the *Engineering and Geoscience Professions Act*, complaints submitted to the Investigative Committee may be concluded in one of five ways.

1. **Mediated** – the complaint has been settled with the assistance of a mediator
2. **Withdrawn** – the complaint has been withdrawn
3. **Terminated** – the investigation is closed due to insufficient evidence of unskilled or unprofessional practice
4. **Recommended Discipline Order** – the investigated Member or Permit Holder has admitted to unskilled practice, unprofessional conduct, or both
5. **Discipline Hearing** – the matter has been referred to the Discipline Committee for a formal hearing

Investigative Capacity Grows

Complaints against APEGA Members – while small in number relative to the size of our membership – have increased on pace with membership growth. In 2015, 66 complaints were filed, which is up 83 per cent from five years ago, when there were 36 complaints.

To better meet the demand, two new professional investigators were hired in 2015, bringing the total to four.

Their expertise helps APEGA’s Investigative Committee conduct more thorough investigations and write more consistent, detailed reports, which is speeding up processing times. The Investigative Committee is made up of Professional Members who review evidence for each case and make the ultimate decision about whether a complaint advances to the APEGA discipline process.

Also of note: in 2015, the Investigative Committee began sharing more detailed investigation summaries with complainants and Members under investigation, outlining in detail the reasons for its recommendations. This helps improve their understanding of the factors that were considered and should help reduce the number of appeals filed.

Note: Because it relates to the story on the next page, the information here is reprinted from the *APEGA Annual Report 2015: Renewing Our Social Partnership*. To read the full report, visit apega.ca.

Streamlined Process Improves Investigative Service to Members and the Public

As a regulator, we're continually looking for new ways to simplify and improve our processes. We want to better serve our stakeholders — the public, Members, and Permit Holders — by making our operations as effective and efficient as we can.

One of the ways we've done this is through a recent process review of APEGA's Investigative Committee, which plays an essential role in the full discipline process. When APEGA receives complaints against Members or Permit Holders, the Investigative Committee reviews the evidence, investigates, and decides whether the complaints advance to the discipline process.

The number of complaints APEGA receives against Members and Permit Holders is modest in relation to the size of the membership. But the work done by our Investigative Committee is significant.

In 2015, 66 complaints were filed — that's up 83 per cent from five years ago, when there were 36 complaints. (APEGA's professional membership is more than 30 per cent larger today than it was in 2010.) Not only are there more complaints being made, but the files are becoming more complex. Some complaints allege significant breaches of professional ethics, like the fraudulent stamping of documents. Others allege unskilled practice. Both types of complaints take significant effort to investigate. As well as Members and Permit Holders, the committee may investigate full engineering or geoscience projects, or other matters involving the professions that stand to impact the public.

In light of its important role, the committee instigated a review of its processes. In July 2015, APEGA formed a working group made up of Professional Members, APEGA staff, and the committee's legal counsel. Over about six months, the working group examined committee processes to ensure that they:

- are thorough and conducted efficiently
- are fully compliant with the *Engineering and Geoscience Professions Act (EGP Act)* and other applicable legal principles, including the duty of fairness

- are clear and simple to understand for both complainants and Members under investigation (MUIs)
- clearly define all the steps in an investigation
- promote public confidence in APEGA's ability to investigate and act on complaints
- are transparent and fair

In April, the committee accepted the working group's report. It included recommended changes to the investigative process that streamline how the committee operates and improve how it communicates with complainants and MUIs, while maintaining full compliance with the Act and General Regulations.

For example, some steps in the investigative process that the *EGP Act* does not require have been eliminated, and certain administrative tasks of the committee can now be delegated to APEGA investigative staff — changes that should help speed up investigations and reduce delays. The working group also recommended that the committee appoint investigative panels as soon as possible after a complaint has been received. The panels are made up of committee members — usually three — who investigate individual complaints on behalf of the full committee.

Another improvement, the creation of new brochures, will help complainants and MUIs better understand how the process works, including how they will be involved and what they should expect along the way. Copies are available in the Edmonton and Calgary APEGA offices.

FAIR AND TRANSPARENT

APEGA is fortunate to have skilled investigative staff and Member volunteers committed to implementing the recommended changes and creating an investigative process that meets and exceeds legislative requirements. The changes will ensure that our investigations are fair and transparent, while increasing public and Member confidence.

Make an Impact

Build the Future by Volunteering

Volunteer Opportunities

- Committees
- Special Events
- Youth and University Outreach
- Mentoring

Current APEGA
volunteer opportunities
are posted on the
volunteering section of
the APEGA website

Volunteer Benefits

- Earn Continuing Professional Development (CPD) Credits
- Expand Your Business Network
- Develop Skills, Knowledge, and Experience
- Give Back to Your Profession
- Have Fun

Contact Sue Armitage
Volunteer Management Coordinator
volunteer@apega.ca
403-262-7714



Share your Knowledge and Experience

APEGA Professional Members are needed for the following volunteer opportunities

Practice Review Board Member

The Practice Review Board (PRB), on its own initiative or at the request of APEGA's Council, reviews the practice of the engineering and geoscience professions by Professional Members, Licensees, and Permit Holders, in accordance with the *Engineering and Geoscience Professions Act*.

Candidates must:

- be licensed as a Professional Member of APEGA — P.Eng., P.Geo., P.Geol., P.Geoph., P.L.(Eng.), or P.L.(Geo.) — with a minimum of 10 years of practice experience
- have a minimum of 5 years of membership in a Canadian self-regulating organization for Professional Engineering or Professional Geoscience (preferably with APEGA)
- have previous experience managing a team of at least 5 persons
- be competent in group decision-making, analytical thinking, and cooperation

Committee and governance experience is an asset.

Discipline Committee Member

The Discipline Committee adjudicates allegations of unskilled practice and unprofessional conduct brought before it by the Investigative Committee, following complaints against APEGA Members and Permit Holders.

Candidates must:

- be licensed as a Professional Member of APEGA — P.Eng., P.Geo., P.Geol., P.Geoph., P.L.(Eng.), or P.L.(Geo.)
- have a minimum of 10 years of industry experience
- have experience interpreting legislation — as it applies to municipal permits or appeals in other courts, or through involvement with APEGA and the *Engineering and Geoscience Professions Act*
- have experience writing legal decisions
- have experience participating in legal or quasi-legal proceedings, whether through APEGA, other regulators, or Alberta courts

Enforcement Review Committee Member

Volunteers on the Enforcement Review Committee enforce compliance in accordance with the requirements of the *Engineering and Geoscience Professions Act*. Compliance involves individuals, companies, or entities that:

- use reserved titles
- represent that they are entitled to practise, or
- practise engineering or geoscience within the province of Alberta without an APEGA licence or permit

Candidates must

- be licensed as a Professional Member of APEGA — P.Eng., P.Geo., P.Geol., P.Geoph., P.L.(Eng.), or P.L.(Geo.)
- have a minimum of 10 years of industry experience
- be competent in group decision-making, analytical thinking, and cooperation

Committee and governance experience is an asset.

Appeal Board Member

Volunteers provide Members and the public full protection of their statutory rights of appeal and natural justice, in accordance with the *Engineering and Geoscience Professions Act*, through the review of decisions and actions by the Discipline Committee, the Practice Review Board, the Investigative Committee, and the Board of Examiners.

Candidates must be licensed as a P.Eng., P.Geo., P.Geol., P.Geoph., P.L.(Eng.), or P.L.(Geo.) with APEGA for at least 5 years and have been practising for at least 10 years in total.

UNIVERSITY OUTREACH EVENTS — FALL 2016

SEPTEMBER

Rapid Resume Review

Rapid Resume Review is an event designed to give students instant feedback on the content of their resumes. Students and Professional Members who volunteer for the event are given just five minutes per round to focus on one specific aspect of a student's resume. The idea is to provide insightful information to help students turn their resumes into something outstanding.

OCTOBER

Speed Mock Interview

Using the same speed-date format as Rapid Resume Reviews, Speed Mock Interviews focus on strengthening the skills that help make students more confident in their ability to present themselves and shine during those intimidating professional interviews.

NOVEMBER

Industry Mixer

Students are often interested in speaking with professionals about where their engineering or geoscience degrees will take them. The Industry Mixer is an informal opportunity for students to mingle with the Professional Members who volunteer for the event. It allows students to discover what opportunities lie ahead.

For further information on any of the volunteer opportunities listed on this page — or on other APEGA-related volunteer opportunities — please contact

Sue Armitage
Volunteer Management Coordinator
volunteer@apega.ca

Also feel free to check the volunteer section of the APEGA website, apega.ca, under Members & Permit Holders.

APEGA Strengthens Information Procedures

Non-staff volunteers have made their recommendations to APEGA to improve the way the organization handles sensitive information, in the follow-up to a release of Member information last fall to an unauthorized third party. The recommendations point to a need for improvements in four areas:

- staff training
- management systems
- data inventory processing
- risk assessment

The independent investigation was charged with determining what happened and why, and recommending corrective actions.

“Protecting our Members’ private information is very important to us. We accept the investigators’ report, and we are implementing the recommendations to strengthen our information management procedures and policies,” said Interim CEO Heidi Yang, P.Eng., FEC, FGC (Hon.) “This includes the development of new policies and procedures, and enhanced cyber-security training for staff.”

On September 21, 2015, the first and last names, email addresses, and Member identification numbers of about 75,000 Members listed in the APEGA database were emailed to an unknown party after what’s known as a phishing attack — an illegitimate email request for information.

One employee provided the information. No credit card information or passwords were released, and fortunately, APEGA’s information technology infrastructure was never actually breached or hacked.

APEGA responded immediately to ensure the security of Member information. These actions included:

- suspending access to the Member Self-Service Centre and the Company Self-Service Centre
- communicating to employees the best practices and procedures for handling sensitive and confidential information
- communicating to employees that only senior leaders are permitted to approve the release of information
- requiring annual security training for all employees
- requiring password resets for the Member Self-Service Centre and the Company Self-Service Centre (after lifting the suspension of access)

Improvements planned for the medium-to-long term include:

- developing a data ownership model
- simplifying policies and procedures for handling sensitive and confidential information
- instituting employee training on handling sensitive and confidential information
- implementing a quality management system
- training senior leadership and Council on an enterprise risk management framework

The investigators conducted a root-cause analysis, which involved reviewing APEGA policies, guidelines, training approaches, organizational charts, governance information, and risk analysis information, as well as interviewing staff and senior leaders.

“I’d like to thank the investigative team for the thorough work. I’m confident that they’ve come up with sound recommendations, which we plan to implement to improve our organizational effectiveness,” said Ms. Yang.

The following volunteers made up the external investigative team:

Keith Shillington, P.Eng. (Chair)
Senior Vice President, Canada Prairies
Stantec

John Cocchio, P.Eng., MBA
Industrial Professor
David and Joan Lynch School of Engineering
Safety and Risk Management
Faculty of Engineering
University of Alberta

Wendy Gerber, CHRP
Vice President, Human Resources/Privacy
Officer
DynaLIFE_{DX}

Hani Mansi, CISSP, CISM, CRISC
Director, Risk and Information Security
ATCO Ltd. and Canadian Utilities Ltd.

Gordon Winkel, P.Eng., M.Sc.
Chair, Industrial Professor
David and Joan Lynch School of Engineering
Safety and Risk Management
Faculty of Engineering
University of Alberta

Frank Mannarino, P.Eng., MBA
Senior Vice President, Electricity Operations
EPCOR

THE DISCIPLINE FILE

With the launch of our new website, we’re posting some of the content traditionally published in *The PEG* online instead, at apega.ca.

In that category are discipline decisions, the most recent of which are listed below. Also available online are the last five years of decisions as they appeared in *The PEG*.

Recent Formal Hearing Decisions

No Recent Decisions

If names are ordered not to be published, they are represented generically, such as Professional Engineer A.

Recent Recommended Discipline Orders

DC Case #15-002-SO: Unprofessional Conduct of [Professional Engineer A] and [Company A]

DC Case #15-003-SO: Unprofessional Conduct of Mr. Michael Richards and Richards Consulting and Associates Ltd.

DC Case #15-004-SO: Unprofessional Conduct of [Professional Engineer A] and [Company A]

DC Case #15-005-SO: Unprofessional Conduct of [Professional Engineer A] and [Company A]

DC Case #15-006-SO: Unskilled Practice of [Professional Engineer A]

DC Case #15-008-SO: Unprofessional Conduct of [Professional Engineer A]

DC Case #16-002-RDO: Unprofessional Conduct of Mr. Arup Goswami

To read these and other decisions, visit apega.ca


 apega.ca

Modern, Streamlined, Simple to Navigate: APEGA's New Website Impresses Users

We're excited about our new website, and the comments we've received suggest that most of you like it, too. The site looks better than the one it replaced, and the complete rebuild has made our information more pertinent, understandable, and accessible

Members, Permit Holders, applicants, and other APEGA stakeholders have a lot of reasons to connect with us online.

Visitors to apega.ca are typically:

- applying for membership
- registering for professional development sessions, luncheons, and other AEPGA events
- seeking information on our regulatory processes
- seeking employment with APEGA or APEGA Permit Holders
- seeking volunteer opportunities to serve APEGA, the APEGA professions, and the development of future engineers and geoscientists
- seeking information about our outreach programming, our legislative review progress, the Member benefits we offer, and Alberta engineering and geoscience in general
- paying dues

Our old site was outdated, making those uses and many others a less-than-ideal experience. That changed on January 25 with the launch of a new site.

A major APEGA business goal, completing the site allowed us to improve service to all stakeholders. Stakeholders like Mariana Iftinca, P.Eng., and Scott Crowe, P.Geo.

Since the launch, it's been much easier for Ms. Iftinca to find information about APEGA professional development opportunities and details on the latest round of legislative review consultations. A senior engineer with Spartan Energy, Ms. Iftinca visits apega.ca several times a month to stay current on APEGA news and events — which are now featured up front on the home page. "The new website is more user-friendly and clearly laid out, and I find it easier to obtain the information I'm looking for," she says.

For Mr. Crowe, a hydrogeologist with Tervita, the changes took some getting used to. "But the more I use it, the more I like it," he says. "It's a lot easier to navigate than the old website

and more visually appealing — especially when accessed from a mobile device." He, too, visits apega.ca regularly to catch up on news and coming events, and to link to the Member Self-Service Centre.

Ms. Iftinca and Mr. Crowe were among hundreds of Members who've provided feedback on the new website. The comments we've received strongly suggest that most of you consider the website a big improvement. It's more modern, attractive, clean, intuitive, organized, and helpful than the site it replaced, and it's easy to browse.

We've also received lots of ideas and suggestions on how we can make the website better. We agree: websites are works in progress, and we're always looking for new ways to enhance the user experience.

Information critical to APEGA's operation, particularly in the regulatory area, was posted on the site in time for the launch.

PLANNING AND RESEARCH

- We audited existing content and reviewed other websites.
- We analyzed data on where and how visitors use our site, including the devices and browsers they use.
- We listened to volunteers, one on one, as they performed website functions and searched for content.
- We conducted card-sorting exercises with volunteers to learn how our audiences categorize our different roles and the information we provide, and we learned which words and phrases resonated with them and which did not.

More information is being added as the year progresses. And news and event information are updated continually.

CHANGING IT UP

Our old website, designed nearly a decade ago, was showing its age. The new site provides a look and user experience that meets the standard you're accustomed to elsewhere on the Internet. You'll notice a clean, simple design, with clearer navigation bars at the top of every page and a detailed footer menu at the bottom. Each web page has sidebars to further break out content.

After you've done some clicking around, we think you'll agree that the entire website experience is much better than it was before.

THE MAJOR IMPROVEMENTS

- **The new website is designed for all platforms.** It's easy to navigate on your phone, tablet, laptop, and computer. Content is cleanly, simply, and consistently displayed on all pages for all browsers.

MEMBER COMMENTS

"Looks modern and professional, and I believe it's easier to navigate to the things you need to find. Search function works great and I think it's nice to have the events prominently displayed on the front page."

"Attractive and seamless to navigate. Serves as an excellent repository of information and resources."

"This is an important example of innovation and continuous development."

- **We've organized and named material with users in mind.** We wanted to meet the expectations and needs of as many users as possible. To find out how and where content should be displayed, we consulted Members, applicants, the public, teachers, and civil servants, along with APEGA volunteers, staff, and management.
- **Content is easy to read.** Instead of moving material from the old site, we took this opportunity to rethink and rewrite the content itself. You'll find shorter sentences and paragraphs, and more plain language, bullets, and subheads than before.
- **Our new search engine helps you quickly find the information you need.** Search results will keep getting better as more visitors use the search engine.
- **Information for potential applicants has been simplified and consolidated.** Previously, we had a separate website for applicants, along with information on the site itself. Now, apega.ca is clearly the first stop in the application process.

We also made some behind-the-scenes changes to the website, including the use of a content management system for quick and easy updates.

We think we're off to a great start. And we look forward to getting even better.

LET US KNOW WHAT YOU THINK

Is there something you can't find? Is there other feedback you'd like to give us? Whatever your experience, let us know.

Email

webmaster@apega.ca



Utility Navigation. This bar provides quick links to popular features on the website, including the Google site search. Appears on every page.

Primary Navigation. Quick links to primary sections of the website. Appears on every page.

Apply Now Bar. Quick access for potential Members making early contact with APEGA.

Feature Images. Easy access to high-priority and call-to-action information.

Main Columns. Easy entry to specific Regulatory, News, and Events content.

Sharing Bar. Links to APEGA social media and buttons to make it easy for visitors to share content.

Footer. A more detailed look at the website's content. Appears on every page.

Bridging the Digital Divide

Smartphones have improved Internet access around the globe, but there's still a huge technology gap between industrialized and developing nations. That's because connecting people online is one thing — and fostering socioeconomic change by teaching them to use technology is quite another. Computers Beyond Borders is an Edmonton-based not-for-profit that seeks to close that gap in the Democratic Republic of Congo and elsewhere by providing free computer training to disadvantaged youths

In the Democratic Republic of Congo (DRC), a country recovering from years of civil war, an estimated 70 per cent of youths are unemployed. Were it not for a scholarship to study engineering in Canada, Francis Kiasisua, P.Eng., could have easily been one of them. Mr. Kiasisua earned his life-changing scholarship by achieving 98 per cent on the DRC national high school diploma exam, the best-ever score at the time.

Growing up in DRC's capital city, Kinshasa, the shy and studious Francis excelled in all subjects. But his favourites were math and physics. He dreamed of becoming an electrical engineer so he could build a dam and bring power to millions of Congolese who get by without reliable electricity — or any electricity at all.

Today, the 32-year-old is building a career as a design engineer at ATCO Electric in Edmonton. No, he hasn't built that dam yet, but he has not forgotten his roots or lost his desire to effect change in DRC.

Last year he founded Computers Beyond Borders (CBB), a not-for-profit working towards curing an epidemic of youth unemployment in his homeland. CBB

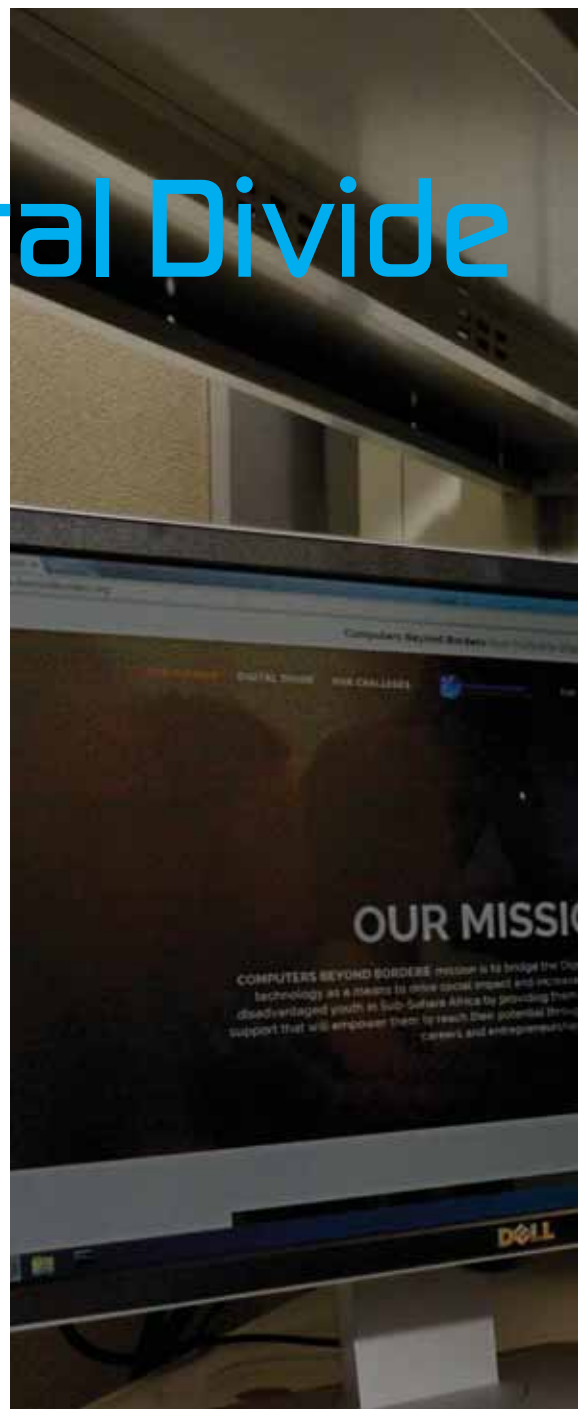
empowers underprivileged children and young adults by providing them with free computer access and technology training. That helps them gain valuable employment skills in a country where a mere 100 of 9,000 university graduates find jobs.

"I don't want to be old one day and wonder what I did to make life better for other people. Especially when I had the opportunity to do that," says Mr. Kiasisua. "It's about never forgetting where you came from. That's really the driver behind CBB."

One of his greatest influences as a young boy was his grandmother Victorine Diluakidi — now 86 — who told him: "Life is not about what happens to you, but about what you do with what happens to you." Another of her sayings: "Those who are lucky enough to swim across the river should remember to build a bridge for those who cannot swim."

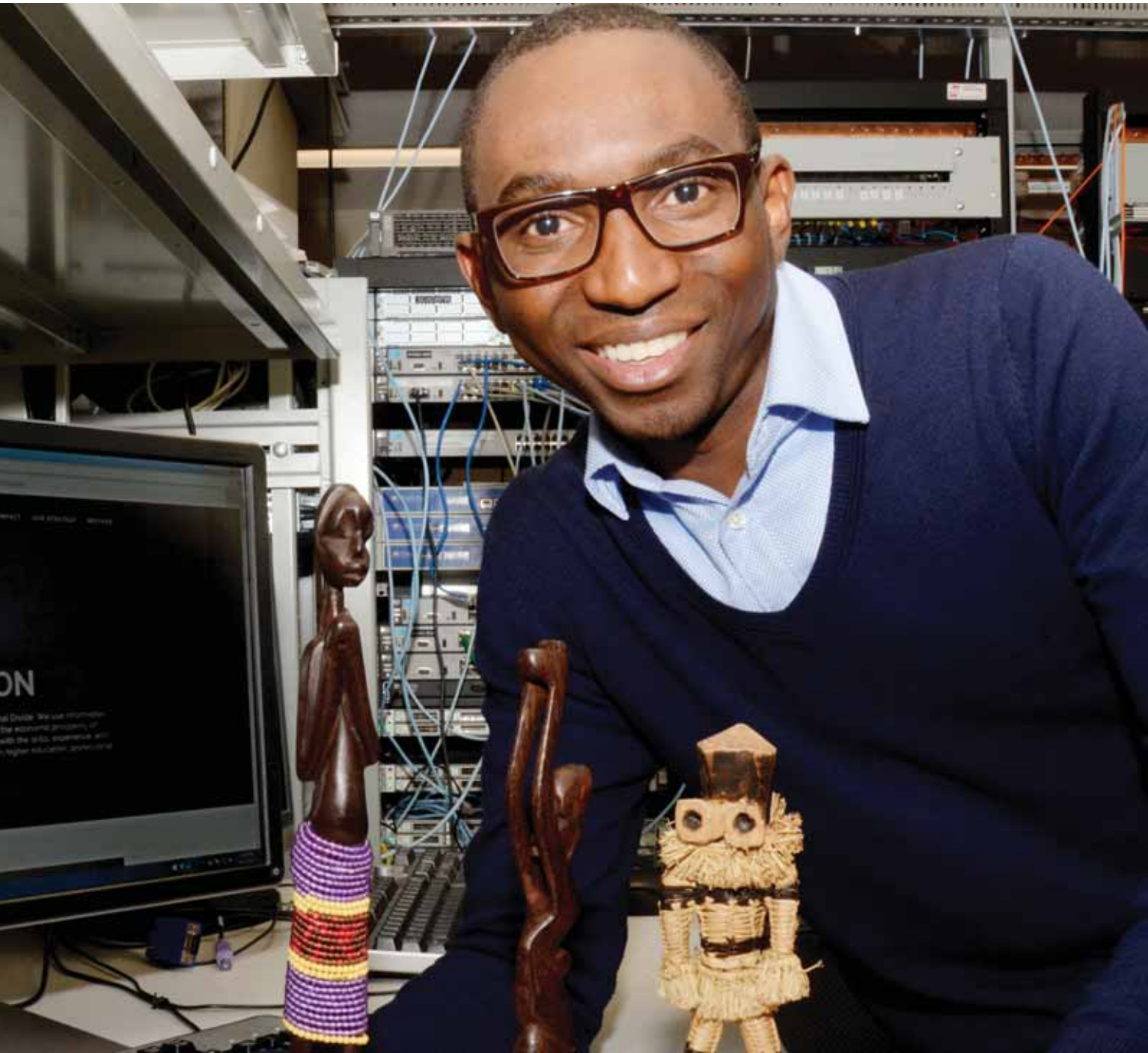
LIFE CHOICES, CHARITY CHOICES

Canada or Switzerland? Those were the offers Mr. Kiasisua had for studying abroad on his scholarship. It was an easy choice, given the multitude of



BRIDGE MATERIALS

Computers Beyond Borders founder Francis Kiasisua, P.Eng., is on a mission to bridge a digital divide in the Democratic Republic of Congo by providing free computer training to underprivileged youth. He raised \$5,500 for recycled computers by selling handcrafted Congolese art — such as the pieces shown — to friends, family, and contacts across Canada. Now, he and his charity plan to build a modern computer centre at a local school serving impoverished students.



opportunities in Canada and its reputation for multiculturalism.

Leaving his family behind, he arrived on the East Coast in 2002 to study electrical engineering at the University of Moncton in New Brunswick. He received his first personal laptop on his first day in Canada — and had to figure out how to use it.

Like most DRC young people, his prior experience using a computer stemmed from a few trips to an Internet cafe. He had no other access, even at school.

“I didn’t get any lessons. I just started using it and learned on the go,” he says. “Because of this, I became a self-taught programmer — I wanted to make the most

of having my own computer 24 hours a day.”

After graduation, career opportunities eventually brought him to Edmonton with his wife, Hornela, and Malia, their young daughter. But the rest of his family still lives in DRC, so ties are strong. Mr. Kiasisua continued his connection to Eglise



HAPPY STUDENTS

Guylain Matota manages DRC operations for Computers Beyond Borders. Here, he's surrounded by excited E.P. Boko-Mpangala students, last Christmas. The charity had purchased school supplies for the children as Christmas gifts. Most children arrive at school without even a notepad and have just a sheet of paper for the purpose.

-photo courtesy Computers Beyond Borders

de Mangembo, his church back home in Kinshasa, and that led to the creation of CBB.

A pastor there asked him to be a long-distance role model for a church youth group — the same one he belonged to as a teenager. He started regular Skype chats with the young people using a church computer.

"A lot of youths attending the church are from poor neighbourhoods and they need some type of motivation to stay away from the streets, stay away from violence," says Mr. Kiasisua. "Many of those young people graduate from high school and university, but there are no jobs for them. That issue kept coming up, every time I talked to them."

The problem-solver in him kicked into gear. While doing his research, he discovered that an increasing number of

international banks and telecommunication companies are investing in DRC, opening offices and creating IT jobs there. Many of the jobs go unfilled, though, because young people — even university grads — don't have basic computer literacy skills. At about \$200 per person, training is out of reach for most Congolese, who earn an average of less than \$50 a month. "Only the privileged few have the means to bridge the skills gap," says Mr. Kiasisua.

Next step: a decision to sponsor the training of four young adults at Eglise de Mangembo. "After they finished the three months of training, all of them got jobs right away, after many years of futile searches," says Mr. Kiasisua. And they're good jobs, paying almost four times the average salary. *See sidebar.*

"By providing computer training to disadvantaged youths in Congo, we are

targeting this niche market and providing them with a competitive advantage," says Mr. Kiasisua. "It feels good knowing that you are making a difference in someone's life and in the process, helping an entire community."

LEVERAGING THE INVESTMENT

Four success stories make up certainly a great start. But Mr. Kiasisua sought a bigger impact. "What would happen," he wondered, "if we started a non-profit training centre at the church, rather than paying someone else to provide the training?"

The \$800 worth of training could instead buy five recycled computers. Each computer could be used to train one student — at no cost to the student — every three months. Thus, Computers Beyond Borders was born. If the name sounds familiar,

“Studies show that people who have access to the Internet and who are digitally literate are more likely to be economically secure. We believe that real digital literacy can only be introduced by way of community technology centres, training, and education.”

FRANCIS KIASISUA, P.ENG.

that’s because Mr. Kiasisua was inspired by the work of Engineers Without Borders, an organization that supports social innovation to reduce poverty in Africa and other developing countries.

“Setting up a non-profit was the best way to help as many people as possible,” explains Mr. Kiasisua. “It’s a platform for many like-minded people to share their time and money and improve other people’s situations, rather than me just sitting here and sending money to Africa.”

He partnered with his church — which will provide classroom space — and another half-dozen local volunteers, including two of his former high school teachers. Then he embarked on a six-month fundraising campaign, selling handcrafted Congolese art to friends, family, and contacts across Canada. The money raised — about \$5,500 — enabled CBB to buy 30 recycled computers and ship them to Kinshasa. The Centre Intellectuel des Outres Neuves training centre opens later this summer, Mr. Kiasisua hopes. Two of the students he originally funded will be among its volunteer instructors.

The training centre’s mission, and that of CBB, is to bridge the digital divide using information technology to drive social impact and increase the economic prosperity of disadvantaged youth.

“Digital divide is the gap between people who have access to information technology and those who don’t,” says Mr. Kiasisua. “Studies show that people who have access to the Internet and who are digitally literate are more likely to be economically secure. We believe that real digital literacy can only be introduced by way of community technology centres, training, and education.”

CBB will provide different levels of training, from basic computer literacy skills to coding and even graphic design and hardware repair. “It is about training people in the use of technology with the goal of developing their ability to use it effectively for employment, innovation, and wealth creation.”

HAVE TRAINING, WILL SUCCEED



Edmonton’s Francis Kiasisua, P.Eng., started helping his homeland with four training sponsorships for youths at the church he’d attended in the Democratic Republic of Congo.

Herve Mayemba, 23, an unemployed high school graduate, completed a web design course that resulted in a job as a web designer. His new income allowed him to enroll in college, where he’s pursuing an information technology degree.

Laetitia Nsimba Matondo, a 28-year-old student, studied productivity software, including Word and Excel. She found a job as a customer service representative at a telecommunications company and continues to pursue her law degree.

Another student trained in productivity software, 23-year-old Candy Nlenvo Kandi, landed a job as a transfer agent for a financial services company. Her income helps support her family and has allowed her to return to university to study business administration.

The fourth student, Fiston Monyawangere, 35, was a self-employed phone card salesman earning about \$50 a month. After a Windows course, he joined the staff of a bank as a network administrator. He’s also been able to return to college to study medical biology.



-photos courtesy Computers Beyond Borders

LITTLE LEARNERS

Top: Children line up outside E.P. Boko-Mpangala School during a visit by Guylain Matota (second adult from right) of Computers Beyond Borders.

Bottom: Built of mud and thatch, classrooms at E.P. Boko-Mpangala are not computer ready. But if Computers Beyond Borders gets its way, a new computer training centre at the school will be built — and to modern standards.

Classes will be held in the morning. In the afternoon, the training centre will transform into an Internet cafe, generating revenue for operations.

The centre will also provide IT services, hardware repairs, and graphic design services to local businesses at a discounted rate, helping students develop job skills while earning money to fund CBB programs.

Mr. Kiasisua hopes some trainees become entrepreneurs, starting up their own graphic design or IT businesses. A technology shortage has created a large demand for graphic design services in Kinshasa. There's also a need for computer repair services; because there's no one to fix them, people often throw their broken computers away.

“A lot of youth attending the church are from poor neighbourhoods and they need some type of motivation to stay away from the streets, stay away from violence. Many of those young people graduate from high school and university, but there are no jobs for them. That issue kept coming up every time I talked to them.”

FRANCIS KIASISUA, P.ENG.

MORE REACH

With 30 computers in place and new training sessions held every three months, the centre will initially be able to train 120 young adults per year, Mr. Kiasisua estimates. Computer boot camps for children on summer break will also be offered.

“Our first centre is going to be a prototype, but we want to expand as a social enterprise,” he explains. “I like to dream. My vision is to open different locations in the area, not just in Kinshasa, not just in Congo, but across Sub-Saharan Africa or maybe even around the world.”

Plans are already in the works to build a modern computer centre at a local school. “We want to give computer access to

of the condition of the buildings. Plus, the school doesn’t have power or a secure area for computers. The school — although excited by the opportunity — doesn’t have the resources to fund upgrades or repairs for the project.

CBB is undeterred. It is working with the church to build a new, ground-up facility at E.P. Boko-Mpangala instead. Not only would the facility have computers; it

doing isn’t going to be easy. We would love like-minded people to join us in this effort,” he says.

APEGA professionals have unique skills that could help CBB achieve its goals. “There is a big amount of collective know-how in Canada and among APEGA Members that can be transferred to Congo,” he says. “We would like to tap into that know-how. We want CBB to be the bridge

“Life is not about what happens to you, but about what you do with what happens to you.”

“Those who are lucky enough to swim across the river should remember to build a bridge for those who cannot swim.”

VICTORINE DILUAKIDI, 86
Grandmother of Francis Kiasisua, P.Eng.

younger students too, so they can develop those skills at a younger age,” he says.

CBB volunteers in DRC visited over 20 schools in impoverished neighbourhoods, looking for one to partner with. Most of the schools lack electricity or basic amenities. CBB eventually struck a partnership with E.P. Boko-Mpangala, a school in a densely populated community on the outskirts of Kinshasa. Its classrooms — five rooms for Grades 1 to 12 — are simple, thatch-roof mud huts with nothing more than chalkboards and wooden benches inside. Students in the actual grades study in the morning, and in the afternoon the school transforms into a vocational training centre for older students. “It is the only institution that provides services to its surrounding community,” says Mr. Kiasisua.

Originally, CBB had hoped to open the computer centre in an existing classroom at the school, but that’s not possible because

would also provide full-day classes for the children. Plans have already been created — what’s needed is the money to make it happen. Mr. Kiasisua estimates the cost at about \$20,000, which he hopes to raise through crowdfunding.

“The school will incorporate computers into the curriculum to familiarize kids with computer usage early on,” he says. The centre’s effect will also spread further into the community, because it will be open for community use when classes are not in session.

INVESTING IN PEOPLE

Just like when he was a young boy dreaming about building dams and bringing power to his community, Mr. Kiasisua remains driven by a desire to end the disparity between rich and poor. But he knows he can’t do it alone. “What we are

for that knowledge transfer, allowing APEGA Professional Engineers and Professional Geoscientists with different skills to volunteer their expertise for the betterment of people in Africa.”

The challenges facing DRC and other African nations can be overwhelming to consider. But to do nothing isn’t an option for Mr. Kiasisua.

“I’m not naive enough to believe I will be able to solve all these problems. But if I can help one person, for me that’s good,” he says. “The best way to invest is to invest in people.”

MORE INFO
cbeyondborders.org
info@cbeyondborders.org

Beakerhead

A SMASH UP OF ART, SCIENCE AND ENGINEERING. OPEN TO EVERYONE.

Beakerhead is a sandbox for human ingenuity – everyone welcome!

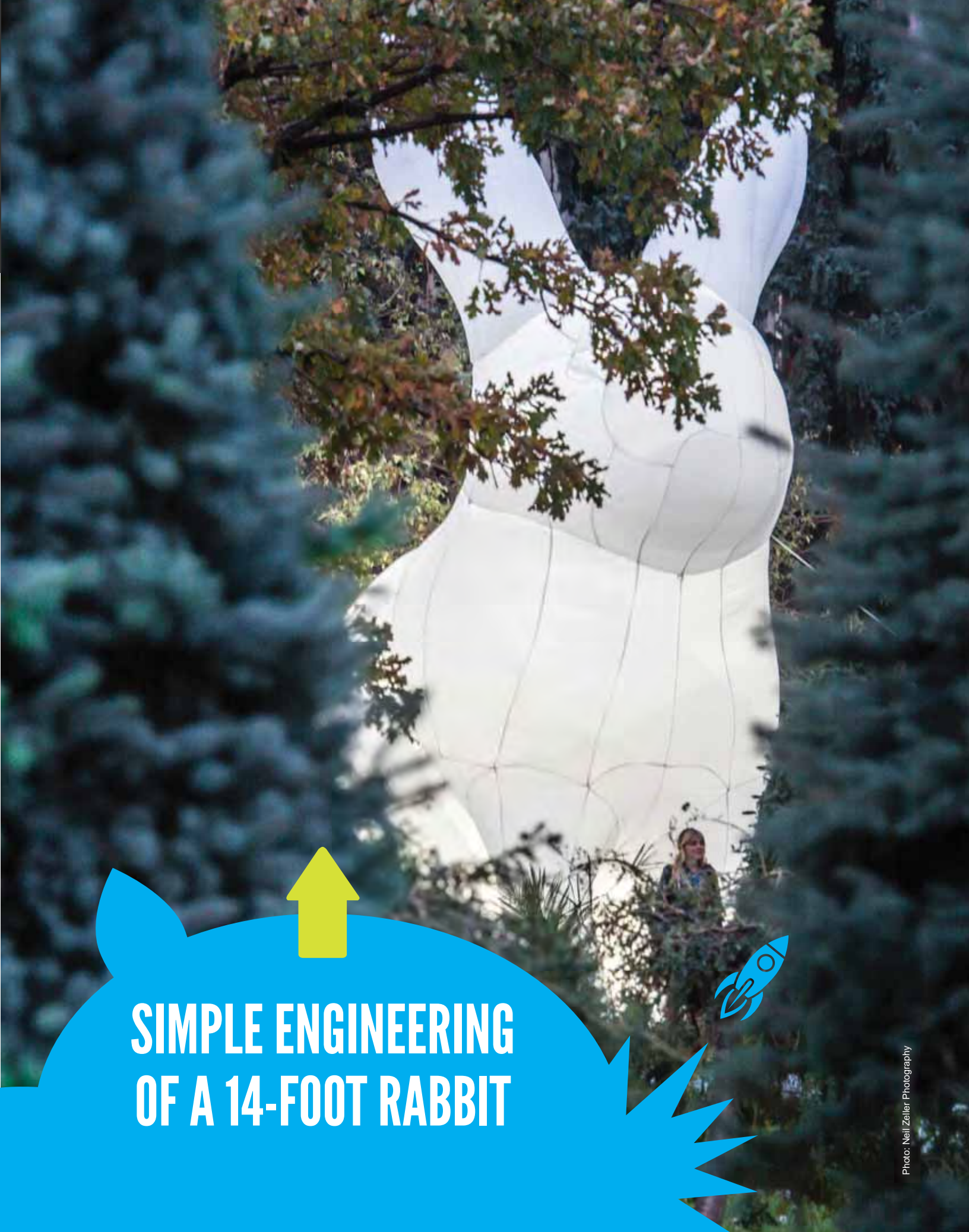
SEPTEMBER 14-18, 2016 | CALGARY, AB

Gather your colleagues, friends and family to support five amazing days of art and engineering!

Contact claudia@beakerhead.com for more information.

----- SPECTACULAR THANKS TO BEAKERHEAD SPONSORS -----





SIMPLE ENGINEERING OF A 14-FOOT RABBIT



Professional Progress — Places and Perspectives

No matter what stage you're at in your career, volunteering opens doors to new opportunities and experiences. Some of them, you probably won't even see coming

Kashif Dada, P.Eng., is in the early phases of his professional life. Laurie Slezak, P.Geol., is a retired Member who continues to give back. Service to APEGA, the professions, and the public is their number one motive, but both say volunteering has rewarded them personally and professionally — sometimes in ways they couldn't have imagined.

Mr. Dada has just launched his career and, by stepping up to chair the Vermillion River Branch, a commitment to volunteering for APEGA. Ms. Slezak, with more than two decades of APEGA volunteer experience on her resume, recently retired from the work world after a 30-year career in geology. But she continues to give back, now through participation in our Member induction ceremonies.

On the next few pages, these two living testaments to the power and purpose of volunteerism share their stories. If you aren't doing so already, perhaps they'll motivate you to volunteer for APEGA, too.

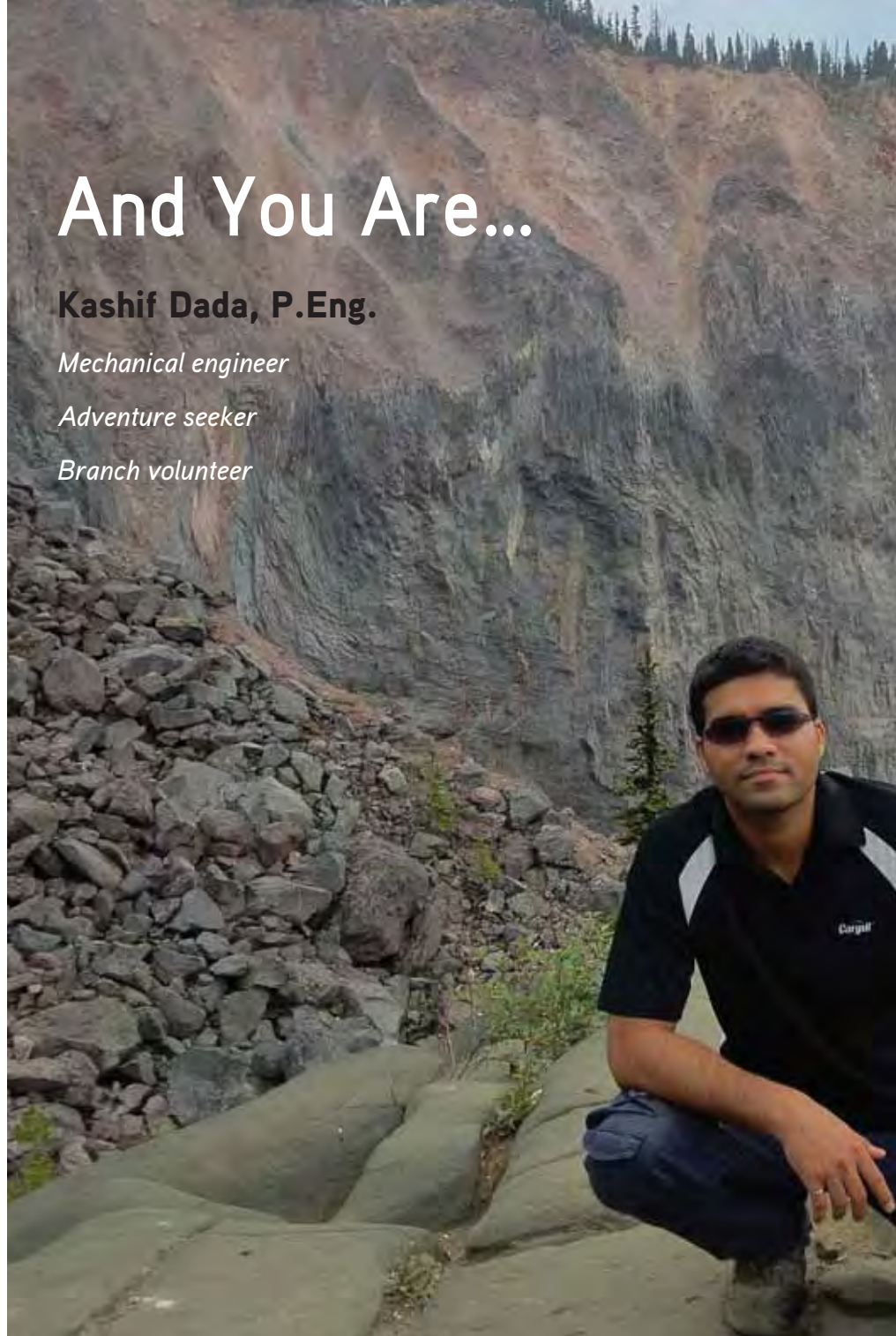
And You Are...

Kashif Dada, P.Eng.

Mechanical engineer

Adventure seeker

Branch volunteer



As a young boy growing up in Pakistan, Kashif Dada, P.Eng., dreamed of one day becoming an engineer, just like his favourite uncle, Taufiq. So he moved halfway around the world — from Karachi to Montreal — to study mechanical engineering at McGill University.

Once in Canada, he couldn't imagine travelling even further west after earning his degree. But he did. Job opportunities took him first to North Battleford, Sask., and eventually landed him in small-town Alberta.

The Alberta side of Lloydminster, to be exact.

"If someone had asked me 15 years ago where I thought I'd end up, I never would have thought I'd move from Karachi, a city of 18 million, to Lloydminster, a city of 30,000," says the 31-year-old, a project engineer for oil and gas consulting firm Enhanced Engineering, an APEGA Permit Holder. "I've always been a big city boy — I



“One of my goals as Chair is to engage the membership a lot more and spread the word about branch activities, while at the same time letting the Lloydminster community know about the value of the work done by engineers and geoscientists here.”

HE LOVES THE MOUNTAINS

The Rockies, including Giraibaldi Provincial Park, where he poses in this photo, contain many of the vacation spots enjoyed by Kashif Dada, P.Eng. -photo courtesy Kashif Dada, P.Eng.

social and networking activities, plan science outreach events for students, and communicate important APEGA information to our membership.

Mr. Dada volunteered first with Vermillion River Branch as a Member-at-Large, then as Secretary, Treasurer, Vice-Chair, and now Chair.

“My motivation is to meet fellow engineers and geoscientists, and at the same time encourage Branch Members to give more back to the professions,” he explains.

A highlight of volunteering so far has been working with local schools to organize the APEGA Science Olympics.

“We want to encourage students to choose careers in engineering and geoscience,” says Mr. Dada. Seeing students actively engaged in science challenges is especially rewarding for him — and a bit surprising, too.

“I’m always amazed at the creative solutions students come up with that I, as a Professional Engineer, didn’t even think about. It’s amazing how their minds work and the out-of-box thinking and solutions they come up with. APEGA Science Olympics is a great opportunity for them to exercise their minds.”

Vermillion River Branch is working with local schools to hold a science challenge in the fall, after schools there launch a new science program. Mr. Dada and other branch volunteers will spearhead the initiative, and he says the branch also hopes to hold more social events for local Members and their families in coming months. (About 180 APEGA professionals live in the region represented by the Vermillion Branch.)

“One of my goals as Chair is to engage the membership a lot more and spread the word about branch activities, while at the same time letting the Lloydminster community know about the value of the work done by engineers and geoscientists here.”

would have thought I’d be living in Calgary or Edmonton. But it’s kind of surprising where you end up.”

That’s not to say he’d change a thing about his life-and-career trajectory. “If you ask me now, I prefer living in Lloyd. I like the small-town lifestyle — and there’s less traffic,” he says with a laugh. “As long as the opportunities are in Lloyd, I’ll stay here.”

An Engineer-in-Training when he arrived in Border City in 2012, Mr. Dada was eager to meet other professionals to learn

about their lives, their careers, and the local engineering scene. He was encouraged to volunteer for APEGA’s Vermillion River Branch by fellow professional Jim McCuaig, P.Eng., an active APEGA volunteer who at the time was the Vermillion River Branch Vice-Chair.

APEGA has 10 branches across the province and volunteers — like Mr. McCuaig and Mr. Dada — help connect Members in each branch to their regulator, each other, and their communities. Branches organize

It's a challenge he is up to. In fact, seeking out new challenges and experiences is part of what defines Mr. Dada.

Some of those challenges are physically demanding and adventurous. Skydiving, bungee jumping, fly boarding, whitewater rafting, and back country snowmobiling are among them. "My life goal is to travel more and experience new things," he says.

In the meantime, he keeps busy playing badminton, hanging out with friends, watching comedies — and, of course, volunteering. Like Mr. McCuaig — the professional who first encouraged him to get involved with APEGA — Mr. Dada encourages other professionals to consider volunteering. You don't need to make a huge time commitment to start, he points out, but after getting involved, you never know where it will lead you.

"You could start as a science outreach judge, for example, which doesn't take much time," says Mr. Dada. "That will give you a taste of what it's all about and you can get an idea how much fun it is."

GETTING TO KNOW YOU

What do you do to relax? If I'm not watching a TV comedy or a funny movie — anything with Eddie Murphy in it — I like to look at different stocks and mutual funds. One of my hobbies is equity investing.

What quality do you value most in a person? Persistence — not giving up easily.

What's a toy you played with growing up? That would be LEGO. When I was a kid, they didn't have a lot of kits. It was more blocks with small accessories, and you really had to use your imagination to create things.

What's the best advice you ever received? In high school, I was a bit shy. One of my teachers told me to stop worrying what other people think about me and do what I like to do. Lead the way, rather than be a follower. She was a good mentor to a lot of people.

What's your favourite movie? Shawshank Redemption. I've watched it a few times.

What's your favourite lunch spot? In Montreal, my buddies and I would always go to a Lebanese place called Basha. It was well priced for a student, and the food was filling and excellent.

What's your ideal vacation spot? The Rocky Mountains.

What's something people would be surprised to learn about you?

Paragliding, base jumping, zorbing, and shark cage diving are still on my bucket list.

What exactly is zorbing? That's when a person agrees to be secured inside a giant transparent ball and rolled down a hill.

What's the background photo on your phone? An aerial shot of the Rockies taken from an airplane by my wife, Shifa.

Where do you see yourself in 10 years? I recently completed my Project Management Professional certification. My goal is to be managing bigger, more diverse, multi-million-dollar projects. And I'd like to be travelling more for my job and just for fun.

What's the last book you read for fun? I read the whole *Harry Potter* series. That was a while back.

Who was your biggest influence growing up? My uncle Taufiq was a mechanical engineer and was the general manager for a polyester fibre plant in Pakistan. I job shadowed him for a few summers and that is what my interest in engineering really grew from.

If you could meet someone living or dead, who would it be? Since I'm interested in investing, I think it would be Warren Buffett. He seems like a humble person.



And You Are...

Laurie Slezak, P.Geol., FGC, FEC (Hon.)

Brachiopod enthusiast

World traveller

APEGA Member induction volunteer



“Volunteering with APEGA broadens you; that’s how I see it. It makes you bigger than yourself.”

TRAVEL POSE

Laurie Slezak, P.Geol., has been around the world. But sights close to home, like Yellowstone National Park in northwestern U.S., are well worth a visit, too.

-photo courtesy Laurie Slezak, P.Geol.

around the world. But her childhood dream to become a geologist almost ended before it even began.

In Grade 11, she visited the University of Manitoba to find out what classes she should take to get into the honours geology program. “Dear,” she was told, “young women do not get honours geology degrees because we do not have the facilities for them.”

What facilities were those? Students in the program had to go to field schools, and the university wasn’t able to provide wash-rooms or housing for females.

After high school, Ms. Slezak ended up working for a couple of years, trying to decide on a career path. And then Canada changed. It was 1979, and the *Canadian Human Rights Act* had passed. The legislation made it clear that universities had to provide equal access to their programs.

Ms. Slezak applied for the U of M’s honours geology program and was accepted — one of only two women in the class. She graduated in 1984, then began working on a master’s degree in modern sedimentology. Her professors decided to send her resume to a few oil companies in Calgary. The companies aren’t hiring, they told her, but applying is a good chance to network.

But Ms. Slezak was offered a job, and that was too good an opportunity to pass up. That’s how she found herself moving to Calgary during a major recession and working full time while completing her master’s. “I wasn’t actually planning on working in oil and gas. There were few jobs out there, very similar in many ways to where we’re at today,” she remembers.

She’s glad she took the chance. The decision changed the course of her career and her life, leading her to work on various oil and gas, environmental, mining, and government restructuring projects across Canada and around the globe, from Tanzania and Rwanda to China and Australia.

Laurie Slezak, P.Geol., FGC, FEC (Hon.), was a girl of four or five when she starting collecting rocks. By the time she was eight, she was leading geology tours around the schoolyard at recess, explaining to her fellow students how fossils came to be embedded in the Tyndall limestone facade at Winnipeg’s Linwood Elementary School.

The fossils, she told them, were about 450 million years old. They had cool names like trilobite, brachiopod, and stromatop-roid. Part of Manitoba, she explained, was once covered by an ocean. When the sea creatures died, their remains settled into the ocean floor, hardened, and eventually turned into limestone.

She knew all this from reading *An Introduction to Historical Geology*, a used university textbook her parents had bought her.

“I was one of those kids,” Ms. Slezak says with a laugh. “My parents could never explain my interest, because neither of them were into geology. But people who remember me from grade school are not surprised I’m a geologist.”

And that textbook? Count it among her most prized possessions.

THE PERSEVERANCE PAYOFF

Ms. Slezak recently retired after a three-decade career in geology that took her

GETTING TO KNOW YOU

What do you do to relax? My husband, Jack Wendte, and I retired about two years ago. We're having fun doing the stuff that didn't quite fit in when we were full steam ahead in the working world. I like to garden, hike, dance, read, and cook. We also enjoy travelling — we're both Professional Geologists, so we like to grab a guidebook and find the outcrops wherever we go.

What quality do you value most in a person? Truthfulness.

What's a toy you played with growing up? My parents raised me as a reader. They made sure I read the classics — Dickens, Bronte, authors like that. I read a lot of science fiction and adventure books for girls like Nancy Drew and Trixie Belden. Oh, and geology books.

What's the best advice you ever received? My parents and my great grandmother, who helped raise me, always told me to believe in myself and keep on trying.

What's your favourite movie? Any Star Trek, Star Wars, or Indiana Jones movie.

What's your favourite lunch spot? I have favourite Mexican, Indian, Thai, and sushi restaurants. It depends on my mood and who I'm with.

What's your ideal vacation spot? Any place where I'm learning new things and meeting new people.

What's something people would be surprised to learn about you? I used to be in a ballroom dance club. When I worked in China, it surprised everybody when I disappeared in the morning to go ballroom dancing with the locals.

What's the background photo on your smartphone? None — because I don't have a smartphone. But my laptop has a rotating display of my scenery, flower, storm, and geology pictures.

Where do you see yourself in 10 years? I'm hoping that I'm still active, that I can still travel and do the things I love. I'd like to continue being active as a volunteer and meeting new people.

What's the last book you read for fun? I always have four or five books on the go. Right now that includes *The Year Round Veggie Gardener* by Niki Jabbour and *The Wisdom of Chinese Cooking* by Grace Young. And I just finished up an *Outlander* novel by Diana Gabaldon.

Who was your biggest influence growing up? My parents, Patricia and Steve Slezak, and my great grandmother Alta Eaman.

If you could meet someone living or dead, who would it be? Gran and my parents, just to say thank you.

"I've been lucky to work on most continents except Antarctica," says Ms. Slezak. "I've had great experiences, everywhere I've been. From the people I ballroom danced with every morning in China, to birthday parties in Siberia, to Malagasy celebrations in Madagascar and looking at very strange and wonderful wild flowers in bloom in Western Australia."

At one of her first jobs, with a company called Hardy Engineering, she first learned about APEGA. Her boss, Robert Hardy, P.Eng., was a former APEGA President. Mr. Hardy, now deceased, encouraged her to apply for her P.Geol. designation and consider volunteering for the regulator.

She first signed up to volunteer after returning from a two-year oil and gas project in North Africa.

"I asked for something short term because I was bouncing in and out of the country," she says. "I ended up on the Act, Regulations, and Bylaws Committee. I thought it would be good to have someone on the committee who could speak to being a geologist and how the experience is different from being an engineer."

Ms. Slezak also spent a few years helping develop standards for the mandatory APEGA Continuing Professional Development program.

That was more than 20 years ago. Today, Ms. Slezak remains active as a volunteer speaker at APEGA Member Induction Ceremonies, which are special events for new APEGA Members to take their professional oaths among their peers.

"Some of them have come from halfway around the world and have struggled to get professional credentials here, so this is a celebration," she says. "They are really happy to have achieved that milestone and to celebrate it with their families."

Ms. Slezak has enjoyed giving back to the professions over the years — but there's more to it than that. "Volunteering with APEGA broadens you; that's how I see it. It makes you bigger than yourself," she explains. "Meeting other Members of the APEGA family is a great way to learn things you wouldn't learn in your office. That breadth of knowledge you gain and the people you meet help you in your career."

Outside APEGA, Ms. Slezak has taken part in Earth Ring ceremonies for new geoscience graduates, and she mentors young professionals in other ways, too.

"My recent volunteer work with the CSPG Student Industry Field Trip resulted in some energizing insights on the new generation of Canadian geologists," she says. The students she talked to are worried about current job prospects, but after making it through the early '80s, she has some good advice.

"Rough times challenge you to be even better, to take more opportunities, to take what you can get — and that builds a great resume," she says. "As long as you stay flexible, keep learning, and are open to opportunities and meeting people, then the odds are really good that you'll find something even more interesting than what you pictured."

Faces at the Gala



1. ROYAL REPRESENTATION — The Honourable Lois E. Mitchell, CM, AOE, LLD, the Lieutenant Governor of Alberta, addresses the crowd attending APEGA's premier awards event, the Summit Awards Gala, April 21, in Edmonton at the Shaw Conference Centre.

2. NEWLY VESTED — For outgoing APEGA President Connie Parenteau, P.Eng., FEC, FGC (Hon.), her tartan is represented in the form of a sash instead of the usual vest, after an APEGA ceremony that's a traditional right-of-passage into the ranks of the regulator's Past-Presidents.

3. MAJOR ACHIEVEMENTS HONOURED — J.J. Roger Cheng, P.Eng., PhD, addresses the gala crowd after accepting the Centennial Leadership Award. Dr. Cheng is Chair of the Department of Civil and Environmental Engineering in the University of Alberta's Faculty of Engineering.

4. OUTSTANDING MENTOR — Arden Spachynski, P.Eng., is the recipient of the Outstanding Mentor Award, which he has earned by leveraging decades of experience in the mentoring of new generations of students and Professional Engineers.

5. SHE KNOWS LEACHATE — Lourdes Luge, P.Eng., is the recipient of the Environment and Sustainability Award, for her leadership and engineering expertise as the project manager of Calgary's Leachate Treatment Pilot Plant. In all at the Summit Awards Gala, APEGA honoured 11 Members and Permit Holders for their outstanding contributions to the professions and the public.

Learning Time



6



8



7



9

APEGA Summit 2016: Annual General Meeting and Conference offered a selection of PD sessions for Members to learn about self-regulation, technical areas of practice, and much more. Fulfilling the requirements of APEGA's Continuing Professional Development program is mandatory for Members, and many of them took advantage of the sessions offered April 21 and 22 in Edmonton.

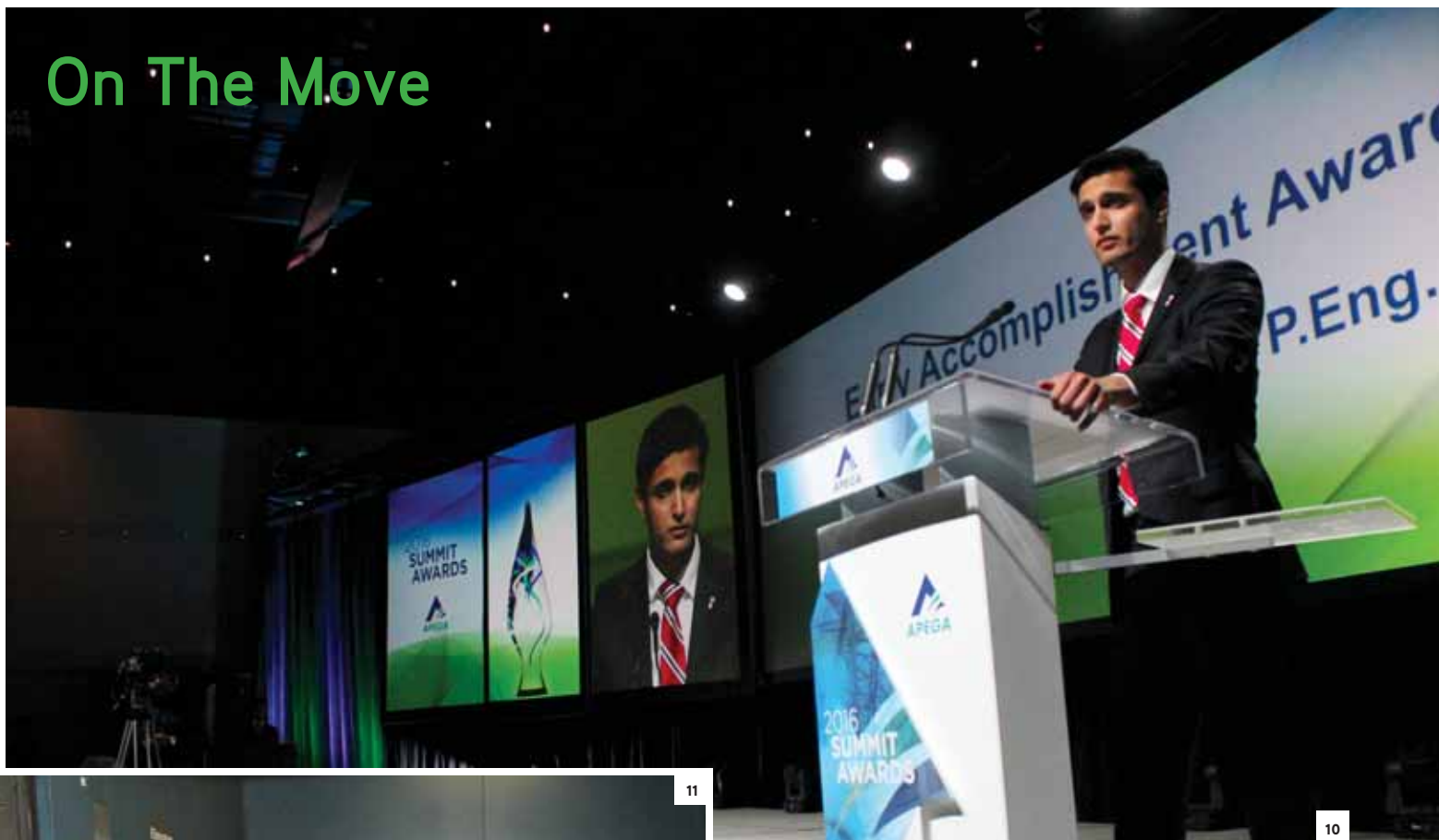
6. BEFORE THE SCREEN — Sami Fahmy, P.Eng., PhD, PMP, RMP, engages attendees on the ins and outs of creativity and innovation.

7. SELF-REGULATION EXPLAINED — Katrina Haymond, LLB, helps Members become better self-regulators, during a session entitled Self-Regulation 101. APEGA Registrar Carol Moen, P.Eng., co-presented.

8. ON THE TECHNICAL SIDE — Ade Oluwalola, P.Eng., hears the latest about isolation techniques in piping systems to prevent major loss incidents. Presenter was John Cocchio, P.Eng.

9. A DOWNTOWN TRANSFORMED — From left, Robert Black, QC, Chief Development Officer of the Oilers Entertainment Group, and Rick Daviss, City of Edmonton Executive Director of the Downtown Arena District Project, tell the success story of a public-private partnership that's transforming downtown Edmonton. Behind the two speakers is an artist's rendering of the new Rogers Place arena, which the Edmonton Oilers will soon call home.

On The Move



10



11



12

10. HIGH HEIGHTS — Leon Prebeau-Menezes, P.Eng., acknowledges his Early Accomplishment Summit Award, recognizing his achievements as a leader and innovator at an early stage in his career. Just four years after joining Statoil, Mr. Prebeau-Menezes has already demonstrated high levels of achievement with his work in the planning and management of platform and subsea wells.

FAST TIMES — Their careers are just beginning, but there was room at the Summit Awards Gala to display the early accomplishments of University of Alberta Faculty of Engineering students, too. **11.** In the freight elevator with their entry in the Great Northern Concrete Toboggan Race are some of the team — from left, Steven Parth, Brittney Lopushinsky, and Dylan Friesen. Cique du Soleil stylings earned the U of A crew victory in the best theme costume competition, held in conjunction with the race in Ottawa in January. **12.** Meanwhile, two Formula SAE team members park their car — from left, Chris Taschuk and Trevor Cloutier.

Magnets, Machines, Mini-Mars Rovers — and More

Almost 1,500 students put their creativity and innovation skills to the test at APEGA Science Olympics events across the province. Their efforts — with the support of great volunteers — made this our biggest year ever



Elementary students in Calgary built Rube Goldberg machines designed to wake up their teachers. Junior high students in Red Deer created filtration systems to purify water. In Edmonton, senior high students developed miniature Mars Rovers using circuit boards. And let's not forget Lakeland's magnetic levitation cars.

These were just a few of the hands-on engineering and geoscience challenges students completed at the APEGA Science Olympics, annual events that test the ingenuity and inventiveness of K-12 students from across Alberta.

Held in conjunction with National Engineering & Geoscience Month, this year's APEGA Science Olympics in March and April were the biggest in the events' 23-year history.

CELEBRATING INNOVATION, CREATIVITY, AND DIVERSITY

Over the years, the scope of the science olympics has grown and evolved. This year we introduced a new judging system, so students now compete against achievement levels instead of each other. Teams needed to meet base scores to receive gold, silver, or bronze medals.





3



4



5

BY THE NUMBERS

Calgary

- 550 Students
- 110 Teams
- 11 Community and Outreach Exhibitors

Edmonton

- 500 Students
- 100 Teams

Lakeland

- 330 Students
- 66 Teams

Red Deer

- 105 Students
- 21 Teams



6

1. ON THE GROW — École Marie Poburan students of Edmonton show off their portable biodome, an entry in the Stayin' Alive competition for students in Grades 4 to 6.

2. ALL EYES ON DECK — In Float Your Boat for Grades 1 to 3 in Edmonton, students watch closely as weight is added to their creations.

3. BALANCE ME THIS — High school students in Edmonton combine science and their own balancing abilities, in the Crazy Cantilever competition.

4. MIX IT UP — Red Deer students learn about viscosity by racing different liquid mixtures down a 45-degree plane. -photo courtesy Daniel Shang, E.I.T.

5. JUDGES AT WORK — Away from the hurly-burly of competition, judges pore over results during the APEGA Science Olympics in Edmonton.

6. WORTH THE WEIGHT — A young Calgary innovator pauses for a moment to show off her team's creation, a structure that had to lift 10-lb. weights — using flowing water.

SCIENCE OLYMPICS

Participants were rewarded for bringing new and innovative ideas to the table. Challenges were designed so the most creative projects — and those that emphasized teamwork and diverse perspectives — received extra points.

Our new approach was a big step and it appears to have left an impression. Parents applauded the science olympics for encouraging students to be creative problem solvers. Some students marveled that engineering and geoscience are, as they put it, used for almost everything in the world. They credited the APEGA Science Olympics for sparking an interest in the professions.

OPENING UP CAREER PATHS

A special thanks goes out to APEGA's professional volunteers, who play a vital role in the creation and execution of the Science Olympics. With the support of APEGA staff, our volunteers:

- develop the activities students participate in
- are judges at the events
- act as role models and mentors for students

We would be unable to have the impact we did without the generous support of APEGA's volunteers — Professional Engineers, Professional Geoscientists, Engineers-in-Training, Geoscientists-in-Training, and university students.

Over 5,000 volunteer hours were logged for science olympics alone over the course of the year. It's exciting to know that APEGA's Members are committed to inspiring the next generation of engineering and geoscience professionals.

ONWARD TO 2017

Our goal with the APEGA Science Olympics is to continue showing students how important an innovative, creative mindset is, and how they can combine that with an engineering and geoscience education to make a difference and create something incredible. Students have shown that they're willing to think outside the box when given the opportunity. It's our job to keep encouraging them to do so.



7. ON YOUR MARKS, GET SET, GRAB! — Junior high students in Edmonton fill buckets not with water — but with things that water helps them grab. It's the Hydraulic Hauler competition for junior high students.

8. POWER POSE — Calgary students pose for a photo in front of their water-powered electricity generators, made from cardboard and other recycled materials — and, of course, a piece of duct tape here and there, because duct tape always comes in handy.

Do you have a team to register for the next APEGA Science Olympics?

Visit apega.ca now

GIVE BACK TO YOUR PROFESSION



By giving to the APEGA Education Foundation (AEF) you are investing in the education of Alberta's future Professional Engineers and Geoscientists.

AEF scholarships and bursaries reduce the financial burden for university students and enhance their success. AEF-funded outreach programs inspire the next generation to consider engineering and geoscience careers.

You are proud of your profession. You have had a fulfilling and meaningful career. And you want to give back.

Give back today with a tax-deductible donation to the APEGA Education Foundation. Together, we are investing in the future of the professions.

Donate today at apegaeducationfoundation.ca





ROLE MODELS IN THE FAMILY
Engineering student Anastasia Johnson (right) celebrates at the University of Calgary Dinos football kickoff with her younger sister Jenna, a U of C education student.
-photo courtesy Anastasia Johnson

“I want to help develop better sustainable energy methods so that we can meet the needs of people living today and protect the integrity of the environment that we live in, so that those who are alive in the years to come have the same quality of life that we have, if not better.”

Of Dreams and Turbines

As a child she was in awe of southern Alberta's turbines. Now, Anastasia Johnson, an Aboriginal university student, is putting the pieces together to build a career in sustainable energy — thanks, in part, to the APEGA Education Foundation/Enbridge Aboriginal Bursary

On a family road trip to Montana, the giant wind turbines standing sentinel in southern Alberta captured the imagination of a young Anastasia Johnson. Staring out the window of the car, she wondered what it would be like to stand beneath those whirling, whirring blades.

"I remember being awed by them, they were so huge," says Ms. Johnson.

That image stuck, and today a career in sustainable energy is Ms. Johnson's dream — a dream she's well on her way to making happen. This fall, she'll start her third year as a mechanical engineering student at the University of Calgary's Schulich School of Engineering.

Her interest in helping the environment stems from her Aboriginal roots. She grew up in the community of Maskwacis on the Samson Cree Nation, about 75 kilometres north of Red Deer, where she was taught respect for the natural world. So her interest in sustainable development — wind energy in particular — comes as no surprise. Ms. Johnson envisions a day when sustainable energy is accessible to all, and she knows that engineers will be at the forefront of making it happen.

"We aren't going to be able to use energy from the oil and gas industry forever. I want to help develop better sustainable energy methods so that we can meet the needs of people living today and protect the integrity of the environment that we live in, so that those who are alive in the years to come have the same quality of life that we have, if not better," she explains.

The APEGA Education Foundation (AEF) and APEGA Permit Holder Enbridge are helping Ms. Johnson become one of the Professional Engineers creating that future. Over the past two years, she's received two APEGA Education Foundation/Enbridge Aboriginal Bursaries worth \$5,000 each. She was the first recipient of the bursary, which was introduced in 2014.

Each year, up to two of the bursaries will be awarded to First Nations students from Treaties 6, 7, or 8 who are studying

engineering at the University of Alberta or the University of Calgary. Awards are based primarily on financial need, in addition to non-academic accomplishments.

The bursaries have helped Ms. Johnson pay living expenses while she's away from home studying in Calgary, allowing her to concentrate on her school work without having to worry about how she'll pay her bills.

"I know people who work and go to school, too," she says. "I don't know how they do that and do well in school."

She's grateful for the support of the foundation, her community, and her family, including her dad, Kelly, her mom, Lana, and her three younger siblings.

"My family is always behind me, motivating me. I want to do well for them, so all their hard work putting me through school is worth it. And I want to work hard so that I can be a role model for Aboriginal students," says Ms. Johnson.

In Alberta, only about 44 per cent of First Nations, Métis, and Inuit students graduate from high school within the usual three years, says a 2014 report released by Alberta Education. Of those who do earn their diploma, an even smaller percentage go on to attend university. Many of Ms. Johnson's friends graduated from high school and have remained on the reserve, where young people are faced with high unemployment rates and other socioeconomic challenges.

That's why she believes so strongly in the importance of encouraging Aboriginal youths to explore post-secondary options — especially engineering. Most of the young people she talks to from Maskwacis aren't aware of the work engineers do to improve the quality of life in communities. On reserves, she points out, Professional Engineers can make a difference by finding solutions to ongoing challenges related to infrastructure issues like housing and water safety.

"I think it will help our community grow and be healthier if more kids explore post-secondary education and do what they can to help make their community a better place," says Ms. Johnson.

She recently became an advisor to AEF and will share ideas with the board of directors on how the foundation can better connect with Aboriginal communities. One of the goals in the foundation's new business plan is to provide more financial support to groups that are underrepresented in the engineering and geoscience professions, including young women and Aboriginals. AEF plans to do this by increasing the number of bursaries available to these groups.

APPLY NOW

University tuitions continue to climb and many engineering and geoscience students graduate with hefty debts. One of the goals of the APEGA Education Foundation (AEF) is to help ease this financial burden so students can focus on their education.

Applications are open now, and the deadline to apply is July 31.

WHAT'S AVAILABLE?

- **Undergraduate Bursaries.** Five bursaries of \$5,000 each will be awarded to undergraduate students studying engineering or geoscience at Mount Royal University, the University of Alberta, or the University of Calgary. Awards are based primarily on financial need, but non-academic accomplishments are also factored in.
- **APEGA Education Foundation/Enbridge Aboriginal Bursary.** One bursary of \$5,000 will be awarded to a First Nations student from Treaties 6, 7, or 8 studying engineering at the University of Alberta or the University of Calgary. Awards are based primarily on financial need, but non-academic accomplishments are also factored in.
- **Alex Hemstock Bursary.** One bursary of \$5,000 will be awarded to an engineering graduate student in any discipline at the University of Alberta or the University of Calgary. The award is based primarily on financial need.

WHERE NUMBERS MEET PEOPLE

In high school, Ms. Johnson originally wanted to be a doctor. But she switched focus when she learned about biomedical engineering in health class.

"I always liked math and science and doing calculations — the more technical side. So engineering appealed to me more than being a doctor," she explains. "When I'm working on a question or problem and crunching the numbers, it's really rewarding to come up with the solution."

In May, she started a summer internship with Pembina Pipeline Corporation and was excited to put what she's learned in school into practice. "It's my first job, and I'm excited to be part of a team and see what working in an engineering environment will be like — learning what Professional Engineers do in industry."

While it may seem at odds with her desire to work in sustainable energy, the opportunity to gain experience and build skills working in oil and gas is actually quite a practical approach.

"I understand that the oil and gas industry is important for many resources, and it's unrealistic for people to assume that we can just stop using it cold turkey as an energy resource," says Ms. Johnson. "We need to rely on it while we begin to make sustainable energy methods more universal."

MORE INFO OR TO APPLY

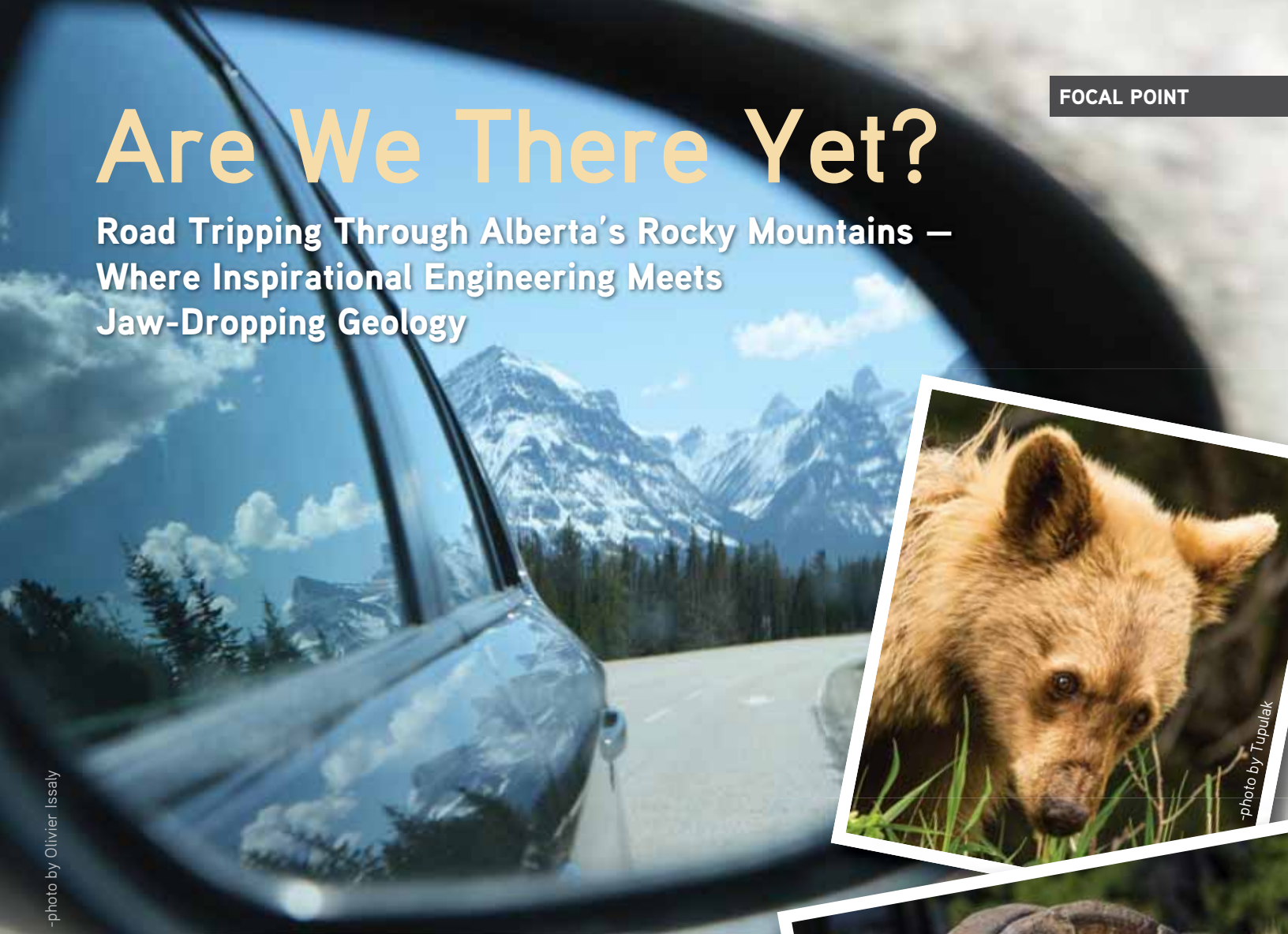
apegaeducationfoundation.ca

scholarships@apega.ca

Other AEF-funded scholarships and bursaries are also available, by applying directly through Mount Royal University, the University of Alberta, or the University of Calgary.

Are We There Yet?

Road Tripping Through Alberta's Rocky Mountains — Where Inspirational Engineering Meets Jaw-Dropping Geology



-photo by Olivier Issaly



-photo by Tupulak



A struggling economy means many Albertans are considering a stay-at-home vacation this summer. If you're looking for fun and adventure without jetting off somewhere exotic (and expensive) or even venturing beyond your home province, the Rocky Mountains are the perfect playground. As an extra bonus, you'll find constant reminders of what you love about your chosen professions.

Jaw-dropping geology, inspirational engineering, trails for all fitness levels, and constant opportunities to spot bears, bighorn sheep, mountain goats, elk, and other wildlife — these are just a few of the attractions that make our mountain parks and wilderness areas world-class destinations.

If you've never visited Alberta's Rockies or you've been there a hundred times before, you'll find a plethora of activities to suit you and your family.

Looking for an adrenaline rush? Get your heart pumping while climbing a vertical rock face. Want to breathe in that fresh mountain air, far away from highway traffic? There are over 1,000 kilometres of trails to explore, from easy strolls to difficult scrambles. Simply want to take in the views? Geological wonders await at every turn.

The crown jewels are Banff National Park, Jasper National Park, and Waterton Lakes National Park, but there are many other treasures to discover. Backcountry wonderlands you may not have considered include the areas around Hinton and Grande Cache, north of Jasper, as well as Kananaskis Country and David Thompson Country, both of which border Banff National Park. Further south, bordering Montana, the mighty peaks of Waterton Lakes National Park rise above the Prairies

in glorious grandeur. Depending on where you live, you might be able to enjoy some Rocky Mountain sightseeing on a day trip. But to really experience what the Rockies have to offer, you'll need a weekend — or better yet, a week or two — to see the sights. Pack your camera, throw a good pair of hiking boots into the back of your car, and hit the highway.

Icefields Parkway (Highway 93)

Dramatic peaks, forested valleys, ancient glaciers, plummeting waterfalls and sparkling turquoise lakes make the Icefields Parkway one of the most scenic drives in the world. Stretching 230 kilometres from the Town of Jasper to just north of Lake Louise, the Icefields Parkway has an average elevation of 1,550 metres, making it the road with the highest average elevation in Canada. On this drive, you'll pass through both Jasper National Park and Banff National Park.

1. Jasper SkyTram

jasperskytram.com

For 360 degree views, take a seven-minute tram ride 2,300 metres up Whistlers Mountain — Canada's longest and highest aerial tramway — then hike an alpine trail to reach the 2,500-metre summit. Keep an eye out for pikas, mountain goats, and grizzlies.



2. Maligne Canyon and 4. Maligne Lake

A short jaunt off the parkway, hike, canoe, or take a boat tour at Maligne Lake, the largest natural lake in the Canadian Rockies. Before you get there, stop at Maligne Canyon, one of the deepest river canyons in the Rockies. The canyon plunges 50 metres, creating thundering waterfalls. Look for Devonian-period marine fossils embedded in the limestone bedrock.



3. Medicine Lake

Along the road to Maligne Lake, you'll drive right by Medicine Lake — if it hasn't disappeared! In the summer, glacier melt floods the area, but later in the season it turns into a mudflat.

QUICK FACT: There's no visible drainage channel at Medicine Lake. Scientists believe the lake slowly empties through fractured bedrock into a complex underground cave system.



5. Athabasca Falls

Water flowing along the Athabasca River is funnelled into a narrow gap. Then it drops 23 metres over a lip of Gog quartzite into a gorge below — creating one of the most powerful waterfalls in the Rockies.

6. Mount Columbia

At the Columbia Icefield, look up, look way, way up. That snow-capped peak looming to the northwest is Mount Columbia, the highest mountain in Alberta and the second highest in the Canadian Rockies. It tickles the sky at 3,747 metres.



JASPER DARK SKY PRESERVE

jasperdarksky.org

Jasper National Park is the world's second largest dark sky preserve. Some of the best spots for star gazing include Pyramid Island, Jasper House, Marmot Meadows, Athabasca Glacier, and (shown) Wilcox Pass.

-photo courtesy Travel Alberta



7. Columbia Icefield

pc.gc.ca

Seven glaciers make up the Columbia Icefield — the largest ice mass in North America outside the Arctic Circle. Athabasca Glacier, the most accessible, is just off the highway. Explore safely via a Snowcoach tour or guided ice walk. For an elevated view, visit the Columbia Icefield Discovery Centre.

QUICK FACT: Over the past 20 years, the icefield has shrunk from around 325 square kilometres to 220 square kilometres. Athabasca Glacier has lost half its volume and has retreated more than 1.5 kilometres over the past 125 years.



8. Glacier Skywalk

brewster.ca

One of Banff's newest attractions, this glass-floored platform is suspended from the mountainside, 280 metres above Sunwapta Valley. Look down, if you dare! An award-winning feat of engineering, the skywalk is supported by cables anchored deep into the rock face.



9. Bow Summit and Peyto Lake

At 2,069 metres, Bow Summit is the highest point on the Icefields Parkway and Canada's second highest spot on a public highway. A short paved trail leads to endless views of Mistaya Valley and the brilliant blue hues of Peyto Lake. Several side trails take you off the beaten path — and to even better views.

QUICK FACT: Suspended clay and silt particles give Peyto Lake — and many other Rocky Mountain lakes and rivers — their stunning blue and green shades. This rock flour, as it's called, comes from glacial erosion. Sunlight reflecting on the particles creates the intense turquoise and emerald colours. The more rock flour a lake has, the greener it will be.

10. Helen Lake Trail

This popular day hike offers incredible views of the Bow Valley and Wapta Icefields. It's six kilometres one way, with an elevation gain of 460 metres. Pack a lunch and say hi to the hoary marmots.

11. Dolomite Pass and Stromatolite Reef

Banff's stromatolite reef fossils represent some of the oldest life forms on Earth, dating back about 500 million years. To find them, hike to Helen Lake, then take a steep trail (up and to the left) three kilometres to the top of the Dolomite Pass. At the top, go north towards Cirque Peak and look for a sand-coloured rock layer.

QUICK FACT: Dolomite — a mineral consisting of crystalline carbonate of lime and carbonate of magnesium — is rare in the Rockies. The jagged cliffs of Dolomite Peak, seen along Helen Lake Trail, are a great example.

12. Bighorn Dam and Abraham Lake

Technically, Bighorn Dam and Abraham Lake are not on the Icefields Parkway, but they're just a short detour east along Highway 11. Abraham Lake is Alberta's largest artificial lake, created in 1972 when the dam was built. Escape the crowds here to fish, hike, camp, or just enjoy the magnificent scenery.

Photo Credits

1. SkyTram -photo courtesy Jasper SkyTram
2. Athabasca Falls -photo by JD Hascup
3. Mount Columbia -photo by Vern DeWit
4. Athabasca Glacier -photo by Federico Moroni
5. Skywalk -photo by Norio Nakayama
6. Peyto Lake -photo by Federico Moroni
7. Dolomite Peak -photo by Calypso Orchid

Bow Valley Parkway (Highway 1A)

It's only 48 kilometres long, but the sights along the Bow Valley Parkway in Banff National Park pack a mighty punch. Winding between the communities of Lake Louise and Banff, it's a quieter alternative to the nearby Trans-Canada Highway. With a speed limit of just 60 kilometres an hour, visitors are encouraged to explore at a more leisurely pace — all the better to take in the scenery and wildlife.

1. Lake Louise

Few places are more symbolic of Alberta's Rocky Mountains than Lake Louise, with its idyllic turquoise water framed by snowcapped mountains and Victoria Glacier. Go early to avoid the crowds. You can hike, bike, go horseback riding, canoe — or simply feast your eyes on Mother Nature's perfection.

2. Plain of Six Glaciers Trail

Starting at Lake Louise, this moderate hike is a classic with its impressive glacier and mountain views. About 5.5 kilometres in, stop at a quaint teahouse, then go another 1.5 kilometres for a close-up look at Victoria Glacier. You can turn back or carry on to Lake Agnes along the Highline Trail.

3. Moraine Lake and Valley of the Ten Peaks

This aquamarine lake with 10 peaks rising gracefully above it has been featured on the Canadian \$20 dollar bill. Climb the rock pile adjacent to the lake to capture your own postcard-perfect shot. Get here along Moraine Lake Road, just off the parkway.

4. Morant's Curve

This was one of Canadian Pacific Railway photographer Nicholas Morant's favourite spots to photograph trains as they rounded a picturesque bend in the Bow River. Find it five minutes east of Lake Louise along the Bow Valley Parkway. Trains typically pass by a few times an hour.

5. Castle Mountain

Midway between Banff and Lake Louise, pull over at Castle Junction to admire the castellated peaks of Castle Mountain, one of the most impressive geological formations in the Bow Valley. Look for the layer of soft shale sandwiched between harder deposits of limestone and dolomite.

QUICK FACT: *Castle Mountain is a Rocky Mountain sandwich. That's a term used by Professional Geologists to describe mountains with three distinct rock layers: limestone on the top and bottom, with soft shale in the middle.*

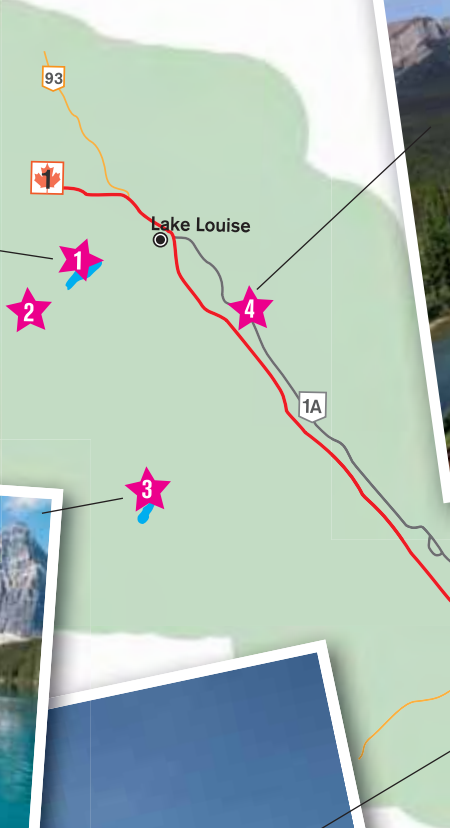


Photo Credits

- 1. Lake Louise - photo by Michael Muraz
- 3. Moraine Lake - photo by Paul Gorbould
- 5. Castle Mountain - photo by Chris Pawluk

RIDE THE RAILS

rockymountaineer.com

viarail.com

Don't just watch trains — hop aboard! Two companies, VIA Rail and the Rocky Mountaineer, offer packages to suit different interests and budgets.

QUICK FACT: *The Canadian Pacific Railway is among the greatest engineering feats in Canadian history. Engineers in the late 1800s had to conquer rocky peaks and gorges along three mountain ranges, creating a sea-to-sea link that helped define the nation.*



6. Johnston Canyon and Ink Pots

At Johnston Canyon, take a walk along catwalks that cling to limestone cliffs and feel the waterfall spray on your face. The gorges, tunnels, and pools found here were carved over millennia by water rushing down Johnston’s Creek. Trek past the Upper Falls to the Ink Pots mineral springs.

7. Cave and Basin National Historic Site

pc.gc.ca

Railway workers stumbled upon the hot springs in this underground cavern in 1883, leading to the creation of Banff National Park in 1887 — Canada’s first national park. There’s no bathing here, unless you’re one of the resident and endangered Banff springs snails. Learn about the park’s history at the new interpretive centre, stroll boardwalk trails, or go on an after-hours lantern tour in the caves.

8. Banff Upper Hot Springs

hotsprings.ca

Relax in the mineral rich waters of Banff Upper Hot Springs. Located in the Town of Banff, it’s the highest hot springs in Canada at an elevation of 1,585 metres.

QUICK FACT: Hot springs water hasn’t been on a slow journey, seeping through sedimentary rock layers underground and dissolving minerals along the way, before finally emerging at the surface.

9. Banff Gondola

brewster.ca

Ride 2,280 metres to the top of Sulphur Mountain to enjoy panoramic views of six mountain ranges. Don’t miss the one-kilometre hike along Vista Trail to Sanson’s Peak Meteorological Observatory, a national historic site. *Note: Terminal facilities are limited until a new terminal opens on August 1.*

10. Via Ferrata

summer.banffnorquay.com

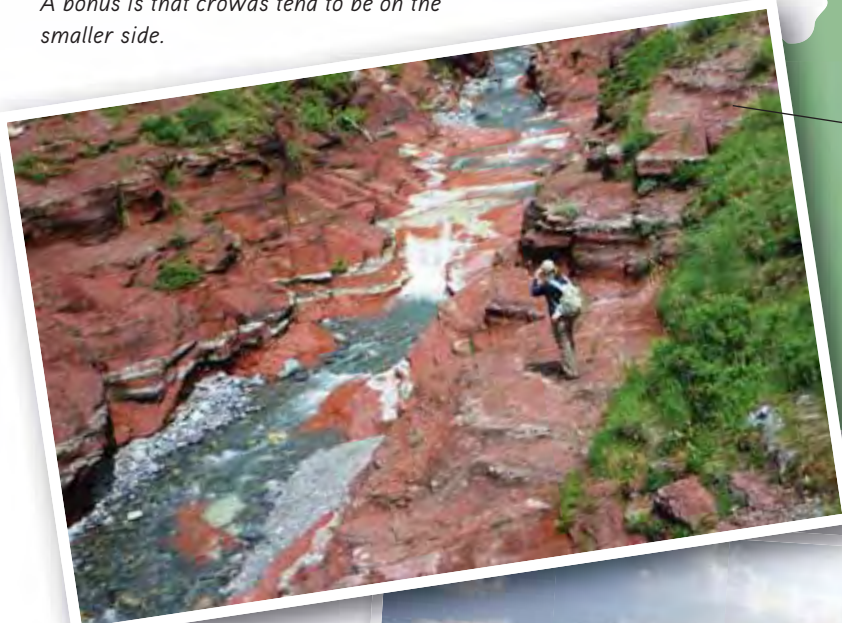
Steel ladders and cables built into the side of Mount Norquay make it easy for novices to go vertical. There’s a swinging suspension bridge, too. Bring your camera — you’ll want to capture the great views of iconic Mount Rundle.

Photo Credits

- 4. Morant’s Curve -photo by *istockphoto.com/powerofforever*
- 6. Johnston -photo by *Calypto Orchid*
- 7. Cave and Basin -photo by *JD Hascup*
- 9. Gondola -photo by *nucksfan604*
- 10. Via Ferrata -photo by *Patrycia Thenu*

Waterton Lakes National Park

Mother Nature is the biggest attraction at Waterton Lakes National Park, where the windswept Prairies meets the rugged Rockies. Located in the province's southwest — right next to the U.S. border — Waterton is the only park in the world that's designated a UNESCO World Heritage Site, an International Peace Park, and a Biosphere Reserve. Wildlife, waterfalls, hiking, biking, boating, beaches and beautiful scenery are just some of the activities visitors can enjoy. A bonus is that crowds tend to be on the smaller side.



1. Akamina Parkway and Cameron Lake

A short, winding drive up a mountainside ends at Cameron Lake, a charming alpine gem. Tucked into a glacial basin at 1,650 metres, it's a great spot to fish, hike, canoe, paddleboard, or just escape the summer heat. If you're on the water, keep an eye out for grizzlies — they're often spotted at the south end of the lake.



QUICK FACT: Look for a national historic site monument about half way up Akamina Parkway. It marks the location of the first productive oil well in Western Canada, drilled by the Rocky Mountain Development Company in 1902.

2. Cameron Falls

Located in quaint Waterton Village, the falls cascade down jagged layers of pre-Cambrian bedrock, dating from a mere 1.5 billion years ago — some of the oldest bedrock in the Rocky Mountains.



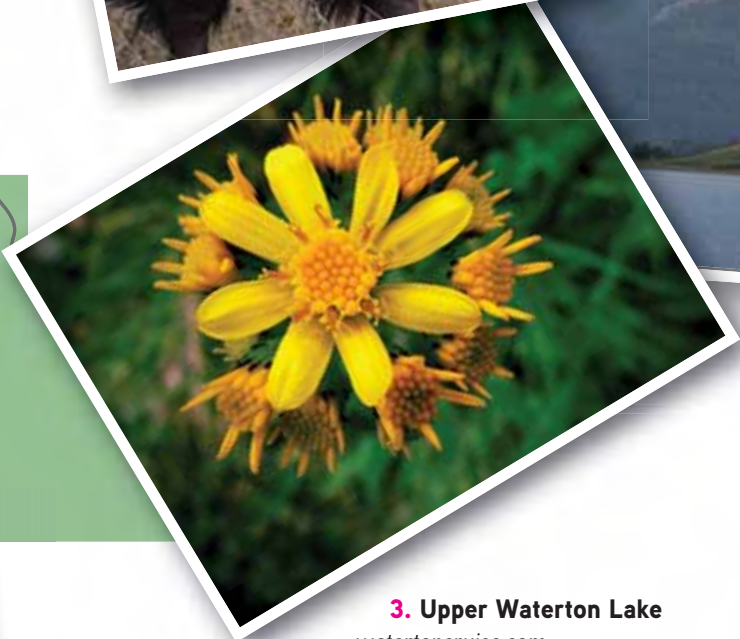
Photo Credits

- 1. Paddleboard -photo courtesy Cameron Lake Boat Rental
- 2. Cameron Falls -photo by Davan Russell

- 4. Red Rock Canyon -photo by Michael Lawton
- 5. Bears Hump -photo by Brenton Walker
- 7. Bison -photo courtesy Travel Alberta
- 8. Wildflower -photo by Edna Winti



6. Prince of Wales Hotel -photo by Trevor Bexon



3. Upper Waterton Lake

watertoncruise.com

Cruise across the deepest lake in the Canadian Rockies on your way to the Goat Haunt Ranger Station, just across the U.S. border in Montana. You'll need your passport to stay longer than 30 minutes. The popular day hike to Crypt Lake starts here — National Geographic rates it one of the world's 20 most thrilling trails.

4. Red Rock Parkway and Red Rock Canyon

Drive 15 kilometres along an ancient bison trail once used by First Nations hunters. Enjoy the rolling grasslands, alpine meadows, and mountain views, before arriving at Red Rock Canyon, where iron-rich shale layered with limestone makes a colourful display. Stroll the short Canyon Loop or hike another two kilometres through a fragrant pine forest to Blakiston Falls.

5. Bears Hump Hike

There are plenty of hikes to enjoy in Waterton, but one of the most popular is Bears Hump Hike up Mount Crandell. Uninterrupted views of Waterton Valley are your reward for tackling this short but

steep hike, which climbs 225 metres over three kilometres and 18 switchbacks. Find the trailhead behind the information centre.

QUICK FACT: The hike gets its name from the rocky outcropping you climb, which resembles the distinctive hump on a grizzly bear.

6. Prince of Wales Hotel National Historic Site

Built on a bluff high above Waterton Lake, this hotel is the park's most recognized landmark. Stop by for high tea and panoramic views. When the west wind is blowing (and that's often), the bluff is a great spot to experience Waterton in all its hair-tussling glory.

QUICK FACT: During construction, winds estimated at 145 km/h blew each of the hotel's wings about 7.5 cm off their foundation. Three months later, strong winds pushed the fully framed building completely off its foundation.

7. Bison Paddock Loop Road

Just inside the park boundary, take a drive along Bison Paddock Loop Road to see bison in their natural grassland habitat. Bring your telephoto — it's not safe to leave your vehicle for photos.

8. Kootenai Brown Trail

This scenic, multiuse trail opened in 2010, in celebration of the 125th anniversary of Canada's national parks. Hike, bike, run, inline skate — the choice is yours. The trail runs seven kilometres from the entrance gate to Linnet Lake townsite. Breathtaking views and rest spots are found along the way.

APEGA Enriches the Member Experience Through Selection of Discounts from Quality Providers

Editor's Note: Following is a quick reference guide for the benefits APEGA — or in some cases Engineers Canada — has negotiated for Members.

LOCAL HOSPITALITY

Whether travelling in Canada or abroad, APEGA Members are eligible for below-market discounts through Local Hospitality, a travel search engine for hotels and car rentals. On average, APEGA Members receive discounts of over \$50.

For information on redeeming this benefit, email us at memberbenefits@apega.ca.

ENTERPRISE AND NATIONAL

Renting a car as an APEGA Member is a better experience than ever, thanks to increased discounts. All active APEGA Members are eligible for seven per cent off at Enterprise Rent-a-Car and 10 per cent off at National Car Rental, anywhere in North America.

For information on redeeming this benefit, email us at memberbenefits@apega.ca.

RED ARROW

Red Arrow Motorcoach is a premium bus service that has been serving Alberta since 1979. APEGA Members receive 10 per cent off their fares, to places including Calgary, Red Deer, Edmonton, and Fort McMurray.

For information on redeeming this benefit, email us at memberbenefits@apega.ca.

WESTJET

Headquartered in Calgary, the airline WestJet transports more than 45,000 passengers every day. Travelling to WestJet destinations in Canada, the U.S., Europe, Mexico, and elsewhere, APEGA Members receive five per cent discounts off business flights with WestJet.

For information on redeeming this benefit, email us at memberbenefits@apega.ca.

CIBC WOOD GUNDY

Good financial planning is important for everyone, which is why APEGA has included CIBC Wood Gundy in its roster of providers. APEGA Members receive 20 per cent off financial planning services at CIBC Wood Gundy, including advice on investments, RRSPs, RESPs, and tax-free savings accounts.

To redeem this discount, contact Penny Omell or Ron Omell at 780-429-8989.

MARK'S

APEGA Members are eligible to receive 10 per cent off certain items of clothing at Mark's, ranging from a variety of workwear to socks and accessories. You need a physical card — the kind you put in your wallet — to redeem the discount, which APEGA will mail to you.

To receive your card, contact memberbenefits@apega.ca.

PROFESSIONAL EDGE RESUMES

Having a crisp, clear resume and cover letter are invaluable, especially in an economic downturn. APEGA Members receive 15 per cent off of all resume services with Professional Edge Resumes.

For more information or to redeem this benefit, contact info@professionaledgeresumes.com.

GARRETT AGENCIES

Manulife Authorized Advisors

Garrett Agencies Ltd. is an independent insurance brokerage that provides extended health benefits at a discounted rate to APEGA Members. These include accident, travel, and life insurance, as well as estate planning and dental.

To find out more and learn how to redeem this benefit, call 1-800-661-3300.

PETSECURE

Through Engineers Canada, APEGA Members receive discounts on their pet insurance with PetSecure. Insured pet owners have peace of mind knowing that up to 80 per cent of their veterinarian bills are covered, including dental, accident, and illness.

To redeem this benefit, call 1-800-268-1169 and use the referral code GCENG.

TD INSURANCE MELOCHE MONNEX

All across the country, Canadians rely on TD Insurance Meloche Monnex for their home and auto insurance. Negotiated through Engineers Canada, this benefit makes APEGA Members eligible for discounts on insurance packages.

To activate this discount, call 1-866-258-3036.

MEMBER BENEFITS

Eligible APEGA Members can take advantage of the following discounts. Complete details of these group benefits can be found at

apega.ca under Member Benefits and Member Insurance. Due to seasonal or other limited-time promotions, the Member discount may not be the lowest price — you are advised to compare. APEGA does not hold any Member insurance profile or policy information.

To be eligible you must be of active status and good standing in at least one of the following APEGA classifications: Professional Member, Permit Holder, Member-in-Training, ASAP Student, Life Member, APEGA employee. Proof of eligibility may be required, such as your APEGA Member card, staff identification, or letter of eligibility from APEGA.

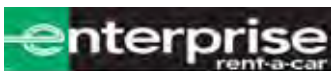
To inquire about these benefits, check your eligibility, or provide service feedback, please email memberbenefits@apega.ca.

TRAVEL



Hotel and car rental travel search engines

Below-market travel discounts. Up to 35% discount on pre-booked worldwide car rentals



5% off current national rates



10% off current national rates



10% discount value with valid APEGA member card



5% off regular rates (for BUSINESS only)

FINANCIAL



Financial Planning Services: 20% discount for APEGA members

PERSONAL



10% off regular Mark's Work Wearhouse priced items



15% off on resume services

INSURANCE DISCOUNTS

Discounted rates for personal insurance with the following:



IN MEMORIAM

Between January 1 and April 30, 2016, APEGA received notice of the deaths of the following Members.

Life Members

ANDERSON, James, P.Eng.
 ARNDT, Richard, P.Eng., P.Geol.
 CRAWFORD, Robert, P.Eng.
 DORSAY, Richard Ernest, P.Eng.
 GAMBER, Dale Anthony, P.Geol.
 GILLIS, Robert James, P.Eng.
 HLAVAY, Joseph Francis, P.Eng.
 HUNT, John Frederick, P.Eng.
 JAIRATH, Ram, P.Eng.
 JOHNSON, Ronald Dwight, P.Geol.
 JOHNSTON, Leslie, P.Eng.

KONDROSKY, Victor, P.Eng.
 KURAN, Greg, P.Eng.
 MACKIN, William, P.Eng.
 MAWDSLEY, James Cleugh, P.Geol.
 MEISNER, Terrance Bayne, P.Eng.
 MORIMOTO, Thomas Eiichi, P.Eng.
 NIMMO, Munroe, P.Eng.
 ROKOSH, Stanley A, P.Eng.
 ROMA, Wayne Michael, P.Eng.
 TULISSI, George, P.Eng.

Professional Members

ALIGIZAKIS, Aris, P.Eng.

BENDER, Jerry K, P.Eng.
 FULCHER, Terry, P.Eng.
 LAYTON, Mark Snelgrove, P.Eng.
 PROSSER, Donald, P.Geol.
 ROBINSON, Christopher, P.Eng.
 SALVATORI, Sean, P.Geo.
 SIMONAR, Bradley Warren, P.Eng.
 SMITH, Bruce George, P.Eng.
 SZYMANSKI, Jozef Karol, P.Eng.

Members-in-Training

ADAMS, Rob, E.I.T.

CORRECTION – OCTOBER 2015 DEATH NOTICES

The PEG apologizes to those Members whose names were incorrectly published on this page in the winter edition. Below are the correct names.

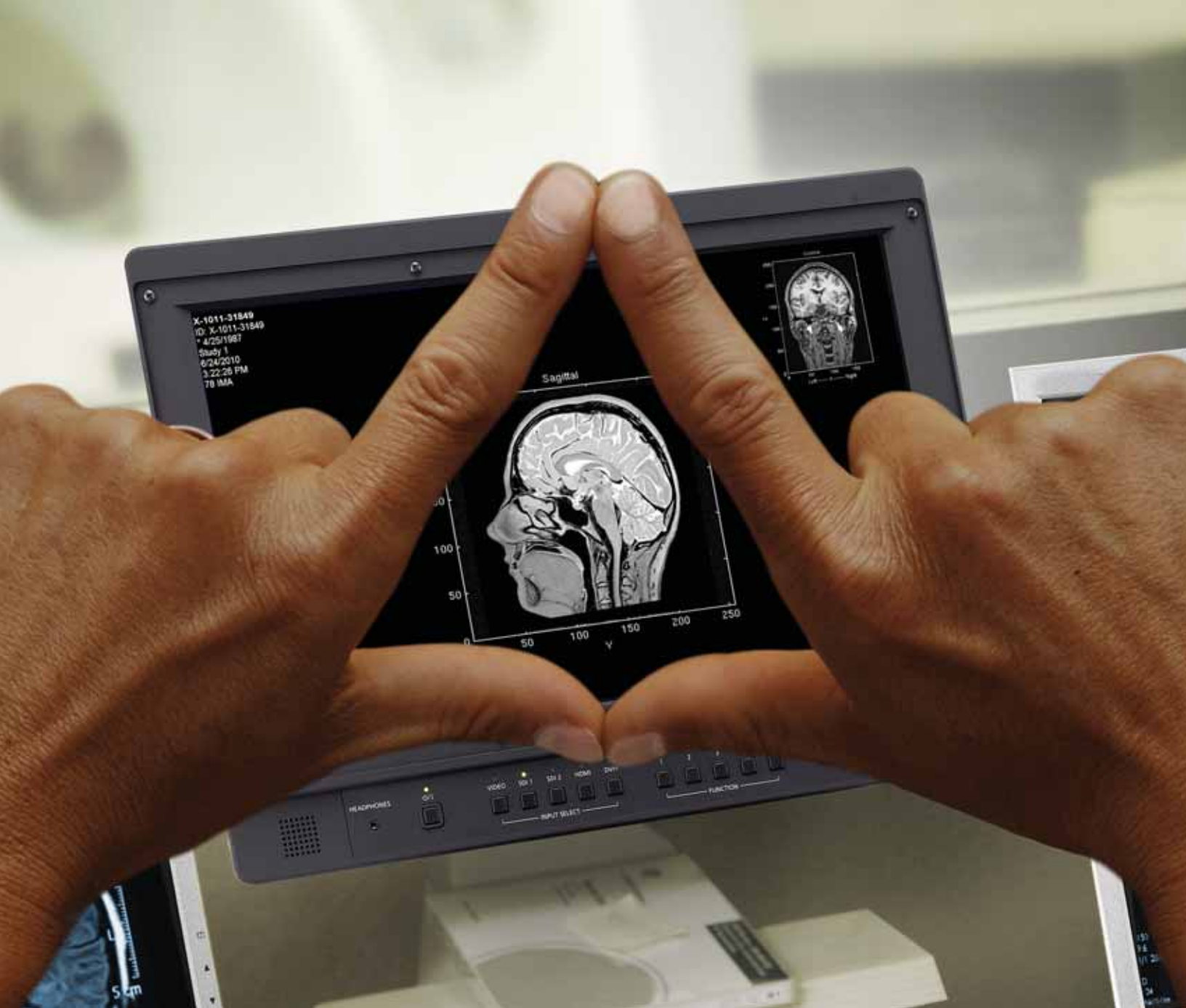
Life Members

MCCLENNON, Larry, P.Eng.
 OVERN, Einar, P.Eng.
 RIVA, Donald, P.Eng.

Professional Members

BRODOV, Andrei, P.Eng.
 GROVES, Randall, P.Geol.
 KOLISNICHENKO, Oles, P.Eng.

MILLER, Jeremy Hugh, P.Geol.
 QUAN, Luke, P.Eng.
 SACUTA, Alan, P.Eng.
 TROMBIK, Peter Georg, P.Eng.



Proudly brought to you
by Professionals in
Engineering and Geoscience



www.apega.ca

Are you considering certification?

CSA W47.1 WELDING ENGINEER

CASTI is recognized by the Canadian Welding Bureau as an approved educational institution for courses covering the requirements of CSA W47.1-09, clauses 6.4.3(a) to (d), related to the education requirements for Welding Engineers as defined by CSA W47.1.

Successful completion of these CASTI courses will meet the requirements of Clause 6.4.3s (a) to (d) of CSA W47.1-09:



Welding Fundamentals

September 8-11 in Edmonton

32 Professional Development Hours

ASME Section IX - Welding Codes & Metallurgy

November 24-27 in Calgary

32 Professional Development Hours

Visit www.casti.ca for even more training programs and future dates, including:

ASME B31.3 - Introduction to Process Piping Design and Canadian Regulations

October 25-28 in Calgary

32 Professional Development Hours

ASME Section VIII, Division 1 - Code Design Requirements for Pressure Vessels

Coming in Fall 2016 - Visit www.casti.ca for the latest information.

32 Professional Development Hours

Introduction to ASME Pressure Equipment Codes

Coming in Fall 2016 - Visit www.casti.ca for the latest information.

32 Professional Development Hours

Subscribe to our eNewsletter for the latest training course offerings from CASTI.

www.casti.ca

CASTI
Codes and Standards Training Institute

Suite 205, 10544 106 Street NW
Edmonton, Alberta, Canada
training@casti.ca | 780.424.2552

