ENGINEERS GEOSCIENTISTS MANITOBA

2018 Engineering Nominees

Platforms, Histories, and Professional Activities for Election to the Council

Vaibhav Banthia, M.Sc., P.Eng.

Candidate put forth by the Nominating Committee

EDUCATION:	M.Sc. Civil Engineering, University of Manitoba, 2003 B.Eng. Civil Engineering, University of Pune, India, 1997
ASSOCIATION ACTIVITIES:	Professional Engineer, Engineers Geoscientists Manitoba, 2004 to present India Members Chapter, Founding member and current Chair Academic Review Committee, 2014 to present
OTHER ENGINEERING/ GEOSCIENCE ACTIVITIES:	Canadian Society for Civil Engineering, Executive for Manitoba Section, 2011 to present Association of Consulting Engineering Companies' Image Committee, Speaker's Bureau Coordinator, 2013 - 2014 Participated in multiple high school presentation and career fairs to advocate engineering as a career Volunteer at International Centre of Winnipeg to mentor newly arrived skilled immigrants Mentored and judged Capstone Design projects Volunteer judge at Manitoba Schools Science Symposium
EMPLOYERS SINCE GRADUATION:	City of Winnipeg, Bridge Projects Engineer, 2016 to present Tetra Tech, Senior Structural Engineer, 2002 – 2016 Ghate and Associates, Junior Engineer, 1997 – 1999

QUESTIONS FROM THE NOMINATING COMMITTEE:

1) What is the most important issue facing the professions today? Why?

There are many issues that our profession faces today, including lack of recognition, resource constraints, exclusion of foreign trained engineers in the work force, to name a few. In my opinion, lack of adequate and appropriate mentorship is a much bigger challenge as it doesn't pave the right way for next generations of researchers and engineers. It is the proverbial passing on the baton, where new graduates and foreign trained professionals can be coached to build and enhance their skills and competencies. Initiation and continued support of ethnic and local chapters by our Association is a step in the right direction as it provides a platform to implement more direct mentoring and transfer of knowledge between different experience levels. More needs to be done!

2) Why is self-regulation, and its associated responsibility important?

Self-regulation maintains the strong tradition of accountability as both the government and public recognize that members act in an ethical and professional manner. This privilege empowers us to be autonomous and by regulating ourselves in exchange for protecting public interests results in a true win-win situation.

3) Why is diversity important to the professions?

It is a cliché to state that our world is becoming more globalized. To keep pace with other professions in an increasingly connected world, inclusion of diversity is important for sustenance and growth of our profession too. People of different genders, ages, ethnicities, religions and nationalities offer multiple viewpoints, which enhance the level of creativity and innovation. Furthermore, a more diverse workforce appeals to a broader demographic as it becomes more relatable. In this era of divisive politics, there is potential for diversity workplace issues, including discrimination, racism and prejudice but it can be managed and mitigated through written policies and sensitivity training.

4) What is the public's expectation of engineering and geosciences?

Based on a recent poll, Canadians generally have a lot of respect for engineers. This stems from having the expectation and trust that safeguarding public's interest is an engineer's number one priority, followed closely by being ethically and fiscally responsible. Today the public and the media are far more aware of ongoing projects, which puts a lot of onus on public input and making sure that "stuff' gets done right the first time, and at all times. Using their knowledge in science, mathematics, and logic, engineers not only solve the present world problems but also endeavor to solve the 21st century problem of how to leave a clean environment for next generation of Manitobans.

Jules Gareau, P.Eng.

Candidate put forth by the Nominating Committee

EDUCATION:	MBA, University of Manitoba, 2011 B.Sc. Electrical Engineering, University of Manitoba, 2006
ASSOCIATION ACTIVITIES:	Professional Engineer, Engineers Geoscientists Manitoba, 2008 to present Provincial Engineering and Geoscientists Week Committee (PEGW), 2006
OTHER ENGINEERING/ GEOSCIENCE ACTIVITIES:	Manitoba Hydro Professional Engineers Association • Council member • Scholarship Committee member • Nominating Committee member • HVTF Dedication Committee member Professional-In-Training Award, 2007 winner
EMPLOYERS SINCE GRADUATION:	Manitoba Hydro, 2006 to present • System Planning and Distribution Planning, Engineer in Training • Distribution Planning, Planning Engineer • Apparatus Quality Control, Wuskuatim and Power Projects, Project Management and Procurement • Power Projects and Generation Maintenance Engineer, Section Head • Generation Maintenance and Operations Support, Department Manager

QUESTIONS FROM THE NOMINATING COMMITTEE:

1) What is the most important issue facing the professions today? Why?

From my perspective the most important issue facing Engineers Geoscientists Manitoba is our relationship with government. I find that we approach government on an ad hoc basis when we require changes to the Act. In my opinion, without an ongoing and established relationship I find that we spend too much time in educating the current government of the issues and therefore may lose out in the ability to make timely and effective changes.

2) Why is self-regulation, and its associated responsibility important?

The Engineering and Geoscientific Professions Act empowers Engineers Geoscientists Manitoba to self-regulate and also provides the broad scope for which we must be responsible to the government, our membership and most importantly, to the safety of the general public. This is important as this enables the Association to define the realm in which we operate (of course within the boundaries set in the Act). Self-regulation allows us to act in effective and efficient ways to deal with ever changing legislation, regulation, technology, material, and processes.

3) Why is diversity important to the professions?

By the Act, we are responsible to advocate where the public interest is at risk. One of the inputs to be able to do this is ensure that we fully

understand what the public interest is. We cannot assume that our perception of the interest is the same as theirs. To do this, we need diversity in membership or organizational structure to best reflect the "protected characteristics" as defined by the Charter of Rights and Freedoms.

4) What is the public's expectation of engineering and geosciences?

From my perspective, the public holds the Association and its members in high regard. The public's trust and respect has been earned over many years. However, we must continue to work on further enhancing their trust and respect as these are difficult to obtain but easy to lose.

Carolyn Geddert, P.Eng.

Candidate put forth by the Nominating Committee

EDUCATION:	B.Sc. Mechanical Engineering, University of Manitoba, 1988
ASSOCIATION ACTIVITIES:	Professional Engineer, Engineers Geoscientists Manitoba, 1990 to present Keystone Professional, submitted 3 articles, 2016 – 2018 Ingenium, Presenter, 2017 Committee for Increasing Participation of Women in Engineering (CIPWIE) Mentorship Program, Mentor
OTHER ENGINEERING/ GEOSCIENCE ACTIVITIES:	Provide support for member interns as they gain experience toward their professional designation
EMPLOYERS SINCE GRADUATION:	University of Manitoba, 2004 to present • Director of Cooperative Educations and Industrial Internship Program • Sessional Instructor • Engineer-in-Residence Phillips & Temro Industries, Quality Engineering, 1994 - 2004 Price Industries, Industrial Engineer, 1989 - 1994 Willmar Windows, Engineer in Training, 1988 - 1989

QUESTIONS FROM THE NOMINATING COMMITTEE:

1) What is the most important issue facing the professions today? Why?

The lack of diversity in the membership of the Association. A diverse community makes better decisions, and promotes public understanding. We need to hear more voices.

2) Why is self-regulation, and its associated responsibility important?

Self-regulation brings a higher level of accountability. Standards of practice and behavior are well understood by both the regulator and the community. Communications can be clearly understood.

3) Why is diversity important to the professions?

To protect the public interest it is important to understand the diversity and complexity of the community "at large". More insight is provided when the community of Engineers is diverse.

4) What is the public's expectation of engineering and geosciences?

Professional Engineers are expected to behave ethically and have the expertise to support a safe, accessible, and sustainable world.

Trevor Ouellette, P.Eng.

Candidate put forth by the Nominating Committee

EDUCATION:	B.Sc. Civil Engineering, University of Manitoba, 1994
ASSOCIATION ACTIVITIES:	Professional Engineer, Engineers Geoscientists Manitoba, 1996 to present Indigenous Professionals Initiative Committee (IPIC), 2008 to present Indigenous Members Chapter, Vice Chair, 2018
OTHER ENGINEERING/ GEOSCIENCE ACTIVITIES:	
EMPLOYERS SINCE GRADUATION:	Manitoba Hydro, Power Projects Dept., Civil Projects, Project Manager, 2008 to present Aboriginal & Northern Affairs, Manager, Engineering Services, 2001 - 2008 SEG Engineering, Civil Engineer, 1999 - 2001 IFNA Engineering Ltd., Project Manager, Municipal Engineer, 1998 - 1999 Ayshkum Engineering Incorporated, Project Engineer, 1996 – 1998 Ininew Project Management, Structural Engineer, Project Manager, 1997 KGS Group, Junior Engineer, 1995 – 1996 Public Works Canada, Junior Engineer, 1994 – 1995

QUESTIONS FROM THE NOMINATING COMMITTEE:

1) What is the most important issue facing the professions today? Why?

The engineering sector faces a big image issue.

The solution is to generate enthusiasm about engineering from an early age, to ensure that factors such as location or company status won't serve as a deal-breaker to future engineers.

This entails building alliances and relationships to deliver relevant activities, services, and initiatives for individuals at various stages of their engineering career – from first finding their love for science, technology, engineering, and math (STEM) subjects, to choosing to study engineering at the university level, to continuing on the path to earn their engineering license, and to ensuring that they remain within the profession to become an experienced engineer and an engineering leader.

2) Why is self-regulation, and its associated responsibility important?

All professions, industries, and occupations that are self-regulating need the confidence and trust of the public to be effective. Regulatory bodies, whether elected or appointed by their members, have to keep in mind that they must put the public interest ahead of the specific interests of their members.

3) Why is diversity important to the professions?

The importance of engaging the best minds of the profession, includes women, Indigenous peoples and internationally educated professionals, is driven by strong partnerships within the Canadian engineering workforce and the Education system.

We need to ensure that the engineering profession reflects the demographics of Canadian society and continues to meet the needs of the Canadian economy.

4) What is the public's expectation of engineering and geosciences?

The public's expectation is that our highly trained engineers and geoscientists reflect our mixed population bases, as mixed teams (of age and race, as well as gender) are naturally less competitive, more creative, and better communicators. This will provide the best solution to building the world we live in.

Patrick Pulak, P.Eng.

Candidate put forth by Self-Nomination

EDUCATION:	B.Sc. Civil Engineering, University of Manitoba, 1992
ASSOCIATION ACTIVITIES:	Professional Engineer, Engineers Geoscientists Manitoba, 2007 to present Westman Chapter of Engineers Geoscientists Manitoba, Board of Directors, 2004 & 2005
OTHER ENGINEERING/ GEOSCIENCE ACTIVITIES:	Volunteer at Career Symposiums (Engineering) Western Canada Water Environment Federation, Chair
EMPLOYERS SINCE GRADUATION:	City of Brandon, 1991 to present • General Manager of Development Services (current/acting) • City Engineer (current) • Director of Engineering Services and Water Resources • Deputy Director of Engineering Services and Water Resources • Manager of Wastewater Facilities

QUESTIONS FROM THE NOMINATING COMMITTEE:

1) What is the most important issue facing the professions today? Why?

In my opinion, the most important issue facing the professions today is public/client trust. This speaks to the broader picture of how each and every one of us conducts themselves both on a professional level and the quality of work we produce. Despite how unfair it may seem, our actions do directly impact how the profession is judged especially in a time when everyone is quick to judge. To have the designation of "Professional" is to be ethical in applying our trade to the betterment of society while maintaining the trust of the public or the client. In my experience, trust is something that is getting more difficult to maintain as time goes by.

2) Why is self-regulation, and its associated responsibility important?

I could simple state "Who better to regulate the profession!" which is not entirely untrue. As practitioners of the profession, we are intimately aware of the boundaries we must operate within. Further, it allows a degree of flexibility in adapting to ever changing expectations. That said, self-regulation comes with a high degree of responsibility. The responsibility of ensuring that members practice in a manner that is in line with the expectations and regulations of society. There simply is no room for the abuse of that responsibility. To do so would be to undermine the purpose and benefit of self-regulation.

3) Why is diversity important to the professions?

Over the years, I have come to discover that the best solutions are arrived at when you have a broad spectrum of experiences to pull from. In this day in age when the planet is truly village Earth, how can we not embrace diversity for what it is. An opportunity to open our minds and accept the

infinite possibilities that are available for us to consider in practicing our profession.

4) What is the public's expectation of engineering and geosciences?

The public expects the profession to be practiced in an ethical and professional manner conducive to the betterment of society. Ultimately this speaks to trust. We cannot blindly practice the profession without the consideration of the public's needs and concerns. To learn and to listen is to breed that trust. To do otherwise is to impose which, in my experience, has never ended well.

Ian Smallwood, P.Eng.
Candidate put forth by Self-Nomination

EDUCATION:	B.Sc. Mechanical Engineering, University of Manitoba, 2003
ASSOCIATION ACTIVITIES:	Professional Engineer, Engineers Geoscientists Manitoba, 2009 to present Voluntary attendance to Council meetings History of observance and concern Continuing professional development
OTHER ENGINEERING/ GEOSCIENCE ACTIVITIES:	Professional Engineer, APEGA, 2016 to present Member of ASHRAE
EMPLOYERS SINCE GRADUATION:	Nova 3 Engineering Ltd., Professional Engineer, 2008 to present Loewen, Manufacturing Engineer, 2003 – 2008

QUESTIONS FROM THE NOMINATING COMMITTEE:

1) What is the most important issue facing the professions today? Why?

In my humble opinion, based on feedback from professional members and the general public, the most important issue facing our professions today is dealing with the erosion of belief in a good, working system of checks and balances that protects society from problems that may affect them. The public historically looked to us as professionals to ensure that the things they use every day actually are going to work to improve their standard of living, and certainly not harm them. As professionals, we need to know that clear, unbiased systems exist to ensure we can accomplish this noble task.

2) Why is self-regulation, and its associated responsibility important?

If our professions are able to prove to anyone who audits the process, that we have a fool-proof system in place that eliminates bias or ability to corrupt, then we are seen as worthy of self-regulation. Once we are even slightly perceived to allow the possibility of such bias or corruption, we become ineffective to self-regulate and further contribute to the most important issue facing our professions today as indicated in point one (1).

3) Why is diversity important to the professions?

Our professions should absolutely give opportunities for diverse groups of people to become part of our noble profession. There are many untapped areas of our society that may contain excellent engineers and geoscientists if the opportunity is available to them. However, we should never, ever, decrease the high standard of acceptable competency just to make accommodations for those in a

diverse group. It should not matter whether engineers/geoscientists are male, female, white, aboriginal, Canadian, or foreign-born – what is important is that we all meet the standards of excellence required by our professions.

4) What is the public's expectation of engineering and geosciences?

Similar to point one (1) above, the public seems to desperately want smart people to have figured stuff out so they can just go about their lives without worrying. Society has historically looked to our professions to do this. However, through news of engineering failures, alleged corruption in some jurisdictions, and seemingly a lack of accountability within our professions, we must expect the public's expectations of us to plummet. It's time for us to "right the ship" and, through public actions, get society to be confident in our competence again!

Efrem Teklemariam, M.Sc., P.Eng., FEC

Candidate put forth by the Nominating Committee

EDUCATION:	M.Sc. Water Resources Engineering, University of Manitoba, 1999 M. Eng. Hydraulic Engineering, Delft Technical University, the Netherlands, 1988 B.Sc. Hydraulic Engineering, Addis Ababa University, Ethiopia, 1983
ASSOCIATION ACTIVITIES:	Professional Engineer, Engineers Geoscientists Manitoba, 1996 to present Centennial Task Group, 2017 to present Engineers Canada Accreditation Committee, 2012 – 2015 Academic Review Committee, 2003 – 2013
OTHER ENGINEERING/ GEOSCIENCE ACTIVITIES:	Board of Director of Citizenship Council of Manitoba International Educated Engineering's Qualification program, founding member Climate Change & hydrology of the Natural Sciences and Engineering Research Council of Canada, panel member
EMPLOYERS SINCE GRADUATION:	Manitoba Hydro, 1990 to present • Hydrotechnical Studies, Senior Engineer, 1990 - 2003 • Hydroinformatic Engineering, Section Head, 2003 - 2009 • Water Resources Engineering, Manager, 2009 to present

QUESTIONS FROM THE NOMINATING COMMITTEE:

1) What is the most important issue facing the professions today? Why?

In a rapidly changing environment and society with ever increasing public expectations and demand for transparency one of the single most important issues is to adapt our profession to maintain the ability to meet future public needs and interest in an environment with increasing unknowns. As a profession we must have the tools and knowledge to be able to quickly adapt our skills to these changes while maintaining professional integrity and regulation.

2) Why is self-regulation, and its associated responsibility important?

Self-regulation is paramount to the profession as it ensures that the ethical, competent, skilled, and divers members can be relied upon to appropriately support the public interests and safety in all engineering works. If self-regulation was lost, government intervention in regulation could result in external influences inadvertently devaluing, reducing respect, and undermining the profession.

3) Why is diversity important to the professions?

A balanced workforce that reflects the diversity of our society makes a profession sustainable. The current constitutional make up of our profession is not reflective of the demographic diversity of our society and as members we should be proactively working to be more inclusive to

promote our profession and make it accessible to all members of our society.

4) What is the public's expectation of engineering and geosciences?

The public's expectation from the practices of engineers and geoscientists is to practice ethically, with utmost integrity and with the highest standard to ensure all engineering works are completed with the public's safety and interest as a primary consideration while at the same time ensuring that all environmental, societal, and economical aspects are considered and respected.