ENGINEERS GEOSCIENTISTS MANITOBA

2016

Platforms and Histories and the Professional Activities of the Engineering Nominees for Election to the Council

James Blatz, Ph.D., P.Eng., FEC
Candidate put forth by Self-Nomination

EDUCATION：
Ph.D. Civil Engineering, University of Manitoba, 2000
B. Sc. Civil Engineering, University of Manitoba, 1996

ASSOCIATION ACTIVITIES:
Professional Engineer, Engineers Geoscientists Manitoba, 2001 to present
Professional Engineer, APEGS, 2013 to present
Professional Engineer, APEGA, 2013 to present
Council Member, 2005 to 2009
Experience Review Committee, 2002 to 2004
Communications Committee, 1998 to 2002

OTHER ENGINEERING ACTIVITIES:
Engineers Canada, Canadian Engineering Accreditation Board Member, 2011 to 2014
Winnipeg Chamber of Commerce, Economic Competitiveness Council Member, 2014 to present
The Eureka Project, Board of Directors Member, 2012 to 2016
Life Sciences Association of Manitoba, Board of Directors Member, 2012 to 2015
Consulting Engineers of Canada Manitoba Section, Board of Directors Member, 2012 to present
Canadian Geotechnical Society, Geotechnical Research Board Chair, 2011 to 2013
NSERC, Executive Committee Member, 2011 to 2014
NSERC, National Committee on Grants and Scholarships Chair, 2009 to 2014
NSERC, Council Member, 2008 to 2014
Canadian Geotechnical Journal, Editorial Board Associate Editor & Member, 2006 to 2009
Canadian Association of Home and Property Inspectors, Nation Accreditation Council Member, 2005 to 2009
North American Geosynthetics Society, Board of Directors Executive Member, 2004 to 2008
ISSMGE, TC-6 Unsaturated Soils Committee Canadian Representative, 2002 to 2009

EMPLOYERS SINCE GRADUATION:
University of Manitoba, Professor, 2000 to present
TREK Geotechnical, President and Senior Engineer, 2010 to present
University of Manitoba, Associate Vice-President (Partnerships), 2012 to 2015
University of Manitoba, Associate Dean Research, Faculty of Engineering, 2010 to 2011

QUESTIONS FROM THE NOMINATING COMMITTEE:

1) In your view, what is the single most important issue facing the professions today, and why?

The single most important issue facing the professions today is the connection to the Government that holds their Act. The development of public policy has changed significantly due to the increasing expectation by society for transparency and accountability of Government. More than ever, governments need the expertise of professions to support policy development to ensure appropriate consideration of the Professions requirements in new policy and legislation.

2) **Why is self-regulation and the responsibility given to us by government and the public important?**

Self-regulation is paramount to the profession to ensure that the diverse and deep knowledge of the members can be relied upon to ensure government policy is developed in a manner that supports the public interest in all engineering works. If self-regulation was lost, government intervention in regulation could result in external influences inadvertently or intentionally compromising this paramount role of the profession.

3) **What do you think the public's expectation is from the practices of engineering and geosciences?**

The public's expectation from the practices of engineering and geoscience is to practice with the utmost integrity and with a standard of care to ensure all engineering works are completed with the public interest and public safety as the primary consideration and with due consideration to all other societal expectations related to the widely varied engineering activities of members.

Jay Doering, Ph.D., P.Eng., FEC, FCSCE

Candidate put forth by the Nominating Committee

EDUCATION:
Ph.D. Physical Oceanography, Dalhousie University, 1988
B. Sc. Civil Engineering, Queen's University, 1984

ASSOCIATION ACTIVITIES:
Professional Engineer, Engineers Geoscientists Manitoba, 1993 to present
Professional Engineer, PEO, 1989 to present
Investigation Committee, 2005 to present
Councillor, 2002 to 2004
Awards Committee, 1999 to 2003

OTHER ENGINEERING ACTIVITIES:
Chief Warden, Camp 8, 2011 to 2013
Chair, CEM Awards Committee, 2004 to 2009
CEAB Civil Program Visitor (2002, 2004, 2006, 2010, 2011, 2017)
V.P. Prairie Region CSCE, 2002 to 2004

EMPLOYERS SINCE GRADUATION:
University of Manitoba, Professor, Head of Civil Engineering, Dean of Graduate Studies, Assoc. Vice-President (Partnerships), present
McMaster University, Assistant Professor
Environment Canada, Visiting Fellow

QUESTIONS FROM THE NOMINATING COMMITTEE:

1) **In your view, what is the single most important issue facing the professions today, and why?**

There are many issues facing the professions today: practicing in a context of rapid knowledge growth, globalization, increasingly multidisciplinary and multi-firm teams, a shortage of highly qualified personnel, maintaining self-regulation, and ensuring professional competence, to name a few. I don't believe there is a single most important issue.

2) **Why is self-regulation and the responsibility given to us by government and the public important?**

There are many self-regulated professions in Canada. Engineering and Geoscience are two such professions. The requirements for licensure and skilled practice are best determined by ethical, competent, experienced, skilled members of one's profession. In this way the profession accepts the legal and ethical responsibility for ensuring that public safety is paramount.

3) **What do you think the public's expectation is from the practices of engineering and geosciences?**

Professional, ethical, skilled practice that places public safety paramount.

Ruth Eden, M.Sc., P.Eng.
Candidate put forth by Self-Nomination

EDUCATION:
M. Sc. Structural Engineering, University of Manitoba, 2002
B. Sc. Civil Engineering, University of Manitoba, 1988

ASSOCIATION ACTIVITIES:
Professional Engineer, Engineers Geoscientists Manitoba, 1990 to present
Councillor, 2014 to 2016
Engineers Geoscientists Manitoba Public Awareness Committee Member
Engineers Geoscientists Manitoba Women in Engineering Committee Member
Numerous presentations to schools on civil engineering

OTHER ENGINEERING ACTIVITIES:
Member of CSA S6 (Canadian Highway Bridge Design Code) Regulatory Committee
Past Member of CSA S6 (Canadian Highway Bridge Design Code) Section 9 Technical Committee
Member of CSA S6 (Canadian Highway Bridge Design Code) Section 16 Technical Committee
Chair of Transportation Association of Canada Structures Standing Committee
Member of ISIS Canada Research Management Committee
Member of Infrastructure Innovations Council
Past President of American Concrete Institute, Manitoba Chapter
Past Chair of Canadian Society of Civil Engineering Conference Fund Raising Committee held in Winnipeg
Numerous presentations at conferences, meetings and workshops on bridge engineering

EMPLOYERS SINCE GRADUATION:
Manitoba Infrastructure, Executive Director of Structures
Manitoba Infrastructure and Transportation, Director of Structures Design and Construction
Manitoba Floodway Authority, Manager of Bridges and Roads
Manitoba Transportation and Government Services, Research, Materials and Standards Engineer
Manitoba Highways and Transportation, Construction Engineer

QUESTIONS FROM THE NOMINATING COMMITTEE:

1) **In your view, what is the single most important issue facing the professions today, and why?**

For me, the single most important issue facing the engineering profession today is the slow trend away from a profession towards more of a commodity that can be publically traded. As a result of this shift, it is becoming more common for some firms to not undertake specific types of engineering work because of lower corporate risk tolerance. On the other end of the spectrum, we have also been exposed to instances in Canada where professional ethics have not been followed. This has led at least one provincial government to reconsider the merits of self-regulation for the engineering profession.

2) **Why is self-regulation and the responsibility given to us by government and the public important?**

Government, on behalf of all Manitobans, has entrusted the regulation of our professions to Engineers Geoscientists Manitoba. Self-regulation, which assigns the responsibility to maintain our high ethical standards and regulate all members to Engineers Geoscientists Manitoba, is extremely important for our association

to maintain. If our association was not self-regulated, the government would, in all likelihood, establish an oversight board consisting of government appointed members from outside of the engineering and geoscience professions. Under the current self-regulating model and through our Act, By-Laws and governance structure, Council acts as the oversight board.

3) **What do you think the public's expectation is from the practices of engineering and geosciences?**

First and foremost, the public expects our professions to ensure safety without compromise and ethical behavior in all professional decisions. After safety and professional ethics, I believe that they expect both professions to ensure quality standards are maintained in the most cost-effective and efficient means possible. Our professions are also seen as developers and researchers behind new and innovative technologies that will improve overall quality of life.

Kaitlin Fritz, P.Eng.

Candidate put forth by the Nominating Committee

EDUCATION : B. Sc. Civil Engineering, University of Manitoba, 2012

ASSOCIATION ACTIVITIES: Professional Engineer, Engineers Geoscientists Manitoba, 2015 to present
Engineers Geoscientists Manitoba, Member-in-Training representative, 2013 to 2015
MCWESTT 2013 Conference Organizing Committee
Student Liaison with Engineers Geoscientists Manitoba and UMES Council as Vice-Stick (2009 to 2010) and Senior Stick (2011 to 2012)

EMPLOYERS SINCE GRADUATION: Manitoba Hydro – Transmission and Civil Design, Professional Engineer
Manitoba Hydro, Engineer-in-Training

QUESTIONS FROM THE NOMINATING COMMITTEE:

1) In your view, what is the single most important issue facing the professions today, and why?

Public Perception
Directly in the Engineering and Geoscientists Act under purpose of association you will find the line; "promote professional engineering and professional geosciences and the role of the association" – public recognition of the role of engineers and geoscientists is critical to maintain our ability to be self-regulated. A corner stone of self-regulation is public accountability and it is our duty as an association to communicate with the public about who we are, what we do, and how our work ensures public safety.

2) Why is self-regulation and the responsibility given to us by government and the public important?

Self-regulation is important because it recognizes the wisdom of the professions and honors the specialized skills, knowledge and experience that professional engineers and professional geoscientists possess. When I think of other professions that I would put my trust in when their skill sets are required I immediately think of nurses, doctors, teachers, chartered accountants, and lawyers and what do we have in common with these other professionals? They are also self-regulated. Self-regulation of a profession is recognition of trust that the government and the public put into a group of professionals to maintain a high standard of quality and ethics so as a member of the public you feel secure knowing that they will be working in your best interest.

3) What do you think the public's expectation is from the practices of engineering and geosciences?

I feel the public expectation from professional engineers and professional geoscientists is as an individual practicing their engineering skills they are directly responsible for safeguarding and protecting the public interest. As a group we are responsible for the actions of other professional engineers and professional geoscientists and it is our duty as a self-regulated body to ensure that the services our members are providing to the public are of a high responsible standard. The public has put their trust in us, it is our duty to uphold that trust and keep the public's respect.

Janet Gauthier, P.Eng.

Candidate put forth by the Nominating Committee

EDUCATION: B. Sc. Computer Engineering, University of Manitoba, 2006

ASSOCIATION ACTIVITIES:
Professional Engineer, Engineers Geoscientists Manitoba, 2009 to present
Engineers Geoscientists Manitoba Awards Committee, 2015 to 2016
CIPWIE Mentorship Program, 2015 to 2016
Nominated the recipient of the Technical Excellence Award, 2015
Early Achievement Award Recipient, 2014

OTHER ENGINEERING ACTIVITIES:
MHPEA Past President, April 2016 to present
Manitoba Hydro Professional Engineer V Review Committee, 2014 to present
MHPEA Professional Relations Committee, 2014 to present
Active Supporter of the Internship Program at the University of Manitoba (currently employ two interns)
Manitoba Hydro Engineer-in-Training Mentor, 2009 to present
E.I.T. Steering Committee, 2009 to present
MHPEA Safety Committee, 2006 to present

EMPLOYERS SINCE GRADUATION:
Manitoba Hydro, BPIII Commissioning Department, Keewatinohk Station Overall Commissioning Lead
Manitoba Hydro, BPIII Converter Engineering and Procurement, Electrical Section Head
Manitoba Hydro, Transmission Projects, Senior Project Manager
Manitoba Hydro, HVDC Engineering, HVDC System and Controls Engineer
Manitoba Hydro, Distribution Engineering (Rural), E.I.T.

QUESTIONS FROM THE NOMINATING COMMITTEE:

1) **In your view, what is the single most important issue facing the professions today, and why?**
The speed at which information can be shared and exchanged promotes unmanageable workloads. Consequently, the amount of time the professions can allocate for mentorship and transfer of knowledge between experience levels is inhibited. This ultimately limits both our level of service and the ability to optimize the growth of our professions.

2) **Why is self-regulation and the responsibility given to us by government and the public important?**
Both professions require highly specialized training and possess a specific skill set of knowledge. The regulation of our competence, ethics, and overall governance can only be effectively done by those who have an in-depth understanding of these intricacies. The government delegating regulation to our organization is recognizing that public's interests are paramount, and as such, best served by our professions

3) **What do you think the public's expectation is from the practices of engineering and geosciences?**
I believe the public expectation of engineering and geosciences first and foremost is safety, followed closely by ethical and fiscal responsible practice. I also firmly believe that through the practice of engineering and geosciences, the mutual expectation is to always endeavor to improve the quality of life of the general public.

Jitendra Paliwal, Ph.D., P.Eng.
Candidate put forth by Self-Nomination

EDUCATION : Ph.D. Biosystems Engineering, University of Manitoba, 2002
M.Sc. Biosystems Engineering, University of Manitoba, 1999
B. Sc. Agricultural Engineering, G.B. Pant University, India, 1994

ASSOCIATION ACTIVITIES: Professional Engineer, Engineers Geoscientists Manitoba, 2002 to present
Experience Review Committee, Chair
Engineers Geoscientists Manitoba's India Chapter, Vice President (Technical)
Invited Speaker at Ingenium, 2013, 2014, 2015
Invited Speaker at Manitoba Conference for Women in Engineering, Science Technology and Trades, 2015
Engineers Geoscientists Manitoba Early Achievement Award recipient, 2008

OTHER ENGINEERING ACTIVITIES: Associate Editor of the journal of Canadian Society for Bioengineering
Member, Canadian Society for Bioengineering
Member, American Society of Agricultural and Biological Engineers
Serving on the Association of Public and Land Grant Universities' Challenge of Change Commission
Program Chair for the Canadian Pulse Research Workshop to be held in Winnipeg in October 2016
One of the organizers of the International Society of Biological Shape Analysis' biennial conference to be held at the University of Tokyo in June 2017
Serving on various technical committees within ASABE and CSBE

EMPLOYERS SINCE GRADUATION: University of Manitoba, Professor, Associate Professor, Assistant Professor

QUESTIONS FROM THE NOMINATING COMMITTEE:

1) **In your view, what is the single most important issue facing the professions today, and why?**

   In my opinion, the single most important issue facing our profession today is the lack of diversity. We have very few women, aboriginal peoples, and visible minorities in our profession. The current constitutional make up of our profession is not reflective of the demographic diversity of our society, which is a matter of concern. A balanced workforce that reflects the diversity of our society makes a profession sustainable. We should proactively work to be more inclusive to promote our profession and make it accessible to all members of our society.

2) **Why is self-regulation and the responsibility given to us by government and the public important?**

   Self-regulation is a great responsibility given to us by government and the public, as engineers and geoscientists are considered to be professionals worthy of self-regulating themselves. It reflects society's trust in how we conduct ourselves. As professionals, we understand our profession the best and self-regulation gives us the freedom to do our work without any external agency's interference. Additionally, a system where experts from your own profession, who are bound by the same Act, By-Laws, and Code of practice, serve as a watchdog is the most dependable system.

3) What do you think the public's expectation is from the practices of engineering and geosciences?

The utmost expectation from our profession is that we will safeguard public's interest while serving their needs. It is expected that we will conduct ourselves ethically and with high integrity; we will act responsibly towards our society; and that we will protect our environment.

Beth Phillips, P.Eng.

Candidate put forth by the Nominating Committee

EDUCATION: B. Sc. Civil Engineering with Distinction, University of Saskatchewan, 2004

ASSOCIATION ACTIVITIES: Professional Engineer, Engineers Geoscientists Manitoba, 2008 to present
CIPWIE, 2015 to present
Nominating Committee, 2011 to 2012

OTHER ENGINEERING ACTIVITIES:
- Association of Consulting Engineering Companies – Manitoba (Technical Women in Consulting Engineering Committee, Contracts Committee, Government Affairs Committee. Formerly Founder, Chair, and Past Chair of Young Professionals' Committee, Formerly Board Director and Young Professionals' Committee Board Liaison)
- ACI Manitoba, Board Director
- Engineers without Borders – formerly Chapter Vice-President in Winnipeg Professional Chapter and Vancouver Professional Chapter, formerly Director of Public Outreach & Events in Vancouver Professional Chapter
- Multiple school presentations to high school and junior high grade level students about choosing engineering as a career

EMPLOYERS SINCE GRADUATION:
Morrison Hershfield Limited, Senior Bridge/Structural Engineer
WSP Canada Inc., Senior Structural Engineer – Bridges and Structures
Tetra Tech WEI Inc., Structural Engineer
Klohn Crippen Berger Ltd., Structural E.I.T.

QUESTIONS FROM THE NOMINATING COMMITTEE:

1) In your view, what is the single most important issue facing the professions today, and why?

The attraction and retention of a diverse and well-rounded next generation of engineers. Engineers have built our society and our world and will continue to do so. To meet the pressures and growing complexity being asked of our profession and foster innovation it is critical that we attract and retain people of diverse backgrounds and unique understanding.

2) Why is self-regulation and the responsibility given to us by government and the public important?

Engineers have the technical knowledge and understanding to best evaluate the requirements for competent practice. Self-regulation is a great responsibility as mistakes can have significant consequences for the safety and security of the public. It reminds us of our responsibilities to our community and the trust that we must continue to earn, every day, by holding ourselves to high standards.

3) What do you think the public's expectation is from the practices of engineering and geosciences?

I think the public expects that everything we rely on in our society will work and only considers us when something goes wrong. Not being visible within society and our community not being knowledgeable about what we do is a serious issue. As the old adage goes, "You can't be what you can't see". Are we attracting the people we need to engineer the future?

Jared Smith, P.Eng.
Candidate put forth by the Nominating Committee

EDUCATION: B. Sc. Civil Engineering, University of Manitoba, 2009

ASSOCIATION ACTIVITIES: Professional Engineer, Engineers Geoscientists Manitoba, 2013 to present
Nominating Committee, 2015

EMPLOYERS SINCE GRADUATION: E.G. Penner Building Centres Ltd., Lead Truss Designer

QUESTIONS FROM THE NOMINATING COMMITTEE:

1) In your view, what is the single most important issue facing the professions today, and why?

Public Perception of Engineers/Geoscientists

I think that many people feel that Engineers/Geoscientists tend to be overeducated and lacking in "real world" experience. They think we overcomplicate things and just like to make things difficult for everyone else. The public needs to be able to trust that we know what we are doing, and that there's a reason behind everything we do. If we lose this trust, then our ability to self-regulate could be in jeopardy.

2) Why is self-regulation and the responsibility given to us by government and the public important?

It's important because Engineers/Geoscientists are the best qualified to regulate. We have the knowledge and background required to know if members are acting in an ethical and professional manner.

3) What do you think the public's expectation is from the practices of engineering and geosciences?

I think the public expects Engineers/Geoscientists to:

- *Be competent in their field of work and only accept jobs they are qualified for*
- *Design systems that are safe as well as efficient*
- *Always work in the public's best interest*
- *Always work in a professional manner*

Brett Todd, P.Eng., FEC
Candidate put forth by Self-Nomination

EDUCATION: B. Sc. Electrical Engineering, University of Manitoba, 1986

ASSOCIATION ACTIVITIES: Professional Engineer, Engineers Geoscientists Manitoba, 1988 to present
Councillor, 2014 to 2016
Member, Salary Review Committee, 1999 to 2003

EMPLOYERS SINCE GRADUATION: ABB Inc., Sales and Marketing Manager, Transformer Services, 2012 to present
Hatch, Electrical Department Manager,2009 to 2012
CG Power Systems Inc./Pauwels Canada Inc., Sales Manager, 2001 to 2009
Wardrop Engineering Inc., Principal and Electrical Department Manager, 1988 to 2001
Manitoba Hydro, EIT, 1986 to 1988

QUESTIONS FROM THE NOMINATING COMMITTEE:

1) In your view, what is the single most important issue facing the professions today, and why?

Our profession's main issue is the same as virtually all organizations face today - how do we attract, engage and retain good people?

2) Why is self-regulation and the responsibility given to us by government and the public important?

In exchange for the benefits of professional status, the regulatory body of any profession is expected to develop, implement, and enforce various rules. These rules are designed to protect the public by ensuring that services from members of the profession are provided in a competent and ethical manner.

3) What do you think the public's expectation is from the practices of engineering and geosciences?

Projects are more in the public eye than in past decades. The expectations of our profession from the public have become much more rigid, as they have for many organizations. Now there is often "zero tolerance" for project overruns and errors. The public is no longer prepared to take on any risks.