



Association of Professional Engineers and
Geoscientists of the Province of Manitoba

2014
Platforms and Histories
and the
Professional Activities
of the Engineering Nominees
For Election
to the Council

RAMON C. CAIRO, P.Eng.

EDUCATION B. Sc. Civil Engineering, Divine Word University, 1986
Diploma in Project Management, Red River College, 2009

ASSOCIATION ACTIVITIES Member, APEGM 2008 to present
Past President, APEGM Filipino Members Chapter

OTHER ENGINEERING ACTIVITIES Member, American Society of Civil Engineers, 1999 to present
Professional Engineer, Alberta, 2008 to present
Professional Engineer, Saskatchewan, 2008 to present
License Civil Engineer, The Philippines, 1987 to present
Member, The Canadian Society for Civil Engineering 2008 to present
Member, Structural Engineering Institute, USA, 2004 to present

EMPLOYERS SINCE GRADUATION PTC Construction Ltd. Director of Engineering & Construction, 2007 to present
City of Winnipeg, Structural Plan Examiner, 2006 to 2007
FWS Construction Ltd. Structural Designer, 2005 to 2006
NPEI Construction Inc. USA, Project Manager/Structural Engineer, 1994 to 2004
Al Haramain Company, Saudi Arabia, Bridge Engineer, 1991 to 1994
Unimasters Conglomeration Inc., Philippines, Structural Engineer, 1989 to 1991
Philippine Department of Public Works & Highways, Civil Engineer, 1988 to 1989
Tacloban City Engineer's Office, Philippines, Project Inspector, 1987 to 1988

QUESTIONS FROM THE NOMINATING COMMITTEE

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

In my personal view, attracting the best and brightest Canadian high school graduates to pursue engineering degrees and eventually careers in engineering in order to have a steady and continuous pool of qualified and competent engineers is one of the most important issues facing the profession today.

and why? Two main reasons why few Canadian high school graduates pursue engineering are:

- a) Lack of emphasis on math and science to kids from the early age including problem solving and analytical skills development*
- b) Lack of information dissemination to high school graduates and to the public in general the privilege and prestige of being an engineer who are entrusted by society to make life comfortable and safe thru their many creations.*

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

Self-regulation and the responsibility given to us by the government and the public is very important to make sure that only competent and qualified engineers should be able to practice engineering. As the profession entrusted by society to ensure public safety and to protect the environment amidst the fast pace utilization of our natural resources, we must guarantee that only competent and qualified engineers be given the privilege to practice engineering. It is a huge responsibility that should be taken seriously as it involves possible loss of property, life, or both.

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

The public expects that engineers make safety as the primary concerns in their practice of engineering followed with economy and the protection of the environment. They also expect that the engineers they are engaging in their projects are highly qualified and competent having been licensed by a self-regulating profession.

FRED CROSS, P.Eng.

EDUCATION	B. Sc. Electrical Engineering, University of Manitoba, 1976
ASSOCIATION ACTIVITIES	Professional Engineer, APEGM, 1978 to present
OTHER ENGINEERING ACTIVITIES	Senior Member, IEEE
EMPLOYERS SINCE GRADUATION	Alcatel-Lucent Canada, Systems Engineer - 2006 to 2012 Alcatel Canada, Systems Engineer - 2002 to 2006 *Newbridge Networks, Systems Engineer - 1997 to 2000 Province of Manitoba, Director of Telecommunications - 1995 to 1997 Manitoba Telephone System, Manager, Customer Systems Engineering - 1995 to 1997 Manitoba Telephone System, Special Services Engineer - 1976 to 1994 <i>*Newbridge Networks was purchased by Alcatel in 2000. Alcatel purchased Lucent in 2006. My job function was largely the same through these transitions.</i>
QUESTIONS FROM THE NOMINATING COMMITTEE	<p>1) In your view, what is the single most important issue facing the professions today, and why?</p> <p><i>The APEGM task force on strategic priorities identified public perception as the first of its three high priority items. Individual citizens routinely encounter doctors and lawyers, but may well go throughout their entire lives without ever consulting an engineer or geoscientist. We need to increase the public's awareness of what we do and how we manage ourselves.</i></p> <p>2) Why is self-regulation and the responsibility given to us by government and the public important?</p> <p><i>Self-regulation is both an enormous privilege and an even larger responsibility. It is essential that we not only manage ourselves in accordance with the engineering and geoscience legislation, but that we ensure that we are seen to be doing so by the public.</i></p> <p>3) What do you think the public's expectation is from the practices of engineering and geosciences?</p> <p><i>I expect that most members of the general public would have a difficult time articulating what we do. However, if we could engage people in a discussion about what we do, I would think that the public's expectation would gravitate to the public safety aspects of our profession.</i></p>

RUTH EDEN, P.Eng.

EDUCATION	M. Sc. Structural Engineering, University of Manitoba, 2002 B. Sc. Civil Engineering, University of Manitoba, 1988
ASSOCIATION ACTIVITIES	Professional Engineer, APEGM, 1990 to present Member, APEGM Public Awareness Committee Member, APEGM Women in Engineering Committee Numerous presentations to schools on civil engineering
OTHER ENGINEERING ACTIVITIES	Member of CSA S6 (Canadian Highway Bridge Design Code) Section 9 Technical Committee Member of CSA S6 Section 16 Technical Committee Vice-Chair of Transportation Association of Canada Structures Standing Committee Member of ISIS Canada Research Management Committee 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 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	<p>1) In your view, what is the single most important issue facing the professions today, and why?</p> <p>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.</p> <p>2) Why is self-regulation and the responsibility given to us by government and the public important?</p> <p>Self-regulation and the responsibility granted to us by government, specifically, is extremely important for the association to maintain. The government and the general public have entrusted the members of our professional association with the responsibility of maintaining our ethical standards and regulating our members. If our association was not self-regulated, the government would, in all likelihood, establish an oversight board consisting of members outside of the engineering and geoscience professions.</p> <p>3) What do you think the public's expectation is from the practices of engineering and geosciences?</p> <p>First and foremost, the public expects safety without compromise and ethical behavior in all professional decisions. After safety and professional ethics, I believe that they expect engineers to ensure quality standards are maintained in the most cost-effective and efficient means possible.</p>

BOGNA GRYC, P.Eng.

EDUCATION M.Sc. Mechanical Engineering, Technical University of Warsaw, Poland, 1989

ASSOCIATION ACTIVITIES Professional Engineer, APEGM, 1997 to present

OTHER ENGINEERING ACTIVITIES Member of "Friends of Engineering", University of Manitoba

EMPLOYERS SINCE GRADUATION Price Industries - Senior Design Engineering Manager
- Product Development Manager
- Engineering Manager
- Product Designer
Greensteel Ltd. -Project Coordinator

QUESTIONS FROM THE NOMINATING COMMITTEE

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

In the world:

Technology needs to be available across the world so there are no underprivileged nations and no areas detached from the modern technology.

Locally:

Maintain high standards of engineering education and create quality local engineering jobs so Manitoba remains an attractive location for those who want to practice engineering here.

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

To maintain consistent engineering standards for all practicing members, so their professional ethics and quality of work performed cannot be compromised. Also to facilitate and enforce continuous professional development for all members so they can stay up-to-date with the technological advancements in their profession.

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

The public expects that:

- *Engineers follow strict code of ethics so their work cannot compromise the safety of the public and their best interest.*
- *Engineers continue developing their skills as the technology advances.*
- *Engineers serve their communities by using their professional judgment while providing their services.*

KASSEM HARB, P.Eng.

EDUCATION	MBA, University of Manitoba, 2002 B. Sc. Civil Engineering, University of Manitoba, 1989
ASSOCIATION ACTIVITIES	Professional Engineer, APEGM, 1994 to present
OTHER ENGINEERING ACTIVITIES	Manitoba Hydro Professional Engineers Association (MHPEA), Past President - 2012 to 2013 MHPEA, President - 2010 to 2012 MHPEA Professional Relations Committee, Executive Liaison - 2010 to 2012 MHPEA, Vice President - 2009 to 2010 MHPEA Safety Committee, Executive Liaison - 2009 to 2010 MHPEA, Councillor - 2003 to 2004 MHPEA Safety Committee, Member - 2001 to 2004
EMPLOYERS SINCE GRADUATION	Manitoba Hydro, Project Engineer/Manager -1999 to present Centra Gas Manitoba, Project Engineer/Manager - 1992 to 1999 Harb Management & Services, Structural Engineer - 1991 to 1992 Frovich & Associates, Structural EIT - 1989 to 1991
QUESTIONS FROM THE NOMINATING COMMITTEE	<p>1) In your view, what is the single most important issue facing the professions today, and why?</p> <p><i>The single most important issue facing the professions is the recognition of engineering and the lack of public knowledge about engineering. This is possibly due to the fact that the public is not fully educated about engineering.</i></p> <p>2) Why is self-regulation and the responsibility given to us by government and the public important?</p> <p><i>Self- regulation and responsibility given to engineering is important in order to maintain our own ability to regulate ourselves and promote changes to the Act that will be in the best interest of the public and the profession. Having a separate entity that may lack knowledge about engineering regulates us may pose issues and undue harms to the members and profession as a whole.</i></p> <p>3) What do you think the public's expectation is from the practices of engineering and geosciences?</p> <p><i>The public's expectation from the practices of engineering and geoscience is:</i></p> <ul style="list-style-type: none">• <i>to exercise and uphold high standard and professionalism in their practices</i>• <i>be involved and participate in communities</i>• <i>perform all of its designs with public safety in mind and,</i>• <i>promote the design and use of environmentally friendly products in buildings.</i>

YURIEM NODARSE SOLER, P.Eng.

EDUCATION	IEEQ Program, University of Manitoba, 2005 Civil Engineering Degree, Superior Polytechnic Institute "Jose Antonio Echevarria", Havana, Cuba, 1995
ASSOCIATION ACTIVITIES	Professional Engineer, APEGM, 2007 to present Past 5 years - member and part of the Board of Directors of the IEEQ Alumni Inc. group. Conducted several presentations to newcomers and organized fundraising dinners and workshops. Participated in APEGM networking events.
OTHER ENGINEERING ACTIVITIES	Offer mentorship to several internationally educated engineers in the process of getting their professional designation in Manitoba.
EMPLOYERS SINCE GRADUATION	Manitoba Hydro, Structural Designer - 2007 to present ND Lea Engineers and Planners Inc., EIT - 2005 to 2007 IEEQ Program at University of Manitoba, Student - 2004 to 2005 Building Systems Design Solutions (BSD) Ltd., Draftsperson - 2004 Architects of the Community, Havana, Cuba, Structural Designer -1998 to 2001 Union of Caribbean Construction Companies (UNECA SA), Havana, Cuba, Site Designer - 1995 to 1998
QUESTIONS FROM THE NOMINATING COMMITTEE	<p>1) In your view, what is the single most important issue facing the professions today, and why?</p> <ul style="list-style-type: none">• <i>Public perceptions: Public perception of engineers is not the same as doctors and lawyers. This has an impact on how many students enter the Faculty of Engineering. In my opinion, they are the same. The difference being engineers don't assess, heal or maintain someone's physical or mental well-being. Engineers analyze, repair, and maintain our physical world which has a profound effect on the well-being of all living creatures. We problem-solve like the lawyers, but we also innovate and create. This professional parity and image needs to be strengthened in the public mind.</i>• <i>Understanding APEGM's importance: Many internationally educated engineers don't fully understand APEGM's role and importance as a regulatory body. Their view of APEGM tends to be very limited; a simple (and costly) expense, an annual fee required to maintain a designation, nothing more. This has to change. APEGM needs to embrace these members, get them more involved, informed and active in the oversight of our membership.</i>• <i>Females in the profession: The number of females entering engineering has increased over the years but is still considered low compared to other countries. Cuba for example, has a 50/50 ratio of males and females entering the field, a best-in-class world standard that APEGM should adopt as a goal.</i> <p>2) Why is self-regulation and the responsibility given to us by government and the public important?</p> <p><i>It is important because it protects the public from incompetent and unethical practitioners. It also enables professionals with the necessary expertise and ethics to control the future direction and standard of quality for the professionals of tomorrow.</i></p> <p>3) What do you think the public's expectation is from the practices of engineering and geosciences?</p> <p><i>The public expects engineers and geoscientists to make decisions that are in the best interest of the general public and that their decisions are based on safe, sound, economical and environmentally friendly principles that ensure best value for the tax-paying public.</i></p>

ROGER REMPEL, P.Eng., FEC

EDUCATION	B. Sc. Civil Engineering (with Distinction), University of Manitoba, 1991
ASSOCIATION ACTIVITIES	Professional Engineer, APEGM, 1993 to present APEGM Councillor - 2010 to present Chairperson: APEGM Advocacy Task Force (ATF) - 2012 to 2013 Committee Member: APEGM Public Interest Review Committee (PIRC) - 2014 Committee Member: APEGM Council Strategic Plan Committee - 2013 to 2014 Committee Member: APEGM Executive/Finance Committee - 2014
OTHER ENGINEERING ACTIVITIES	Alternate Warden: Ritual of Iron Ring Camp 8 - 2009 to present Committee Member: ACEC Manitoba (formerly CEM) Energy, Science and Technology Committee - 2013 to present President: ACEC Manitoba - 2006 to 2007 Vice President: ACEC Manitoba - 2005 to 2006 Director: ACEC Manitoba - 2000 to 2004 Chair: ACEC Manitoba Public Awareness Committee and Awards Event Committee - 1998 to 2004
EMPLOYERS SINCE GRADUATION	Stantec Consulting, Senior Environmental Engineer - 2010 to present TetrES Consultants Inc. - Managing Principal - 1991 to 2010
QUESTIONS FROM THE NOMINATING COMMITTEE	<p>1) In your view, what is the single most important issue facing the professions today, and why?</p> <p>The largest challenge facing our professions is the need for effective and prioritized response to the growing impacts and costs induced by intensified extreme weather events and expanded operating conditions resulting from climate change. Existing codes and standards are currently predominantly based on historical climate, often without consideration of climate shifts that can induce wider ranges of future operating conditions for the systems we design today.</p> <p>As higher incidents of infrastructure damage occur when these systems are exposed to conditions they were not designed for, the public will look to our professions to adapt in a manner that protects the safety of the public and maintains the expected service life of society's engineered assets. Our designs will likely be challenged by end-users and insurance companies in cases where our design has not considered these expanded operating conditions. If this challenge is not met, we risk diminishing the public trust and confidence in our professions.</p> <p>2) Why is self-regulation and the responsibility given to us by government and the public important?</p> <p>Self-regulation is important because it allows government to maintain control over the practice of the professions and their services, without a need for the government itself to maintain the specialized expertise that would be essential in regulating those professions directly. In the case of the many disciplines of professional engineering and geoscience, the responsibility and required expertise to regulate is maintained by a requirement that our self-regulating body develops, maintains and enforces rules and standards. These rules and</p>

standards, including obligations such as regular CPD reporting, combine to ensure that the services by the regulated professions 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?

Public expectations of our professional practices are high – such that the public expects that our response to challenges will always be met with solutions that will work safely and in a manner that will not damage the environment. We are relied upon by society as problem solvers and solution providers, and the public simply expects engineers and geoscientists to apply their specialized expertise to develop solutions that continue to be effective and safe in a rapidly changing global environment.

STEVEN SPRY, P.Eng.

EDUCATION	Bachelor of Engineering (Mechanical), Lakehead University, 1995 Diploma, Engineering Technology (Mechanical), Sault College, 1993
ASSOCIATION ACTIVITIES	Professional Engineer, APEGM, 1999 to present Professional Engineer, NAPEGG, (NWT) 1997
OTHER ENGINEERING ACTIVITIES	Councillor - Association of Professional Engineers, Geologists & Geophysicists of NWT (NAPEGG) Served portion of term in 1999 before moving to Winnipeg in late 1999. Professional Development Committee (NAPEGG) 1995 to 1999, Chair in 1999 Certification Board Member, CTTAM - 2005 to 2008 Young Achievers Award, NAPEGG - 1998 Certified Engineering Technologist (CET) - CTTAM Project Management Professional (PMP) - PMI 2004 Canada's Energy Efficiency Awards: Co-Recipient - Powersmart™ Compressed Air System - Plant 6 - Standard Aero
EMPLOYERS SINCE GRADUATION	Manitoba Housing, Director Prof. Services Unit; Executive Director of Asset Mgmt; Chief Operations Officer; A/Chief Executive Officer) - 2009 to present Standard Aero Ltd. (Senior Project Manager, Facilities Engineer, Eng/Program Manager, Director of Tech. Development) - 1999 to 2009 A.D. Williams Engineering Inc. (Mechanical Engineer) - 1998 to 1999 UMA Engineering Ltd. (Mechanical Design Engineer) - 1995 to 1998
QUESTIONS FROM THE NOMINATING COMMITTEE	<p>1) In your view, what is the single most important issue facing the professions today, and why?</p> <ul style="list-style-type: none">• <i>Renew the attractiveness of the professions as a desired career path. Sustainment of the professions will be largely dependent on the supply of human resources. What drove you to study and practice the profession(s)? We need to instill a similar drive in today's generation.</i>• <i>Continuous improvement on support of foreign-trained professionals.</i> <p>2) Why is self-regulation and the responsibility given to us by government and the public important?</p> <p><i>To ensure that high standards are met in those who can practice the professions, thus ensuring public safety and well-being are held paramount in the profession. Those who practice the profession are held accountable.</i></p> <p>3) What do you think the public's expectation is from the practices of engineering and geosciences?</p> <p><i>Effective, efficient, safe outcomes using best practice that can be trusted and relied upon. Public expects that it be done right the first time, all the time; and that engineers and geoscientists are bonafide subject matter experts in their field(s) when affixing their seal or endorsing with the P.Eng/P.Geo.</i></p>

MITKO TOMOV, P.Eng.

EDUCATION Mechanical Engineer, St. Cyril and Methodius, Skopje, 1990

ASSOCIATION Professional Engineer, APEGM, 2008 to present
ACTIVITIES Member, APEGM Awards Committee 2008 to 2010

OTHER Member, IEEQ Alumni Steering Committee
ENGINEERING Senior Member, Society of Manufacturing Engineers
ACTIVITIES Manitoba Schools Science Symposium judge - 2008
Manitoba Robotic Games judge, 2008

EMPLOYERS Monarch Industries, Process Engineer
SINCE New Flyer, Design Engineer
GRADUATION APR Industries, Manufacturing Engineer
Metal Istok, Skopje - Production Manager
ZGM Engineering, Skopje - Production Manager

QUESTIONS FROM THE NOMINATING COMMITTEE

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

The most important issue facing the professions today is to think globally and face the challenges of the new era. Closing in our own egos is not a formula for progress, it is a formula for disaster.

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

Self-regulation is important because that is the only way professionals can overcome the shadows from the past and take responsibility for improving humanity. Civilization was created by engineers and the engineers are the ones who can provide a brighter future.

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

The first and most important expectation is to provide safe practices where public safety will be in first place. The other expectations are technological progress and to continue to make Canada a place for a good life for generations to come.

OWEN VAN WALLEGHEM, P.Eng.

EDUCATION	Bachelor of Engineering (Mechanical), Carleton University, 2005
ASSOCIATION ACTIVITIES	Professional Engineer, APEGM, 2011 to present Member, APEGM Public Awareness Committee, 2008 to 2011 Author, "Attract, Engage and Develop the Next Generation", APEGM <i>Keystone Professional</i> , Spring 2011 Author, "Keys to Developing Young Engineers", APEGM <i>Keystone Professional</i> , Spring 2014
OTHER ENGINEERING ACTIVITIES	Professional Engineer, PEO, 2012 to present Director, ACEC Manitoba Board, 2011 to 2013 Member, ACEC Manitoba Young Professionals Committee, 2010 to present (Chair, 2011 to 2013) Member, ACEC Manitoba Professional Development Committee, 2012 to 2014 Manitoba Rep., ACEC Canada Young Professionals Network, 2011 to 2013 Member, WCS-AWWA Young Professionals Committee, 2012 to 2014 Member, Rotary Career Symposium Engineering Innovation Challenge Committee, 2008 to 2011 Presenter, "City of Steinbach Wastewater Lagoon Expansion", WCW Conference, 2012 Co-Presenter, "Jar Testing Fundamentals Workshop", MWWA Annual Conference, 2011 Co-Presenter, "Attract, Engage and Develop the Next Generation", WCW Conference, 2011
EMPLOYERS SINCE GRADUATION	Associated Engineering, Project Engineer - April 2014 to present AECOM Canada Ltd., Water/Wastewater Engineer - July 2006 to March 2014

QUESTIONS FROM THE NOMINATING COMMITTEE

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

One of the most significant issues facing our profession is diversity. For example, in Manitoba, women make up 51% of the population, and 15% of Manitobans identify as Aboriginal. In the engineering profession in Manitoba, however, these groups are not proportionally represented. Progress has been made to start reducing these imbalances, but there is still a lot of work to be done.

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

The responsibility to self-regulate is one of the key tenets of a Profession. It is important for government and the public to have input and some level of control over the profession. Ultimately, though, no group understands the concepts, values, and issues specific to engineering well enough to make the most important decisions as engineers themselves.

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

The public's expectation is that collectively, we as engineers are:

- *making sound, ethical decisions in the public's best interests*
- *creating products, systems and solutions to improve their day-to-day lives*
- *building safeguards to protect people and the environment from harm*
- *playing a key role in developing solutions to the world's biggest problems*

That might sound a bit grandiose, but if we engineers don't do these things, who will?