



THE KEYSTONE PROFESSIONAL

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The Association of Professional Engineers and Geoscientists
of the Province of Manitoba

DECEMBER 2004
www.apegm.mb.ca

Two receive Outstanding Service Award

In recognizing their commitment to the profession and to APEGM, Council is pleased to confer on Digvir Jayas and Kelly Kjartanson the Outstanding Service Award.

Digvir S. Jayas, Ph.D., P.Eng.

Digvir Jayas became registered with APEGM on January 13, 1986, and has been a member continuously for 18 years. Digvir graduated from the G.B. Pant University, India with a Bachelor of Technology degree in Agricultural Engineering in 1980. He holds a Masters degree from the University of Manitoba in 1982 and a Ph.D. from the University of Saskatchewan in 1987. He is a Professional Engineer and Professional Agrologist.

Digvir Jayas holds the prestigious appointment of Distinguished Professor in the University of Manitoba, where he is also currently Associate Vice-President (Research). He is a world-recognized scientist/engineer in the field of grain storage research and currently holds a Canada Research Chair in Stored Grain Ecosystems. He is author or co-author of more than 400 technical articles.

Digvir served on the Publication Committee for seven years, the Experience Review Committee for ten years, and the Academic



Digvir Jayas, Ph.D., P.Eng.

Review Committee for fifteen years. In addition to his 32 committee years of service with APEGM, Digvir Jayas has served for 13 years as a member, and more recently Chair, of the Canadian Engineering Qualifications Board (CEQB), a component of the Canadian Council of Professional Engineers. He has also been President of the Canadian Institute of Food Science and Technology, and President of the Canadian

Society for Agricultural, Food and Biological Systems.

The research projects directed by Digvir Jayas provide a theoretical and practical basis for improving the quality and efficiency of farm and commercial storage systems. Many of the results of this research have been incorporated in new standards adopted by the American Society of Agricultural Engineers for the design of grain handling and storage systems.

Kelly J. T. Kjartanson, M.Sc., P.Eng.

Kelly Kjartanson became registered with APEGM on March 8, 1976, and has been a member continuously for 28 years. Kelly graduated from the University of Manitoba with a Bachelors degree in Civil Engineering in 1973. He also holds a Masters degree from the University of Manitoba (1976).

Kelly served as a member of Council from 1987 to 1990, and has served on the Nominating Committee for three years, the Professional



Kelly Kjartanson, M.Sc., P.Eng.

Development Committee for 11 years; the Public Awareness Committee for three years, the Awards Committee for one year, the Registration Committee (of which he is Chair) for 11 years, and the Admissions Board for six years – a total of 39 committee-years of service.

Over these years Kelly has contributed innumerable hours of dedicated and generous service to ensure the continued development of engineering as a career and as a self-regulated profession. ■

Honorary Life Memberships Awarded to Carl Anderson and Ted Clarke

Carl E. Anderson, B.Sc., P.Eng.

Carl Anderson became registered with this Association on October 16, 1962, and has been a member continuously for 42 years.

Carl served as a member of Council from 1990 to 1994, and he was President in 1993. He also served on the Executive Finance Committee for three years. Carl served on the Environment & Sustainable Development Commit-

tee for six years, the Issues Awareness Board for one year, the SPRGM-APEGM Joint Committee for three years, the Salary Research Committee for ten years, the Registration Committee for three years, the Publication Committee for one year, the Nominating Committee for four years, the Consulting Engineers Committee for one year, and the Awards Committee for three years. This makes a total of 37 committee-years of service.

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The Communications Committee would like to hear from you. Comments on your newsletter can be forwarded to us through the Association office. Members are also encouraged to submit articles and photos on topics that would be of interest to the membership.

Although the information contained in this publication is believed to be correct, no representation or warranty, expressed or implied, is made as to its accuracy and completeness. Opinions expressed are not necessarily those held by the APEGM or the APEGM Council.

New Members Registered August, September & October 2004

R. Ahmed	K.G. Eberharter	K.M. Penner
C.S. Bate (BC)	S.R. Gaudreau	J.A. Rueda
J.S. Betke	R.A. Hyndman	R.E. Southward (ON)
D.T. Blackburn	J.C. Janssens	C.G. Spence
G.J. Blad	J.G. Kennedy	R.E. Sporns
C.M.J. Blair	P.V. Laitinen	N.G. Stephenson
T.J. Borycki	L.K. Lee (SK)	H.P. Sweeney (BC)
R.M. Brandt	L.A. Martin (ON)	D.M.M. Twigg
J.B. Cameron	R.J.P. Meert (NY)	J.F. Van Gulck
G.A. Cohoon (ON)	Q. Meng	P. Wertepny
E.J. Collins	F. Mulas (ON)	T.M. Wiebe
K.D. Croteau	C.E. Osiowy	R.S. Williams (AB)
E.A.A. Domingo (BC)	K.J. Ostash	R.S. Wooton (ON)
J.E.R. Durocher	A.R.D. Pawlikewich	R.T. Yonza

Members-In-Training Enrolled August, September & October 2004

B. Akintug	N. Gautam	J.A. McMaster
H. Ali	C.M. Giesbrecht	S.G. Miller
K.E. Anderson	D.L. Gowryluk	J.D. Mitchell
G.D. Atamanchuk	T.A. Habtemariam	S.S. Okonkwo
B.J. Bilton	M.L. Jacobson	M. Otukile
S. Blazevski	G.W. Johnson	R.A. Phernambucq
B. Bogdanovic	D.C. Jurkowski	Y. Qu
L. Bu	T.M. Kamminga	J.K. Ritchie
R. Cabigting	P.J. Kingerski	J.J.A. Sakalowski
C. Chan	A.G. Kraj	D.N. Shelvey
C. A. Devine	A.M.G. Krivoy	R. Song
P. Dhillon	S.G. Lambert	M.D. Wazny
E.C. Domingo	T. Li	A.M. Weiss
E.M. Espiritu	G.C. Loepky	L.L.Y. Woo
C.W. Evans	M.J. Lubocki	S. Ye
B.D. Frost	A.D. McLean	D.A. Zimmer

Licenses Issued August, September & October 2004

G. V. Nagel (MN)

Reinstatements August, September & October 2004

J.A. Ball	C.J.F. Boulet	R.J. Pietrus
P.C. Baracos	W.C.D. DeGagne	R.J. Slade
G. Bizen	C.A. Miller	A.J. Walker

Certificates of Authorization

AGK Consulting Ltd.
Chemetics
Composites Innovation Centre Manitoba Inc.
Conestoga-Rovers & Associates Limited
Quality Engineered Solutions Ltd.
Southward Consultants Limited

In Memoriam

The Association has received, with deep regret, notification of the death of the following members: T.B.J. Kruselnicki and C.H. Templeton.

APEGM Guidelines

There are three APEGM Guidelines posted on the website at www.apegm.mb.ca/practice/guides/index.html. They are also available by contacting the Association office. The titles are:

Building Commissioning Guideline – June 2002

Technical Review of Work by Other Members – October 2004

Engineering Requirement for Electrical and Control Installations – October 2004 ■





Executive Director's Message

D.A. Ennis, P.Eng.

A Deal is a Deal

The Council has recently amended its "Ends" (the statements of what should change for some persons, and at what worth). The new "mega" End is:

"APEGM exists so that the public interest is protected and promoted through the professional excellence of engineers and geoscientists who have the privilege to self-regulate."

In that regard, and in particular with "the privilege to self-regulate", I was very interested in the "President's Message" in the September/October issue of the Professional Engineers Ontario publication *Engineering Dimensions*. It is reprinted below with credit to *Engineering Dimensions* and the PEO President George Comrie. It says much of what I have been thinking for some time. I commend the article for your reading as a person who is, or is about to become, a member of a self-regulating profession. As you read I ask that you substitute the appropriate Manitoba references for the Ontario ones.

As always, written observations or comments are welcomed, preferably by e-mail to apegm@apegm.mb.ca, on any of the topics raised in this article by Mr. Comrie. They will also be shared with him.

Our contract with the people of Ontario

In the last issue, I wrote in defence of the self-regulating profession as a means of ensuring that the public is well served and protected where engineering and technology are concerned. I also warned against the well-intentioned but counter-productive erosion of that model of through competing legislation that attempts to define "qualified persons" outside of the self-regulating professions. Let's now look in a bit more detail at how the self-regulation model is supposed to work, and at some of the implications of that model for PEO.

I view the Professional Engineers Act as a contract between

the people of Ontario, represented by the Attorney General, and the engineering profession, represented by PEO. Like most contracts, this one defines the obligations of both parties, as well as the right, privileges, and benefits to which each party is entitled. The underlying concept is that it would be difficult and costly to create a government department or agency to oversee such a broad and rapidly changing field as engineering; so the responsibility and authority have been turned over to the profession itself. In return for committing to regulate itself in the public interest, the profession has been given considerable latitude in defining what constitutes engineering practice, plus a certain status and prestige associated with their exclusive rights to title and practice.

Note that right to title and right to practice are not essentially the same thing, even though both are embodied in our P.Eng. designation. Doctors and lawyers, for example, have no such professional designations (MD and LLB are their university degrees, not professional titles), although they must be licensed to practise.

Under the agreement, the Government's obligations are to support PEO in the exercise of its responsibilities by:

- Backing up PEO's discipline and enforcement under the Act;
- Implementing demand-side legislation that delegates to PEO responsibility for engineering activities that may affect public safety, security, or well-being;
- Refraining from undermining PEO's self-regulation through the introduction of competing legislation.

PEO's principal obligations under the agreement are:

- Establishing and maintaining standards of practise in the various fields of engineering, as they emerge and evolve;
- Ensuring that only those qualified to practise are licensed;

- Ensuring that only those licensed are allowed to practise;
- Maintaining the strength and relevance of the profession so that it can discharge its responsibilities effectively;
- Being vigilant and proactive in identifying areas of engineering and technology where action is required to protect the public interest, and advising the government and public accordingly;
- Conducting all its activities with diligence, transparency and fairness.

The notion that engineering is defined by what engineers do may be adequate for academia, but it is not sufficient for the self-regulating profession. We need to develop standards of practice for each area of engineering specialization, and maintain them as those specialties evolve over time with technology and experience. From those standards of practice will come our standards of licensure (admission and continuing competence) in terms of knowledge and experience.

Ensuring Competence

As it has in the past, PEO will continue to evolve its admission standards and processes in an attempt to maintain their relevancy and to ensure their consistency across different classes of applicants. But determining competence is not a one-time-only affair. We will need to introduce measures to ensure that members maintain competence within their chosen scopes of practice. Also, to ensure competence, we will also need to solicit and maintain in our public Register our members' self-declared scopes of professional practice.

We cannot discharge our obligation to regulate the profession in the public interest without enforcing against those who practise engineering outside of our regulatory regime (i.e., without a licence). This is not a matter of the profession acting in its [members'] self-interest. Rather, it is a matter of ensuring that all engineering is subject to the same high standards of competence and public responsibility. Allowing engineering work to be performed by non-licensed individuals undermines the profession and the public's trust in it, along with the model of professional self-regulation.

To do a good job of discharging the above responsibilities, PEO will need to maintain a substantial base of knowledgeable and committed volunteers. It will also need to

ensure the succession of its leadership. But there is more than that. A self-regulating profession is built upon traditions of skill, ingenuity, and responsibility that are part of its heritage, passed from generation to generation. This means that we must be actively involved in the formation of new members of the profession at every stage of their development.

Vigilance and Proactivity

To fulfill our obligations to the public under our agreement, I believe it is not enough that individual engineers practise competently and responsibly. We must be vigilant to identify areas of potential harm within our purview, and must be proactive in bringing them to public attention so that the harm can be averted.

In all that we do, we must maintain high standards of transparency and fairness. This is essential to both public trust and support of the membership.

You will note that my definition of our responsibilities is considerably broader than what might be appropriate for a typical government licence bureau. But PEO is not a government department or agency – we are a self-regulating professional body. I reject categorically the notion that we should confine ourselves to the fundamental regulatory activities of admission, enforcement, and discipline, important as those are. If that is all there is to PEO, why should I volunteer my time?

I believe that the Ontario public is getting a good deal from the self-regulating engineering profession. We need to make sure we are holding up our end of the agreement, and we need to make sure everyone knows it. In return, we are entitled to expect the independence, prestige, and influence that should accompany the responsibilities we have accepted. ■

APEGM VISION

APEGM is the leader and a facilitator of the process that ensures excellence in engineering, geoscience, and applied technology for the public of Manitoba.

85th APEGM Annual General Meeting

By: S.B. Williamson, P.Eng.

APEGM President Arnold Permut promptly called the 85th Annual General Meeting to order at 9:00 a.m. on Saturday, October 30, 2004. This year, the meeting was held at the Niakwa Country Club. President Permut acknowledged that quorum had been met and the agenda was made official.

President Permut introduced notable guests including the APEGM Council and Staff, Committee Chairs, the Chapter Representatives, and Representatives from other associations. Following the introductions, representatives from the MAA, CTTAM, and CEM gave greetings from their respective Associations.

To summarize the past year's achievements of the Council, President Permut presented the report of the President. The report highlighted the progress of Council's governance process and noted that its goal is to ensure that decisions made by Council ultimately should meet the "mega-end", which is protecting the general public. Also noted, was the welcoming of MITs to observe and be invited to voice concerns at the Council meetings.

President Permut's report updated the members in attendance on the current status of the APEGM Foundation and how it will benefit the Faculty of Engineering, the stu-

dent body, and APEGM by increasing the awareness of APEGM within the students. The President's report also touched on the progress of APEGM working with other associations such as the MAA in resolving practicing issues and CTTAM in gaining a Certificate of Authorization.

Following the President's report, the AGM continued with the adoption of last year's AGM minutes and business arising from those minutes. CCPE Director, Ron Britton, brought greetings and spoke on some of the recent achievements by the CCPE. In particular, Dr. Britton commented on the recently signed agreement with the Hong Kong Institute of Engineers (HKIE). This agreement will enable engineers from Hong Kong to obtain the necessary qualifications to practice engineering in Canada and likewise, allow Canadian engineers to become members of the HKIE.

President Permut followed by congratulating those who had been recently elected to Council. He announced that Digvir Jayas, James Blatz, Jim Miller, Patrick Lengyel, and Edward Ryczkowski will be joining Council for a two-year term.

Additional greetings from other associations were received from the PEO, CCPG, APEGS, APEGGA, APEGBC and the North Dakota Society of Professional Engineers. One item that was shared by APEGGA was that the association was reviewing the mobility of

engineers between the northern US and Alberta. APEGBC also shared some of their recent works involving the merger of technologists and engineers. Specifically, the APEGBC membership had not approved of the merger and therefore any work involving the merger has stopped.

The AGM continued with its usual proceedings, which included a review of the 2004 Financial Statements, the 2005 budget and appointments to the Nominating Committee.

Proposed by-law changes followed and were presented at the meeting with little or no comment from the members. However, a motion was passed to defer the proposed by-law change involving the

removal of the "(Ret.," for retired members using the term P.Eng. (Ret.) or P.Geo. (Ret.). The proposed by-law change was deferred until the next AGM so that Council could review the proposed change in greater detail.

To conclude this year's AGM, recognition was given to retiring councilors and the gavel ceremony was performed. The ceremony involved the passing of the Scott gavel from President Permut to incoming president Mr. Allan Silk. Mr. Silk addressed the meeting and provided concluding remarks prior to adjournment.

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Scholarship Winners: E.M. Dyck, F.C.J. Fernando, and S.L.M. Boyko.



APEGM New Members.

Bill C-45 – What does it mean to you?

By Sharon Sankar, P.Eng., Director of Admissions

Bill C-45 was passed and received Royal Assent in the House of Commons on November 27, 2003. For those who want to wade through the entire Bill this is available at: www.parl.gc.ca/PDF/37/2/parl-bus/chambus/house/bills/government/C-45_4.pdf

For the rest of us, a plainer language interpretation is available at: www.parl.gc.ca/common/Bills_Is.asp?lang=E&Parl=37&Ses=2&Is=C45&source=Bills_House_Government

The impetus for Bill C-45 was the Westray Mine Explosion of 1992. I was living in Nova Scotia at the time of this disaster and I remember watching the hearings with interest and amazement. Long before the disaster occurred, many in Pictou County suspected it would only be a matter of time before 'something' happened. When it finally did, it was interesting how those who should have been accountable ultimately ended up not accountable. The top level of managers claimed to have little to do

with the day-to-day activities of the mine. Those who were responsible for the day-to-day activities of the mine were not considered high enough to represent the 'corporate thinking' of the company. Therefore, ultimately, the company could not be found criminally liable – much to the disappointment of the widows and children of the miners lost in the disaster.

Bill C-45 is intended to change this. Among other changes, Bill C-45 extends the definition of who can be considered representative of the organization to include not only Directors, CEO's and Chief Financial Officers, but to include anyone in a supervisory position – contract workers and consultants working for the organization. Under this bill, a company can be found criminally liable if someone considered a 'representative' of the company either willfully performs an overt criminal act for the benefit of an organization or performs a criminal act by omission or negligence.

So what does this mean to engineers and geoscientists? Most engi-

neers and geoscientists attain positions of authority or management. The new Bill extends the class of persons whose acts or omissions will be attributable to a corporation or organization to include employees, agents and contractors. In other words, even if you're a junior level manager or project officer, your acts, if found to be negligent or overtly criminal, could cause the company you represent to be found criminally liable. Moreover, even as a more junior manager you could be criminally liable and possibly even serve a prison-term.

The new legislation means – what else? – more paperwork. Employers will be required to have written policies, practices and procedures in place. They will be required to provide appropriate training and education to employees so they can work in a manner that might prevent them or the company from being found liable. This may mean 'PIPEDA-like' reviews of existing procedures and policies, and in some cases, a total overhaul and upgrade of existing practices.

For more information, a summary paper written by CCPE's Government Relations Committee is available at: www.ccpe.ca/between-us/betweenusoct04.pdf. I strongly encourage all members to read this. ■

Search for Musical Talent

Provincial Engineering and Geoscience Week, March 4-6, 2005, is looking to break new ground. The Week's activities are directed towards informing the public of the importance of engineers and geoscientists to their quality of life in Manitoba and of the educational requirements and careers in these professions. However, we are more than just technical people. Some of us have also developed musical skills to a high level. Why not show the public that side of our lives as well? We have the opportunity to do so at St. Vital Centre Food Court Stage where the Opening Ceremonies, Celebrity Competition, and Spaghetti Bridge Competition take place. On Friday night, March 4th, 2005, the stage is available for other activities.



If you are interested in contributing a musical item as an individual or as a group, please contact Brian Stimpson at 474-9821 or brian_stimpson@umanitoba.ca ■

Engineers, the Canadian Public Works Association and the National Research Council. These four organizations have different mandates but formulated a common goal for the initiative: public safety and well-being through infrastructure. CSCE's emphasis on promoting civil engineering and disseminating information positions the Society to ensure the longevity and quality of our civil infrastructure systems.

I am very proud to be part of an organization that represents the premiere voice for civil engineering in Canada. As the first female President of CSCE in its 117 year history, I am committed to collaborate with all our Canadian licensing bodies, industry and the private sector to persuade governments that the revitalization of our infrastructure systems is critical to generating prosperity and wealth for the entire country. ■



CSCE President's Message

Cathy Lynn Borbely, P.Eng.

Iwant to take this opportunity to bring greetings from the Canadian Society for Civil Engineering (CSCE). As I begin my year as President, I would like to share some thoughts about the future of the CSCE, its role in promoting the civil engineering profession and the opportunities that exist in working together with professional associations across the country.

Partnerships, cooperation and collaboration are the corner stones to building successful working relationships and achieving desired outcomes. The CSCE has embraced these principles. Over the past two years, the Society has revitalized itself. We have set a new vision of being the civil engineer's first choice for advocacy, promotion and leadership as well as the focal point

for knowledge and expertise related to our discipline. In addition, we have refocused our programs and services on life long learning and leadership to meet the needs of the engineering community.

The contributions engineers have made in building this country are seldom recognized or appreciated. Yet what would our standard of living be without highways and bridges, safe drinking water or power generation – all of which contribute to the quality of life society takes for granted every day.

In recognition of the engineering profession's contribution to Canada, CSCE was honoured as the 2002 recipient of Canada's National History Society's Pierre Berton Award. The award celebrates the great civil engineering minds and

projects that have built Canada. CSCE sees this honour as a huge step towards raising the profile of engineering across the country. We can all be proud of our contributions as the creators, builders and maintainers of the standard of living that our country's citizens have grown accustomed to.

CSCE recognizes that in order to be relevant to the community we serve, we must collaborate with others to achieve our vision. One of the Society's greatest assets is its membership. With nearly 3,500 members worldwide, we represent the largest assembly of civil engineering technical expertise in Canada. This presents a tremendous opportunity to collaborate with professional associations to meet their mandates on continuing education and professional development.

Our work on the nation's Civil Infrastructure Systems – Technology Road Map released in June 2003 is foundational to addressing the growing need for safe, reliable and sustainable infrastructure. The project was an initiative of CSCE, the Canadian Council of Professional

Professional Development

The 2004 AGM Professional Development Conference (October 29)

By: Ganpat S. Lodha, P.Geo

This was an exciting day filled with enthusiastic talks and discussions on six topics: recruiting and retaining talented people, art of negotiations, ethics, conceiving and managing large scale public/private sector projects, professional liability-risk management and climate change models with associated business opportunities. The speakers varied from human resources specialists, university professors, industry leaders, to program directors and project managers.

The conference nearly sold out with 95 attendees, including 20 MITs and eight out-of-town delegates from other Professional Associations. The focus of the presentations was on the "Soft Skills" needed by engineers and geoscientists to succeed in their professions. This theme continues to lead surveys as an area of professional development which needs attention at PD events.

The energetic speaker Dr. Henry Venema (Climate Change and Sustainable Development) concluded that the concept of climate change was real and in the next 100

to 10,000 years, with increasing emission of CO² the result would be a gradual temperature rise. The impacts were varied and uncertain depending upon the rate of change. The implementation of Kyoto protocols contained the seed of an intelligent long-term approach for mitigation and creatively harnessing adaptation opportunities.

Keith Sinclair spoke on the subject "Strategies for Recruiting and Retaining Talented People." He stressed that knowing your strengths and talents and applying them to appropriate opportunities, by selecting a "best fit" approach, is the key to success. He stressed that career development is a joint responsibility between employee and supervisor and is key to retaining good working teams.

Arthur Schafer discussed the ethical issues in the positive and negative impacts of applying new technology. As an example, antibiotics are very useful for treating infectious diseases in living beings. When the same antibiotics are fed to chickens or plants to increase the food yield/value, they can cause

cancer and heart problems in humans. He emphasized the need for using ethical judgments in applying technology. This can become difficult when engineers and geoscientists do not fully understand the long term impact of short term cost effective technology or do not have control of its application. In conclusion, he said to take off your "hat" as administrator or business manager and be aware of your responsibility as professional engineers/geoscientists.

The talk on Risk Management and Professional Liability was given by John Rislanti (Provincial Government) and Jack Scott (Insurance providers). This talk provided a good overview of the risks associated with corporate and project management functions. They emphasized careful risk assessment and appropriate insurance coverage. Members were particularly interested in insurance coverage for personal liability after project completion. Continuing professional liability insurance is essential and is included in APEGM dues.

Peter Washchysyn, one of the past-presidents of APEGM, covered

the topic of Public Private Sector Partnership (P-3). Such partnerships are initiated to enhance value of public sector assets or to deliver more efficient services by sharing the risk and rewards. He provided six attributes for good P-3 projects. He discussed examples of three projects involving his company: Richmond Airport-Vancouver Rapid Transit, Horseshoe Bay to Whistler highway and Edmonton Ring Road. The engineers working on these complex projects often report to more than one boss under the decision making guidelines specific to each individual project.

The last talk of the day, "Negotiations," was given by Court Stevens. He defined the art of negotiation as the ability to persuade the other party through dialogue and reason, rather than by argument and force. Understanding human behavior (yours and theirs) and resolving conflicts and disagreements to mutual satisfaction was the ultimate objective. He provided some examples of these in responding to request for proposals (RFP), contract negotiations, execution, and to delivery of end product.

The organizing committee would like to thank all the members and guests who attended the conference, the excellent speakers, and the APEGM staff for making this year's AGM-PD day a great success. ■

Provincial Engineering & Geoscience Week Coming Soon!

The Planning Committee has been busy organizing events for the upcoming 2005

Provincial Engineering & Geoscience Week! (P.E.G.W.) Look forward to the following events March 4 - 6:

- Celebrity Competition
- Spaghetti Bridge Competition
- Special Imax Presentation
- Children's Activities
- PENGEO Activity book
- Entertainment

Come join us at St. Vital Centre. For more information please see our website: www.apegm.mb.ca

See you there! ■



When you leave the party, don't forget to say goodbye to the host

by Sharon Sankar, P.Eng., Director of Admissions

In these days of high mobility, people are constantly moving, changing locations, changing jobs, changing professional memberships. Keeping all the appropriate organizations informed about these changes is not an easy task. I recently moved to a new house, and I'm astounded by the number of organizations for which I have to change my information. Credit cards, utilities, magazine subscriptions – these all take an enormous amount of time. I'm sure we'd all agree the consequences of not updating this information are less than desirable – (“Hey, your power's been cut off and you owe \$30,000.00 interest on your credit cards...”)

Yes, remembering to update your information is not always easy, but it's a necessary 'evil'.

The same applies if you decide to change your membership status in APEGM.

Let's say you decide to move to Alberta or Ontario, and you wish to resign your membership in APEGM. No problem...but please **INFORM US IN WRITING**. APEGM takes great pains to send reminders, renewal notices and registered letters (which aren't cheap).



We try to find you...but we're not mind readers. If you don't notify us and fail to pay your dues by March – your name will be removed from the Register (otherwise known as “written off”). And whether you think it's fair or not, the consequences are quite harsh if later you decide to reinstate.

For an example, let's look at a sample member (we'll call him 'Joe Organized') who moved to another province, and sent us a note (by email, fax or letter), prior to his renewal date, informing us that he was resigning from APEGM. No problem, we mark that person as resigned – and should they ever pass

this way again, (and are registered in another province), they will be reinstated pending confirmation of registration in the other province. Even if not registered in another province, their reinstatement will generally go smoothly.

Let's look at another person – (we'll call him Joe Complacent). This person also moved to another province, but neglected to inform us that he was not renewing his membership. That person is marked as “Written off” – not a desirable status. Should that person subsequently wish to reinstate, even if registered elsewhere, financial and (depending on the situation) other penalties will be imposed – all for the sake of not having notified us.

We'll look at a third category of person – “Joe No-job”. This is typically someone who is non-resident in the province and may be registered in several jurisdictions. This person does a few projects in Manitoba then decides he does not require his APEGM membership anymore. Fine, but if he forgets to let us know, he goes into write-off status. Should he wish to reinstate, he will go through a more difficult process than if he had resigned.

The moral of the story is, “When you leave the party, don't forget to say goodbye to the Host (in writing)”. We get no pleasure asking for a surcharge when you reinstate or telling you that you are not eligible to be processed under the ‘mobility agreement’ (the agreement that recognizes reciprocity between the provinces). If you keep us informed, everyone wins. ■

Dr. Nancy Chow Appointed Head of Department of Geological Sciences at the University of Manitoba

by D.J. Etcheverry, GIT

Dr. Nancy Chow, P.Geo., has been appointed Head of the Department Of Geological Sciences at the University of Manitoba for the next four years. For the past year Nancy has served as the acting head.

Dr. Chow received her Bachelor of Science from the University of Calgary and PhD from Memorial University of Newfoundland. She worked with Canterra Energy and Amoco Canada Petroleum before entering academia. Dr. Chow's research focuses on the influence of Devonian carbonate platform sequences on the inception, development and diagenesis of adjacent reefs. Besides the Devonian in

Manitoba, her research has directed her to the subsurface of the northern Alberta Basin and the exposed reef complexes in the Canning Basin in Western Australia. Drs. A. George and K. Trinajstic (University of Western Australia) and Dr. J. Wendte (Geological Survey of Canada) are collaborators on these projects. In addition to her research, Dr. Chow also teaches undergraduate and graduate courses in sedimentology.

Dr. Chow is actively involved in a number of organizations including associate editor of the *Bulletin of Canadian Petroleum Geology*, member of APEGM's Academic Review Committee, and member of the Canadian Geological Foundation. ■



Dr. Nancy Chow, P.Geo.

85th Annual General Meeting

Continued from page 4

Once adjourned, the attendees were invited to stay for lunch and were treated to guest speaker, The Honourable Steve Ashton, Minister of Water Stewardship. Mr. Ashton spoke on the Floodway Expansion and water quality issues in Manitoba, particularly the water quality of Lake Winnipeg. He discussed the high nutrient levels in the lake, and indicated that a high percentage of the problem is due to nutrient run-off from farmland. Other influences of the nutrient levels were also from smaller communities and the City of Winnipeg. Mr. Ashton highlighted that the government's proposal is to reduce nutrient levels to those of 1972. ■

Council Reports

Wednesday, September 15th, 2004

By: J.A. Blatz, P.Eng.

MIT'S TO BECOME A VOICE ON COUNCIL

The meeting was called to order at 11:10am with a full boardroom table. The President moved the agenda forward with no delay entering into discussion about the ownership linkage plan that outlines a process to ensure involvement of all segments of APEGM membership in associated activities. The ownership included discussions about how to involve members outside the City of Winnipeg who might have difficulty attending regular meetings, MIT's who currently do not have a representative on Council, and the activities of the recently formed Aboriginal Professional Initiative Committee.

The discussion then turned towards the widely discussed topic of the use of the term engineer versus Professional Engineer. Councillors heard many views on the subject before reaching a general consensus that positive publicity in the public eye is the best approach to educating the public about the engineering profession. All agreed better efforts to promote the activities and achievements of the engineering profession in Manitoba would be beneficial to members. Some innovative ideas regarding television and radio commercials were discussed, including details on what the advertisements might include and focus on. This reporter was fortunate enough to witness some Council members providing ad-hoc skits on proposed example commercials. It was clear that Council is keen to look forward to new positive avenues to increase public awareness about the role and value of the engineering profession in society.

The next major item of discussion was the long awaited updates to the Manual of Admissions. This item was removed from the consent agenda for discussion. A detailed memo outlining the changes to the Manual and corresponding committee operating manuals were provided to Council to highlight major changes in all documents. Some of the notable changes include a new mature route, changes to the existing consequence for non-compliance on reporting frequency, and the introduction of financial penalties for assessment of late time. The existing clock stoppage rule for not keeping up with

professional development and professional service activities on the required timelines was also marked for removal. Details as to how the modified program would be implemented will not be available until the final details of the changes are approved by Council. The changes sparked considerable discussion regarding the value and importance of the program in terms of ensuring the safety of the public through competent practice, one of the highest priority Ends for the Association. The second major item of discussion related to the new changes is the creation of the alternate route program. Again considerable discussion indicated that more detailed review of the changes would be required prior to approving the final documents. The changes were held over to the next meeting so that councillors would have more time for review and I would expect that there will again be considerable discussion at the next meeting.

Council then moved to review the updated ends document. It was interesting to see how the councillors focused a great deal of attention to the wording of the ends to ensure they would be appropriate as a guiding measure for future decisions. Many who have attended meetings in the boardroom will recognize the ends as the table posted on the wall to provide a constant guiding document for all committee decisions. The Council agreed that once the revised ends were agreed upon the large board room posting would be updated as soon as possible.

Following a lengthy 'in camera' session the Council participated as a group in the CCPE survey for the stakeholder associations to give CCPE feedback for guidance on future strategic planning.

One final item of note included examination of changing the Investigation Committee from a committee of the Executive Director to a committee of Council to facilitate the Executive Director's participation in the committee. As it stands currently, the Investigation Committee is a committee of the Executive Director under the current policy governance model and as such the Executive Director should not participate in its regular activities (since the Committee reports directly to the Executive Director). However, this posed an issue for the Committee since they require the experience and input regarding communications between meetings that inherently is undertaken by the Executive Director. The Council found that there was an alternative problem introduced with making the Committee a committee of Council regarding appeals of decisions made by the committee and as such the Council decided to look at other ways to resolve the issue to be decided at a later date. ■

Thursday, October 14, 2004

By: A.N. Kempan, P.Eng.(Ret)

QUICK REGISTRATION SPARKS DEBATE

At 11:00 AM Council launched the last meeting of the year; last of the calendar year, and last of the governing year. With elections around the corner, new faces will appear, and familiar faces will fade away. Present today were Councillors Silk, Gilmore, Syme, Smith, Shortt, Hoensen, Hutchinson, Gaudry, Tanaguchi, Harfield, and Deniset. The meeting was chaired by President Permut, with Past-President Ferchoff, CCPE Director Britton, and Executive Director Dave Ennis in attendance. A new technology was evident in the room...a computer-driven overhead projector. Quite often when complex motions are drafted the participants have difficulty remembering the exact wording. With the text projected onto a large wall screen, everyone will know exactly what they're voting for. With preliminaries out of the way, Council approved the agenda and the meeting began in earnest.

Councillor Gilmore addressed Council on the subject of multi-jurisdictional mobility. Mobility is important to all members, but geoscientists are affected the most, according to Councillor Gilmore. Quite often geoscience job assignments, in any given jurisdiction, are on short notice and of short duration. Mr. Gilmore thought APEGM wasn't doing a good job contacting geoscientists here for short work assignments, which could last anywhere from days to weeks to months. Council had in their hands a report, which outlined the mobility problem, and offered a few solutions. Executive Director Ennis agreed to evaluate the options in the report and make recommendations at the next meeting.

Next, Council discussed a report prepared by the Canadian Council of Professional Engineers titled "Nanotechnologies – Investigating a Possible

New Area for Growth in Engineering." Executive Director Ennis characterized nanotechnology as an issue for the engineering profession, one that would influence people's day-to-day lives. Regulating bodies would need to address public safety, he said. It was an issue for "horizon-watching."

The nanotechnology discussion took a whole new turn when CCPE Director Britton said the focus should be on the engineering content and not on the technology. He succinctly characterized nanotechnology as one where "gravity doesn't matter." He thought "everything should be thrown out", except the one commonality, engineering.

Director of Admissions Sankar also cited a practical difficulty registering nanotechnology practitioners. Since many didn't work with engineers, they were unable to receive the supervision required under the MIT program. Councillor Shortt thought engineering should mark its turf regarding nanotechnology, while Councillor Harfield felt the AGM should have an item on nanotechnology. Mr. Ennis said he would schedule it after the business meeting.

It was then time for a lunch break, followed by a 35-minute in-camera session. By this time the vehicles in the parking lot were turning white because the morning rain had turned to afternoon snow.

Another popular (and often controversial) item returned; the Manual of Admissions. Over time it was established that the Manual fell under the purview of the Executive Director and so Mr. Ennis led Council through a list of changes therein. Temporary licenses would be a maximum of one year; the de-registration penalty section required more word-smithing, and an introduction to Conditional Registration. One of the purposes of Conditional Registration was to allow "urgent" cases to register quickly. Debate surrounding the definition of "urgent" took place. Mr. Ennis cited an example of an out-of-province professional engineer who had to make an

Honorary Life Memberships

Continued from page 1

Carl's commitment to the profession and Canadian society is demonstrated by his service on Provincial and other committees related to the environment and sustainable development, as well as numerous environmental committees for the Canadian Institute of Mining, Metallurgy, and Petroleum. Carl was an Associate to the Faculty of



Carl Anderson, B.Sc., P.Eng.

Management and he was the "Founding Chair" of the Engineering Affiliates Program for the Faculty of Engineering at the University of Manitoba.

Over the years Carl has shared his many talents and been a valuable resource to the committees on which he has served and provided leadership to Council as a member and President. In recognition of his 42 years of membership in this Association, his 37 years of committee service to this Association, and for his meritorious service to the profession, the Council of the

Association of Professional Engineers and Geoscientists of the Province of Manitoba was pleased to grant Carl Anderson, Honorary Life Membership.

E. W. J. (Ted) Clarke B.Sc., P.Eng.

Ted Clarke became registered with APEGM on April 30, 1962, and has been a member continuously for 42 years.

Ted served as a member of Council from 1984 to 1987, and was President in 1986. He also served on the Executive Finance Committee for four years, the Legislation Committee for four years, the Consulting Engineers Committee for one year, the Admissions Board for one year, the Nominating Committee for two years, the Publications Committee for three years, the Flood Fund '97 Committee as Chair for two years, and the Technologists Ad Hoc Committee for six years. Ted served as both Chair and as a member of the Awards Committee for three years. This totals 30 committee-years of service to this Association. Ted further represented this Association at the national level, serving as a Director for the Canadian Council of Professional Engineers for three years. Ted received this Association's Outstanding Service Award in 1992.

Ted's work experience, largely with The City of Winnipeg, is in the fields of public works management and urban transportation. Eight hundred million dollars worth of transportation and municipal infrastructure projects were completed during his term as the Director of the Streets and Transportation Department. In addition, Ted served



Ted Clarke, B.Sc., P.Eng.

on the Board of Directors of the Manitoba Safety Council for two years.

Ted furthered the field of urban transportation as a key participant with the Transportation Association

of Canada, providing 28 years of committee service over the period 1983 to 1995. Ted was recognized by TAC for his service to that Association with an Award of Merit in 1993.

At the international level, Ted has been a member of the Institute of Transportation Engineers since 1966, serving at the local chapter level and on international committees for the Institute. Ted is currently a Fellow and a Life Member of the Institute.

In recognition of Ted's 42 years of membership in this Association, his 30 years of committee service to this Association, and for his meritorious service to the profession, the Council of the Association of Professional Engineers and Geoscientists of the Province of Manitoba was pleased to grant Ted Clarke, Honorary Life Membership. ■

New Manual of Admissions goes into effect January 1, 2005

By: Sharon Sankar, P.Eng.

As of October 15, 2004, Council has passed the revised Manual of Admissions. There have been significant changes to the Pre-registration program and other issues surrounding admission to the professions of engineering and geoscience. Please stay tuned for further information which will be posted at the website. All MITs currently enrolled in our program will receive bulk email notification of the changes and a link to the new documentation.

IMPORTANT: The Existing Manual of Admissions will continue to be in effect until December

31, 2004, so please make sure you are familiar with the existing rules and regulations available at our website, particularly at: www.apegm.mb.ca/register/accred/aitprer.html

We ask you not to telephone us about this issue – (the work to implement the new manual is quite considerable, and it won't be completed if we are answering unnecessary phone calls). If necessary, you may post an email to prereg@apegm.mb.ca. Only those questions that are not addressed in the information to follow will be answered. ■



PROVINCIAL ENGINEERING & GEOSCIENCE WEEK

Special IMAX Presentation
(to be determined)

Sunday, February 27th, 2005 at 5 p.m.

Tickets are only \$5 per person; includes free popcorn, parking and toy. Seats are limited so get your tickets today!

Reserve your tickets at the APEGM office or call Jenny at 478-3727.

Notice

Payment of 2005 Fees & Membership Renewals

Annual dues invoices have been mailed to all members and members-in-training. If you have not received yours please contact the APEGM office. Please submit the completed forms with payment by December 31, 2004. Please note that all members must sign a Privacy Consent Statement annually. All members in the practising category must sign a Declaration of Compliance annually as well. ■

THOUGHTS ON

Design

...and a common base across the profession.

By: M.G.(Ron) Britton, P.Eng.

In a November/December 2004 *Canadian Geographic* article, Pico Iyer observed that

"Canadians have always had an advantage in that they live in a country held together by shared values rather than shared roots".

The article was made more meaningful for me because I read it less than a week after the graduation of the first group from our Internationally-Educated Engineers Qualification project. I could not help but consider that the five graduates represent the Engineering equivalent of Iyer's observation.

Clearly the five individuals do not come from "shared roots". They represent a rainbow of cultures, continents and ethnicity. However, they put those differences behind them and worked hard and long over the past year to reach a common goal of being academically qualified for membership in our profession. They share professional values, stated or implied, with those of us who have arrived at our positions through more conventional routes.

Our Canadian profession is defined in twelve different provin-

cial and territorial Acts. While the details within the Acts vary, fundamentally we are charged with the responsibility of protecting the public. This protection is to be accomplished by exercising control over the qualifications and performance of those who would call themselves Engineers. It is a privileged position within society, given to us by the people of the respective provinces and territories through the actions of our respective legislatures.

So, the five new graduates have demonstrated that they have the necessary technical skills to be considered for membership in our profession. They have also completed a Co-operative Studies work term in which they demonstrated their ability to function in a Canadian engineering workplace. Once they have met the experience requirements, they will qualify as Professional Engineers. And in spite of their varied backgrounds ("roots"), they will share the same rights and responsibilities that each of us enjoys ("values").

But what are the "values" we claim to share? If you consider our technical "roots" the engineering profession is significantly more

diverse than the five "newly qualified" engineers whose graduation spawned this discussion. The academic programs from which we have come include traditional areas like Electrical, Civil and Mechanical. There are also programs like Agricultural, Geological, Chemical, Manufacturing, Computer and Biosystems. Recently various Councils have struggled with "emerging" programs like Software, Tissue, Nanotechnology and Biomedical. There are literally dozens of programs that produce

engineering graduates. And all of those graduates find their way (or should find their way) into the singular profession of Engineering.

Iyer's "values" may be difficult to identify, but one of those in attendance at the aforementioned graduation ceremony provided his explanation of what engineer's values represent. A representative of the provincial government asked why, after all the effort that had been advanced to facilitate the professional recognition of foreign professionals, the Engineering profession was the only one to do something. The response, from a non engineer, was that the other professions see the problem and talk about it. Engineers see the problem and seek a solution.

My conclusion? The "values" that bind us together as a profession can be defined as the need to provide solutions to problems. And that, in my limited view of the world, is called Design. ■

October Council Report

Continued from page 8

unexpected presentation to City Hall because of a change in project schedule. A quick registration would be needed to make the engineer properly qualified for the presentation. CCPE Director Britton agreed on the principle of quick registration for eminently qualified persons. In cases where the engineer is a recognized expert, has written books and texts on the subject, he or she should be able to register quickly. It was a matter of facilitating the process, he said. Council mulled over variations of the wording needed to achieve this end until Councillor Harfield suggested they were spending way too much time on it and the Executive Director should make changes and resubmit them at a future meeting. President Permut agreed Mr. Ennis should do this and a suitable motion was passed.

At the last Council meeting an informal committee was established to write terms of reference for the Nominating Committee. This was done mainly to settle the question of how many candidates should there be for Council.... just enough to fill vacant Council seats, or enough to make an election necessary. When the subject came up for discussion today, CCPE Director Britton took the discourse in a new direction when he said the Nominating Committee shouldn't be a commit-

tee of Council, he felt that was undemocratic. This led President Permut to muse where the committee might belong, under the Executive Director? No! Some people thought the governance coach should be enlisted to sort this out, but Mr. Ennis said they already spent too much time on coaches and he cited the story of pleasing the Pope or getting to heaven. People batted ideas back and forth until President Permut finally halted the debate because they'd become paralyzed, he said, and it was better to bring it back another day.

The meeting wound down with Councillor Harfield giving an impromptu meeting evaluation. His main thrust was that today, unlike previous meetings, too much time was spent on detail. He thought the overhead projector was a distraction, but served a good purpose. Councillor Deniset liked the projector idea.

October gatherings have a special meaning because many members are attending their last Council meeting. President Permut thanked outgoing Councillors for their exemplary service. Councillor Harfield was among these, but he had something extra to add because he was also moving to Alberta. Family obligations were pulling him away, but he spoke of his great fondness for APEGM and how he intended to maintain his membership in Manitoba. Always a contributor, Don will be missed. ■



APEGM past-president Arnold Permut, P.Eng. (left), a director of the APEGM Foundation Inc. presents a \$350,000 cheque to Dr. Doug Ruth, P.Eng., Dean of the Faculty of Engineering, University of Manitoba, at the APEGM 2004 Annual General Meeting, signifying the pledge of APEGM and the APEGM Foundation to support the new Engineering and Information Technology Complex at the University.

2004 Making Links Engineering Classic Golf Tournament

By: Marc Baril, P.Eng.

The inaugural Making Links Engineering Classic (MLEC) golf tournament was held on Wednesday, August 18th, at Elmhurst Golf & Country Club. The weather was cool and crisp, however 120 golfers took to the course to come out and support the tournament. The MLEC is an annual fundraising event for the University

of Manitoba's Faculty of Engineering. This year's proceeds were donated to the new Engineering and Information Technology Complex.

The tournament was fortunate to team up with Canad Inns, who generously agreed to be the Tournament Sponsor for the first three years and donate \$10,000. Rob Roberts, General Manager of the Canad Inns



C. Klowak, H. Ranville, R. Hermann and I. Penner.

Fort Garry, was a member of the organizing committee, which consisted of the APEGM Sports Committee, John Shewchuk (U of M Professor Emeritus & Faculty of Engineering Representative), Amber Anderson-Skrabek (Communications Specialist with the Faculty of Engineering), Dave Ennis (APEGM Registrar), and Jenny Borecky (APEGM Events Coordinator).

James Blatz, P.Eng. won the tournament's early-bird registration prize that consisted of two passes to golf in the Fast Air Golf Odyssey, a one-day trip that includes 36 holes of golf at 4 different golf courses in two Provinces and two U.S. States.

The afternoon of golf was enjoyed by all, aided by various on-site amenities that included a hospitality tent provided by Canad Inns. Food and drink was provided at the hospitality tent for all tournament participants, and all the menu items received high praise. In addition, participants had an opportunity to win a new car, courtesy of Murray Chevrolet Olds Hummer at the hole-in-one competition. No one was fortunate enough to claim that prize, but we trust that next year's participants will practice their drives. Julien Lavergne, P.Eng., was the winner of the putting contest. The prize included dinner at Celebrations Dinner Theatre, a one night stay for two at a theme suite hotel, and brunch, all courtesy of the Canad Inns Fort Garry.

Once everyone had finished their game of golf, the festivities continued indoors for the dinner reception. After dinner there was a silent auction for a wide variety of prizes that were generously donated by a number of sponsors. The highlight of the evening was the presentation of a \$10,000.00 cheque to the University of Manitoba Faculty of Engineering

by Rob Roberts, General Manager of the Canad Inns Fort Garry. The cheque was graciously accepted by Dr Doug Ruth, Dean of Engineering from the University of Manitoba. The MLEC raised an additional \$7,307.19 from hole sponsors, golfers, and hole contests.

The tournament was broken into four flights. The overall winner, with a score of -5, was the team of Wilf Hayward, Alfred Schleier, Doug McKay and Kevin Skinner. The other three flight winning teams were:

- Len Chambers, Ed Sharp, Robert VanGinkel & Dean Stewart
- Eric Weins, Mike Shkolny, Saibal Basu & Nick Szoke
- James Blatz, Nora Losey, George Tabisz & Byron Southern

The second annual MLEC golf tournament is scheduled for August 17, 2005, at Bridges Golf Course. Please mark this date on your calendar, and join us for a fun filled day to support the future of engineering in our Province. 144 spots are available and the tournament is sure to book up fast!

The Making Links Engineering Classic Committee, APEGM, and the Faculty of Engineering would like to thank all of the sponsors, golfers, silent auction donators and everyone else that helped make this golf tournament such a huge success.

Tournament golf shirts, which were given to all participants, are available at the APEGM office. They are available in a number of sizes on a first-come first-served basis for the price of \$42.00 (including taxes). If you are interested in being a part of the Making Links Engineering Classic 2005, please contact Jenny at 478-3727. ■



D. Ruth, J. Shewchuk, I. Skrabek and R. Schilling.

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Internationally Educated Engineers Qualification Pilot Program (IEEQ)

Marcia Friesen, P.Eng.

When approximately 140 people holding foreign engineering qualifications immigrate to Manitoba annually, they are often surprised to learn that engineering is a regulated profession in Canada. And they are often surprised to learn that they must be registered with APEGM as a P.Eng. before practising engineering. Traditionally, there has been only one process by which internationally-educated engineers (IEEs) work toward their P.Eng. licence with APEGM, and this process can be long and challenging if the IEE holds an engineering degree from an institution not covered by the Washington Accord. Upon an evaluation of their academic transcripts by the Academic Review Committee of APEGM, IEEs are generally assigned a number of Confirmatory Exams before being considered academically qualified for registration as an EIT. Confirmatory Exams are profes-

sional-level exams generally covering material from the final two years of a bachelor program and complementary studies. These exams are used to confirm the level and quality of academic training. For individuals who have been working in the field for a number of years, the thought of writing a technical exam in a second language can be overwhelming.


Since summer, 2003, an alternative to the Confirmatory Exams exists for a small group of individuals. The *Internationally Educated Engineers Qualification Pilot Program (IEEQ)* was developed by the Faculty of Engineering, University of Manitoba, in partnership with APEGM and Manitoba Labour & Immigration. The initial vision was to meet a professional need in the immigrant community and to support workforce development in Manitoba. This fall, six IEEs will be completing the IEEQ program just as 14 new IEEs are

beginning the program. The 12-month IEEQ program consists of eight months of senior-level coursework in the general areas of the Confirmatory Exams assigned by APEGM, followed by a four month co-op work term with a local engineering employer. In addition to technical courses, participants take a new course developed specifically for the IEEQ program, called *Practicing Professional Engineering in Manitoba*. The course discusses the issues of cultural integration, the organization of the profession in Canada, employment & employability, and engineering ethics and law.

For many individuals, the "fast-track" approach of the IEEQ program is preferable to assigned Confirmatory Exams. Besides meeting APEGM requirements, the opportunity to upgrade knowledge in a Canadian university, become immersed in the English vocabulary of their discipline, and the Canadian co-op work term have been big sell-

ing points of the program. The four month co-op work term is intended to introduce participants to a local professional network and to count toward the one year of Canadian experience required by APEGM for the P.Eng. licence. At the end of the IEEQ program, participants could be as little as eight months away from qualifying for a P.Eng.

The program is being evaluated on an ongoing basis by all program partners. Focus groups with current participants, detailed course evaluations, and site visits with co-op employers gave very favourable reviews, indicating that the program is achieving value for both the participants and the engineering community at large. Based on feedback in the past year, several program modifications have been introduced for 2004-2005 to enhance the experience and outcomes further. The IEEQ program also addresses many of the issues raised by a current multi-phase CCPE study From Consideration To Integration, focussed on identifying barriers and developing models for foreign credentials recognition of IEEs in Canada. Please visit our website to learn more about IEEQ, at <http://ieeq.eng.umanitoba.ca>.



APEGM WEAR

All APEGM Wear is embroidered with the APEGM logo

<p style="color: green; font-weight: bold; margin: 0;">Men's Micro Poly Nexus Jacquard Golf Shirt</p> <p style="margin: 5px 0;">Color: Smoke / Black</p> <p style="margin: 5px 0;">Fabric: 100% Micro Polyester with U.V., Moisture Management and Ciba Antibacterial properties</p> <p style="margin: 5px 0;">Sizes: Small – XX Large</p> <p style="margin: 5px 0;">Cost: \$47 (including taxes)</p>	<p style="color: green; font-weight: bold; margin: 0;">Men's Essentials Herringbone Golf Shirt</p> <p style="margin: 5px 0;">Color: Ceramic Blue</p> <p style="margin: 5px 0;">Fabric: 100% Ring-spun Combed Cotton</p> <p style="margin: 5px 0;">Sizes: Small – XX Large</p> <p style="margin: 5px 0;">Cost: \$41 (including taxes)</p>
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