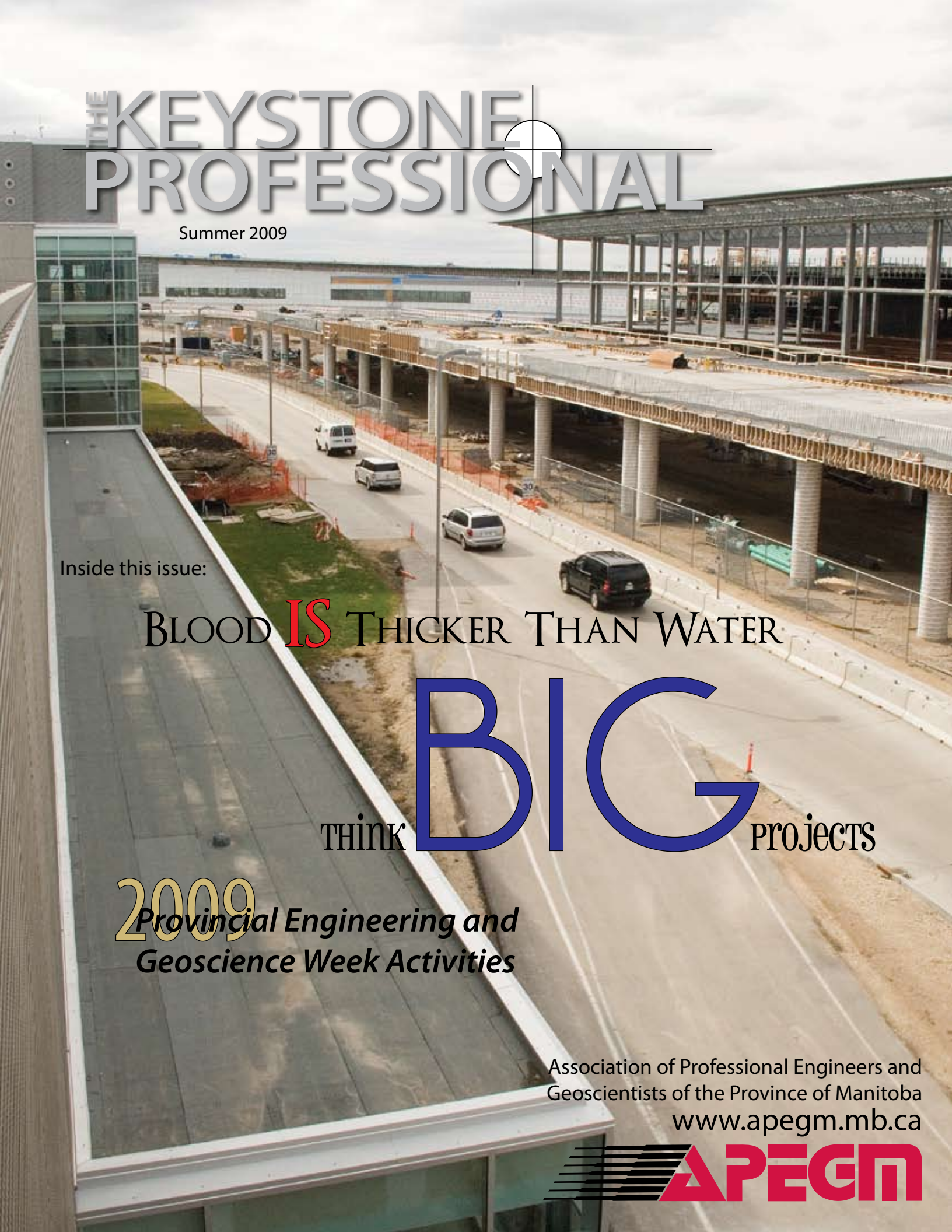

THE KEYSTONE PROFESSIONAL

Summer 2009

Inside this issue:

BLOOD IS THICKER THAN WATER

THINK BIG PROJECTS

2009 *Provincial Engineering and Geoscience Week Activities*

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

THE KEYSTONE PROFESSIONAL

SUMMER 2009

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Front cover photo by Leif Anderson.
Leif Anderson is an amateur photographer in Winnipeg, MB, who is slowly being pulled into the world of professional photography.
He has been strongly involved in the hobby for eight years and is captivated by the depth of the craft.

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Don Himbeault, P.Eng.
President's Message

Our Report Card is Out

Anyone with a landline phone and trying to have an uninterrupted meal at home will know that surveys abound these days. Recently, it was the turn of our profession to be the subject of a series of surveys and focus groups looking at diverse issues including future labour requirements, diversity in the workforce, continuing professional development, the consulting industry, and attitudes and practices toward licensure. These studies were funded by the Sector Council Program at Human Resources and Skills Development Canada, a joint venture of Engineers Canada and the Canadian Council of Technicians and Technologists (CCTT).

In a way, these surveys are a report card on the performance our profession, and while I would say that overall we are getting good grades, there are some areas of concern.

One of the areas that we are good at is our ability to innovate, giving us a critical competitive advantage in the global marketplace.

Perhaps something well known to those in the industry is that Canadian engineers are not cost competitive in doing standardized engineering work, or 'commodity' engineering. In fact, it is increasingly common for firms with international offices to move Canadian engineering work to countries where it can be carried out on a lower cost basis. Rather, our place is in performing specialized, highly technical, and high value work.

To be competitive internationally, Canadian engineering professionals must offer skills that are in short supply and which therefore command a significant premium. I think this is a great situation to be in, however, the challenge will be in remaining there.

Along this same line, our employers have expressed a high level of satisfaction with the science-based skills of new hires, however, here there was a lower level of satisfaction with our non-technical skills. In particular, as we progress in our careers, the importance of non-technical skills increases, such as project management skills. This, and the challenge of remaining innovative as stated above, underscores the importance of the continuing professional development in our profession.

Another concern raised in the surveys is that the participation of women in engineering and technology occupations has lagged in comparison with other professions. With respect to this trend, and the overall promotion of diversity in our profession, the survey provides encouragement in that positive change is possible with the right programs, citing 10 strategies that have worked in Canada. Of these strategies, three originate in Manitoba: the IEEQ program, ENGAP, Career Trek, and Wardrop Engineering Inc. HR programs.

These are just a few of the highlights of the surveys, which Council will find useful in defining our strategic direction in the years to come. I would encourage you to have a look at these surveys, which can be found at: http://etlms.engineerscanada.ca/e/pub_pr.cfm. ■

NOTICE

Annual General Meeting

The 2009 Annual General Meeting of the Association of Professional Engineers and Geoscientists of the Province of Manitoba will be held on Friday, October 23, 2009, at the Fort Garry Hotel, 222 Broadway, Winnipeg, MB, R3C 0R3 Ph. 942-8251.

NOMINATIONS FOR ELECTION TO THE COUNCIL

Members of Council whose term of office continues for another year are:

RICK M. LEMOINE, P.GEO.; I.J. (JEANNETTE) MONTUFAR, P.ENG.; EDWARD M. RYCZKOWSKI, P.ENG.; DON N. SPANGELO, P.ENG.; JOHN C. WOODS, P.ENG.

Members of Council whose term of office expires at the 2008 Annual General Meeting are:

ALAN M. AFTANAS, P.ENG.; W.C. (BILL) GIRLING, P.ENG.; D.D.J. (DON) HIMBEAULT, P.ENG.; (Will continue as Past President); B.R. (BOB) MALENKO, P.ENG.; R.A.S. (RAY) REICHELT, P.GEO.

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Engineering Philosophy 101

Can I Be Outsourced?

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

My wife found a "stocking stuffer" for our youngest grandsons last Christmas. It is called "20 Questions": a plastic ball, slightly smaller than a tennis ball, that quite literally plays the old parlor game it is named after. For those of more recent parentage and may not be familiar with the old game, you start by thinking of an item, you push the Start button and then respond "yes", "no", "don't know", or "maybe" to questions posed by the "toy". If you answer honestly, the "toy" will usually identify "your" item, often within the 20 question limit. Talk about artificial intelligence.

Clearly the system has been programmed with a significant amount of "factual" information. It is probably based on an "Expert System" that reduces the number of potential "solutions" with each answer. It is just another small, specialized computer that is programmed for a specific purpose. There are all sorts of computer-based learning systems out there that do exactly the same thing.

> "Are we producing graduates whose skills can be ousourced?"

Given that it was exam time here on campus when I wrote this, I began to wonder about similarities between the "20 questions" program and the "cramming" process many students were experiencing. That, in turn, got me digging back into some long forgotten Educational Psychology notes from my graduate student days.

In 1956, Dr. Benjamin Bloom and a group of colleagues published research on the three types of learning they considered important to education. Collectively the work became known as Bloom's Taxonomy. Without getting too deep into the theory, they identified three different types of learning and ranked various levels within each type from least to most complex. In the Cognitive Domain, which focuses on facts, they ranked Knowledge (recall), Understanding (restatement of the concept), Application (use the concept), Analysis (separate concept into components), Synthesis (build a pattern from the information), and Evaluation (pass judgement).

Their second type of learning, the Affective Domain, associated with feelings, includes Receiving (a willingness to hear an idea), Responding (motivation to react), Valuing (assigning, but not necessarily accepting, worth), Organizing (prioritizing, comparing and synthesizing), and Internalizing (adopting or rejecting a concept).

Their third area of learning was identified as Psychomotor Skills. Given that their research had an academic focus, they simply acknowledged that physical skills need to be learned, and then focused on the two more "intellectual" components.

When you examine the list of Cognitive skills, they look a lot like the skills developed in many Engineering courses. They fit well into the classic "Scientific Method". They are based on "facts" that are dealt with in an unemotional manner. Isn't that a pretty realistic description of many assignments and exams you remember from your University days? Isn't that also a reasonable description of the logic the "20 Questions" game must be based on? Is this the base upon which the "hard skills" of Engineering are founded?

From the perspective of "teaching", Cognitive skills are well defined and easily examinable because they relate to "facts". Affective skills are less defined and difficult to examine because they involve attitudes, feelings, and values. They are more complex to understand and more difficult to teach because they lean more to the question of "how" than "what". In the daily lives of Engineers don't the "what" questions arise after the "how" problems are resolved? Aren't a lot of the "what" questions referred to technicians, computer programs, or outsourced?

In his book, The World is Flat, Thomas Friedman suggests that ". . . anything that can be digitized can be outsourced . . .". Are we producing Engineering graduates using the same type of learning that is necessary to operate "20 Questions"? Are we producing graduates whose skills can be outsourced?

Over the last number of years, you, the profession, have been telling us, the academics, that our graduates need improved "soft skills". You tell us that our graduates are good at answering questions (Cognitive skills) but not as good at solving problems (Affective skills). Are you also telling us that we should be looking at basic Educational Psychology and figuring out how to add problem solving skills to the current strength in question answering? ■

Grant Koropatnick, P.Eng.
Executive Director's Message

The Big 3 for CPD

I attend the annual meetings and professional development conferences for other associations across Canada and get exposed to a variety of topics. Since the last issue of the KP, I have been to APEGGA, APEGS, and PEO. The topic of continuing professional development (CPD) is one that comes up regularly.

Engineers Canada recently published a report on CPD trends from the Engineering and Technology Labour Market Study that said ". . . in establishing either requirements or expected norms for continuing professional development, both the engineering profession and the technology professions lag somewhat behind the majority of regulated professions". Wo, wait a minute! You mean were not as good as we think we are? Hey that hurts!

Although the study reported that 80% of us attended PD days over the last 3 years (about 4 days per year) it suggests that we've got a long way to go to improve what are called "weak policies" with respect to CPD within our profession. The report highlights what other professions are doing: teachers, lawyers, chartered accountants, actuaries, architects, and the health professions are mentioned. See the full Engineering Technology Labour Market Study and sub-reports at this link: http://etlms.engineerscanada.ca/e/pub_pr.cfm

CPD is more than proving to the public that we are competent, ethical professionals. It includes three important areas of professional life: (1) your career (2) your profession and (3) your community. What if we were all doing more in these three areas?

YOUR CAREER

What are you doing with your career? Are you a new grad? Have you been practicing for 25 or more years? Where are you in your career and what are you doing with it? These are questions that pertain specifically to your job, your daily work life and your place of employment. What kind of professional development do you need for your job? What professional development does your boss think you need at this stage of your career or at this point in the company employment?

For long service professionals, CPD means that you may be looking for management training or upgrading in leadership skills. For junior professionals, perhaps CPD means you have a need for acquiring project planning skills, or better time management skills, or a technical course on emerging design methods. No matter what career stage you find yourself in, you can ask yourself the valid question: What am I doing today that will make me a better professional tomorrow?

YOUR PROFESSION

What are you doing in your profession? Are you active in the support, development, and growth of your profession? Or are you one of the thousands of engineers that don't really care about what is going on in the profession? Perhaps the fact that you've picked-up this magazine and are taking a few minutes to read this story shows that you care.

But how much do you care? Do you care enough to get involved on a committee? Run for Council election? Care enough to bring forward your opinion on an issue affecting the profession, the public or your professional future? I hope that I am not "preaching to the choir", but I realize that if you're reading this article, you're probably more involved than the thousands who aren't. One of my goals as your executive director is to encourage you to get more involved in your profession.

YOUR COMMUNITY

What are you doing in your community? I am referring to the community where you live, interact with family, friends, neighbours, and members of the general public. Engineers and geoscientists have a lot to offer away from the office, so what is your contribution to your community? Do you coach minor hockey, soccer, or softball at your community centre? Do you serve on the board at your local church, synagogue, temple, or mosque? What about the parent council at your kids' school? Maybe you're one of those dedicated volunteers who knock on doors for CancerCare, Heart and Stroke, the Kidney Foundation, or Winnipeg Harvest?

I hope you are, because the public of Manitoba needs help in these important areas. Engineers and geoscientists work hard everyday bringing tremendous benefits to our society through their professional employment. However, I'd like all of us to consider steps we can take to get involved in our communities; to give back some personal time, with people, to make a positive change beyond our technical practice.

APEGM GUIDELINE

If you haven't seen it yet, APEGM has published a guideline on CPD that gives a quick overview of all these concepts.

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BLOOD IS THICKER THAN WATER

S.E. Sankar, P.Eng.

At the April meeting of APEGM's Experience Review Committee, the committee reviewed the following request from Mr. Alexander Singbeil, an EIT with APEGM.

They liked his letter so much, and with Mr. Singbeil's permission, it has been re-printed here:

Chairman
Experience Review Committee
APEGM

March 25, 3009

RE: Granting Members in Training (MITs) One Volunteer Hour Per Blood Donation

Dear Sirs and Madams,

We have all heard that "Blood is thicker than water"; as engineers we know this to be true: 0.0027 N·s/m2 for blood versus 0.001 N·s/m2 for water. There is, of course, another meaning: that the bonds between family members, "blood bonds", are closer than those among the general community.

There is a way in our society that we can create a closer bond between strangers, and that is through the gift of blood donation and the subsequent life-saving transfusion. It can take 1-5 units to allow for open heart surgery or it may take up to 50 donations to save a single victim of a vehicle accident; either way, many "blood bonds" are created. I am thankful to know that we live in a country that provides for this essential fluid should I ever need it. 1 in 20 Canadians will need a transfusion in their lifetime and many more Canadians rely every day on life-sustaining blood products such as plasma and platelets. Blood donation is the key action that makes this possible.

Despite the need for blood, most Canadians never donate. The supply is taken for granted, and sometimes the system is strained to meet peak demands.

There are many reasons for not donating. Canadian Blood Services (CBS) have found the top reasons people do not donate are:

Fear of needles or that donating blood will hurt	Some people may get a small bruise, some redness or moderate pain at the needle site. However, for most people, donating blood does not hurt.
Too busy/not enough time	It only takes about one hour to donate blood, which includes the screening process and actual donation.

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

Thoughts On Design

. . . AND THE NEED TO MOVE WITH THE TIMES

Given my day-to-day responsibilities as an Associate Dean, I seldom get the chance to focus on the conceptual details of "real world" design projects. I must admit that I miss the creative challenge of developing ways to deal with strictly physical problems. But a few weeks ago a colleague met with me to discuss an inquiry he had received from the manufacturer of prefabricated building components. One of the company's products was being proposed for use in a "different" application. Simply put, the question was "Will it work and how can we be sure?

From an engineering perspective this boiled down to a question of "load flow". How would the loads imposed at the top of the building flow into and out of the various components as they found their way to the foundation? How would the various components, particularly the components supplied by the company making the inquiry, react to the imposed loads?

After about an hour of discussion we reached agreement on how to respond to the inquiry. It was a conceptual solution, still in need of detailed analysis. However, we were both confident that we had identified the critical points in the proposed application and how they could be evaluated in a timely, affordable manner. As you read this, the tests will have been completed and the project, if we were right, will have moved to the construction phase.

The specifics of the conceptual design solution we devised are not particularly important to anyone but the company involved. But given my interest in the design process, it did get me thinking.

The process that my colleague and I went through in arriving at our agreed "solution" was a very familiar and comfortable one. Both of us had pencils (well actually one pen and one pencil) and a pad of paper. We talked about, and sketched, the proposed configuration of the system. We drew arrows to define loads, their points of application and the reactions they might cause. We used various means of visually distinguishing different materials within the components.

We started in two dimensions but soon moved to isometrics to try and bring in that elusive third dimension. The end result was a collection of pages with a series of reasonably clear (to us) sketches that would allow the process to move into a more formal analysis/explanation stage. Basically we had established a visual representation of what we felt needed to be done.

The follow-up stage of our discussions was not typical of a real construction/manufacturing job because we only had to worry about constraints imposed by test frames and instrumentation. We were in control of all inputs and any variations in approach. Two-dimensional drawings with the occasional isometric insert were all we needed. It is a tradition we were/are both familiar with. It is a tradition that most of you are familiar with as well.

We live and build in a three dimensional world but the drawings that our profession has always relied on forced us to learn how to envision things in two dimensions. It is/was a skill that was imposed by the drawing technology available at the time. Most of us are reluctant to abandon this acquired skill. However, if you consider it for a minute or two, you realize that we think, intuitively, in three dimensions.

In the construction industry, in which most of my practical experience was gained, virtually all engineering drawings end up as hard copy, expressed in two dimensions. There are any number of specific drawings that focus on specific parts of the final project. Typically the specific designs and drawings are produced by different groups of persons, often from different companies.

Typically the conflicts created by this separation of input don't show up until you reach the construction site when, for example, a beam and a duct need to "share" the same space. My limited exposure to manufacturing suggests to me that while their products and facilities are very different, the difficulties they experience are very similar to those in construction.

With today's computer technology this doesn't have to happen. Even the most basic CAD programs allow us to create three-dimensional models that we can view from all angles. Move up-scale a bit and we can "build" virtual models of "end products" that contain the equivalent of all the pages of traditional input and identify problems before they require expensive and inefficient on-site or in-plant "fixes". With this technology we can, at minimal cost, change the inputs and see what effect those changes have. We can embed analysis schemes at an early stage. We can share the results

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Who's taking care of the mortgage while you're taking care of yourself?

Getting sick wasn't something Bob and Joan considered in their financial plans. Then Joan was diagnosed with cancer.

Bob and Joan discovered the hard way that treating and coping with illness can mean significant unexpected costs the typical family's finances may never recover from. It would be a different story if they had included Critical Illness insurance in their financial plans.

Critical Illness insurance is designed to help pay these costs so you don't need to dig into your retirement savings and investments – or worse, go into debt – to cover expenses. It provides cash if you're diagnosed with one of up to 18 covered conditions and you survive the waiting period. You can use this cash to pay your rent or mortgage, cover your regular household bills or pay for additional medical costs not covered by private or government health plans. The choice is yours.

Significant impact on savings

Joan was 42 when she was diagnosed with cancer. While in active treatment, Joan was on long-term disability from her $65,000-a-year job. Bob cut back his hours to help out more at home. Since they still had a $96,200 mortgage, this made their monthly budget tight. Ultimately, the unexpected expenses associated with Joan's illness forced them to renegotiate their mortgage.

Bob and Joan had planned to retire when Joan turned 62, after their youngest child completed her post-secondary education. Without Critical Illness insurance, that goal became unrealistic. Here's their revised financial picture.

Bob and Joan's monthly net income is $6,500, leaving only $300 for expenses such as car and home repairs, gifts, entertainment and all other family expenses. They know they'll need to reduce their RRSP contributions most months to make ends meet.

A Critical Illness benefit of $100,000 would have given them the cash to pay all recovery costs AND reduce their mortgage to $50,000, freeing up extra money to use as they wished.

Bob & Joan's Annual Lost Income and Recovery Expenses	
Difference between Joan's regular income and income provided by group disability insurance	$16,900
Net Income (before her illness): $65,000 less tax* = $42,250	
Taxable Disability Income: $65,000 X .6 = $39,000 less tax* = $25,350	
(Lost income during her disability elimination period is not included in this estimate)	
Bob's lost yearly income (from cutting back his hours)	$20,000
Travel to and from treatment (gas and parking costs)	$5,100
Medical equipment (special bed)	$1,800
Cost of drugs and supplements not covered by Bob and Joan's health plans	$7,000
Additional help with household chores	$3,000
Total additional expenses	$53,800

* Assumed tax rate of 35%.

Monthly Expense	
Mortgage – increased from$96,200 to $150,000 @ 6.25% (25-year amortization)	$1,000
Car payments and gas	$700
Regular household bills (utilities, taxes, groceries, clothing)	$3,000
RRSP contributions	$1,000
RESP contributions	$500
Total	$6,200

No one knows if they will ever need Critical Illness insurance. But if you have it, you'll have peace of mind knowing it will let you focus on what really matters … getting better.■

Chantal Guay, P.Eng., M.Env.
Engineers Canada
CEO Message

Positioned for Success

As Engineers Canada's CEO, I have been focused on the fact that the organization works both with and for you: our constituent members. This fact is central to Engineers Canada's strategic plan, which was developed for the 2006-2008 period and prolonged until the end of 2010. As such, a review of the plan is now underway, and it is imperative that you are involved in the consultative process.

As mentioned in my February / March 2009 CEO message, the review's timing also coincides with the planning and execution of the national engineering summit, which will provide us with an opportunity to look beyond the boundaries of the organization. But first, we need to come together to look at Engineers Canada's mandate to ensure that the revised strategic plan is in line with it.

Currently, Engineers Canada is mandated to provide national leadership and support to the engineering profession in Canada on your behalf. We do this through activities such as acting as the national and international voice of our members and promoting high standards of engineering practice and education in Canada.

Our objectives are in line with this mandate. They include establishing and fostering relationships with and among our members, and assisting you in coordinating your activities associated with the mobility of professional engineers and interprovincial practice.

What's more, Engineers Canada's guiding beliefs include providing competent, responsible and forward-looking leadership, being transparent, consultative and inclusive, and communicating in an open, forthright and timely manner.

Therefore, our current mandate, objectives and guiding beliefs all sum up how we envision the strategic plan review process. The process has been approved by our Board of Directors, and it includes your involvement (our constituent members) at key points along the critical path. You have been included in our review process during the environmental scan, and you will be at the table directly following the summit, during the consultative review of the first draft of the revised strategic plan, and finally when the plan goes up for approval in May 2010 at the annual meeting of members.

It is my hope that you take this opportunity to truly engage in the review process. As Engineers Canada's members, your participation is key to ensuring that the organization continues to operate in your best interests. Now is the time to develop together a solid plan for the future. And in doing so, I am positive that our collaborative efforts will result in a plan that will benefit us all. ■

Professional Development & Networking Events

Growth & Development in One's Career - Reaching Your Dream job!

K. Anderson, P.Geo.

On the evening of April 23, 2009, at the new APEGM office, the Women's Action Committee held a panel discussion entitled "Growth & Development in One's Career – Reaching Your Dream Job!". It was the first panel discussion the Women's Action Committee had held and was both well attended and received.

Sandra Ingram, Ph.D., Assistant Professor, Design Engineering at the University of Manitoba, introduced the panelists and facilitated the event. The panelists included: Trish Stadnyk, EIT, Ph.D., Assistant Professor, University of Manitoba; Andrew Isaacs, Transmission Studies Engineer, ELECTRANIX Corporation; and Dawn Nedohin-Macek, P.Eng., Process Control Systems Engineer, Manitoba Hydro.

Dr. Trish Stadnyk addressed the audience first and revealed she did not know she wanted to be a professor until the last year of her Ph.D., although she now considers it her dream job. Dr. Stadnyk compared being a professor to running her own company in that it affords an opportunity to utilize both her technical and soft skills – something she confided others recognized before her as being important to her happiness. She attributed confidence to overcome failures and to believe in oneself as invaluable in her career success to date.

Mr. Andrew Isaacs addressed the audience second and revealed he did not believe in the concept of a dream job, stating he would really rather be snorkeling in Malaysia than providing engineering services. Mr. Isaacs explained, despite his reservations about the concept of a dream job, his current job brings him fulfillment: providing intellectual challenge, ethical work atmosphere, and comfortable lifestyle for his young family. He attributed mentorship from a senior individual in his company as invaluable in his career success to date.

Ms. Dawn Nedohin-Macek spoke third and revealed she had not attained her dream job yet but felt she was well on her way. Ms. Nedohin-Macek shared that her dream job would include leadership and management opportunities. Ms. Nedohin-Macek identified her ability to chair a meeting, make an agenda, and take minutes learned from volunteer work as helping her get noticed in a company of 6000 individuals. She attributed volunteering as invaluable in her career success to date.

The panelist had come from widely varying backgrounds – academia, small to medium sized consulting firm, and a large Crown corporation – and consequently had different perspectives. For example, Mr. Isaacs talked about one particularly influential mentor, whereas Ms. Nedohin-Macek talked about multiple mentors. Nonetheless, it was interesting to watch the evening unfold as common themes started to emerge. The three panelists eventually converged on communication and networking skills as invaluable to anyone and everyone, no matter what their dream job might be.

Dr. Sandra Ingram kept the evening moving at brisk pace and most definitely contributed to the success of the event. Ms. Vanea Dominquez, EIT, performed much of the behind the scenes work from advertising the event to contacting the panelists and likewise most definitely contributed to the success of the event. ■

New Members Luncheon

R. Foster, P.Eng.

On April 27, 2009, APEGM hosted the New Members Luncheon at the Niakwa Golf and Country Club in celebration of the accomplishments of the most recent new members to be added as professionals to the membership. We had lunch, heard some encouraging words from Executive Director and Registrar Grant Koropatnick, Executive Director and Registrar, the certificates were presented, and photos taken.

On the road to becoming a full fledged Professional Engineer or Geoscientist there are milestones: that first day in class at University, graduation day, the iron ring ceremony, your first job after graduation, and so forth. Finally gaining membership with APEGM as a registered professional is certainly a career milestone and worthy of celebration at a special Luncheon.

However, instead of reporting on the details of the event, I thought I might offer a few words of advice to a brand new P.Eng. or P.Geo.

Continue learning. You are just at the beginning of your learning curve. Accept that in some situations you will not have a clue. Admit it and ask for help.

Do not get a swollen head. You are now a Professional. Many people who you will be dealing with are not. I have been taught more by people on the job than I ever learned in school. Some were tough lessons. Never walk into a situation with a superior attitude.

Be tolerant. In my career as a consulting engineer I had clients who I wished only to scream at for what I thought was their intransigence. But you are a Professional. You cannot do that. In dealing with difficult people you must accept that you are not likely to change their attitudes. Think of the old saying of walking a mile in their shoes.

Never fib. You may think that this is a given or you may even be insulted by the thought. Some of us have been faced with a situation where we were under pressure to turn a blind eye or shade the truth. Or we are faced with an internal conflict over whether or not to own up to a mistake of our own, which may not otherwise be discovered. Be assured it almost always comes back to bite you, to say nothing of the loss of sleep.

Be on time. This may seem obvious but never be late for meetings: you might be surprised at how some people take it as a sign of

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continued from page 6, Blood IS Thicker Than Water

Fear of contracting an infectious disease while donating blood	Donating blood in Canada is completely safe. You cannot get AIDS or any other transmissible disease by donating blood in Canada. At Canadian Blood Services, trained personnel use only new, sterile needles for each donation.
Mistakenly thinking they are not eligible to donate blood	Many people will self-diagnose that they are not able to donate blood instead of first checking with a nurse at one of our donor clinics.

Some of these reasons, such as eligibility knowledge and the time required to donate, could be partially mitigated by a program that allows volunteer credit for donation and by encouraging and informing the APEGM membership about blood donation.

As Engineers, we lament that unlike many other professions, we often play a behind-the-scenes role in society. We work for large consultancies, in factories and for government. We often don't have the same deep connections with our clients or customers that a doctor, lawyer, or physiotherapist might have. One might remember a favourite teacher fondly, but a favourite Engineer? It's absurd.

I propose that APEGM's Experience Review Committee extend the definition of community service to include the service of blood donation. Furthermore, I hope that APEGM in general would consider encouraging and advocating blood donation by all members, such that APEGM becomes identified with giving blood. In this way we can do a service and perhaps come to be identified not just as the White Hardhat-wearing supervisors, but as the big hearted, generous, and tough men and women who are willing to roll up our sleeves on a job site and also for a poke from a big needle.

There is unlikely to be a better way to spend volunteer hours when one considers that CBS spends $900 million CDN to administer the blood system and that this amounts to 850,000 unit of blood per year. I know it isn't an entirely accurate deduction, but on the surface it appears that each unit of blood costs over $1000.

Blood donation takes about one hour. If you don't think about it too hard, it's almost like donating $1000/hr! I know my billing rate has never been, and likely never will be, that high so blood donation is something I can get behind.

Now, I know what you might be thinking . . . "This guy must have a bunch of donations and no volunteer hours". Nope! I have all my hours. In fact, I may be a P.Eng. by the time this issue is presented at committee. The truth is I've never had a transfusion either. Blood donation is just something I was always told was a great thing to do, and now whenever I have the chance, I tell all my friends and colleagues that it's so simple and does so much for society. This proposal is just an extension of my recruiting.

I'm not sure of the details of how these credits would be metered, but I'd suggest that since CBS says it takes an hour, 1 or 1.5 hours per donation should be considered. Verification is easy since CBS keeps track of how many donation you make and they stamp your donor card every time you come in and donate. If a better system is needed, perhaps something could be worked out with CBS.

In this way, an MIT could obtain about 6-10 hours of service per year. While there are many volunteer opportunities out there, I have heard many EIT say they have a hard time finding an activity they enjoy. Blood donation is pretty easy and mostly painless. CBS doesn't expect a big commitment: just stay healthy and show up about 6-7 times per year.

Thank you for your time. I would welcome the opportunity to speak with you or the committee about these proposals.

Sincerely,
Alexander Singbeil, EIT

As a result of Mr. Singbeil's appeal, the ERC has granted his request and has allowed MITs to claim for blood donations as part of their quota of 48 hours of volunteer service (one hour per donation may be claimed). ■

Council Report

Thursday, March 12, 2009

A. Kempan, P.Eng.

Following a lunch that was filled with discussions both APEGM related and not, the meeting was called to order at 12:40 p.m. Following a round of introductions, the proposed agenda was accepted, the consent agenda was reviewed and approved, and debate and discussions began.

The first item up for discussion was the requirement for a first year Council member to be elected to the Nominating Committee. Following a brief description of the duties and responsibilities entailed with the position, Councillor Rick Lemoine allowed his name to stand and was chosen to serve on the committee. With the committee now full, its membership on the whole was approved by Council.

Dating back to the January Council meeting, the issue of continuing professional development (CPD) was tabled for continued discussion. President Don Himbeault led a brainstorming session for 20 minutes in an effort to determine the best way to implement a continuing professional development program. Professional Standards Officer Mike Gregoire suggested something along the lines of what British Columbia did: no reporting initially, this allowing the membership to get used to the system and give some feedback before proceeding.

The issue that kept coming up and sparked debate was the concept of required reporting. Councillor Jeanette Montufar raised the concern of how to motivate membership. Councillor John Woods reminded Council that the Act (by virtue of the By-Laws and Code of Ethics) already requires CPD, so the concept was already in place. The debate lay with the reporting of the CPD activities, which is not specified in the Act.

More than 20 minutes of discussion took place, including a quick comparison to other associations across Canada, and other professional organizations. Lay member Sheila Dresen, RN, brought forward the analogy of what happened with nurses in Manitoba. Executive Director Grant Koropatnick offered examples of systems from Newfoundland and Alberta as interesting, but was quick to caution Council that he felt that APEGM would require their own unique solution.

Engineers Canada Director Dave Ennis mentioned that since the pre-registration program for members-in-training has existed for about 10 years, a good chunk of the current APEGM membership has reported professional development activities as MIT's. Given that the new APEGM website is nearing launch, it was suggested that reporting could be added as an easy "point and click" automated feature. In the end, a motion was passed to start a task group whose goal would be to develop an implementation strategy for a CPD program. Five councilors enthusiastically volunteered to fill the task group roster: Girling, Montufar, Reichelt, Spangelo, and Woods. The group will receive staff support from Mike Gregoire.

In an attempt to try to create a national philosophy which welcomes all people to the design table under a regulated environment, Engineers Canada has proposed a national model for licensure. Councillor Woods compared the scenario to the National Building Code, to which each province appends their own additional requirements.

A motion was made to support the vision and principles for the development of the national framework at the next Engineers Canada meeting in May 2009. Councillor Montufar brought forward the concern about how this would impact employment opportunities for young engineers down the road. Councillor Woods suggested that in being pro-active, we would be able to have an impact on the final design and implementation of the national model, thereby addressing such concerns.

With the recent work of the APEGM Foundation, the 90th anniversary of APEGM as examples, the concern is that the general public doesn't truly know what engineers and geoscientists do. This sparked another brainstorming session, asking such questions as "Do we need outside help?" and whether the Act and our Ends permit Council to do this kind of self-promotion. A motion was made that Executive Director Koropatnick consult with a public relations specialist to garner ideas about a possible campaign.

The next item for Council to consider was the level of funding support for the APEGM Foundation. The foundation was previously formed to help fund the new engineering building at the U of M, as well as other education related projects within the province. Currently, funds are still allocated in the APEGM budget to continue donating to the Foundation.

The question that needed to be answered was whether or not the donation should be continued, and if so, at what level. As the APEGM Foundation operates with guidance from Council, they were looking for direction as to their future operations. The end result of the discussions was that a motion was made that promoted the establishment of an endowment fund by the APEGM Foundation, and that the Foundation is directed to establish terms of reference for the fund. As well, the annual APEGM contribution was increased to $50,000 per year for the next five years. This would provide important "seed money" to encourage others to add to for the purpose of growing the endowment fund quickly.

In March 2010, APEGM will be celebrating its' 90th anniversary. Executive Director Grant Koropatnick asked Council for ideas as to how to celebrate the occasion. As well, the University of Manitoba geology department will be celebrating their 100 year anniversary. The suggestion was made to start thinking about ideas now, but to hold onto those ideas until the next Council meeting when a public relations representative comes into the meeting. A few suggestions that did make it to the floor included inviting public figures to participate in the spaghetti bridge competition and '90 Years' comments on APEGM letterhead and documentation.

Next for review was a mutual recognition agreement with Engineers Ireland. Engineers Canada had recently formalized an agreement with Engineers Ireland, and was looking for support from APEGM. Engineers Ireland is similar to APEGM in their enforcement and direction. Several countries had these inter-mobility agreements in place with APEGM, including Australia, Hong Kong, and Korea. The mutual recognition agreement was supported by Council.

As the meeting neared a close, Council reviewed the outstanding actions that remained from previous meetings. To summarize:

- Latest revision to the Manual of Admissions going to legal Council for review shortly
- A Professional Geoscientist is still required for the Discipline Committee
- There has been no progress on a potential name change to the Manitoba Schools Science Symposium
- Ownership Linkage – follow up with Yellowquill College is ongoing
- International Mobility – ongoing
- Continuing Professional Development task group was added

The Council monitoring reports were reviewed and assigned, and some items were added to the next meeting's agenda. With everything being covered, the meeting was formally adjourned at 4:00 p.m. ■

Thursday, May 14, 2009

no report available

Minutes for the May 14, 2009, council meeting can be found on the APEGM website: www.apegm.mb.ca ■

continued from page 10, New Members Luncheon

disrespect. One of the few times in my career when I was called on the carpet and severely castigated by my boss was when he had a call from a client complaining about my being late twice for meetings.

Consider a mentor. In my forty year plus career as a Professional Engineer I identify only three or maybe four people who shaped my whole attitude to professionalism. One of these was both an Engineer and a Jesuit priest. He taught me to think for myself and not necessarily accept the conventional design approach. It is not sufficient to look at all sides of the problem, from a single point of view; you must look at the problem from all sides, from diverse points of view. ■

continued from page 5, Executive Director's Message

It's easy to follow. I recommend that you visit this link: http://www.apegm.mb.ca//pdnet/pddocs/brochure.pdf and download the small brochure and read it with your coffee. In a few minutes, it will help you form an exciting CPD plan for yourself.

Council, at its March 12, 2009, meeting, formed a CPD Task Group to research ways of improving CPD policies. I hope that you'll join with council and all the members of your association to strategize steps to strengthen our careers, our profession and our communities.

Your feedback is invited and always welcomed. If you have any thoughts on anything you read in the KP, please email me at apegm@apegm.mb.ca or message me through Facebook. ■

continued from page 7, Thoughts on Design

of changes, real or proposed, almost instantly regardless of where individuals may be. WIKI type communication between design offices can provide the "paper" trail imposed by professional responsibility. Informed decisions should no longer require long delays while drawings/specifications are reprinted and distributed. As well, the risk that "old" unrevised drawings will continue in use should be minimized.

Design will always require that people sit down and "doodle" as ideas emerge and grow. Details and tools get in the way of creative thought, and CAD systems require detail focused thought. However, once things proceed beyond the "idea" stage, future effectiveness requires that we take advantage of modern tools. Existing automated manufacturing plants now require that design/fabrication information be transmitted and fed back electronically. Why don't we apply this same level of technology when we are communicating design information to human receptors?

While modern electronic communication may solve some old problems, it will, undoubtedly, create some new ones. Nothing comes entirely without cost. Blackberry/iPod screens are still a bit small for a set of construction drawings, but maybe that is just one more design challenge we need to find our way around. ■

Winnipeg to Host CCWESTT 2010

L.M.K. Melvin, P.Eng.

We are most excited to announce that Winnipeg will host the 13th CCWESTT Conference "Leading the Way: Empowering Women, Building Communities". May 2010, will be the first time that this national, biannual conference will occur in Manitoba, and APEGM is helping make this happen!

WHAT IS CCWESTT AND WHY A CCWESTT CONFERENCE?

CCWESTT is the Canadian Coalition of Women in Engineering, Science, Trades, and Technology. The Coalition acts as a united voice for women across Canada in SETT (Science, Engineering, Trades and Technology) careers. Established in 1987, CCWESTT has grown to include approximately 25 member organizations and represent more than 20,000 individuals. The goals of the organization can be summarized to include: sharing success stories, disseminating information, and providing consultation on pertinent policy issues. A conference provides the perfect opportunity to address all of CCWESTT's goals.

WHAT TO EXPECT IN 2010?

In May 2010, Winnipeg will be welcoming approximately 400 delegates for the 13th Biannual CCWESTT Conference "Leading the Way: Empowering Women, Building Communities." Conference participants will be inspired and rejuvenated from "Empowering Women" keynote speakers. Workshops, networking opportunities, panel discussions, and presentations will challenge attendees to enhance their professional and personal lives, which in turn contributes towards "Building Communities."

Topics will range from examining the growth and development of SETT professions, to developing the variety of skills we require as professionals. The two day conference is a unique opportunity for Manitobans to not only welcome a diverse group of professionals, but to experience the wider community.

WHEN AND WHERE?

Conference Dates: Thursday, May 13 – Saturday, May 15, 2010

Location: The Fairmont Winnipeg

Website: www.ccwestt2010.ca

WHO IS ORGANIZING?

Representatives from a number of Manitoba based organizations are already working together to ensure the conference's success. The organizing committee is:

- Neemee Aquino Batstone, P.Eng., Beyond Calling (Co-Chair)
- Lindsay Melvin, P.Eng., Manitoba Hydro (Co-Chair)
- Kristina Anderson, P.Geo., Manitoba Water Stewardship
- Nathalie Emond, C.E.T., Red River College
- Sandra Ingram, Ph.D., Faculty of Engineering, University of Manitoba
- Tracey Kucheravy, C.E.T., Dillon Consulting
- Irene Mikawoz, P.Eng., NSERC-Prairies

HOW TO GET INVOLVED?

Only with the contributions of many, will CCWESTT 2010 be a success. There will be various opportunities to contribute over the coming year, perhaps as a volunteer, an attendee, a sponsor, or maybe even as more than one the above. Updates and contact information regarding CCWESTT 2010 will be available at the conference's website: www.ccwestt2010.ca. Manitoba – this is your opportunity to "Lead the Way"! ■

CCWESTT
LEADING the WAY 2010

Grand Opening of New Association Office

A. Moore

The Association of Professional Engineers and Geoscientists of Manitoba hosted a ribbon cutting ceremony to help celebrate the official opening of their new office on March 4, 2009. The new office will allow APEGM to meet the growing demand for more engineers and geoscientists in Manitoba as well as improve service to existing members.

When the Association office moved into the 3695 sq. foot location at 850A Pembina in 1996, the Association had 3554 registered members who were served by an office staff of six. As of December 31, 2008, the number of members had grown to 5,608, an increase of 5.9% over the last year, and a staff of 12 due to the increase in membership and the addition of new program initiatives.

"The industry has seen steady growth in the last 5 years and it's reflected in the growth of our Association", said Grant Koropatnick, Executive Director and Registrar. "We are seeing a commitment to infrastructure renewal and engineers are involved in every aspect of this widespread renovation of our cities, roads, buildings, and support services."

The new location is approximately 7200 sq ft and has over 1400 sq. ft of meeting space – a large collaboration area of over 1000 sq. ft, which may be split into two separate areas; and a dedicated meeting room able to accommodate meetings of 10 to 15 people. Within the meeting space and the front lobby, cutting edge technology can be found through touch screen displays, smart boards, and conferencing ability.

From Left to Right: Jason Kasper, Ideate Design Consulting Inc.; Don Himbeault, P.Eng., APEGM President; Chantal Guay, P.Eng., CEO Engineers Canada; Andrew Swan, Minister of Competitiveness, Training and Trade; Grant Koropatnick, P.Eng., APEGM Executive Director and Registrar.

"Our new office reflects the changes happening in our professions. Young professionals are leading the way in high-tech innovation, new ways of problem-solving, and reaching out to their communities with a fresh sense of commitment. The new office shows a new, funky, high-tech image with a very cool presentation of our history."

The new office is located in South Winnipeg at 870 Pembina Highway. APEGM is open Monday – Friday, 8:30 a.m. – 4:30 p.m. For more information about APEGM or the new office, visit www.apegm.mb.ca or call 204-474-2736. ■

In Memoriam

The Association has received, with deep regret, notification of the death of the following members:

Frank Clancy
John Holland
Albert Melnick

Those nominated for election to the THREE PROFESSIONAL ENGINEER positions on the Council are:

ALAN M. AFTANAS, P.ENG.; W.C. (BILL) GIRLING, P.ENG.; IRENE R. MIKAWOZ, P.ENG.; DOINA M. PRISCU, P.ENG.; SEAN QUIGLEY, P.ENG.; ROBYN L. TAYLOR, P.ENG.

Those nominated for election to the ONE PROFESSIONAL GEOSCIENTIST position on the Council are:

RAYMOND M. REICHELT, P.GEO.

Additional nominations may be made by the membership. Nomination forms are available from the Association office. The consent of the nominee must be obtained, and the nominator and six other members must sign the nomination form. Nominations must be received in the Association office on or before Friday, September 11, 2009. Each completed nomination form must be accompanied by the nominee's resume, a history of the nominee's Association activities, and the nominee's platform (not to exceed 100 words). Forms for the resume are also available from the Association office.

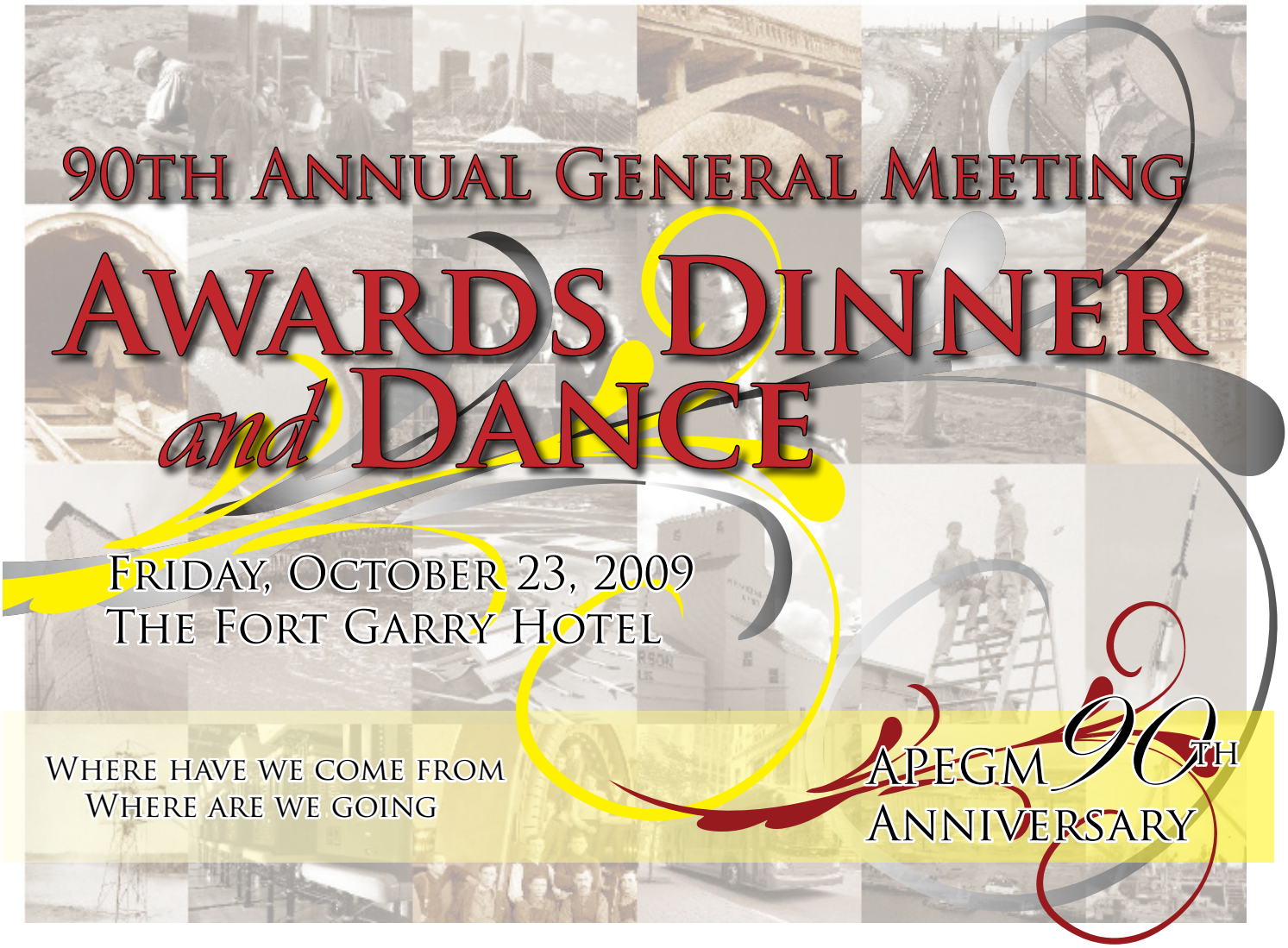
BY-LAW CHANGES

By-law 17.1 prescribes that any proposal to introduce new By-laws, or to repeal or amend existing By-laws, at a duly convened meeting of the Association must, unless initiated by the Council, be signed by not fewer than six members. Proposals must be given to the secretary at least 45 days before that meeting. In this case, the date for the receipt of a proposal is Tuesday, September 8, 2009.

RESOLUTIONS

By-law 5.1.4 prescribes that resolutions put forward at an annual general meeting must be in writing, signed by the mover and seconder, and received by the Secretary no less than 48 hours prior to the commencement of the meeting. Either the mover or the seconder must be present in person or by distance conferencing at the meeting for the resolution to be considered.

Grant Koropatnick, P. Eng.,
Secretary



THINK BIG PROJECTS

P.H. Boge, P.Eng.

Two major projects are underway that will benefit Manitobans and people who travel here.

The Winnipeg Airports Authority is developing an impressive redevelopment including a brand new air terminal. And Duff's Ditch is getting a facelift. The Manitoba Floodway Authority is expanding Winnipeg's floodway to increase protection from the 1-in-90 year flood to the 1-in-700 year flood.

Both projects started because Manitobans chose to think big.

WINNIPEG JAMES ARMSTRONG RICHARDSON INTERNATIONAL AIRPORT REDEVELOPMENT

Flying into Winnipeg will soon become a new experience, thanks to the forward thinking of the Winnipeg Airports Authority. WAA is undertaking a $585 million expansion that will include a brand new air terminal building.

Christine Alongi is the Director of Communications & Public Affairs for Winnipeg Airports Authority Inc. She explains what travelers can expect from the new facility. "The new terminal will be an attractive, modern, energy efficient and environmentally friendly facility which is LEED's certified, and will provide a first class service to those travelling to and from Manitoba."

The Winnipeg Airports Authority was established in 1997 as a non-share capital corporation. It is a self-sufficient, non-government entity with income generated through fees charged for transportation, concessions, parking, and rentals. All net profit is reinvested into the community, primarily through airport development projects. Its vision is to lead transportation and growth.

PROJECT COMPONENTS

The major components of the project include the following:

Component	Specifications	Schedule
Air Terminal Building	Approximately 51,000 m^2	2006 - 2010
Airside Development	Additional apron and improvements	2006 - 2009
Groundside Site Services	Roadways, site works	2005 - 2009
Central Utilities Building	Technical upgrades and tunnel	2007 - 2009
Parkade (Complete)	4-level, 1,559 stalls	2005 - 2006

Constructing a project of this magnitude is not without its challenges. The greatest challenge the team faced was finding tradespeople. In a tight market, that wasn't always easy.

"Accessing qualified labour and other resources in a consistent and predictable fashion has been most challenging, given the realities of current market conditions," Alongi says. "Winnipeg has experienced an unprecedented level of building activity over the past few years, particularly involving major construction projects, which has limited the number of trades personnel available for the new Air Terminal Building." In particular, one of the major engineering challenges was to find a way to construct the new project without affecting current operations.

"This very large and complex undertaking is being implemented amidst a busy

Progress on the Winnipeg James Armstrong Richardson International Airport redevelopment

Artists renderings courtesy of WAA

international airport environment operating 24 hours per day. A prime focus has been maintaining current airport terminal and parking activities with minimal disruption to passengers or other customers. As a result, it has been necessary to isolate construction to the maximum degree possible away from the public."

The entire airport redevelopment project is currently 60% complete.

"The program includes construction of a new 4-level parkade, additional surface parking and roadways, airside taxiway and apron facilities, and rehabilitation of the central utilities building, in addition to construction of a new airport terminal building. The remaining work is primarily on the airport terminal building. Some surface parking, roadways, and apron aircraft parking construction is also required."

SECRET TO SUCCESS

Alongi's experience with the project gives her these insights into what made the project successful.

"It is most important for engineers and project managers to fully understand the owner's needs and perspective both short and long term, and to keep in mind the operations and maintenance requirements when the facility is complete," she says. "In addition, engineers and project managers need to approach the tendering and award process carefully, in order to properly analyze achievement of goals within the context of market realities and potential risks. The role and challenges of the architect is another area that merits close attention—engineers and project managers have to remember that the design and construction process is fluid, not fixed."

The secret to the WAA's success rested on the relationships of those involved. In the end, people made the difference.

"A collaborative and supportive professional working relationship has been the greatest asset in keeping the project on track. This has required communication and cooperation between Winnipeg Airports Authority, the community, and other stakeholders as well as the program management team. Maximizing the use of local resources has been a major contributing factor."

In general, the WAA has 6 key responsibilities to their customers:

1. Safety of passengers, employees, operations and facilities
2. Security of passengers, employees, operations and facilities
3. Providing quality service to users
4. Efficiency
5. Environment
6. Economic Development

The airport campus will be the future home of Canada Post's Winnipeg Mail Processing Facility as well as Greyhound Bus Lines. There will also be an addition onto the existing Four Points Sheraton Hotel.

Key drivers in the future of the airport include globalization, time based

competition, and cost efficiencies. The Winnipeg James Armstrong Richardson International Airport is the centre of integrated multi-modal flows of people, goods, information, and capital.

"The project was well planned," Alongi concludes. "World class designers and project managers were engaged, the use of local firms has been maximized, the work packages were organized to attract national bidders and accommodate local contractors at the same time, and most important the contracts have been fixed price. This has been an important component at a time of unprecedented construction in Manitoba. The Winnipeg Airports Authority approach has proven to be a successful model for this type of construction project."

FLOODWAY EXPANSION

Manitobans will soon be able to sleep more comfortably, thanks to the Red River Floodway Expansion Project. It's one of the largest public infrastructure projects in the history of the province and aims to reduce the risk of flooding.

Doug McNeil is the Vice-President of Engineering and Construction with the Manitoba Floodway Authority. He explains the purpose for the project. "The project will increase Winnipeg's flood protection from the 1-in-90 year flood to the 1-in-700 year flood by increasing the capacity of the floodway from 60,000 cubic feet per second (cfs) to 140,000 cfs.

"The purpose of the project is to provide greater flood protection for Winnipeg from floods greater than the 1997 "Flood of the Century" (1-in-100) up to the 1-in-700 year flood level," McNeil says.

"It is estimated that in the event of a 1-in-700 year flood, the expanded floodway would prevent significant social, economic, and environmental damage and would prevent approximately $12 billion in flood damages."

DIVERSION STRUCTURE

"The floodway is a diversion structure. It diverts a portion of the Red River during flood periods around Winnipeg through a 48 km long channel and re-enters the Red River north of Winnipeg."

The federal and provincial governments are sharing the $665 million project 50/50. The Manitoba Floodway Authority is responsible for managing the expansion project.

The project is being undertaken to protect Winnipeggers against the threat of a flood greater than the one experienced more than a decade ago.

"In 1997, during the Flood of the Century, the floodway came within inches of being inundated. Had there been additional wind or rain during the height of the flood, the West Dike would have been overtopped which would have resulted in widespread uncontrolled flooding within Winnipeg.

"A repeat of the largest flood on record, the 1826 flood, which was 40 % larger than 1997, would cause more damage than the 1950 flood. For these reasons, the Governments of Canada and Manitoba decided to expand the floodway and provide greater flood protection for Winnipeg."

CHALLENGES

The Floodway project faced a number of challenges including increased project costs as well as labour shortages.

"One of the initiatives undertaken on the project to help address the potential labour shortage was the Aboriginal Set-Aside Initiative for the West Dike component of the project. This initiative has been very successful on a number of fronts – providing economic opportunities for Aboriginal contractors, providing jobs for Aboriginal people, addressing the labour shortage, meeting the project time frame, and ensuring that the work is completed on budget."

To address the issue of rising construction costs, "the MFA consulted with contractors to identify ways to reduce their risks in order to reduce costs. Our approach to tendering was to issue tenders during slower construction periods and work with contractors to undertake the work during slower periods. This allowed contractors to keep busy while continuing to employ their workers so that they would not be attracted to other jobs in the meantime."

The staggered tendering process allowed unsuccessful bidders to review their bidding methods and attempt to again bid on other contracts.

But the most challenging aspect was to ensure that the floodway was "flood-ready" every spring during construction. This was accomplished during the tendering phase.

"During the tendering process, the Manitoba Floodway Authority included a clause that required all floodway contractors to have plans in place to be out of the floodway during the spring flood period between April 1 and June 15, if required.

"This meant that contractors had to ensure that their work plans had contingency plans in place to allow the floodway to operate while also allowing floodway construction to continue.

"For example, excavation contractors focused their efforts above the water level within the channel while bridge contractors had to ensure that they had progressed far enough along so that they would continue to work on the bridge spans above the water level. Ensuring that these contingency plans were in place required significant collaboration and cooperation."

ENGINEERING AND THE PUBLIC

The greatest engineering challenge for the project was addressing the groundwater concerns regarding the deepening of the floodway channel.

"Initially, it was determined that the floodway would be deepened by as much as six feet. However, in response to public concerns, the project was re-engineered and the need for deepening was reduced to two feet. Subsequently, after yet further review, MFA concluded that the expansion could be undertaken without deepening and entirely by widening the channel. As a result, the MFA announced that it had re-engineered the project to eliminate the need to deepen the floodway by undertaking greater channel widening."

The project is on schedule to be able to provide Winnipeg with 1 in 700 year flood level protection by spring of this year. Completing the channel excavation and expanding the Outlet Control Structure in Lockport will accomplish this.

Work is also proceeding on the Inlet Control Structure, the West Dike, the Seine River Siphon, and two recently announced highway bridge projects. Overall, the project is scheduled for completion in 2010.

During the spring of 2009, the Inlet Control Structure was operated to reduce water levels within Winnipeg by Approximately 9 ft. As part of the floodway expansion project, improvements will be made to the structure including mechanical, hydraulic, fire, and erosion protection.

Over the course of the Red River Floodway Expansion project, approximately 21 million cubic metres of earth will be excavated from the floodway Channel. The excavation will more than double the capacity of the floodway from 60,000 cubic feet per second (cfs) to 140,000 cfs.

The project will widen the existing structure by approximately twice its size to accommodate an increased flow. Side walls will also be constructed in the channel to prevent erosion. Chute and baffle blocks will be constructed on the downstream end of the outlet to further reduce the speed of water re-entering the Red River.

A cement pour for the pier structures at the CP Emerson Railway Bridge. The Emerson Railway Bridge is one of four railway bridges that are being raised to the 1-in-700 year flood level.

McNeil points to cooperation as being the key to the project's success. "The floodway project has been a success because of the willingness of the contractors, the workers, all government departments, and the MFA to work together to get the job done on a timely basis."

THE FUTURE

McNeil points to the enjoyment of working on a project that has a long lasting benefit that can be recognized every spring.

" Although, a 1-in-700 year flood may or may not come in our lifetime, the floodway continues to be used on an ongoing basis. In fact, again this spring, the floodway has been used to keep river levels approximately nine feet lower in Winnipeg. Furthermore, it is likely that the "big" flood – essentially any flood larger than the 1997 flood - will eventually come and when it does, the people of Winnipeg will be pleased that government's decided to expand upon Duff Roblin's legacy."

THINKING BIG

So whether it's building a state of the art airport redevelopment or protecting Winnipeggers from the threat of flood, Manitoba's 'think big' attitude has made these engineering projects a reality.

Special thanks to Christine Alongi of Winnipeg Airports Authority and Ronuk Modha and Doug McNeil of Manitoba Floodway Authority for their generous help with this article. ■

Paul H. Boge, P. Eng. is an engineer with Boge & Boge. He is the writer/director of the feature film Among Thieves (www.firegatefilms.com/amongthieves). He is currently writing the biography of Winnipeg inner city activist Harry Lehotsky which is due out this fall.

Provincial Engineering and Geoscience Week (PEGW)

This year, Provincial Engineering and Geoscience Week (PEGW) activities in Manitoba were kicked-off by the APEGM Westman Chapter. The Chapter, in association with the U of M Faculty of Engineering, hosted their 6th annual Spaghetti Bridge Competition at the Brandon Career Symposium, March 2 – 4, 2009.

In Winnipeg, PEGW activities started with the grand opening of the new APEGM office on March 4, 2009. Participants in the official ribbon cutting were the Honourable Andrew Swan, Minister of Competitiveness, Training and Trade, representing the Government of Manitoba; Chantal Guay, P.Eng., CEO Engineers Canada; Jason Kasper, Principal, IDEATE Design Consulting Inc.; Don Himbeault, P.Eng., APEGM President; and Grant Koropatnick, P.Eng., APEGM Executive Director and Registrar.

The theme for this year's PEGW events was "Design the Future", to reach out to young Canadians to let them know that engineering and geoscience offer fun, exciting, and rewarding career choices.

For a second year, the major PEGW activities were held at the Kildonan Place Shopping Centre. Events at Kildonan Place started with the formal launch of Provincial Engineering and Geoscience Week with speeches by Todd Smith, President, Consulting Engineers of Manitoba; Dr. Ron Britton, Associate Dean, Faculty of Engineering, University of Manitoba; Don Himbeault, APEGM President; and Grant Koropatnick, APEGM Executive Director. These speeches outlined and emphasised the contributions of engineers and geoscientists to the daily lives of Manitobans.

The annual Celebrity Competition followed the Friday PEGW opening. Competing for this year's prize money to be awarded to charity were teams from Citytv, the Winnipeg Free Press, HOT 103, CTV, and students from the Faculty of Engineering.

Other activities held throughout the weekend were the ever popular Spaghetti Bridge Competition on Saturday and Children's Activities Sunday afternoon, where children and their parents explored activities such as building gum-drop structures, straw bridges and paper airplanes. In addition to these activities, visitors to Kildonan Place had the opportunity to meet with engineers and geoscientists staffing the various displays throughout the shopping centre.

The organizations present and hosting displays were:

- Consulting Engineers of Manitoba
- Bristol /Magellan Aerospace
- Engineers Without Borders
- Pauwels Canada Inc.
- Manitoba Hydro
- MTS Allstream Inc.
- Standard Aero Limited
- New Flyer Industries Limited
- Manitoba Geological Survey
- University of Manitoba Faculty of Engineering
- University of Manitoba Department of Geological Sciences
- Manitoba Robot Games

APEGM would like to extend their appreciation to all the volunteers who organized and coordinated the events, staffed the various displays, and hosted the activities for PEGW. This event would not take place without the efforts and support of these volunteers and their employers.

If you are interested in participating in next year's activities, or would like to develop PEGW activities in your area of Manitoba, please contact the APEGM office. ■

2009 *New Heights Reached at the* Celebrity Charity Competition

T. Bowden, P.Eng.

Gliders were flying everywhere at this year's Provincial Engineering & Geoscience Celebrity Charity Competition. We had another great turnout at the Kildonan Place Shopping Centre with five celebrity teams participating. The teams that soared to new heights at the event were: CityTV, Winnipeg Free Press, CTV, Hot 103, and students from the Faculty of Engineering.

We challenged the teams to build a styrofoam glider that was judged on the longest flight, best landing, and most creative or unusual design. The teams didn't have much to work with, only sheets of Styrofoam and a variety of household items.

The teams showed us their 'inner engineer' with some teams focusing on style and design, while others on function.

One team did skyrocket above the others though. The Faculty of Engineering Student Dream Team definitely directed their efforts on performance and the results paid off. Their glider flew four times farther than the next longest flight! Based on that accomplishment, the students were awarded first place, which redeemed the University of Manitoba's less than stellar results at last year's tower building event. CitiTV was runner up with their flashy glider that lacked in flight dynamics but more than made up for it with eye catching style. I guess there is a reason they work in television.

All teams seemed to have a great time building their creations even when some of the gliders crashed and burned at launch time.

The event was a big hit with everyone in attendance and $1000 went to local charities, chosen by the team participants. Thanks to everyone that helped out and we look forward to making the event even bigger and better for next year. ■

2009 Spaghetti Bridge Competition

S. Fengler, EIT

The 15th annual Spaghetti Bridge Competition was held on Saturday, March 7, 2009, at the Kildonan Place Shopping Centre during Provincial Engineering and Geoscience Week (PEGW). Students from grades one through twelve were eligible for the competition. During registration, students received an electronic yo-yo, pencil, and a "What do Engineers do?" booklet compliments of APEGM.

The students came prepared with bridges built of only spaghetti and white glue with the objective to build the strongest bridge. This year included some creative bridge designs including flat, cylindrical, triangular, and square truss shapes. The bridges were to span an opening of 300mm and be no higher than 150mm and no wider than 140mm with a maximum weight of 350 grams. The bridges were tested to destruction using a test frame which applied a load at the top of the span. Modifications to the bridges were encouraged if the constraints were not met prior to testing.

The competition was divided into two groups, grades one through six and grades seven through twelve. Winners in each grade level were awarded with cash prizes of $50 and grand prizes of $200 were awarded by APEGM to overall winners in each of the two groups.

Prior to each of the bridge tests, safety glasses were provided to the competing student in recognition of the importance of safety. Once again, John Taylor Collegiate proved to be one of the schools with the greatest turnout of students, in this case 35 from grades nine to twelve.

Teachers from John Taylor Collegiate included bridge building in their curriculum and encouraged participation in the Spaghetti Bridge Competition. Other notable competitors included a grade eleven student from Fort Richmond Collegiate who has been competing in the Bridge competition eight straight years since grade three and an eager bridge builder from kindergarten.

This year, the spaghetti bridge competition was once again a successful PEGW event, promoting engineering in the community and to children of all ages. Let's help bring awareness to this fun and educational event. Hope to see you and your kids at the Spaghetti Bridge Competition in

2009 AGM Notice

The 90th Annual General Meeting of the Association of Professional Engineers and Geoscientists of Manitoba will be held in Winnipeg on October 23, 2009.

AGM activities will include Blast from the Past - Fun Night, a Professional Development Conference, the AGM Business Meeting, as well as the Awards Dinner and accompanying Dance. A companion program is also being organized for Friday morning. More informtaion will be provided in the Keystone Professional Autumn Issue and on the APEGM website.

Mark down October 22 - 23, 2009 on your calendar!

The AGM Organizing Committee

Members in the News

Dr. Digvir Jayas, P.Eng.

The Board of Governors of the University of Manitoba has approved the appointment of Dr. Digvir Jayas, P.Eng., P.Ag., as vice-president (research).

"I know Dr. Jayas will be an outstanding vice-president (research)," notes Dr. David Barnard, president and vice-chancellor of the University of Manitoba. "His accomplishments in research are world-renowned and his willingness to enter a new phase of his career in which he devotes his prodigious energy to facilitating the work of other researchers, rather than continuing to carry on his personal research at the same level as he has done, is an indicator of his commitment to the success of the entire University community."

Dr. Jayas, a distinguished professor, was educated at the G.B. Pant University of Agriculture and Technology in Pantnagar, India; the University of Manitoba; and the University of Saskatchewan. Before assuming the position of vice-president (research), he held the position of associate vice-president (research) for eight years. Prior to this he was associate dean (research) in the Faculty of Agricultural and Food Sciences and head of biosystems engineering. He is a registered Professional Engineer and a registered Professional Agrologist.

Dr. Jayas holds a Canada Research Chair in Stored-Grain Ecosystems and has conducted research in the areas of: physical properties of agricultural products; modified atmosphere storage of grains, oilseeds, potatoes and meats; mathematical modelling of biological systems; and digital image processing for grading and processing operations in the Agri-Food industry.

Dr. Jayas has received awards from several organizations in recognition of his research and professional contributions. He is the recipient of the 2008 Dr. John M. Bowman Memorial Winnipeg Rh Institute Foundation Award, as well as the 2008 NSERC Brockhouse Canada Prize. Dr. Jayas serves on the boards of many organizations including: Manitoba Chamber of Commerce, Composite Innovation Centre, Agriculture Institute of Canada (AIC), Manitoba Institute of Agrologists (MIA), Manitoba Health Research Council, St. Boniface General Hospital Research Enterprise Committee, and the International Centre for Infectious Diseases (ICID). He is also chair of the board of directors of RESOLVE, a prairie research network on family violence, and of the advisory board of the Richardson Centre for Functional Foods and Nutraceuticals, a research centre dedicated to the discussion, discovery, and development of functional foods.

The appointment is effective April 28, 2009, for a term ending June 30, 2014. ■

Dr. Kenneth Adam, P.Eng.

Kenneth M. Adam, P.Eng., PhD. has been accepted as a member of the British Antarctic Survey (BAS) Club as of January 1, 2009. In 1983, Ken was selected from the names of eight cold regions engineers submitted by the Government of Canada upon request from BAS to undertake the design of a runway at Rothera point, Antarctica, fro the British Antarctic survey of Cambridge England.

The project was completed in the early 1990's consisting of a runway, hangar, fuel facility, wharf, and water supply system. In addition, Ken has also worked on projects across the High Arctic including the Arctic Pilot Project on Melville Island, runways on Edinburgh, Hat, Jenny Lind, King William, and Victoria Islands as part of the North Warning System as well as numerous Arctic projects on the mainland.

Mainland projects, to name a few, included the proposed Mackenzie Valley, Foothills, and Dempster Pipelines; winter roads at Yellowknife, Quill Creek Yukon, and Baker Lake, as well as a runway near Coppermine. Ken is recognized internationally as an expert on winter roads.

In a later review of the Rothera Project by the British Government, the project was judged to be one of the most cost effective and better managed projects undertaken by the British Antarctic Survey. Two mid-winter rescues in recent years by Twin Otter of ailing Americans from the U.S. Amundsen-Scott South pole Station both originated from and returned to the Rothera Runway. ■

Lesley McFarlane, P.Eng.

MTS Allstream Inc., one of Canada's leading national communications solutions providers, is proud to congratulate Lesley McFarlane, MTS Allstream's Director Network Services Business Planning & Operational Performance, on being honoured with the Excellence in Leadership Award in the Mentor category by Canadian Women in Communications ("CWC"). CWC is a national organization that raises the profile of women working in the communications field.

"Lesley is an exceptional role model, an inspiration for many women both within and outside MTS Allstream, and a champion for women in the telecommunications industry," said Pierre Blouin, Chief Executive Officer of MTS Allstream. "Lesley dedicates tremendous amounts of time to encouraging women working in the technology field, providing support from her own experience, and facilitating mentor relationships. She is truly deserving of this recognition."

Lesley joined the company in 2001. She holds a Master's degree in Business Administration from the University of Manitoba and is a designated Professional Engineer and Project Management Professional. She has been active for many years in the Winnipeg community through the Association of Professional Engineers and Geoscientists of Manitoba, the Institute of Electrical and Electronics Engineers, and in a variety of mentoring roles. Lesley and her husband, Brian Rodger, live in Winnipeg with their four year old daughter Maggie.

Lesley McFarlane was honoured with the Excellence in Leadership award at the CWC Annual Award Gala on March 31, 2009 in Ottawa, Ontario. ■

What could be more exciting to an engineer than starting a company from scratch based on the idea of building a research-tuned simulator? Rudi Wierckx and his three other colleagues at the HVDC Research Centre not only went on to form RTDS Technologies to commercialize the project that they were working on at a research centre, but over past fifteen years they made their niche product a global leader.

Mr. Wierckx was born in Rotterdam in The Netherlands and his family immigrated to Canada when he was quite young. He attended St. Paul's high school in Winnipeg and graduated with Bachelor's and Master's degrees from the University of Manitoba. He did his graduate studies under Dr. Ani Gole in the mid-1980's and joined the Manitoba HVDC Research Centre after finishing his Master's.

In his office, flooded by soft afternoon sun light at Smart Park, Pep Talks asked Mr. Rudi Wierckx (RW) – a successful entrepreneur or an innovative engineer – which one he likes to be called and why?

RW: I do not see myself so much as an entrepreneur or business person. I enjoy most the technical aspects of working at RTDS.

Pep Talks: What inspired you to go to engineering school?

RW: I was always quite interested in technical and scientific things at school. I think the driving factor was that as a high school student I got a job at the Dorsey Converter Station for Manitoba Hydro and being at the converter station and seeing all the equipment and working with the technicians at that time, I sort of got interested in that particular technology and how it works.

Pep Talks: How did the idea of working on a simulator for power systems come about in the first place, and how did you develop it?

RW: Before I joined the Manitoba HVDC Research Center, it was decided that the Center should acquire a real-time simulator to provide a tool to study the High Voltage DC system in Manitoba and in particular the HVDC controls. Conventional simulators at the time cost in the range of 10's of millions of dollars and were outside the budget available to the Center. A research project was initiated at the Center to develop a real-time simulator based on digital techniques. An external company was hired to do the development, but that attempt was not successful.

Under the direction of the Center's new director, Dennis Woodford, a small group which included myself was assembled to attempt the development of the digital simulator in-house. We were fortunate that our project was initiated around the time that the first floating point digital signal processors were introduced. My graduate work at the University provided some background on the algorithms that were used for power system simulation. We used our understanding of the software to build the hardware architecture around the algorithm.

The first demonstration we had showed the simulator modeling a single filter branch. That was expanded to model a small power system and eventually to more realistic power systems. Manitoba Hydro commissioned us to test a new controller that was to be installed at Dorsey Converter Station. The study was successful, even bringing to light a problem with the controller that in all likelihood would not have been discovered without simulator testing.

Pep Talks: You said the goal was really research oriented and there was no idea or inclination about a commercial aspect. How did the business aspect of it come into play?

RW: Development of the RTDS was undertaken to provide a research tool for the Center and not as a commercial venture. It was only after publishing the results of our research that interest was expressed in our simulator by companies such as Hitachi, ABB, and others.

The HVDC Research Center was setup as a non-profit organization and the Center's Board did not feel that commercialization of the RTDS could be carried out within the Center. Four of the members of the group involved in the development of the RTDS left the Center to form RTDS Technologies. The RTDS technology was provided to RTDS Technologies under a royalty agreement which is still in effect 15 years later.

Today, RTDS units have been installed in over 150 locations in 30 countries. Almost all of the major manufacturers of power system equipment use an RTDS simulator to test their control and protection equipment. RTDS equipment was even used to help re-establish the southern China power grid after a major blackout due to an ice storm.

Pep Talks: Was there any setback or criticism about the future of the company and its business and how did you over come that?

RW: There was quite a bit of skepticism that a real-time digital simulator could accurately model a power system. The idea that mathematical models of a power system element could better represent the component than a physically scaled down version of that component as used in an analogue simulator was not generally accepted at the time we were developing the RTDS. Furthermore, companies which used and sold analogue simulators were naturally critical of the new technology.

Our understanding of the algorithms and work with off line simulation programs convinced us that digital simulation was superior to the traditional methods.

There was also skepticism as to whether the market could support a company which just provided simulators to the power system industry. However, with the substantially lower cost of the RTDS over the analogue simulator, many institutions that could not afford an analogue simulator became interested in having their own simulator. Fifteen years after the commercialization of the RTDS, we continue to be contacted by organizations which are interested the RTDS power system simulator.

Pep Talks: Why is your simulator better than existing products and why would people use your simulator?

RW: Digital simulation offers a number of technical advantages over analogue simulators. Firstly, analogue simulators often yield an over-damped response since their losses are higher than those of the system being modeled. Setup and operation of the digital simulator is done graphically using a PC whereas the analogue simulator requires patch cables to interconnect the components comprising the power system.

It did not take long after the introduction of the RTDS that the companies which supplied analogue simulators introduced their own digital simulator. Initially, we were concerned that we would now be competing against very large organizations. However, their introduction of digital simulators added credibility to the concept of digital simulation and it turned out to be beneficial for RTDS. Today, RTDS Technologies outlived the simulator arms of those larger companies and continues to provide digital simulators to the power system industry.

Pep Talks: Tell us about the entrepreneurial spirit of running a company as an engineer and what brings four engineers with different opinions together to run RTDS Technologies?

RW: I heard an interesting quote on the radio on the weekend which said that young companies are run by engineers, mature companies by lawyers and senior companies by MBAs. We are a young company and we are run by engineers.

You talk about an entrepreneurial spirit; we really did not have that. To some extent, we are a bit of a special case because we were able to develop the technology while employed and then carry the technology forward.

The very interesting thing is that in the last fifteen years, we have been running this company and it was mentioned to me recently that we have not had a single vote on anything at the Board level of our company. So basically what happens is, we discuss something and we decide whether to go ahead or not. If there is a difference of opinion we put it aside until we all come to some agreement and then move on.

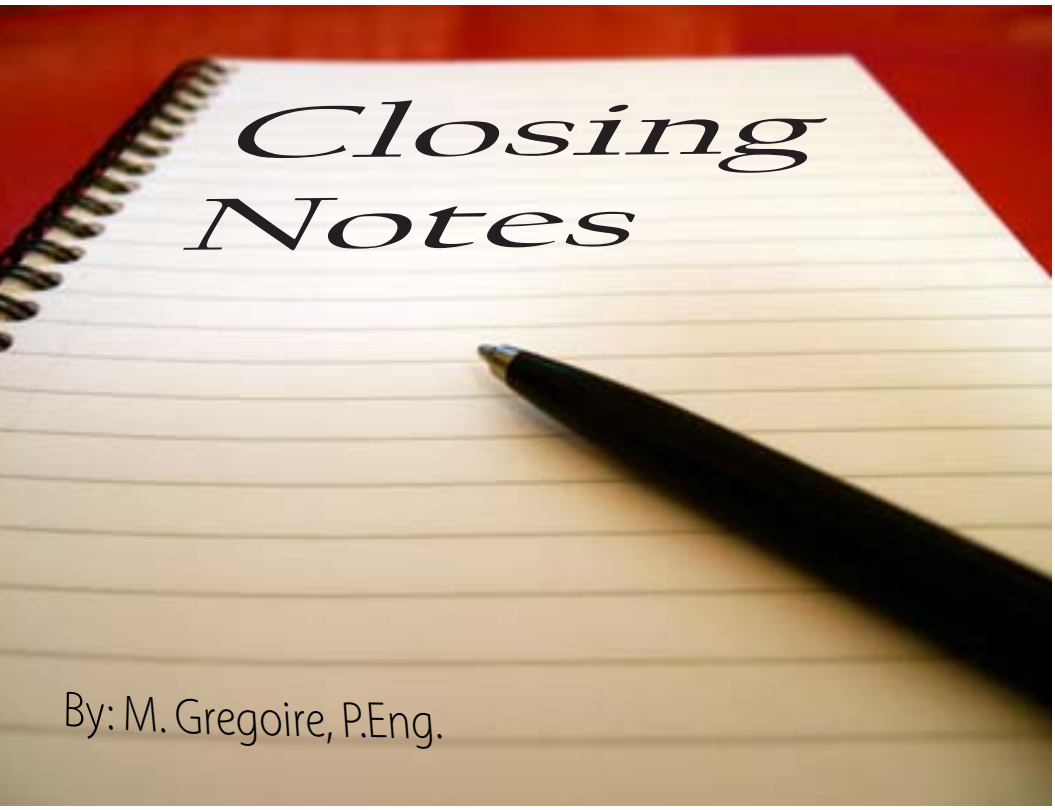
The engineers who founded the company were all involved in the development of the technology at the Center and wanted to follow the continued development and commercialization. We did bring in a fifth member to join our company who had a background in running companies.

Pep Talks: If you were asked to give a piece of advice to those who want to be engineering entrepreneurs like you, what would it be?

RW: Well, I am not sure that I am qualified to give advice on those matters. I think it depends very much on the individuals, what their goals and aspirations are. Perhaps the only advice that I could give, because it served us well here, is stick with it. There were many times during the development of the simulator where we could of just easily said, "OK, well we got this far, that is fine. Let's move on and do something else. This is difficult". We stuck with it to a large extent because we enjoyed the work. I guess if I had been doing this and not enjoying it, I probably would not stick with it, and find something else. In my case I was very fortunate that I was working on something that I enjoyed doing.

Pep Talks: Thank you very much for your time.

RW: Thank you. ■



Stretching Your Self

Those of you who know me are well aware of how much I enjoy staying physically active. My preferred mode of transportation is cycling, I play organized Volleyball and Soccer, and I dabble in a multitude of other activities. One of those dabblings is Yoga.

When I first tried Yoga several years ago, it was with some apprehension as I am not known for my flexibility. As a child, my mom enrolled me in gymnastics and after three classes the instructor suggested that I try other sports. Despite the apprehension, I managed to convince myself to tag along with a girlfriend and am so happy that I did.

I was surprised to find out that Yoga sessions always start with lengthy breathing exercises. For those of you who haven't tried it, Yoga is not just about making a pretzel out of your body. In fact, when you attend a Yoga class, you are simply experiencing the physical exercises of an entire school of thought.

Those first Yoga classes were an example of broad characteristics inherent in trying new things. First of all, simply trying a new thing forces you to overcome personal anxieties in order to discover your potential and gain greater self-confidence. I still don't consider myself to be notably limber when compared to gymnasts and yogis, but I no longer consider myself the stiffest of the bunch and now know that I can greatly improve my bending capabilities when I am consistent with my stretching exercises.

The second general characteristic inherent in trying new things is that they are rarely what you expected them to be prior to heading down that previously unexplored road. Learning about how to be conscious of my breathing is an invaluable tool that I employ on a regular basis. In particular, it can really help you to stay in a positive frame of mind when facing stressful situations.

The positive characteristics of learning something new, like Yoga, apply to what we, as engineers, do in the workplace as well. While keeping busy on the multitude of projects you've been tasked with, it can be hard to set aside the needed time to try new things, even though we all know the benefits.

In the design world, engineers are often challenged by other professionals and contractors alike to use a system, material, or other product that we have not employed before. Implementing that new unfamiliar concept can add time to that individual project should it require learning a new code or consulting a peer with experience with the suggested system. Justifying the additional time for a single project in a busy work environment can be tough.

However, the benefits that are possible as a result of the additional time are many. For starters, the additional knowledge can be applied to future projects. Additionally, the relationship between you and the other professional or contractor has also been strengthened. Most importantly, though, are the benefits that are harder to quantify.

I am a firm believer in the concept of the mind being like a muscle. Exercising it is important to ensure its health and repetitious actions can lead to deterioration over the long term. Taking on an understanding of new systems, materials, or products is just the kind of exercise our brains need.

In no way am I saying that engineers should attempt to employ every suggestion given to them. There is no doubt that one of our roles in the design process is to ensure that we're employing the best solution based on an evaluation of expected performance and costs. Many times, however, there are options that are nearly equal in their viability and the option we are used to using does not need to win out every time.

I am not suggesting, either, that every APEGM member should go out and try Yoga. But consider taking those dance lessons, or maybe give a second thought to learning about those new products. Your body and mind will thank you. ■

Detach page for posting

The Brown Sheet

Strengthening Stewardship - Investing at Every Step

the 4th National Stewardship and Conservation Conference, will be held on July 8-11, 2009, at the MacEwan Conference & Event Centre at the University of Calgary, in Calgary, Alberta.

The conference title, Strengthening Stewardship – Investing at Every Step reflects that stewardship has been an active force in sustaining the Canadian landscape, but expresses the urgent need to invest at every level, from grassroots action to policy development, by individuals, organizations, industry, and governments, to ensure Canadians make stewardship a part of living, working, playing and doing business in Canada.

The program will open with a summary of the State of Stewardship in Canada. The program continues based on the following themes, illuminating the top issues affecting Canadians and where stewardship can make a difference!

For more information, visit www.stewardship2009.ca.

Date: July 8 - 11, 2009

Cost:
$525.00 Delegate
$225.00 Volunteer

Location: University of Calgary, Calgary, AB

East Side Road Authority

- Doug Peterson, P.Eng., Dipl.Eng., Vice President of Engineering and Construction, East Side Road Authority Inc

In the November 20, 2008, Throne Speech, the Government of Manitoba announced its intention to move forward with the construction of an all-season road on the east side of Lake Winnipeg. The East Side Transportation Initiative (ESTI) is a program to provide improved, safe and more reliable transportation services between all of the communities on the east side of Lake Winnipeg and the rest of the province. The East Side Road Authority, Inc. (ESRA), a newly established interim agency, has been established to manage the ESTI.

The ESTI consists of two separate but interrelated components which are proceeding at the same time:

- A Large Area Transportation Network (LATN) Study
- Construction of an all-season road from Provincial Road 304 to Berens River First Nation

For more information or for registration: call the APEGM office at (204) 474-2736 ext. 233 or email Angela Moore at events@apegm.mb.ca.

Date: September 9, 2009

Time: 7:00 - 8:30 a.m.

Cost:
$15.00 Pre-registration
$20.00 at the door
$10.00 Students

Location: APEGM Office, 870 Pembina Highway, Winnipeg, MB

National Professional Practice Exam

Deadline for application September 11, 2009.

Information and the application forms are available at the APEGM web site: www.apegm.mb.ca/PPE.html

Deadline: September 11, 2009

Date: October 19, 2009

Water: The New Gold WCW Conference & Trade Show

The planning committee is well on its way to putting together a diverse set of papers, workshops and tours in the theme of Water (the new Gold) for the 61st Annual Western Canda Water Conference and Trade Show.

For more information, visit: www.wcwwa.ca.

Date: September 20-23, 2009

Location: Winnipeg Convention Centre/Delta Hotel, Winnipeg, MB

Volunteer Management Introduction (Level 1)

This three-day workshop will provide staff and volunteers with an opportunity to examine and practice the organizational and human relations skills necessary to meet today's challenges of a changing volunteer environment. Develop a clear understanding of the components necessary to develop an effective volunteer program in your organization.

What will you learn?

- Trends & Planning
- Communication & Problem Solving
- Job Design & Risk Management
- Screening & Interviewing
- Marketing & Recruitment
- Performance Management
- Recognition, Orientation & Training

Participants will have an opportunity to network with other managers of volunteer programs and become familiar with current resources.

For more information, visit: www.volunteermanitoba.ca

Date: September 22 - 24, 2009

Time: 9:00 - 4:30 p.m.

Cost: $260 includes materials and light refreshments

Location: Volunteer Manitoba Training Room, 2nd Floor, Winnipeg, MB

APEGM 90th Anniversary Annual General Meeting & Conference

Thursday evening will feature a 'Blast From the Past' Fun Night highlighting specific times and events that have shaped the Association over the past 90 years.

A continuation of the one-day format will be offered on the Friday which includes the Professional Development Conference, AGM Business Meeting, Awards Dinner and Dance, and Companions Program. The theme for this year's AGM is "Where have we come from, Where are we going".

Check the APEGM website for updates; details to follow in the Fall Issue of the Keystone Professional. Mark your calenders now!

Contact Angela Moore at 478-3727 or amoore@apegm.mb.ca for more information regarding sponsorship and related details.

Date: October 22 - 23, 2009

Location: The Fort Garry Hotel, 222 Broadway, Winnipeg, MB

New Members Registered February, March, & April 2009

B.F. Abdul Wahid
W. Abdulrazaq
V.A. Abella, Jr.
M.A. Ahammed
A.S. Ahmadian
H. Akande
D.A. Akinlade
D.G. Anderson
B.A. Assefa
J.T. Bartley
J.G.P. Bedard
M. Begin
B.L. Belanger
C. Bernier
L.B. Bloom
R.E. Brooke
E.C. Brown
J.S. Bunn
M.A. Burgoyne
A.D. Byers
J.B. Calcara
M. Cao
S. Carle
R.M. Carroll
P. Charnvarnich-borikarn
A. Charron
K.J. Cichalewski
T.R. Costley
H.M. Davidson
D. Delisle
J. Desrochers
B.C. Di Marco
D. Diedericks
B.A. Dorman
P-C. Drouin
A.E. El-Assaly
B.S. Ellis
J.D. Ellis
K.L. Erdmann
N.D. Evora
J.D. Fehr
C.M.J. Flather
S. Gade
N.K. Gadhok
S. Gagnon
R.S. Gibbings
R.G. Giberson
D.C. Gibson
A.R. Gower
D.R. Greer
M.G. Gubesch
M.J. Guy
T.L. Guyot
M.C. Hanstead
J.C. Herbert
E.H. Hinton
K. Hojka
S. Hussain
F. Ibarzabal
J.L. Isfeld
N.D. Jacob
M. Jalali
P. Jin
S.S. Kaisare
J.L. Kerr
B.S. Kibbins
J. Kosa
C. Kumalasari
J.J. Lagowski
J.G. Lambert
D.J. Lario
C. Larouche
D. Lavoie
K. Le
J. Lim
R.B. Louden
J.K. Lovelace
V.C. Lowe
D.W. Mackeracher
R.C. Mackinnon
T.J. Magus
F. Maltais
K.N. Manchur
R.B. Marks
M.D. Mason
J.M. Matheuszik
A.E. McDonald
J.R. McGerrigle
R.S. McNair
P.M. Meyer
I.T. Moffat
J. Mota
R.B. Offman
R.S. Pandya
T.R. Rajapakse
S. Raymond
D.J. Reed
J. Rheaume
J. Richard
M.A. Robitaille
S.A. Russell
M.S. Sainbhi
S. Saldan
M.A. Scarpone
M.K. Shah
D.G. Skinner
A.K. Somarin
R.P. Stahl
D.J. Steski
J.S.D.A Stoezel
A. St-Pierre
T. Strydhorst
G. Sud
D.M. Surminski
D.J. Tarkyth
F.S. Unduche
T.W. Vivyurka
J.S. Walker
J.M. Warners
A.J. Watts
K.G. Willis
J.A. Witherspoon
J.J. Wowryk
G.W. Zederayko
Y. Zhang

Licensees Enrolled February, March, & April 2009

P.D. Galloway
B.E. Guth
D.S. Kramer
J.W. Mulvihill
J.P. Nerison
C.L. Osberg
K.V. Rose

Members-In-Training Enrolled February, March, & April 2009

S. Amarakoon
L.K.Y.C. Amarasinghe
N. Bashaev
J.E. Bisharat
N.J. Bockstael
T.J. Boyachek
K. Cheung
S.Y.F. Cho
J.K.Y. Chu
A.K. Dey
J.S. Dhaliwal
E.A. El Madhoon
R.P. Elders
M.D. Falcone
S.T. Fengler
J. Franklin
J.C. Garcia Alonso
R.F. Gerus
R.A. Graham
S.R.D. Guy
V. Hornblower
D.P. Jenkins
N.C. Ketcheson
B.M. Klimenko
A. Knop
R.N. Kouatang
R.J. Lall
A.G. Laufer
C.A. Lichtenthaeler
K. Lindenschmidt
B.J.E. Link
Y. Luo
S.G. Moffatt
N.M. Ortiz Lugos
R.V. Pereira
N.D. Ramachandran
B.E. Robinson
E.N. Sapnu
N.C. Shah
K.M. Shaw
A.C. Silva Lindamulage
J.E. Singh
A.M. Stangherlin
L.A. Stewart
I. Vakurov
N. Wang
M.S. Wetick
N. Zhang
Q. Zhou

Certificates of Authorization February, March, & April 2009

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