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Deadline for APEGNB Scholarships: June 30, 2008

Postcard from the
Grand Canyon



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New Brunswick
engineers build world
record igloo

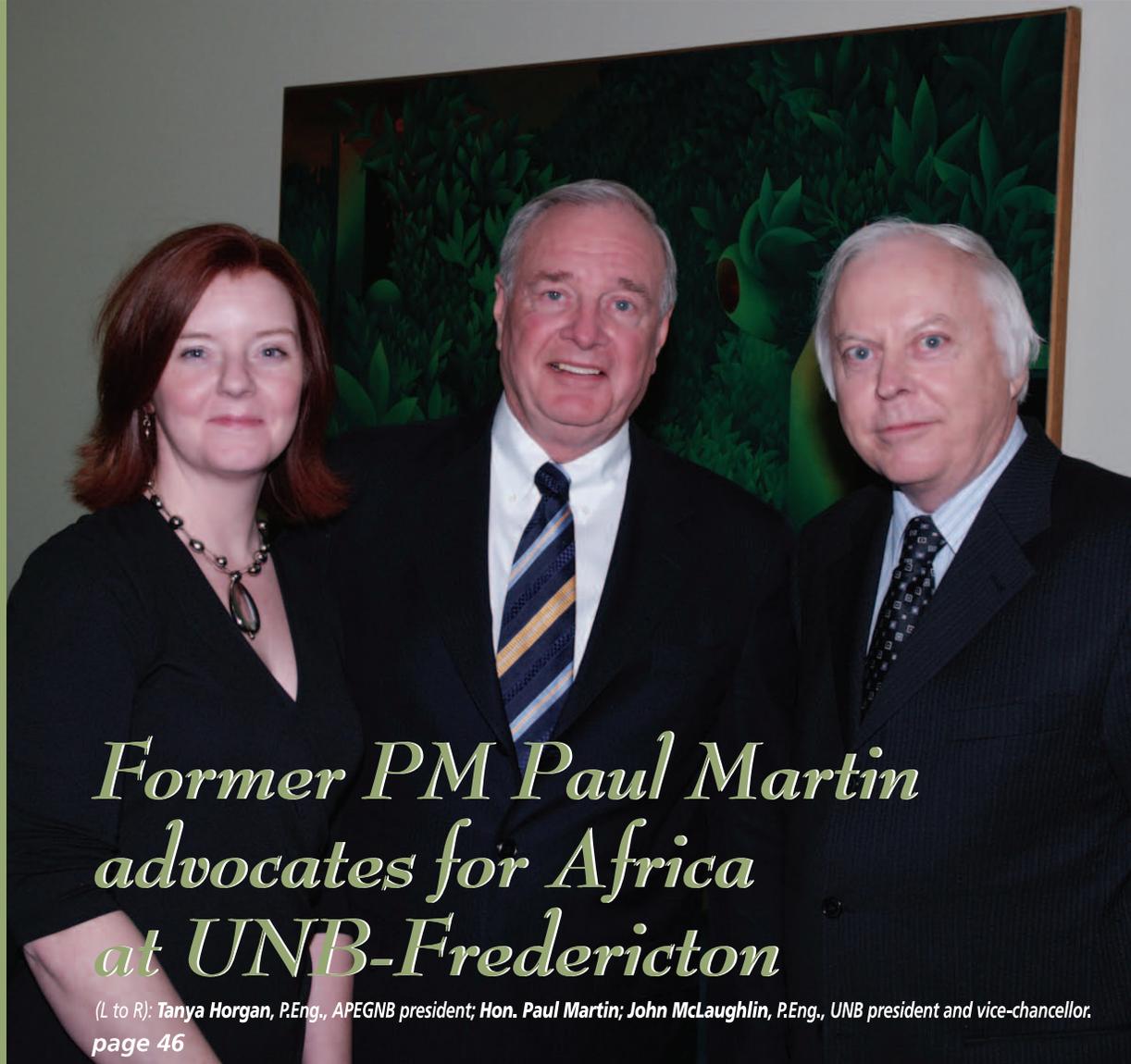


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APEGNB's office building
wins a City of Fredericton
Development Award



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*Former PM Paul Martin
advocates for Africa
at UNB-Fredericton*

(L to R): Tanya Horgan, P.Eng., APEGNB president; Hon. Paul Martin; John McLaughlin, P.Eng., UNB president and vice-chancellor.
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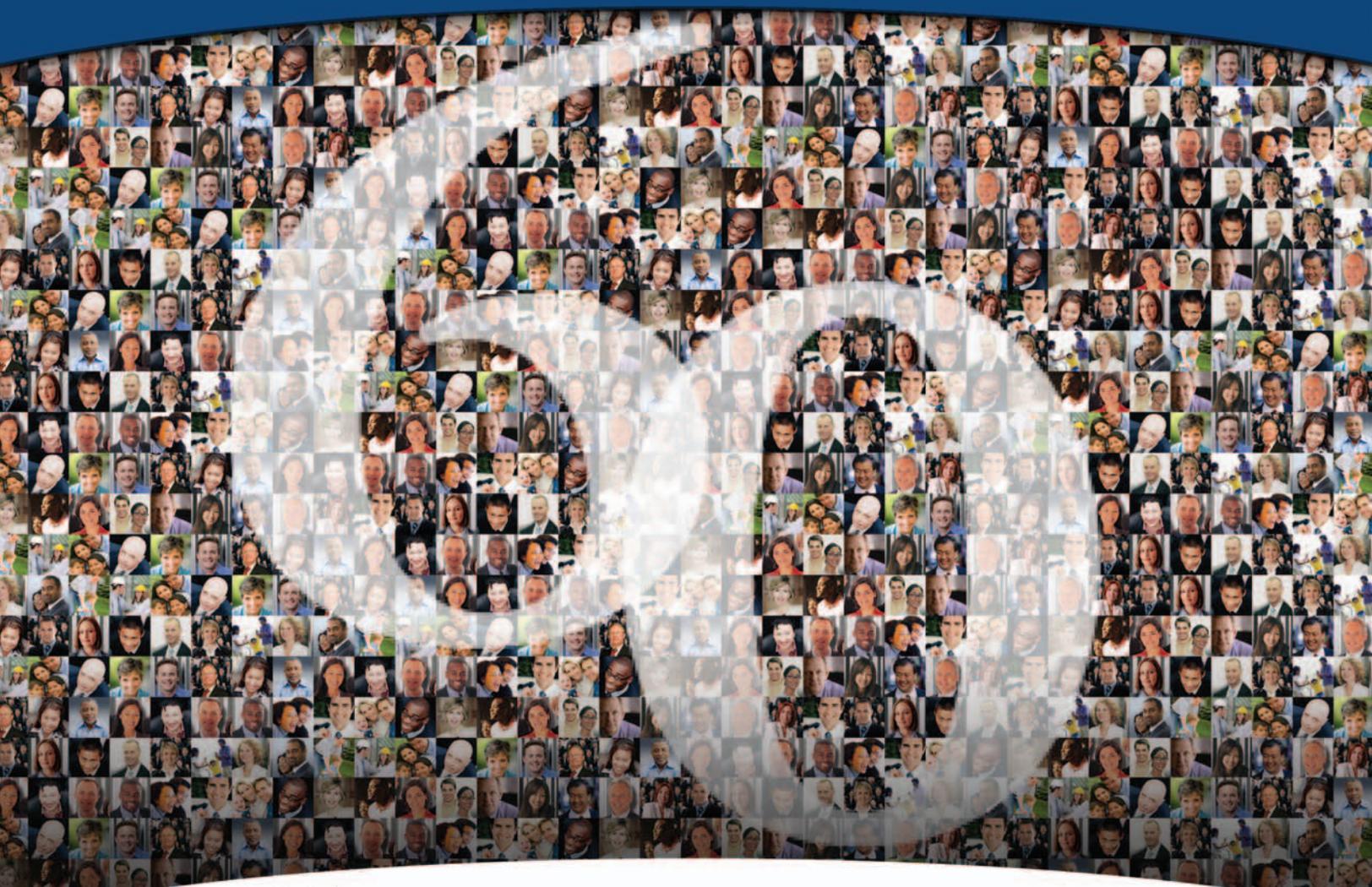


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Association of Professional **Engineers** and **Geoscientists** of New Brunswick
Association des **ingénieurs** et **géoscientifiques** du Nouveau-Brunswick

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PRESIDENT'S MESSAGE

Tanya Horgan, P.Eng.

I would like to welcome our new members of Council (see page 8-9) and also send a sincere thank you to those outgoing Councillors who served last year. It is reassuring to know that we continue to get a dedicated group of professionals who devote their time and energy to your Association each year.

Although I've only been in the President's role for three months, I've already had the privilege of participating in a number of events:

2008 Annual Meeting

Congratulations to the organizers and members for making APEGNB's 88th annual meeting an outstanding success. It isn't every day you get a packed house in Miramichi. This shows that we have an active membership who wants to get involved in the decision-making process of the Association. The discussions were passionate and my fellow members weren't shy about making their views known, which of course, is important if we want an Association that truly reflects the concerns of our members. It is our duty now, as Council, to take what we have heard from our membership and move forward. With this being said, I urge all members to vote on the proposed by-law changes approved at the Annual Meeting.

I would also like to thank our two guest speakers: **Mr. Barry Black**, CEO of the New Brunswick Innovation Foundation and **Mr. Pierre Carabin**, P.Eng., of PyroGenesis. Their presentations were engaging and inspirational.

CEO Symposium

Immediately following our Annual Meeting, our executive director, **Andrew McLeod**, and I traveled to Ottawa to attend a CEO

symposium designed to develop excellence in leadership for non-profit organizations. The symposium, hosted by the Canadian Society of Association Executives, was very insightful and I think we will have a better year because of it. (I am sure Andy will be tired of my ideas before spring is over!)

Engineers Without Borders (EWB) Lightbulb Lecture Series

On March 31st, I had the privilege of meeting the Rt. **Hon. Paul Martin**, former Prime Minister of Canada, on the Fredericton campus of the University of New Brunswick. Mr. Martin was at the Dineen Auditorium to share his ideas on how government and businesses can help Africa climb out of poverty. His two-hour presentation, hosted by the UNB chapter of EWB, was provocative and memorable.

3rd Annual MLA Reception

Once again, APEGNB hosted our annual MLA Reception and once again, it was a great success. **Premier Shawn Graham** was in attendance along with numerous cabinet ministers, MLAs and senior regulatory officials. We discussed issues of concern to our membership as well as congratulated the government on their recent infrastructure projects. (For photos of the April 2nd event, see page 47.)

Upcoming Events

This year I have the privilege of attending and speaking at UNB-Fredericton's Iron Ring Ceremony. This will be a treat as I have not attended a ceremony since I received my own ring. It is even more meaningful now realizing that being an engineer is more than wearing a ring—it is a way of conducting myself to the highest professional and

personal standards. I hope to encourage the newest engineering graduates that the evening is just the first step in acquiring the right tools to build on the foundation of personal and career success.



Tanya Horgan, P.Eng., wearing her Medal of Office takes her first official photograph as president with APEGNB's past president, David Crandall, P.Eng.

Finally, I must say thank you to **David Crandall**, P.Eng., for his fantastic year as president. His accomplishments this year are well appreciated. I hope to continue the momentum. 

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Spring 2008



MÉSSAGE DE LA PRÉSIDENTE

Tanya Horgan, ing.

Je souhaite la bienvenue aux nouveaux membres de notre conseil (voir page 9) et transmets mes plus sincères remerciements aux membres sortants pour les services rendus l'an dernier. Il me rassure de constater que nous continuons d'attirer à chaque année un groupe de professionnels dévoués qui consacrent temps et énergie à votre association.

Même si je n'occupe la présidence que depuis trois mois, j'ai déjà eu le privilège de participer à plusieurs événements :

Assemblée annuelle 2008

Félicitations aux organisateurs et aux membres qui ont fait de la 88^e assemblée annuelle de l'AIGNB un succès retentissant. Ce n'est pas tous les jours qu'on fait salle comble à Miramichi. Voilà qui illustre la ferveur de nos membres désireux de participer au processus décisionnel de l'association. Les discussions étaient passionnées et mes collègues membres n'ont pas hésité à faire valoir leurs opinions, ce qui bien sûr est important si nous voulons une association véritablement soucieuse des préoccupations de ses adhérents. Il est désormais de notre devoir, au conseil, de prendre ce que nos membres nous ont transmis et de foncer en avant. Cela dit, j'exhorte tous les membres à voter concernant les modifications aux règlements administratifs approuvées à l'assemblée annuelle.

Je tiens à remercier nos deux orateurs invités : **M. Barry Black**, président-directeur général de la Fondation de l'innovation du Nouveau-Brunswick, et **M. Pierre Carabin, ing.**, de PyroGenesis, pour des exposés brillants et inspirants.

Symposium du pdg

Immédiatement après notre assemblée annuelle, notre directeur exécutif, **Andrew McLeod**, et moi-même nous sommes rendus à Ottawa pour assister au Symposium du pdg, axé sur la promotion de l'excellence

dans la direction des organismes à but non lucratif. J'estime que grâce à cette activité des plus éclairantes de la Société canadienne des directeurs d'association, nous connaissons cette année une meilleure année. (Je pense qu'Andy va se lasser de mes idées avant la fin du printemps!)

Série de conférences Lightbulb d'Ingénieurs sans frontières (ISF)

Le 31 mars, j'ai eu le privilège de rencontrer l'honorable **Paul Martin**, ancien premier ministre du Canada, au campus de Fredericton de l'UNB. M. Martin était à l'auditorium Dineen pour exposer ses idées sur les façons dont le gouvernement et les entreprises peuvent aider l'Afrique à se sortir progressivement de la pauvreté. Son exposé mémorable de deux heures, présenté sous les auspices de la section UNBF d'Ingénieurs sans frontières (ISF), a interpellé l'auditoire.

3^e réception annuelle à l'intention des députés

Encore une fois, nous avons tenu notre réception annuelle avec les députés de l'Assemblée législative et à nouveau, ce fut une grande réussite. Le **premier ministre, Shawn Graham**, était présent ainsi que plusieurs ministres du cabinet, députés et haut fonctionnaires. Nous avons traité de questions qui préoccupent nos membres et félicité le gouvernement pour ses récents projets d'infrastructure. (Voir les photos de l'activité du 2 avril en page 47.)

Au programme

J'aurai l'honneur cette année d'assister et de prendre la parole aux cérémonies de remise de l'anneau de fer à l'Université de Moncton et à l'UNB, campus de Fredericton. Cette perspective m'enchant,

car je n'ai pas assisté à une telle cérémonie depuis que j'ai reçu mon propre anneau. C'est d'autant plus évocateur maintenant, quand on constate qu'être ingénieur signifie davantage que de porter un anneau : c'est un appel à se comporter en visant les plus hauts standards professionnels et personnels. J'espère encourager ces nouveaux diplômés en ingénierie en leur rappelant que la soirée n'est qu'une étape dans l'acquisition des outils de bases de la réussite personnelle et professionnelle.



Tanya Horgan, ing., porte sa médaille de dirigeante pour sa première photo officielle à titre de présidente de l'AIGNB, aux côtés de David Crandall, ing., président sortant.

Finalement, je dois remercier **David Crandall, ing.**, pour une année formidable à la présidence. Nous apprécions grandement ses réalisations cette année. J'espère poursuivre sur cette lancée. 

MONCTON BRANCH

Philippe Losier, P.Eng. – Chair

This year is well under way, and the Moncton Branch is already busy preparing its two signature events, namely the lobster supper and golf tournament. A family outing at the Moncton Sports Dome is also on tap.

Allow me to introduce the **members of the Moncton Branch Executive for 2007-2008**, elected at last May's Annual General Meeting:

Chair	Philippe Losier , P. Eng.
Past Chair	Mark Bellefleur , P. Eng.
Vice-Chair	Maryse Doucet , P. Eng.
Treasurer	Pierre Plourde , P. Eng.
Secretary	Geneviève McIntyre , EIT
Professional Development	vacant
Social	David Kozak , P. Eng. Rudina Lolja , MIT
Website and Communications	vacant
Provincial Council	John Gallant , P. Eng. Mark Bellefleur , P. Eng.

Branch Councillor **Serge Doucet**, P. Eng.
U de M Representative (Engineering) **Réjean Hall**, P. Eng.

A new Executive will be elected at the next Annual General Meeting in May.

Interested members take note: there are a few positions left to be filled on the Executive, and we would be delighted to welcome you aboard. In return for your commitment, you will be rewarded with a unique opportunity to build friendships with other engineers and geoscientists. Members of the Executive would be pleased to answer any questions you might have.

For several years now, we have been relaying information about Branch social activities and technical presentations by e-mail. If you would like to be added to our mailing list, send an e-mail to plosier@royalpipe.com, making sure to

include your name and e-mail address. It's as simple as that!

In closing, I would like to thank those members who have been taking part in Branch activities. I would also encourage you to join your Executive. The success of the activities of the Moncton Branch depends on the involvement of its members.

We look forward to seeing you!



RAPPORT DE LA SECTION DE MONCTON

Philippe Losier, ing. – président

L'année 2008 est bien entamée et déjà votre section de Moncton s'affaire à la préparation de ses deux activités habituelles, le souper homard et le tournoi de golf. En plus de ses deux activités, nous vous proposons une sortie sportive familiale au 'Sportsdome' de Moncton.

Je tiens à vous présenter les **membres du CA de la section de Moncton** pour l'année 2007-2008, élus au mois de mai dernier lors de notre assemblée générale annuelle :

Président	Philippe Losier , ing.
Président sortant	Mark Bellefleur , ing.
Vice-président	Maryse Doucet , ing.
Trésorier	Pierre Plourde , ing.
Secrétaire	Geneviève McIntyre , MS
Perfectionnement professionnel	vacant
Activités sociales	David Kozak , ing. Rudina Lolja , MS
Web et communication	vacant

Conseil provincial

John Gallant, ing.
Mark Bellefleur, ing.
Serge Doucet, ing.
Réjean Hall, PhD, ing.

Conseillers de la section
Représentant de l'U de M (ingénierie)

Le prochain conseil sera élu à la prochaine réunion annuel du mois de mai 2008.

Avis à tous les membres intéressés, il reste quelques postes à combler au sein de notre conseil, nous serons très heureux de vous accueillir. Il s'agit là d'une occasion unique de créer des liens d'amitié avec d'autres ingénieurs et géoscientifiques. Communiquez avec un membre du CA si vous avez des questions.

Depuis plusieurs années, nous communiquons les activités sociales et présentations techniques de la branche par courriel. Si vous n'êtes pas sur notre liste de distribution, envoyez-nous un courriel à l'adresse suivante : plosier@royalpipe.com

en y incluant votre nom et adresse courriel et nous vous ajouterons à la liste de distribution.

En terminant, j'aimerais remercier les membres qui participent aux activités et aussi nous vous invitons à vous joindre à votre exécutif. L'implication des membres est important pour le succès des activités de la branche de Moncton.

Au plaisir de vous voir.





F

irst, I would like to thank **Kim Kimball**, MIT, for preparing this spring Branch report.

The Saint John Branch has roared into spring like a lion, along with the weather. We have events planned for the next four months and we can't wait to get started. But first, an update on what we've been up to since the last issue of *Engenuity*.

November started out with an **Efficiency New Brunswick technical session** at UNB Saint John. The session was attended by professors, engineers and students. The speaker, **Robin Rocca**, discussed green products, spoke about LEED standard buildings, and presented a very illuminating comparison of energy sources in New Brunswick. Everyone in attendance walked away with a bit more knowledge on energy efficiency and a few ideas on how to save energy at home and in the office.

There was a **proposed by-law change information session** held at the Union Club at the end of January. (past president) **Dave Crandall**, P.Eng., came down from Fredericton to speak about some of the proposed changes, which included Limited Licensure. The meeting, while not well attended due to a snow storm, was quite informative for those who braved the weather. Our Branch wishes to thank Dave for venturing to Saint John despite the poor weather.

We started February off with a **Canadian Rivers Institute technical session**. The speaker, **Dr. Kelly Munkittrick**, covered an overview of the Rivers Institute and some of their research areas. Regional issues and challenges within the Saint John River system as well as global challenges were discussed.

February ended with the **APEGNB Annual Meeting** in Miramichi. The theme Green is the New Gold seemed to be a popular one

feel a bit like spring. In celebration of longer and warmer days, we hosted a **Sea Dogs night** on March 14. Tickets sold out early, making this the biggest event of the year with close to 90 people in attendance. There was free food in the hospitality suite and then an hour later, we were all in our seats to cheer on the Saint John Sea Dogs at their last home game against rivals, the Moncton Wildcats. (If you were there too, perhaps you noticed the section wearing Saint John APEGNB toques as a warm and stylish accessory!)

April was set aside as a quiet month in order to prepare for the long awaited summer. A fossil tour of Gardener Brook in Gardener Creek is scheduled for May 25 and will include an hour-long walking tour. The next event is the **June Dinner** and then the **annual golf tournament** in July.

Keep up to date on all of our events on the APEGNB Saint John Branch website at <http://saintjohn.apegnb.ca> and check out our Facebook page (Saint John Branch- APEGNB) at www.facebook.com/group.php?gid=5812508762.



Our annual **Christmas Party** was held at the Barrack Green Armouries on November 29, 2007. It was a dark and stormy night outside but that didn't stop anyone from showing up for some festive fun. The party was very well attended and there was more than enough Chinese food (and Christmas cheer of the liquid variety) to go around.

In January, we hosted our **annual curling event**, complete with Hawaiian theme. There were grass skirts, hanging palm trees, and of course, colourful leis! Although some found it challenging to curl with grass skirts and sarongs, a good time was had by all. Chowder and sandwiches were provided for much needed sustenance after the games. Prizes were also given out for highest scores.

as it applied to both the green technology professional development sessions and the Irish Shindig. We would like to congratulate **Paul Holah**, P.Eng., who was elected as our new Provincial Councillor at the meeting. We thank our 2007 Saint John Councillor, **Trevor Gamblin**, P.Eng., for all of the work he's done for the Saint John Branch and our provincial Association. We would also like to congratulate Saint John Branch member, **Tanya Horgan**, P.Eng., on being elected president and **Eldo Hildebrand**, P.Eng., (who taught a few of us here in Saint John) on his election as vice-president.

Now, back to spring! That's right, after months of snow, snow, rain, snow, and the biggest potholes ever seen, it is finally starting to



FREDERICTON BRANCH

Tammy Paradis, P.Eng. – Chair

T

he Fredericton Branch held its Annual General Meeting on January 24th, 2008, featuring deputy minister of Business New Brunswick,

Mr. Brian Dick. He discussed the Province's efforts to achieve self-sufficiency by 2026 and then fielded questions from an enthusiastic audience. Thank you to our attendees, our guest speaker and to the committee members for making this year's AGM another well-attended success.

The AGM also marked the start of a **new council:**

Position	Name
Chair	Tammy Paradis, P.Eng.
Vice Chair	Bill Lamey, P.Eng.
Past Chair	Tom MacNeil, P.Eng.
Communications Chair	Tracey Cochrane, P.Geo.
Treasurer	Erica Gorman, MIT
UNB Representative	Brendan Wood Mark Mosher
MIT Co-Chairs	Erica Gorman, MIT Heather Gorman, MIT
Secretary	Tammy Lamey, P.Eng.
APEGNB Council Liaison	Serge Levesque, P.Eng.
Base Gaagetown	
MEAC Representative	Cpt. Jean-Claude Comeau, P.Eng.
Councillors	Tracey Cochrane, P.Geo. Andy Small, P.Eng. Peter Wedge, MIT Heather Gorman, MIT Kent Weizel, MIT

In February, the Branch hosted a technical **tour of the helicopter flight simulator** on the

military base in Gaagetown. The simulator is a fully articulated, extremely realistic training unit with amazing graphics and programming to test even the most experienced of military pilots. We had a waiting list for this event with many emails asking for a repeat tour, as spaces were limited.

Those who attended were very impressed by the simulator. Special thanks goes out to **Captain JC Comeau, P.Eng.**, of Base Gaagetown and **Tammy Lamey, P.Eng.**, for organizing this event and also to the flight simulator crew for being such gracious hosts. Permitting civilians a closer look at the rigorous training requirements of military staff provides a greater understanding and appreciation of what our service men and women go through to meet the requirements of their jobs. We appreciate their work and respect them a great deal.

We recently challenged our youth at UNB—Fredericton with a writing competition. The Student Paper Competition winner of the \$500 top prize was **Owen Scott.** His article will appear in an upcoming issue of *Engenuity*. The "must-read" article had to answer the question: "What is the best way to keep young engineering and geoscience professionals in New Brunswick?". First runner-up for the \$300 prize was **Brendan Wood** and second runner-up for the \$200 prize was **Stephen Hallett.** These are three young engineering students with a very bright future ahead of them.

We seem to be on a roll and hope to add another successful event in 2008. As this report goes to press, final arrangements are being made to host the **2008 Atlantic Engineering Hockey Tournament** (April 11 to 13). The event will bring together teams from within the four Atlantic Provinces to determine who will have bragging rights in 2008. APEGNB's Northeastern Branch won the tournament last year in St. Johns, Newfoundland. For more information, please visit: www.fyha.ca/2008EngCup.

Thank you to everyone participating and volunteering with our Fredericton Branch activities. If you have any ideas for future events please send them along to me, **Tammy LaPointe-Paradis.** My e-mail address is available online at <http://fredericton.apegnb.ca>

There are more interesting events to come in 2008, so please stay tuned!



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Spring 2008

TANYA HORGAN, P.ENG., ELECTED PRESIDENT OF APEGNB

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he Association of Professional Engineers and Geoscientists of New Brunswick is pleased to announce the election of Tanya Horgan, P.Eng., as president. Election results were announced during APEGNB's 88th Annual Meeting held in Miramichi on February 21.

Horgan, an environmental engineer with Irving Oil in Saint John, heads one of the largest regulatory bodies in the province.

"I am honoured to be representing New Brunswick's 5,000 engineers and geoscientists," says Horgan. "As an environmental engineer, I have a particular interest in green initiatives.

APEGNB's new headquarters on Hanwell Road recently won a Site Design and Brownfields Award from the City of Fredericton and I'm looking forward to promoting green technologies on behalf of our members."

Horgan says New Brunswick engineers and geoscientists play a key role in improving

the quality of life in the province and are the driving force behind innovation and the economy.

"It's an exciting time to be an engineer or geoscientist in New Brunswick. You'll find our members taking the lead on all kinds of energy projects including the refurbishment of the Point Lepreau Generating Station; wind farms in Lamèque, Bathurst and Aulac; tidal energy in the Bay of Fundy and a new liquefied natural gas plant in Saint John. We're commercializing technology, developing infrastructure, mapping the province and bringing our mineral wealth to the surface."

TANYA HORGAN, ING., ÉLUE PRÉSIDENTE DE L'AIGNB



Les dirigeants de l'Association des ingénieurs et des géoscientifiques du Nouveau-Brunswick sont heureux d'annoncer l'élection de Tanya Horgan, ing., à la présidence de l'organisme. L'annonce des résultats de l'élection a eu lieu durant la 88^e assemblée annuelle de l'AIGNB, à Miramichi, le 21 février.

M^{me} Horgan, une ingénieure en environnement au sein du groupe Irving de Saint John, se retrouve à la tête de l'un des organismes de réglementation les plus importants de la province.

« C'est un bel honneur pour moi de représenter les 5000 ingénieurs et géoscientifiques du Nouveau-Brunswick, a-t-elle déclaré. En tant qu'ingénieure en environnement, je m'intéresse en particulier aux initiatives vertes. Le nouveau siège social de l'AIGNB, sur le chemin Hanwell, nous a récemment valu un prix de la ville de Fredericton pour l'aménagement extérieur et la remise en état de terrains contaminés; par conséquent, il me tarde de faire la promotion des technologies propres au nom de nos membres. »

Mme Horgan soutient que les ingénieurs et géoscientifiques du Nouveau-Brunswick jouent un rôle prépondérant dans l'amélioration de la qualité de vie de la province et qu'ils constituent une force qui propulse l'innovation et l'économie.

« Nous vivons une époque passionnante pour la profession d'ingénieur ou de géoscientifique au Nouveau-Brunswick. On constate que nos membres prennent en charge une variété de projets axés sur l'énergie, notamment la remise à neuf de la centrale de Point Lepreau; les parcs éoliens à Lamèque, Bathurst et Aulac; l'énergie marémotrice dans la baie de Fundy et la nouvelle usine de traitement du gaz naturel liquéfié à Saint John. On nous confie des mandats tels que commercialiser la technologie, concevoir des projets d'infrastructure, cartographier la province et extraire nos richesses minérales. »

Selon M^{me} Horgan toute cette fébrilité que l'on vit au Nouveau-Brunswick fait en sorte que les

travaux de certains membres de l'AIGNB retiennent l'attention au plan national. **Dwight Ball**, géosc., est lauréat du Mérite du géoscientifique professionnel canadien 2007, et ADI, un cabinet d'ingénieurs bien de chez nous, a récemment été nommé l'une des 50 sociétés les mieux administrées au Canada. Elle ajoute : « Même les activités de l'AIGNB se font remarquer sur la scène nationale. Notre section du Nord-Ouest vient de réclamer officiellement l'attribution d'un record mondial, pour avoir construit l'igloo voûté le plus grand au monde durant le Concours de construction d'igloo de l'AIGNB à Grand-Sault. »

Durant son mandat à la présidence, M^{me} Horgan affirme vouloir sensibiliser les membres du grand public au fait que leur sécurité et leur bien-être arrivent en tête des priorités de l'Association.

Sept autres membres nouvellement élus se joignent à M^{me} Horgan au Conseil de l'AIGNB :

Eldo Hildebrand, ing., vice-doyen de la faculté d'ingénierie de l'Université du Nouveau-Brunswick, vice-président de l'AIGNB;

Tom MacNeil, ing., gestionnaire de projet chez AMEC Earth & Environmental, conseiller du district de **Fredericton** de l'AIGNB;

Paul Holah, ing., gestionnaire des services associés aux projets chez Fluor Canada, conseiller du district de **Saint John** de l'AIGNB;

Mark Bellefleur, ing., ingénieur civil chez Touchie Engineering, conseiller du district de **Moncton** de l'AIGNB;

Mireille Vautour, ing., coordonnatrice de la planification, recherche et développement à la ville d'**Edmundston**, conseillère du district du Nord-Ouest de l'AIGNB;

Ray Ritchie, ing., ingénieur-concepteur principal chez Sunny Corner Entreprises de **Miramichi**, conseiller du district du Nord-Est de l'AIGNB;

Ken Bhola, ing. et géosc., président de KSB Consulting à **Saint John**, représentant provincial des géoscientifiques.



2008 APEGNB COUNCIL

Front Row (L to R): **Andrew McLeod**, Executive Director; **David**

Crandall, P.Eng., Past President; **Tanya Horgan**, P.Eng., President; **Eldo Hildebrand**, P.Eng., Vice-President; **Brent Smith**, P.Eng., Engineers Canada Director.

Back Row (L to R): **Mark Bellefleur**, P.Eng.; **Marc Richard**, LL.B.; **Alan Higgins**, P.Geo.; **John Gallant**, P.Eng.; **Holly Young**, P.Eng.; **Mireille Vautour**, P.Eng.; **Fred Bérubé**, P.Eng.; **Ken Bhola**, P.Eng./P.Geo.; **Ray Ritchie**, P.Eng.; **Tom MacNeil**, P.Eng.

Absent from photo: **Georges Roy**, P.Eng.; **Paul Holah**, P.Eng.; **Bruce Broster**, P.Geo., CCPE Director; **Christa Bourque**, LL.B.

Horgan says there's so much activity going on in New Brunswick that the work of APEGNB members is capturing national attention.

Dwight Ball, P.Geo., won the 2007 Canadian Professional Geoscientist Award and ADI, a home-grown engineering professional services firm, was recently named one of Canada's 50 Best Managed Companies. "Even our APEGNB events are standing out on the national stage. Our Northwestern Branch has just submitted a world-record bid for building the largest domed igloo as part of the APEGNB Igloo Building Competition in Grand Falls."

During her term as president, Horgan will also focus on ensuring the public knows that their safety and well-being is the Association's first priority.

Horgan is joined on APEGNB Council by seven other newly elected officials:

Dr. Eldo Hildebrand, P.Eng., assistant dean of engineering at the University of New Brunswick, was elected vice-president of APEGNB.

Tom MacNeil, P.Eng., a project manager for AMEC Earth & Environmental, was elected councillor for APEGNB's **Fredericton** District.

Paul Holah, P.Eng., a manager of project services for Fluor Canada, was elected councillor for APEGNB's **Saint John** District.

Mark Bellefleur, P.Eng., a civil engineer with Touchie Engineering, was elected councillor for APEGNB's **Moncton** District.

Mireille Vautour, P.Eng., the coordinator of planning, research and development for the City of **Edmundston**, was elected councillor for the APEGNB's Northwestern District.

Ray Ritchie, P.Eng., a senior design engineer for Sunny Corner Enterprises in **Miramichi**, was elected councillor for APEGNB's Northeastern District.

Ken Bhola, P.Eng./P.Geo., the president of KSB Consulting in **Saint John**, was elected geoscientist-at-large.



MANPOWER'S ANNUAL 10 HARDEST JOBS TO FILL SURVEY:

Engineers Top List In U.S.

Engineers, machinists and skilled trade workers are among the United States' most challenging positions to fill, according to survey findings released by Manpower Inc. Globally, engineers were the fourth hardest position to fill.

"From our research it is clear that across the United States, employers are experiencing a mismatch between the talent their businesses need and the skills and abilities potential employees possess," said **Jonas Prising**, president of Manpower North America.

"It is essential for companies to find a balance where they are attracting and retaining aging workers while still developing innovative recruiting programs targeting young professionals, especially those interested in technical and trade careers."

The 10 Hardest Jobs to Fill, as reported by U.S. employers for 2008, are:

- | | |
|-----|------------------------------------|
| 1. | Engineers |
| 2. | Machinists/Machine Operators (10)* |
| 3. | Skilled Trades |
| 4. | Technicians (4) |
| 5. | Sales Representatives (1) |
| 6. | Accounting & Finance Staff (8) |
| 7. | Mechanics (3) |
| 8. | Laborers (9) |
| 9. | IT Staff |
| 10. | Production Operators |

*Rank in 2007 Top 10 Hardest Jobs to Fill

For the third consecutive year, sales representatives, technicians, accountants/finance staff and machinists remain on the Hardest to Fill list, confirming that job seekers with specific skill sets are still in demand. Second on the list in 2006, engineers found themselves in the number one position this year, after dropping off completely in 2007. Employers are also finding it difficult to fill openings for skilled trades people, IT staff and production operators, all new to the 2008 list.

To succeed in the contemporary world of work, employers must not only encourage

current employees to re-skill and up-skill to ensure they meet workload demands, but also refine their recruitment and retention strategies for a new generation of workers.

"While job categories have shifted on the list, it is clear all companies must have a plan for transitioning from baby boomers to younger generations," said **Melanie Holmes**, vice-president, World of Work Solutions for Manpower North America. "It is essential for companies to find a balance where they are attracting and retaining aging workers while still developing innovative recruiting programs targeting young professionals, especially those interested in technical and trade careers."

Current trends in hiring also point toward employers focusing on more than simply finding an individual who has the role-specific competencies required to fill the opening.

"Companies want employees who have the soft skills, work ethic and culture traits that fit their company," Holmes said. "Hiring managers recognize the high cost of hiring the wrong individual for their organization so they are taking more time to find the right fit, even for these hard to fill positions."

The U.S. findings are part of a Manpower global study in which more than 42,500 employers across 32 countries and territories were surveyed in late January 2008. Skilled manual trades, sales representatives and technicians are the hardest jobs to fill this year.

Manpower surveyed 2,000 U.S. employers in the third annual survey to determine which positions employers are having difficulty filling this year.

The survey announcement coincides with the publication of the Manpower White Paper, *Confronting the Talent Crunch: 2008*, updated since its original publications in 2006 and 2007.

The white paper highlights talent issues around the world and what businesses, government and individuals should be doing to adapt their human resource strategies.

Visit www.us.manpower.com/pressroom for more information about Manpower's 2008 Hardest Jobs To Fill Survey. The site includes press materials, a white paper, story ideas, graphics and more.



I

t didn't start as an engineering problem. It started as a patient problem.

ENGINEERS CREATE BETTER FIX FOR BROKEN JAWS

By Karen Wentworth, University of New Mexico

Jon Wagner, a head and neck surgeon at the University of New Mexico Hospital (UNMH), sees a lot of broken jaws. More than 400 of them a year roll through the doors of the only Level 1 Trauma Center in the state.

Surgeon **Jon Wagner** holds plastic casts of fractured jaws. Wagner builds the casts and uses them to plan a surgery before going into an operation. (Credit: UNM Communication and Marketing)

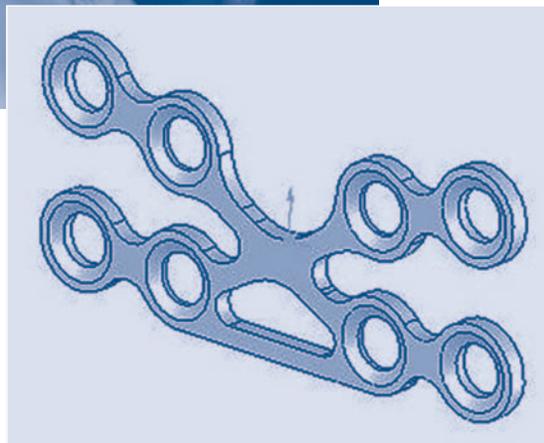


Lovald and Khraishi went to the computer, running simple experiments with a finite element modeling program initially developed with research money from the National Science Foundation. The research has been commercialized and is now the basis of a variety of software programs used by engineers.

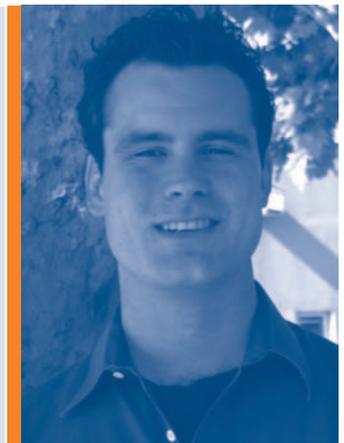
Lovald used his modeling work as part of his master's degree thesis and is now working on a doctorate. Meanwhile he and a friend, business graduate student **Ryan Smith**, formed Satyrne Biotechnologies as a way to market the plates. They've just received FDA approval for their new plate designs and have started to look for an approved facility to manufacture the plates on a trial basis. The new plates are significantly smaller and lighter than the one Wagner uses now in the operating room.

Lovald and Wagner are preparing to test the plates at UNMH, and hope to persuade other hospitals in the area to try them as well. They are also busy writing papers

When Wagner and the other trauma surgeons repair jaws they use heavy titanium plates, bending them to bridge the breaks with a combination of heavy tools and brute force. The plates are fixed to the jawbones with screws, usually inserted through the mouth. It is an invasive process and up to 20 percent of the patients have serious enough complications to require a follow-up surgery.



Drawing of the improved plate. (Credit: Scott Lovald)



Ph.d. student **Scott Lovald** has formed Satryn Biotechnologies to manufacture the improved plates. (Credit: UNM Communication and Marketing)

The mechanics of the process bothered Wagner so much that he started tinkering with the plates in his garage, looking for a way to make them smaller and lighter, but still with some assurance they would stand up to the stresses his mostly young, mostly male patients would place on them. He was getting nowhere until he went across campus to talk to the mechanical engineers.

Once Associate Professor of Mechanical Engineering **Tariq Khraishi** and his graduate student **Scott Lovald** understood what Wagner needed, the lights came on. It really was an engineering problem. Wagner was looking for smaller, better-designed plates he could use with confidence that there was good science behind them.

about their collaboration, and hope to spread the word about their new solution to an old problem.





ASK THE DPA

Tom Sisk, P.Eng.

Director of Professional Affairs

Our questions in this column deal with two somewhat theoretical cases, but both of which actually happened to engineers in other jurisdictions.

Question

Would APEGNB intervene on behalf of an engineer who upheld our Code of Ethics and professional responsibilities?

Answer

This question is based on the case of Ed T., an engineer from the US mid-west who was a city engineer for 27 years when he was suddenly demoted and had his job function changed significantly. In his new assignment, he was ordered to use his engineering stamp to seal drawings and documents

he had not supervised. When he refused on grounds that such action violated the Engineering Act of his state, he was dismissed. The subsequent legal battle took several years, but in the end, Ed T. was exonerated.

Could such a thing happen here?

Our Act seems to be similar to the one which Mr. T was practicing under, including the references to abiding by a Code of Ethics and being responsible for work undertaken by him or supervised by him. His original defense was on the basis of "responsible charge", a legal term for what we understand to be professional responsibility. Evidently, Ed's legal representation left something to be desired and the county court found that he had been dismissed fairly.

Through a fund raising campaign assisted by the American Engineering Alliance (a group somewhat similar to our Engineers Canada), the case was appealed over a number of years with Mr. T ultimately being vindicated.

It's unlikely a similar case in NB would follow an identical path. Here, the case would be heard at a higher level court, not a county court. At that level, the

courts have been shown to leave issues of engineering and engineering responsibility to those with engineering expertise. I would expect that the definition of "responsible charge" would be just as most engineers understand it. The courts, of course, rule on points of law such as wrongful dismissal.

Would APEGNB intervene? As far as I know, there is no precedent for a direct intervention. There might be an instance where APEGNB, after a vote from Council, would issue a statement in support of the member. We are fortunate here that APEGNB has a good rapport with municipalities and other levels of government, so it would be likely that there would be considerable dialog between the city and APEGNB before such a case even moved in the direction of court action. As well, because all engineers in the Province must belong to APEGNB in order to practice, there is a generally higher level of awareness of the requirements for stamping/sealing by the users and purchasers of engineering services.

So, such a case would probably not occur here under similar circumstances. APEGNB would provide the required information so that all parties could understand the Act as it applies. You may wish to review Mr. T's case yourself by going to

<http://www.responsiblecharge.com/>

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Question

How far should you go at work in trying to alert people to potential problems with a project's design?

Answer

PART 1

For example, you're part of a project team designing a building. You believe that it will collapse if certain variables come together. Are you absolved of your ethical obligations to the engineering profession if you simply write a memo stating this? Or should you do whatever you can to get the design changed...even if it means losing your job or embarrassing your company?

Assuming the role of whistle-blower is not one to be taken lightly. As we've discussed in this column before, it can have serious repercussions both personally and career-wise. If we assume that your concern is due to being on the design team rather than a casual observer, then you do have responsibility to have problems corrected before the project proceeds.

In this case, there seems to be some alternatives that should be explored before going public or even going outside your firm.

The obvious one is to confer with the colleague whose work is causing you concern. A confidential chat will allow you to clarify in your mind that something really has been missed. Alternatively, it will allow the colleague to explain his design procedure and assumptions. As well, since it is common practice for engineers to have their design calculations checked as the design progresses, it may be that you don't have all the information available

which led to the design as it is now. When done in a professional manner, there is no reason an engineer will feel slighted at being asked to explain his/her design.

A second route, in consideration of the results of direct discussions with the designer, is to approach the person's supervisor. Again, this should be done with considerable tact particularly if there is any possibility you could be wrong in your concern.

A third, less desirable path might be to discuss your concerns with another engineer working on the same project. While being less confidential, you are at least approaching someone in the same work group. There will undoubtedly be hurt feelings, but in some ways, the designer may view this as less intrusive than speaking to his/her supervisor.

If all approaches fail, you may be faced with notifying the owner of your company to explain your concerns. This will certainly cause considerable ripples in the firm, particularly if no one else has the same concerns. But, the company owner would certainly want to know about anything that could bring a reputation of poor design to his firm.

In the unlikely event none of these approaches provides a satisfactory resolution to your concerns, you may have to file a complaint of misconduct or incompetence with the engineering regulatory body.

PART 2

As an engineer, you work for a consulting firm responsible for the renovation of old office buildings for a military base. A new regulation concerning wall materials goes into effect next year. The wall you are working on will not meet the new regulations. Conflict arises when there are differing opinions regarding which regulations to follow.

In our jurisdictions, the regulations governing building construction and the materials used are usually referenced to a Code. This might be the National Building Code of Canada, the Canadian Electrical Code or Nation Fire Protection Code. Each of these Codes is updated periodically and then usually have to be formally adopted by each province before they come into effect.

A case in point is the 2005 National Building Code of Canada that has yet to be adopted in New Brunswick. The 1995 Code is the one in force as this is written. In terms of litigation, the question many times is "does it meet Code"? In law, it refers to the Code in effect at the time the project was done—even if everyone knows that a newer version is in place, ready to be adopted sometime in the near future.

Engineers are held to the standards in place at the time the work is done. There is no requirement to be able to look into the future and make predictions as to when some newer proposal will be adopted, or not.

Sometimes, new materials or processes become available which fit the upcoming version of the Code but are not particularly included in the

existing Code. In these cases the engineer may be able to provide sufficient engineering analysis that the inspection department will allow the variation under the existing Code.

In this particular question, it appears the design process may occur while one Code is in effect and the construction period will occur while a newer one is effect. It would be prudent for the designer to let the owner know that a certain amount of extra work may have to be done should the new Code come into force as the project is built.

If you have a regulatory, enforcement or ethical question you'd like answered, e-mail APEGNB's Director of Professional Affairs.

sisk@apegnb.com



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stantec (formerly Neill and Gunter) has assisted various companies and public utilities with assessing their potential for arc flash incidents, and has recommended and implemented mitigation strategies. Several New Brunswick based firms have invested in these studies that have been completed throughout the Atlantic provinces. The most recent study was undertaken at the Churchill Falls Generating Station in Newfoundland and Labrador.

PROACTIVELY ADDRESSING ARC FLASH HAZARDS AT CHURCHILL FALLS

Submitted by Stantec (Fredericton)

With its 11 turbines combining to a rated output of 5428 MWs, the Churchill Falls Generating Station is the **second largest underground hydro generating station in the world.**

In 2007, the Churchill Falls (Labrador) Corporation acted to improve its electrical safety program by embarking on an arc flash study of its installations.

The arc flash hazard has gained a considerable level of industry attention over the past few years, driven by the number of accidents resulting from working on energized equipment. While the frequency of electrical-related accidents in the workplace represent a small percentage of the overall workplace accidents, the number of cases where such accidents result in lethal injury is very high.



Churchill Falls Generating Station: Generator floor with 11 turbines, producing 5428 MWs of electricity

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Research and testing is ongoing to help better quantify these hazards so that they too can be addressed towards improved safety to personnel when working with energized equipment.

There are **two primary types of electrical accidents:**

- electrocution (where a person comes in direct contact with an energized or "live" conductor)
- accidents (where injury was sustained without ever making physical contact with the live equipment.)

The **arc flash hazard analysis** considers the potential severity of the latter, where non-contact thermal injuries occur when employees are involved in an electrical arcing fault event. The extent of such injuries is influenced by the type of equipment, location of the equipment and the task being carried out on the energized equipment.

There are other consequences of an arcing fault event that can also compromise personnel safety, such as flying debris, sight and hearing damage and the concussive forces from pressure waves. Research and testing is ongoing to help better quantify these hazards so that they too can be addressed towards improved safety to personnel when working with energized equipment.

Engineering services regarding arc flash hazard analysis can include:

- On-site data collection and documentation
- Software modeling of electrical systems
- Analysis using established and reputed engineering software such as SKM Power Tools™ and ETAP™
- Thermal exposure predictions

- Equipment labeling, warning of the potential magnitude of the arc flash energy
- On-site arc flash awareness and training presentations regarding potential hazards, and preparation of Safe Work Practices
- Follow-on detailed engineering services to reduce potential incident levels such as modifications to the electrical system design, protection or control features;

In terms of the Churchill Falls Generating Station, Stantec provided a variety of these services. To assess the potential severity of an arcing fault on the various electrical system components, Stantec collected data and documentation onsite and built a software model of the plant's electrical system. Using this model and the IEEE 1584TM-2002 standard, the thermal exposure resulting from an arcing fault was predicted. Based on the study's results, the client is proactively addressing the arc flash hazard and working with Stantec to minimize the risks to its workforce.



ENGINEERS CANADA ADDS NEW IDENTITY THEFT PROTECTION PLAN TO ITS SPONSORED HOME/AUTO INSURANCE PROGRAM

Submitted By: TD Meloche Monnex

Theft of personal information is a growing problem, in Canada and around the world. Falling victim to identity theft can take a heavy financial and personal toll, since restoring damaged credit can be a stressful, time-consuming process.

Because anticipating risks and planning contingencies is second nature to professional engineers, Engineers Canada, in cooperation with TD Meloche Monnex, is pleased to offer **Identity Plus Solution™**, a new identity theft protection plan that will help safeguard the names and credit ratings of program participants and their families.

Identity Plus Solution is the most generous protection of its type available today. It has no deductible, and should your personal identification be stolen, a team of dedicated Identity Plus Solution specialists will work as long as necessary to restore your reputation, re-establish credit ratings, and clear other important records. Identity Plus Solution will:

- Assign a dedicated case manager who will deal with authorities on your behalf, contacting financial institutions and other companies.
- Cover you and your family for up to \$30,000 per incident. This amount includes a \$5,000 protection in the event of loss of income.

- Reimburse most costs incurred to restore stolen identity, such as legal or notarial fees, as well as charges for long distance calls and registered mail.
- Provide free legal assistance should you be sued by merchants or collection agencies, or to clear any criminal charges wrongfully brought against you.

To sign up or learn more about Identity Plus Solution for Engineers Canada sponsored program participants, call TD Meloche Monnex at 1-877-536-7755.



Stantec provides professional design and consulting services in planning, engineering, architecture, surveying, and project management. We are active in urban land, industrial, buildings, environmental, and transportation sectors.

We team with our public and private sector clients at every stage, from initial concept and financial feasibility to project completion and beyond. In simple terms, the world of Stantec is the water we drink, the roadways we travel, the buildings we visit, the industries in which we work, and the neighborhoods we call home.

Stantec trades on the TSX under the symbol STN and on the NYSE under the symbol SXC.

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CENB IN REVIEW

CENB Bathurst Information Session

The Consulting Engineers of New Brunswick's first breakfast information session of 2007/2008 was held in Bathurst on September 21. New Brunswick's Minister of Environment, **Hon. Roland Haché**, discussed economic development and issues affecting northern New Brunswick.

The Information Session had 50 registered participants including representatives from the business community, engineering firms, provincial departments and the media.

From L to R:

Michel Dufresne, P.Eng., Roy Consultants; **John Fudge**, P.Eng., executive director, CENB; **Réjean Boudreau**, P.Eng., Roy Consultants; **Hon. Roland Haché**, NB Minister of Environment; **Gilbert Godin**, P.Eng., Roche Consulting Engineering; **André Boissonnault**, P.Eng., Boissonnault McGraw Engineering; and **Chris Haines**, P.Eng., Dillon Consulting and president of CENB.



CENB events feature author John Bremner, P.Eng.



John Bremner, P.Eng., addresses the 200 delegates at the Union of Municipalities of New Brunswick event on September 29, 2007

CENB was proud to bring author **John Bremner**, P.Eng., from Vancouver to promote the InfraGuide Best Practice report: **Selecting a Professional Consultant**. Mr. Bremner was the featured speaker at the following events:

• CENB DEPUTY MINISTER'S DINNER (September 27, 2007)



(L to R): **Phil LePage**, assistant deputy minister, Business New Brunswick; **Dave Kozak**, P.Eng., Terrain Consultants; **David Johnstone**, P.Eng., deputy minister, NB Department of Transportation; **Chris Haines**, P.Eng., CENB President, Dillon Consulting



(L to R): **Joseph Kileel**, P.Eng., Crandall Engineering; **Ron Durelle**, deputy minister, NB Tourism and Parks, **Louise Lemon**, deputy minister, NB Supply and Services, **Réjean Boudreau**, P.Eng., Roy Consultants.

• CITIES OF NEW BRUNSWICK ASSOCIATION SEMINAR (September 28, 2007)



(L to R): **Chris Haines**, P.Eng.; **Alcide Richard**, P.Eng.; **Michel Ouellet**, P.Eng.; **David Crandall**, P.Eng.; **John Bremner**, P.Eng.; **Sherry Sparks**, P.Eng.; **Cyril Hawkins**, P.Eng.



(L to R): **John Bremner**, P.Eng.; and **Sandra Marks**, CNBA executive director

• UNION OF MUNICIPALITIES OF NEW BRUNSWICK'S AGM PLENARY SESSION (September 29, 2007)



CENB president, **Chris Haines**, P.Eng., promotes the Best Practices with a UMNBS delegate



John Bremner, P.Eng., in discussion with municipal councillors

Moncton Breakfast Information Session

Humphrey Sheehan, CEO of New Brunswick's Population Growth Secretariat, was the guest speaker at a CENB Breakfast Information Session held at the Delta Beauséjour in Moncton on November 28, 2007. Sheehan's presentation, "Economic development and population growth challenges facing New Brunswick" focused on the need to retain and attract skilled workers. The session was attended by CENB members along with **David Crandall**, P.Eng., APEGNB president; **Andrew McLeod**, APEGNB executive director; **Mike Waddell**, president of the Construction Association of New Brunswick; and **Wayne Chambers** of Modern Enterprises Limited.



From L to R:

Bruce Pearson, P.Eng.; **Brian Moreau**, P.Eng.; **Humphrey Sheehan**, guest speaker; **Dave Kozak**, P.Eng.; **Roland LeBlanc**, P.Eng., ACEC; and **Dave McAllister**, P.Eng.



From L to R:

Chris Haines, P.Eng.; president, CENB; **Mike Waddell**, president, Construction Association of NB; and **Dave MacAllister**, P.Eng., director, CENB.

Climate Change Information Session

CENB held a Climate Change Mixer/Information Session at UNB Fredericton's Wu Centre on January 31. **Carl Duivenvoorden**, an Atlantic Canadian tasked with spreading Al Gore's message on climate change, delivered the award-winning presentation "An Inconvenient Truth". Along with member firms, CENB was pleased to have 60 fourth and fifth-year students from UNB's engineering program in attendance.

CENB Annual Meeting, Trade Show and Showcase Awards

The CENB Board of Directors is inviting engineers, architects, contractors, administrators and the public to attend the 2008 CENB Conference and Trade Show to be held at the Saint John Trade & Convention Centre on April 23, 2008. This is an all-day event featuring a high-quality series of seminars from government and industry leaders including:

- Refinery Update (Irving Oil)
- The Nuclear Option (NB Dept. of Energy; AECL)
- Sustainable Community Development
- The War for Talent (BMP Technical Personnel Services)

CENB seeks new and affiliate members

CENB encourages New Brunswick engineering companies and affiliate companies to join the Consulting Engineers of New Brunswick and take

advantage of the opportunities that come with a CENB membership including:

- a membership in ACEC (for regular members)
- participation in various CENB activities including mixers, information sessions, the CENB Annual Awards, salary surveys, and our annual Golf Tournament.

CENB NEW MEMBER

The Board of Directors of CENB is pleased to welcome **Roche Atlantic Consulting Group Ltd.** of Caraquet as a new member for the year 2008/2009.

CENB AFFILIATE MEMBERS

The Board of Directors of CENB welcomes two new affiliate members to CENB for the 2007/2008 year: **RPC** and **Business New Brunswick**. This is the first year that CENB has offered affiliate memberships.

To learn more about CENB,
visit our web site at www.cenb.nb.ca
or contact executive director, **John Fudge, P.Eng.**, at cenbexec@nb.sympatico.ca.



**You must be the change
you want to see in the world.**
Mahatma Gandhi

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FEDERAL, PROVINCIAL SUPPORT FOR NEW CONFERENCE CENTRE IN DOWNTOWN FREDERICTON

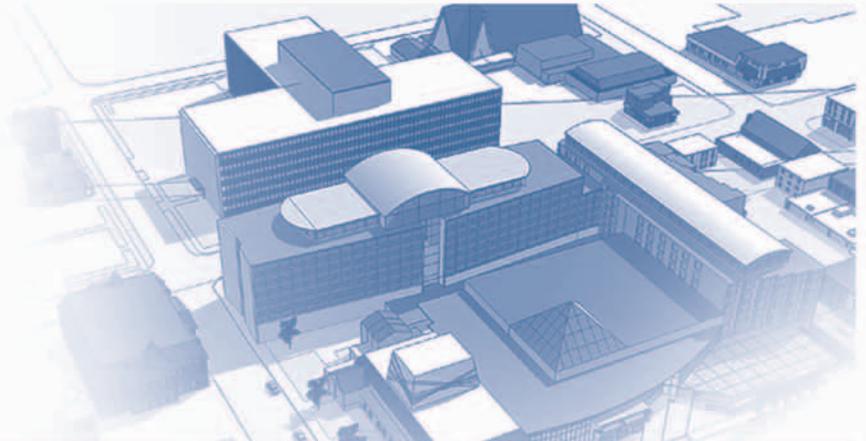
The Government of Canada and the Province of New Brunswick announced February 22 that the construction of a new state-of-the-art conference centre in downtown Fredericton would be considered a priority for joint funding under Building Canada, the Government of Canada's new long-term infrastructure plan.

Those taking part in the announcement included Premier Shawn Graham, Veterans Affairs Minister Greg Thompson, and Norah Davidson-Wright, deputy mayor of the City of Fredericton.

"The Province of New Brunswick is proud to be a key player in this important project which will help transform our economy," Graham said. "We must invest in infrastructure such as the Fredericton Conference Centre that will spur economic development, attract new employers to our province and promote tourism and culture which play a vital role in achieving self-sufficiency."

"The Fredericton Conference Centre will promote national and international business in the region as well as tourism, and will provide more job opportunities," Thompson said. "This is a major announcement of funding for the capital city of New Brunswick, one that will have a significant economic and regional impact."

Under Building Canada, up to \$8-million in combined funding from both levels of governments would be considered towards the eligible costs of constructing the \$24.2 million downtown conference centre. The City of Fredericton will be responsible for the remaining \$16.2-million towards the initiative.



The Fredericton Conference Centre will promote national and international business in the region as well as tourism, and will provide more job opportunities

"The conference centre is a vital component of our East End Development Project," Fredericton Mayor **Brad Woodside** said.

As part of the City of Fredericton's East End Development project, the 5,940 sq. m (66,000 sq. ft.) conference centre will be capable of accommodating 1,000 seated persons, and 1,500 persons in a stand-up concert style setting. It will include additional features such as meeting rooms, a ballroom, a business centre, a commercial kitchen, teleconferencing, and multi-media facilities. The East End Development project incorporates a flexible multi-purpose event and conference centre, connected and integrated with a new office building and parking structure.

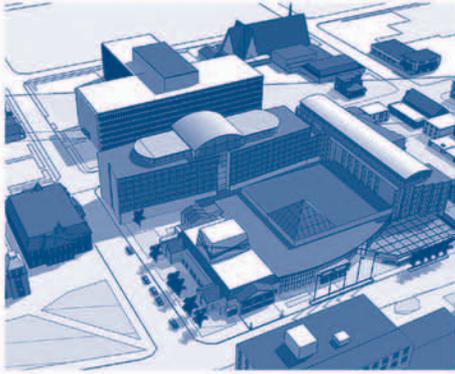
Federal financial support is conditional on the initiative meeting all applicable federal eligibility requirements under the Building

Canada infrastructure plan, the successful negotiation between the Governments of Canada and New Brunswick of any necessary funding agreements, and the city demonstrating it has secured its share of the remaining funding. Moving forward, the Province will now have to formally propose the initiative for funding to the federal government under the Building Canada Plan.

Through its unprecedented \$33-billion Building Canada infrastructure plan, the Government of Canada provides long-term, stable and predictable funding to help meet infrastructure needs across Canada. Building Canada supports a stronger, safer and better country.

More information on the Building Canada plan is available at:
<http://www.buildingcanada.gc.ca>





PROVINCE WILL LEASE NEW OFFICE TOWER FROM CITY OF FREDERICTON

Premier Shawn Graham announced December 21, 2007, that the Province will enter into a lease agreement with the City of Fredericton for about 13,500 square metres (150,000 square feet) of space in a new office tower to be built by the city as part of its downtown redevelopment project.

The leased space will provide the provincial government with the flexibility it needs to proceed with major renovations to the aging Centennial Building, which is more than 40 years old. The lease agreement with the City of Fredericton is estimated to be worth about \$4.5 - \$5 million per year.

The new city office building will accommodate employees of the civil service while the Centennial Building is being renovated. Once it has been refurbished, government offices will then be relocated back to the Centennial Building. In the meantime, the Department of Supply and Services will prepare a long-range strategic plan for its building inventory in the City of Fredericton. This plan will identify and address the long-term space needs of government.



Hollis Cole, P.Eng., and Premier Shawn Graham review plans for the Fredericton Convention Centre.

design and construction. The project is expected to be under construction in the spring of 2008 and will take about two years to complete. The Province would move into the office tower in 2010.

The City of Fredericton's redevelopment plans include the office tower, a parking garage and convention centre in downtown Fredericton adjacent to the Playhouse at an estimated total cost of \$69 million. ADI Ltd. has been awarded the city contract for

The Department of Supply and Services is in the process of transferring land at the northwest corner of King and St. John Street, which the city is purchasing to accommodate the construction of the convention centre and parking garage.



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UNB HOUSES NEW SUPERCOMPUTER THAT WILL CHANGE FACE OF RESEARCH IN ATLANTIC CANADA

Researchers from universities across Atlantic Canada will be able to collaborate and share large amounts of information thanks to new high-performance computing infrastructure at the University of New Brunswick in Fredericton.

UNB is one of four universities to house Atlantic Computational Excellence Network (ACEnet) infrastructure. The other universities are Memorial University of Newfoundland (MUN), St. Mary's University and St. Francis Xavier University.

UNB will be home to a supercomputer that has a storage capacity of more than 50,000 gigabytes and a state-of-the-art videoconferencing facility that will bring researchers together without having to leave their universities.

"In terms of what this infrastructure means for research at UNB, this is huge," said **Virendra Bhavsar**, dean of computer science

and director of the Advanced Computational Research Laboratory at UNB Fredericton. "The supercomputer that we are housing can process information more than 200 times faster than a typical desktop computer. Researchers can solve computational problems in a matter of hours rather than days and they can model and visualize data simultaneously. This infrastructure will serve researchers from across many disciplines including social sciences, sciences, humanities, and engineering."

ACEnet is Atlantic Canada's entry into the national fabric of high-performance computing. It is a \$26-million consortium made up of UNB, MUN, St. Mary's

University, St. Francis Xavier University, Dalhousie University, Mount Allison University, University of Prince Edward Island, Cape Breton University, and Acadia University. Researchers from these universities have access to the ACEnet infrastructure, creating a computational power grid of enormous capacity.

"Computational resources have transformed the way we do research," said Dr. Bhavsar. "They allow us to create computer models of applications, design more efficient industrial products and solve problems thought intractable a decade ago. ACEnet infrastructure allows researchers to store huge amounts of information that can be processed quickly and accessed by other researchers."

ACEnet is supported by the Canada Foundation for Innovation, Atlantic Canada Opportunities Agency, Business New Brunswick, New Brunswick Innovation Foundation, Nova Scotia Research and Innovation Trust, and Newfoundland's Industrial Research and Innovation Fund, with Sun Microsystems as a private partner.

At the infrastructure launch held on Feb. 28, ACEnet, along with Sun Microsystems Canada Ltd., announced seven ACEnet/Sun Research Fellowship Awards. The fellowships provide financial support to attract and support world-class researchers who want to visit an ACEnet institution for an extended period. These fellowships can also be used to support visiting faculty on sabbatical leave from their home institution

The UNB recipients of the ACEnet/Sun Research Fellowship Awards are **Zong-Chao Yan; Colin Ingalls; Gavin Brown; Andrew Gerber, P.Eng.; Virendra Bhavsar; Eric Aubanel;** and **Abdelhaq M. Hamza.**

Thirty-one fellowships have been awarded across Atlantic Canada. These fellowships will increase the number of research personnel involved in high-performance computing throughout Atlantic Canada.

For more information on ACEnet and UNB's infrastructure, contact Virendra Bhavsar at 506-458-7265. 

CAREER OPPORTUNITY



Manager, Design-Build and Services Contracts

Reports to: Vice President, Project Implementation

Accountabilities:

- Manage the compliance, from a contractual perspective, of all the engineering, design, construction, environmental and safety terms, and the project approval certificates issued under the Water Act of BC
- Administer major design-build contracts in conjunction with the Owner's Consultant
- Review and recommend solutions to technical and contractual issues that may occur during the construction phase of hydroelectric projects and related transmission line facilities
- Manage the warranty administration during the post-construction phase of hydroelectric power projects
- Manage the preparation and administration of service contracts as a service to all departments in the Corporation.

Requirements:

- Bachelor degree in Engineering
- In-depth knowledge and 10 - 15 years experience with the design-build form of procurement for major hydroelectric power projects

To apply for this position, or for more information on Columbia Power Corporation, go to: www.columbiapower.org and click on "Careers"



CONGRATULATIONS

Colpitts Developments
on taking home the top award.

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à Colpitts Developments,
gagnant du premier prix.

Avoir choisi de construire 35 résidences avec les systèmes de chauffage central et d'eau chaude fonctionnant au gaz naturel vous a permis non seulement de remporter le prix de « constructeur au gaz naturel de l'année », mais d'aider votre collectivité. En optant pour les systèmes de chauffage central et d'eau chaude fonctionnant au gaz naturel plutôt qu'à l'électricité, vous permettez à vos clients de réaliser des économies en plus d'éviter qu'environ 470 tonnes d'émissions de gaz à effet de serre ne se retrouvent dans l'environnement par année. Merci d'être passé au vert en optant pour le bleu.

Colpitts Developments,
Gagnant – Constructeur au gaz naturel de l'année
Association canadienne des constructeurs
d'habitations du Nouveau-Brunswick

*Pour savoir comment vous pouvez faire une
différence au sein de votre collectivité,
composez le 1-866-343-8427 ou
visitez le site gaznaturelnb.com*



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Le gaz naturel.
Au travail. Chez vous. Partout.

POSTCARD FROM THE

Grand Canyon

UNB geology students take part in first Annual McAllister Silver Standard Field Trip

Submitted by Angela Page, Bailey Geological Society President



gneisses and schists intruded by granitic gneisses and cross cut by gneissic pegmatite dykes and metamorphosed prior to the mineralized carbonatite complex.

The ore of the carbonatite consists of 60% carbonate (calcite, dolomite, siderite and ankerite); 20% sulfate (barite and celestite); 10% bastnasite (rare earth fluoro-carbonate); and 10% silicate phases (mainly quartz). The best approximation of the rare earth fluoro-carbonate elemental breakdown of the ore was given by Warhol, 1980, consisting of 50.0% Cerium, 34.0% Lanthanum, 11.0% Neodymium, 4.0% Praseodymium, 0.5% Samarium, 0.2% Gadolinium, 0.1% Europium, and 0.2% others. These rare earths are used in common items like colour TV's (europium and yttrium), magnets in headsets (neodymium and samarium), fluorescent lights (europium, yttrium, cerium, and terbium), and lighter flints (cerium) just to name a few.

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In June 2006, Robert Quartermain, UNB alumnus and president of Silver Standard Resources, created a study fund for field trips to mineral deposits. Quartermain recognized the importance of field study for geologists and the fund was established to support student field trips to see firsthand world-class mineral sites. Nearly two years later in March 2008, the first ever McAllister Silver Standard Field Trip took seven undergraduate and two graduate students to the southwestern United States with Dr. David Lentz, P.Ge., as our field trip leader.

Upon **arrival** in Las Vegas, we travelled 48 kms southwest to the **Hoover Dam** that borders two U.S. states, Arizona and Nevada. The dam is a concrete arch-gravity dam in the Black Canyon of the Colorado River, boosting the 34th largest hydroelectric generation station. With enough concrete to pave a road from coast to coast, the Dam rises more than 700 feet above the Colorado River. In its day, 1935, it was considered one of the greatest engineering works in history built during the Great Depression and bringing electricity and water to millions thus transforming the American Southwest.

Day two brought us to the **Mountain Pass Rare Earth Mine** in California operated by Chevron Mining Inc. The Mountain Pass Mine lies in the historical Clark Mining District in northeastern San Bernardino County, California, known for its silver and gold mining.

However in 1949, radioactive material was discovered and later identified as bastnasite, (Ce, La, Y) CO₃F. Mountain Pass lies within basin and range topography of the southwestern U.S. in a series of foliated

Day three brought us to Canadian owned (Mercator Minerals Ltd.) **Mineral Park Mine** geographically located between Chloride and Kingman, Arizona in southwestern USA's basin and range topography. What is interesting about Mineral Park's Cu-Mo



Copper plates from Mineral Park



MOUNTAIN PASS RARE EARTH MINE, CALIFORNIA

(L to R): Melissa Murphy; David Shinkle; Sarah O'Brien; Michelle McKeough; Jillian Craig; Kim Klaussen; Caroline Richer; Megan Trites; Angela Page; David Lentz, P.Ge.; John (Mountain Park staff).

porphyry mine is the presences of turquoise in its supergene zone rather than malachite or azurite. This is due to the absence of limestone and the presence of phosphorous enriched magma. Turquoise in this region has been mined over a thousand years, first by the Aztecs and Mayans, followed by the Native Americans and pioneers in the 1900's, and then by today's companies like Mercator.

Day four brought the UNB students to the Iron County of Utah examining a **Fe-skarn near Cedar City, Utah** and enjoying **Zion National Park**. The Fe-Skarn is physio-



FE-SKARN NEAR CEDAR CITY, UTAH
 Back Row: **Angela Page; David Shinkle; Kim Klaussen**
 Middle Row: **Megan Trites; Sarah O'Brien;**
Caroline Richer; Melissa Murphy; Jillian Craig;
Michelle McKeough
 Front Row: **David Lentz, P.Geo.**

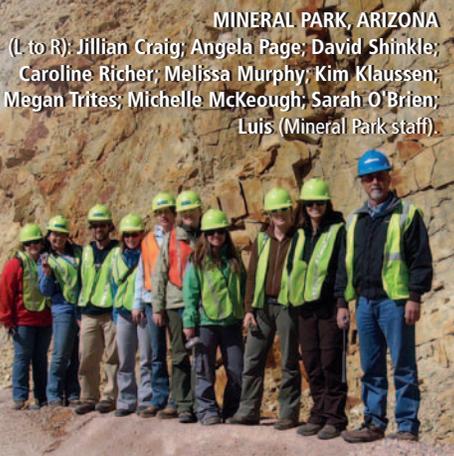
Deposits like this one are often found adjacent to plutons in Zion National Park. They consist of nine formations making up the rock sequence known as the Grand Staircase stretching south from Bryce Canyon National Park through Zion National Park and into the Grand Canyon. The formations represent about 150 million years of predominantly Mesozoic-aged sedimentation of several different environments and subsequent uplift of the Colorado Plateau capped by Pleistocene basaltic lava.



Zion National Park

The final day of our field study trip allowed students to be wowed by the grandeur of the **Grand Canyon**.

On behalf of the students of the University of New Brunswick who took part on the first annual McAllister Silver Standard Field Trip, I would like to thank **Robert Quartermain** for his generous donation to the university which allowed us to experience the trip of a lifetime. Special thanks to **Dr. David Lentz**, a one-of-a-kind, fearless field trip leader, who makes learning fun. We all leave with fond memories, sunburns, and a collection of rocks that would make any geologist jealous. 🌐



MINERAL PARK, ARIZONA
 (L to R): **Jillian Craig; Angela Page; David Shinkle;**
Caroline Richer; Melissa Murphy; Kim Klaussen;
Megan Trites; Michelle McKeough; Sarah O'Brien;
Luis (Mineral Park staff).

graphically located in the transition zone between the Basin and Range and Colorado Plateau provinces. Exposed geology of the area includes rocks of Paleozoic, Mesozoic, and Cenozoic age, with an aggregate thickness of more than 16,000 feet (4,877 m). The region witnessed an episode of calc-alkaline volcanism during the late Eocene, Oligocene, and early Miocene, periods. A period of more passive calc-alkaline volcanism, beginning in the mid-Miocene, was responsible for the Fe-skarn formation and magnetite and hematite mineralization.



Grand Canyon

IT'S OFFICIAL! NB ENGINEERS BUILD WORLD RECORD IGLOO!

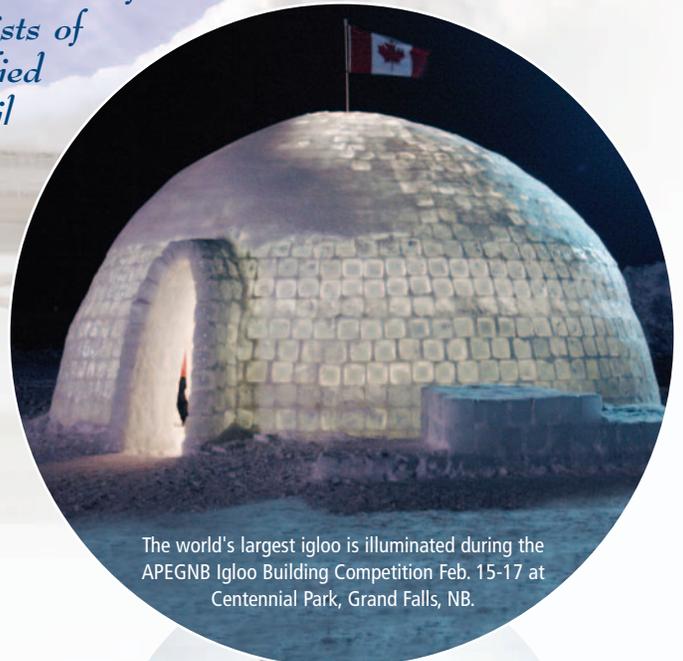
The Northwestern Branch of the Association of Professional Engineers and Geoscientists of New Brunswick (APEGNB) was notified by Guinness World Records in mid-April that they have officially established a new world record for the largest self-supporting dome igloo.



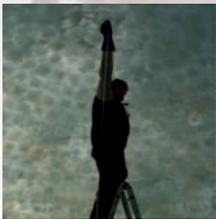
(L to R): **Mike Allen**, MP for Tobique Mactaquac; **Ron Ouellette**, NB Minister of Agriculture and Aquaculture and **Eric Ouellette**, P.Eng., served as the official adjudicators for the igloo's measurements.



Mike Allen, MP for Tobique-Mactaquac, (left) and **Eric Ouellette**, P.Eng., hold a few of the 2000 blocks of ice used to build the world record igloo.



The world's largest igloo is illuminated during the APEGNB Igloo Building Competition Feb. 15-17 at Centennial Park, Grand Falls, NB.



The interior height of the igloo was confirmed as 3.81 m or 12' 6"



Some of the 70 volunteers gather in front of the world record igloo on February 17th.

for 59 days until a warm stretch of weather brought it down on April 8."

Ouellette also credits the cold northern New Brunswick weather and the engineering expertise of the team as contributing factors to building the successful world-record igloo. "Many people don't realize how engineering impacts their everyday life.

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The ice igloo, which was built for the second annual APEGNB Igloo Building Competition in Grand Falls, NB (February 15 to 17, 2008) measured 7.9 m (25 ft 9 in) in diameter and 4.2 m (13 ft 8 in) high. The igloo measurements were adjudicated by **Mike Allen**, MP for Tobique-Mactaquac and **Ronald Ouellette**, New Brunswick's Minister of Agriculture and Aquaculture and MLA for Grand Falls, Drummond and Saint-André.

The previous world record was held by Hydro Quebec. Their 2005 igloo had an internal diameter of 7.36 m (24 ft 2 in) and an internal height of 3.81 m (12 ft 6 in).

Event organizer **Eric Ouellette**, P.Eng., says the igloo took 70 volunteers, 2000 blocks of ice and 50 hours to build. "It required a lot of planning and hard work to build a safe and solid structure that ultimately accommodated more than 200 people at one time," he says. "The igloo was so strong that it stood intact

Restigouche Construction



SNC-SNAM



John Caldwell School



Musitec



When the igloo was completed, more than 200 people crowded inside with room for about 50 more.

Without engineers, the roads we drive on, the buildings we work in and the clean water we drink wouldn't be possible. Engineering improves our quality of life and the safety of our environment. We thought the APEGNB Igloo Building Competition would be a creative way to demonstrate practical engineering principles and pay homage to our ancestral engineers—the Inuit—who invented the igloo.”

In addition to hosting the world record attempt, the 2008 APEGNB Igloo Building Competition had 10 teams of igloo builders who competed for the coveted APEGNB igloo trophy. The teams spent the weekend of February 15th building their own igloo using only traditional and environmentally friendly tools like snow spades and saws.

Restigouche Construction from Saint-André took home the gold for their whimsical igloo that looked like a seal. The silver medal went to the Falls Construction Team and SNC-SNAM received the Bronze medal. Bonus points were awarded to three teams who actually slept in their igloo overnight including the John Caldwell School team who braved minus 30 degree temperatures at night to get their bonus points.

The **Guinness criteria** defines a world record igloo as a structure that:

1. Is constructed entirely and solely of blocks of ice (note that this means the structure must be built from the ground up, and may not be carved out of a larger mound of ice or snow, for example).
2. Is broadly circular in shape.
3. Has a roof consisting of a dome that is completely self-supporting (thus it must be completely unsupported from either the inside or outside).
4. Has an arched doorway.

After judging, the igloos were demolished for safety reasons.



MEDAL WINNERS: The gold medal winners (Restigouche Construction) stand amongst the silver (Falls Construction) medallists and bronze medal team SNC-SNAM. APEGNB past president, **David Crandall, P.Eng.**, (left of sign) was on hand to congratulate the winners and volunteers.

“The event was a huge success by anyone’s standards,” says Ouellette. “We had thousands of visitors and lots of media interest. News articles appeared throughout New Brunswick and across Canada. I even did an interview with a radio station out of Iowa. It

was amazing how our igloo captured everyone’s imagination and attention. We can’t wait to get started on the 2009 APEGNB Igloo Building Competition.”

For more photos of the APEGNB Igloo Building Competition and the world record igloo, visit the official website at www.igloocompetition.ca



Restigouche Construction took 1st Place with their seal-inspired igloo.



Volunteer **Karine Savoie, P.Eng.**, was inside the igloo selling commemorative APEGNB igloo merchandise throughout the event.



Event organizer, **Eric Ouellette, P.Eng.**, is interviewed by local media.



Money raised during the 2008 APEGNB Igloo Building Competition was used to fund three engineering scholarships for New Brunswick high school students and provide a donation to Habitat for Humanity’s upcoming projects.

88TH ANNUAL MEETING

FEBRUARY 21-22, 2008
MIRAMICHI, NB

More than 150 people attended the 2008 Annual Meeting in Miramichi—one of our highest attendances ever!

Getting Down To Business

The 88th APEGNB Annual Meeting gets underway with opening remarks from Engineers Canada president, **Tony Dawe**, P.Eng.



APEGNB President **David Crandall**, P.Eng., (right) presents **Ed Smith**, P.Eng., Chair of the APEGNB Foundation for Education with a cheque for \$15,633.73—representing the donations of 113 APEGNB members in 2007. The money will be used to expand the size and number of scholarships the Foundation provides to New Brunswick high school and university students.

Hollis Cole, P.Eng., (left), and **David Crandall**, P.Eng., answer questions about the proposed bylaw changes.

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An APEGNB member reviews the proposed bylaw changes in advance of the vote.



APEGNB members vote on the proposed bylaw changes.



Members share their thoughts about the proposed bylaw changes.

Green is the New Gold

Kevin Gallant, P.Eng., a member of APEGNB's Annual Meeting Committee, introduces the guest speakers during Friday afternoon's technical sessions.



Barrie Black, president and CEO of the New Brunswick Innovation Foundation, explains what venture capital sources are available to fund green technology initiatives.



APEGNB members listen intently to the feature presentations.



Pierre Carabin, P.Eng., the chief engineer with PyroGenesis, shares advice for green entrepreneurs and outlines how his company was able to turn trash into cash by using plasma to convert waste into energy and useful materials



Congratulations to the 2008 Award Winners

Outgoing president **David Crandall**, P.Eng., welcomes delegates and guests to the 2008 APEGNB Annual Banquet.



SERVICE TO THE PROFESSION AWARD

Reg Wilson, P. Geo., (right) of Bathurst, accepts a 2008 APEGNB Service to the Profession Award from president **David Crandall**, P. Eng., for his work in advancing the profession of geoscience within New Brunswick and at the national level.



SERVICE TO THE PROFESSION AWARD

President **David Crandall**, P. Eng., presents past APEGNB president and ADI colleague, **Al Giberson**, P. Eng., (right) with a 2008 Service to the Profession Award for his work in promoting the value of the professions. (Al's youngest son, Seth, was equally proud of his Dad's accomplishments!).



VOLUNTEER AWARD

Eric Ouellette, P. Eng., accepts the 2008 Volunteer Award from president **David Crandall**, P. Eng., in recognition of his exceptional efforts to build public appreciation for engineering.



OUTSTANDING STUDENT AWARD

Owen Scott, a fifth-year civil engineering student at the University of New Brunswick, receives the 2008 Outstanding Student Award efforts from president **David Crandall**, P. Eng., for his efforts to eradicate global poverty with Engineers Without Borders while maintaining an excellent academic standing.



CANADIAN PROFESSIONAL GEOSCIENTIST AWARD

CCPG president, **Hamid Mumin**, P. Eng./P. Geo., (left) and CCPG Director, **Bruce Broster**, P. Geo., present **Dwight Ball**, P. Geo., (centre) with the 2007 Canadian Professional Geoscientist Award for his contributions to the geoscience profession.

When Irish Eyes are Smiling!

Everybody was all smiles during Thursday night's Irish Shindig at O'Donaghue's Pub in downtown Miramichi.

The Irish pub band, **Bottoms Up**, got the place rocking with their special brand of Celtic music.



When Irish Eyes are Smiling!



Past president **Iris Auclair-Bernard**, P.Eng., and **Georges Roy**, P.Eng., get into the Irish spirit of things.

The pub was filled to capacity.



Brent Smith, P.Eng., an APEGNB past president, shares a drink and a laugh with fellow APEGNB member, **Blake Wellner**, P.Eng.



Paul Rennick, P.Geo., **Catherine Rennick** and **Allan Higgins**, P.Geo.

APEGNB Past Presidents

(Standing—L to R):
David Crandall, P.Eng.; **Hollis Cole**, P.Eng.;
Boyd Touchie, P.Eng.; **Brent Smith**, P.Eng.;
Euan Strachan, P.Eng.; **Paul Belyea**, P.Eng.

(Seated—L to R):
Al Giberson, P.Eng.; **Bill Paterson**, P.Eng.;
Iris Auclair-Bernard, P.Eng.; **Frank Wilson**, P.Eng.;
Ed Smith, P.Eng.



Thanks to the folks who made the 2008 Annual Meeting possible!

2008 ANNUAL MEETING ORGANIZING COMMITTEE

(From L to R): **Mary Ellen Ritchie**; **Kevin Gallant**, P.Eng.; **Ray Ritchie**, P.Eng., Chair; **Claude Mallet**, P.Eng.

Missing from photo:
Raphael Roy, P.Eng.



ANNUAL MEETING SUPPORTERS

Partners

- Great West/London Life/Canada Life (Group Retirement Services)
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Gold

- Groupe Roy Consultants
- Sunny Corner Enterprises
- XL Design Professional

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- ADI
- Atlantic Industries Limited
- City of Miramichi
- Design Built Mechanical
- Manulife Financial
- Stantec
- Xstrata Zinc
- Wilson Concrete Pipe

Bronze

- Miramichi Timber Frames
- Opus International Consultants (Canada)
- The Panel Shop

JACQUES WHITFORD GREENS THE SCENE IN SAINT JOHN

Submitted by Trevor Gamblin, P.Eng.

Jacques Whitford will be the anchor tenant in the new Somerset Square office complex being built in the north end of Saint John. The building is expected to be certified LEED® Gold upon completion in June 2008.

Owner: Commercial Properties Limited
General Contractor: FCC Construction
Architect: Architecture 2000 Inc.

For more than 35 years, Jacques Whitford Limited has been a leader in engineering, environmental, and earth sciences solutions. The company has a heightened focus on sustainability for every aspect of their design, engineering, planning, and scientific innovation—not just for their clients but for their own initiatives as well.

All of their projects are viewed in response to one big question:

‘What will our children, grandchildren, and their children inherit?’

As part of their commitment towards sustainability, Jacques Whitford is relocating their corporate and technical offices to a new sustainable business complex at Somerset Square located in the north end of Saint John.

The new 25,000 square foot complex is currently registered with the US Green Building Council under LEED® Core and Shell.

The Leadership in Energy and Environmental Design (LEED®) Green Building Rating System was developed as a tool for standardizing efforts in green building

construction. The system addresses building performance within six categories, namely:

- Sustainable Sites;
- Water Efficiency;
- Energy and Atmosphere;
- Materials and Resources;
- Indoor Environmental Quality, and
- Innovation & Design Process.

Each category contains a series of mandatory prerequisites and achievable credits, which are defined by benchmarks. Documentation of design and construction accomplishments that meet, or exceed, the stipulated benchmarks allows for accumulation of points. The number of points achieved determines the LEED® rating awarded. The possible levels of certification are LEED® Certified, LEED® Silver, LEED® Gold, and LEED® Platinum.

The sustainable goals of Somerset Square are being accomplished by an integrated building design approach. Some of the key sustainable features of the building include:

- Brownfield redevelopment
- Heat recovery from exhaust air
- Construction waste management plan
- Use of recycled building materials
- Designated parking stalls for low-emitting vehicles
- Recycled rain water system
- Reduced lighting loads
- High-performance building envelope
- Daylighting and views for 75% of the building space

In addition to being the primary tenant at Somerset Square, Jacques Whitford is also the LEED® consultant on the project, the energy modeling consultant, and is providing geotechnical, materials testing, and environmental consulting services during the course of construction.

Somerset Square is scheduled for completion in June 2008 and is currently tracking for Gold certification. The project’s certification under Core and Shell would make it the first LEED® building of its kind in Saint John.



SHARE YOUR STORY!

*If you have a **dream job**, **unique project** or **won an award**, tell Engenuity readers about it!*

E-mail your story ideas to:
melissa@apegnb.com

APPLAUSE

APEGNB's office building wins a City of Fredericton Development Award

APEGNB's new office complex as well as two affordable housing projects, a church, a low- to medium-housing development with institutional use, and a soccer complex were the big winners at the City of Fredericton's Development Awards, which were presented December 18 by Mayor **Brad Woodside** and members of City Council.

The awards are presented annually during the December meeting of the City's Development Committee in recognition of exemplary development projects undertaken in the City of Fredericton in 2007.

"This is our way of saying thank you to the people dedicated to quality development projects in our City," said development committee chair Councillor **Mike O'Brien**, P.Eng.

The **Site Design and Brownfields Redevelopment Award** was won by the Association of Professional Engineers and Geoscientists of New Brunswick for its project at 183 Hanwell Road, the site of the former Ultramar bulk plant.

"This property had remained vacant and underused for a number of years due to the presence of environmental contaminants," said Ward 12 Councillor **David Kelly** in presenting the award to APEGNB President **David Crandall**, P.Eng.. "The Association

recognized the redevelopment potential of this property and has set a desirable standard for Commercial Design that moves away from the standard 'box' type buildings."



Fredericton City Councillor **Mike O'Brien**, P.Eng. (left), chair of the City's development committee is shown presenting the award to **David Crandall**, P.Eng.

The **Affordable Housing Awards** were won by the Tannery Court Co-Operative Ltd. for its 50-unit apartment building at 333 Cliffe Street, and the Fredericton Non-Profit Housing Corporation for its apartment buildings at

145 Westmorland Street and 279 Brunswick Street resulting in 12 new units.

Business Fredericton North won the **Environmental Stewardship Award** for development of the Nashwaaksis Stream Nature Park. This new park officially opened in November, 2007.

The **Community Building Award** was won by the Salvation Army for its new \$2.6 million Fredericton Community Church project at 531 St. Mary's Street.

The **Comprehensive Planning Award** was won by the First United Pentecostal Church's River Street and Bunker Street extensions for their low to medium density housing project, which includes construction of the Northeast Christian College and a community residence for the Canadian Deaf, Blind & Rubella Association.

The **Recreational Partnership Award** was won by the University of New Brunswick for substantial improvements to the Chapman Field soccer complex on the UNB campus. Field improvements, instituted at a cost of more than \$3.1 million, include the replacement of the existing turf with a synthetic surface as well as the installation of a bubble dome structure that will cover a portion of the field.

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ADI receives "Canada's 50 Best Managed Companies" Award



On February 27, ADI Group Inc. officially accepted the "Canada's 50 Best Managed Companies" award. A number of dignitaries were on hand to celebrate this success, including the Honourable **Shawn Graham**, Premier of New Brunswick, members of

his caucus, various area mayors and business leaders.

The national award, sponsored by Deloitte, CIBC and Queens School of Business, recognizes overall management excellence in a select few of Canadian companies across the country. This year, ADI and McCain Foods were the only two firms from New Brunswick selected.

"This award is a great achievement by all of our employees," stated **Hollis Cole**, P.Eng., CEO of ADI, as he gratefully accepted the award. "To be selected as one of "Canada's 50 Best" over the other national nominees is truly gratifying."

Over 12,000 companies across Canada were considered for the award that acknowledges the "best of the best". ADI has now won the award twice, a rare feat across Canada.

ADI Group is a professional services organization that provides services in management consulting, engineering, project and construction management, environmental management, and architecture, and provides design-build projects, water and wastewater treatment systems and geomembrane cover systems worldwide. ADI has projects in over 40 countries around the world.

New Brunswick geoscientists win AGS Awards



(Left) **Dr. Steve McCutcheon**, P.Geo., (NB DNR-Minerals in Bathurst and UNB geology adjunct professor) received the prestigious **AGS Gesner Medal for Distinguished Scientist**. He joins a distinguished list of recipients that includes **Art Ruitenber**, P.Geo. The Gesner Medal is awarded to a person who has, through their own efforts (maps, publications, memoirs, etc.) developed and promoted the advancement of geoscience in the Atlantic region in any field of geology. Abraham Gesner was the first government geologist appointed in any of the British colonies. Through his published work from 1838 to 1843 as New Brunswick's first geologist, he created great interest in the potential mineral wealth of New Brunswick.

(Right) **Reg Wilson**, P.Geo., (NB DNR-Minerals in Bathurst) won the **AGS Distinguished Service Award** which is given in recognition of exceptional and altruistic contributions to the Atlantic Geoscience Society over a long period of time. **Mike Parkhill**, P.Geo., and **Susan Johnson**, P.Geo., are two other New Brunswick provincial government geoscience staff who were earlier recipients of this important award.

The Atlantic Geoscience Society (AGS) honoured two New Brunswick geoscientists with top awards during their Colloquium and Annual General Meeting held at the Holiday Inn Harbourview in Dartmouth, NS, February 1-2, 2008.



Dr Paul Chiasson, ing., est nommé Fellow de l'Institut canadien des ingénieurs



Il est spécialisé en mécanique des sols et en génie des fondations. Ses travaux de recherche ont porté sur le contrôle de la qualité des barrières hydrauliques pour les lieux d'entreposage des déchets, les tests de perméabilité, le drainage des autoroutes, l'analyse probabiliste des fondations et la stabilité des pentes. Il a dirigé les thèses de plusieurs étudiants et étudiantes et publié nombre d'articles scientifiques dans des revues savantes et des congrès arbitrés. Il jouit également d'une excellente réputation à titre d'expert auprès des ingénieurs-conseils et des organismes gouvernementaux pour le contrôle de la qualité des barrières hydrauliques pour les lieux d'entreposage des déchets, les digues sur sols mous et les systèmes de drainage des autoroutes.

À l'Université de Moncton, son leadership et son professionnalisme ont rapidement été

reconnus, ce qui l'a mené au poste de chef du génie civil, de vice-doyen et finalement de doyen de la Faculté d'ingénierie. De pair avec ses activités académiques, Dr Chiasson a occupé plusieurs postes au sein de la Société canadienne de géotechnique incluant celui de directeur régional pour les provinces atlantiques, secrétaire puis vice-président de la division des géosynthétiques, et dernièrement, vice-président aux communications.

Auteur et collaborateur à la Lettre de la géotechnique (bulletin de la Société internationale de mécanique des sols et de la géotechnique) depuis 1998, il a également présidé et organisé de nombreux congrès, ateliers et cours abrégés pour le compte de la Société canadienne de géotechnique et de la Société canadienne de génie civil.

À son banquet annuel du 1^{er} mars 2008 à Ottawa, l'Institut canadien des ingénieurs a élevé le **Dr Paul Chiasson**, ing., au titre de fellow. Ingénieur membre de l'AIGNB depuis 1988, il est professeur en génie civil et doyen de la Faculté d'ingénierie de l'Université de Moncton.

APEGNB HELPS REDUCE ARSENIC POISONING IN BANGLADESH

Submitted By: APEGNB member Dr. Nadim Reza Khandaker, P.Eng.

Arsenic contamination of groundwater is a worldwide problem affecting millions. The maximum number of people affected is in the Ganges Delta region of West Bengal, India and Bangladesh.

On-the-job training on the use of arsenic field test kits.



Although the project is small, it has the capacity to positively affect the lives of thousands of people.

Volunteers testing the well waters from a place of worship.



wells for irrigation with groundwater may contribute to the spread of the arsenic contamination. Thus, safe wells over time may become arsenic contaminated due to forced migration of the arsenic plume by these high-capacity pumps. The Bangladesh government and other aid agencies, due to limitations of resources, do not have the ability to retest these wells periodically. At least in nearby regions, no re-testing has been done since 2003.

In this project, our focus is to **retest these formerly safe wells** to see if the status has changed. Not only will we be providing a direct public health service, but we will be generating data to help the scientific community ascertain the time course effect of arsenic-free wells with respect to still

Dr. Khandaker teaching the use of the arsenic field test kits.



In the deltaic regions of Bangladesh, it is estimated that over 40 million people are drinking arsenic-contaminated water with arsenic content of over 50 ppb. With the help of the Association of Professional Engineers and Geoscientists of New Brunswick (APEGNB), an **arsenic mitigation cell** was set up in a small village of Bangladesh.

The village is called Sardi and is located in one of the arsenic-affected regions of Bangladesh. The district where Sardi is situated is called Naringanj, located approximately 40 km from the capital city of Dhaka. It lies in the flood plain of the Megna River.

UNICEF had chosen this area as one of their project areas for mitigation, based on prevalence of arsenic-affected patients and number of wells contaminated. Chronic consumption of arsenic-contaminated water ranges from skin lesions to cardiovascular diseases and cancers. The effect is cumulative and shows up over many years of consumption. UNICEF has found patients in the Naringanj District with a prevalence of symptoms of chronic arsenic poisoning. In the year 2002, a survey of all the wells of Sardi and its neighboring villages showed that, except for

a few, the **majority of the wells had arsenic levels above the Bangladesh limit** of 50 ppb.

There is a lingering question of whether wells that are safe with respect to arsenic may become contaminated with respect to arsenic over time. With the help of a **charity clinic** in Sardi (Mukto Ongon Free Clinic) we wanted to set up a small project to retest the delineated arsenic-safe wells of the 2003 survey. We wanted to see specifically whether the arsenic-safe wells compromised over time. Additionally, we wanted to build the capacity of the charity clinic in Sardi to test for arsenic in well water to provide a needed public health service locally.

Although the project is small, it has the **capacity to positively affect the lives of thousands of people**. Bangladesh, being one of the most densely populated countries in the world, has an average village population of 1,200. This means that Sardi and its neighboring 10 villages will account for over 10,000 people. This is the population base where the Mukto Ongon Free Clinic operates.

An important point to note is that scientists worry that the use of high-powered agricultural

staying arsenic safe. It is our intention to retest a sufficient number of arsenic-safe wells to shed light on this important question.

In the long run, the best strategy to cope with this problem in a sustainable fashion is self-reliance. With this in mind, we wanted to train and build a capacity of the Mukto Ongon Free Clinic personnel and volunteers in the use of arsenic field-test kits.

On November 16, we initiated the project by training the free clinic paramedic and student volunteers from Sardi in testing for arsenic in well waters using arsenic field test kits.

Two arsenic **field test kits** were provided free by **Tareq Ali**, of G.A. Traders, the supplier for Merck arsenic field test kits in Bangladesh. Each kit contains 100 tests and costs approximately \$100 CAN.

In the first day of field work, we tested six wells, which were already tested in 2003, and designated arsenic-safe. Our test results, however, showed that, at present, two of the six wells are no longer safe and exceed the Bangladesh limit for arsenic in water of 50 ppb. These initial results demonstrate the **need for regular retesting of the wells,**



Homeowner collecting water sample for testing.

The overall goal is to turn this project into a village-level action research cell to develop and promote self-sustaining arsenic mitigation options, without waiting for the government or international organizations.

as well as the merit of a study such as this. The established arsenic cell will carry on testing and recording the designated safe wells of the 2003 survey in Sardi and surrounding villages. As an added service, the arsenic mitigation cell in Sardi will test newly installed wells.

At present, we have the capacity to test around 200 wells. However, with the equip-



Student volunteers in action

ment we have, we can replace the chemicals in the field-test kits to continue serving the community for the foreseeable future.

We would like to install a cost-sharing method to **generate the necessary funds to**

replace the chemicals needed to replenish the arsenic field-test kits. Over time, we would also like to introduce and sustain other mitigation efforts, such as education cells, low-cost arsenic-removal filters, and promotion of sharing of safe-well waters with the community through a cost-sharing program.

In terms of this last point, an example would be the sharing of the safe-well water from the clinic by **installing a power pump instead of a hand pump**, which will have the capacity to supply arsenic-safe water to the population around the clinic.

The overall goal is to turn this project into a village-level action research cell to develop and promote self-sustaining arsenic mitigation options, without waiting for the government or international organizations. In this end, any help from individuals or organizations would be welcome. Thanks again to the members of APEGNB who made all of this possible. I am looking forward to future on-going collaborations.

For more information on Dr. Khandaker's work in Bangladesh or to help fund his research, e-mail nadimkhandaker@hotmail.com. 

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CONTEST CORNER



Fall/Winter 2007 Contest Corner Winners

Mary Byrne, P.Eng.
Enbridge Gas Distribution
Toronto, ON

Al Cunningham, P.Eng.
Management Systems
Development Engineering
Moncton, NB

Peter Tkalec, P.Eng.
NB Power
Fredericton, NB

Tony Whalen, P.Eng.
City Councillor
Fredericton, NB

In the last issue of *Engenuity*, we wanted to know which of the following was NOT a type of wind turbine:

- A. Terra Moya Aqua (TMA) turbine
- B. Stormblade Turbine
- C. Popeil-Ronco Turbine
- D. QR5 Turbine

Apparently, more than a few people don't remember prolific inventor **Ron Popeil**, star of the Ronco infomercials. Although Mr. Popeil invented everything from the Chop-O-Matic to the Cap Snaffler, he has yet to create a wind turbine.

Congratulations to the winners listed on the left who correctly identified "C: Popeil-Ronco Turbine" as being the imposter.

If you'd like to be the proud owner of your very own APEGNB prize package, tell us:

WHAT IS THE SAXBY GALE?

- A A geologic scale that measures mineral hardness.
- B A devastating 19th-century tropical cyclone that flooded New Brunswick's Tantramar Marsh.
- C Deep-sky astronomy software.
- D A Celtic dance troupe of science students.

To win this season's Engenuity prize package, e-mail your answer to melissa@apegnb.com by **June 30, 2008**.

The first five correct submissions drawn will win all kinds of cool APEGNB goodies like a ball cap, pen, t-shirt, and more!

WATER IS OUR SPECIALTY

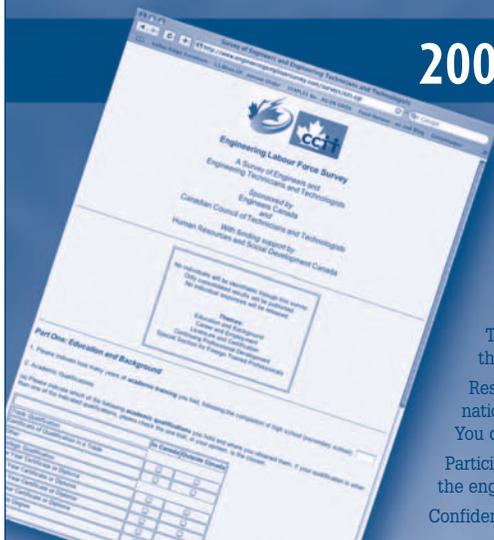
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2008 national engineering survey underway



The 2008 National Survey of Engineers and Engineering Technicians and Technologists, co-sponsored by Engineers Canada and the Canadian Council of Technicians and Technologists, is now available at www.engineeringemployeesurvey.com. The survey will take about 20 minutes to complete and is open to all engineers and engineering technicians and technologists, regardless of whether they are licensed or certified.

The 2008 National Survey is part of a larger study that will report on trends in:

- the supply and demand of engineers and engineering technicians and technologists,
- the employment of internationally-trained engineers and engineering technicians and technologists, and
- continuing professional development.

The results of this survey also will be linked to the 2007 Survey of Engineering and Technology Employers and to the short- and medium-term supply/demand forecast that is being developed.

Results from the 2008 National Survey will be published later this year. Those results will be available to you on the national Engineering and Technology Labour Market Study web site where you can also find reports as they are published. You can visit the Study web-site at www.engineerscanada.ca/etlms/index.cfm

Participation in this survey will place APEGNB in a stronger position to implement the policies and programs to strengthen the engineering profession and support members throughout their career.

Confidentiality is absolutely assured. Individual respondents cannot be identified through the survey.

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NEW BRUNSWICK
ENGENUITY



CHANTAL GUAY, P.ENG., BECOMES NEW CEO OF ENGINEERS CANADA

F

ollowing an extensive nationwide search, Engineers Canada is proud to announce that **Chantal Guay**, P.Eng., has been selected to lead the organization in the role of chief executive officer.

Ms. Guay will further advance Engineers Canada's work on major, national initiatives and issues including the launch of the National Round Table on Sustainable Infrastructure, research on the vulnerability of Canada's public infrastructure to extreme climatic events, immigration and foreign credential recognition, and labour mobility.

"The Board of Directors welcomes Chantal to Engineers Canada," said **Ken McMartin**, P.Eng., chair of the Selection Committee of Engineers Canada.

"Ms. Guay's experience and leadership are an excellent complement to our existing team. We look forward to working with her as the organization continues to deliver national programs that ensure the highest standards of engineering education, professional qualifications and professional practice." Ms. Guay replaces **Marie Lemay**, P.Eng., who recently accepted the position of chief executive officer of the National Capital Commission.

Ms. Guay has more than 14 years of municipal and office management experience, including the startup and growth of an environmental engineering

consulting firm, and the planning, development and implementation of projects geared towards the redevelopment of brownfields in Montréal.

She also served as a member of Engineers Canada's executive, awards and research committees.

"I look forward to continuing my work at Engineers Canada and building on the organization's recent successes," said Ms. Guay. "My strong technical background and experience, in combination with my enthusiasm and dedication to everything I undertake, will enable me to continue building on Marie Lemay's excellent work."

"I am a strong believer in the practice of sound engineering and giving back to my profession," said Ms. Guay. "Engineers have significantly contributed to the well-being and wealth of Canadian society, and will be even more important as we face additional issues related to infrastructure renewal and adapting to climate change. Engineers Canada has been a catalyst in bringing these and other issues to the forefront and will continue to work with all stakeholders to identify the best solutions."

A member of the Ordre des ingénieurs du Québec, Ms. Guay has served on the Board of Directors and as the chair of the organization's enforcement committee. She is fluently bilingual and has a master's of environment from the Université de Sherbrooke.

INGÉNIEURS CANADA NOMME CHANTAL GUAY, ING., AU POSTE DE CHEF DE LA DIRECTION

A

près une recherche intense à l'échelle nationale, Ingénieurs Canada est fier d'annoncer que **Chantal Guay**, ing., M.Env., a été sélectionnée pour diriger l'organisme en qualité de chef de la direction.

L'arrivée de M^{me} Guay fera progresser les travaux qu'elle effectue Ingénieurs Canada sur diverses initiatives et questions nationales d'envergure, comme le lancement de la Table ronde nationale sur l'infrastructure durable, les recherches sur la vulnérabilité des infrastructures publiques du Canada aux événements climatiques extrêmes, l'immigration et la reconnaissance des titres de compétence étrangers et la mobilité de la main-d'oeuvre.

« Le conseil d'administration est heureux d'accueillir Chantal à Ingénieurs Canada, déclare **Ken McMartin**, P.Eng., président du Comité de sélection d'Ingénieurs Canada. Son expérience et son leadership sont d'excellents atouts complémentaires pour notre équipe. Nous attendons avec intérêt de poursuivre avec elle notre mission, qui est d'offrir des programmes nationaux visant à assurer le respect des normes les plus rigoureuses en ce qui concerne la formation en génie, les compétences professionnelles et l'exercice de la profession. » M^{me} Guay remplace **Marie Lemay**, ing., P.Eng., qui a récemment accepté le poste de chef de la direction de la Commission de la capitale nationale.

M^{me} Guay cumule plus de 14 ans d'expérience en gestion municipale et en gestion d'entreprise; en effet,

elle a dirigé le démarrage d'une filiale d'ingénieurs-conseils en environnement et en a assuré la croissance, et elle a géré la planification, le développement et la mise en oeuvre de projets axés sur la réhabilitation de friches industrielles à Montréal. Elle a également siégé au comité exécutif, au Comité des prix et au Comité de recherche d'Ingénieurs Canada.

« J'ai hâte de poursuivre mon travail à Ingénieurs Canada et de miser sur les succès récents de l'organisme, déclare Mme Guay. Mon solide bagage technique, allié à mon enthousiasme et à ma détermination dans tout ce que j'entreprends, me permettra de mener plus loin l'excellent travail de Marie Lemay. »

« Je crois fermement en la pratique d'une saine ingénierie et j'ai le devoir de rendre service à ma profession, poursuit M^{me} Guay. Les ingénieurs contribuent au bien-être et à la richesse de la société et leur rôle sera d'autant plus important que nous sommes confrontés à d'autres enjeux comme le renouvellement des infrastructures et l'adaptation aux changements climatiques. Ingénieurs Canada a joué un rôle de catalyseur en amenant ces enjeux au premier rang des préoccupations et continuera de travailler avec tous les intervenants afin de trouver les meilleures solutions et de les mettre en oeuvre. »

À titre de membre de l'Ordre des ingénieurs du Québec, M^{me} Guay a siégé au conseil d'administration (Bureau) et au comité sur l'application de la loi de l'organisme. Elle est bilingue et est titulaire d'une maîtrise en environnement de l'Université de Sherbrooke.

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blog profiles issues of interest to women
engineers and scientists as well as discusses the
latest in technology.

www.virtualeyesees.com/blog/

CNSR 2008: SIGNALLING THE FUTURE

Halifax will take on a distinctly technical tone this spring, when the city hosts the sixth annual Conference on Communication Networks and Services Research (CNSR 2008). From Monday, May 5, through Thursday, May 8, information and communication technology (ICT) researchers, practitioners and industry representatives from Atlantic Canada and around the world will gather at the Lord Nelson Hotel to review the latest research and advances in their field.

The general chair of the conference, **Dr. Jacek Ilow** of Halifax's Dalhousie University, says CNSR 2008 is Atlantic Canada's pivotal forum to showcase the broad-spectrum ICT research that strategic alliances have facilitated in the region. "Collaboration among universities, industry and government is critical to Canada's success in the global information and communication technology sector," Dr. Ilow explains.

The conference is a key element of the Communication Networks and Services Research (CNSR) enterprise, one of five research projects based in New Brunswick and Nova Scotia and funded by the Government of Canada's Atlantic Innovation Fund (AIF) through the Atlantic Canada Opportunities Agency (ACOA).

CNSR sponsors partnerships between universities, such as Dalhousie University, Université de Moncton, and the University



DALHOUSIE UNIVERSITY RESEARCHERS IMPROVING WIRELESS TECHNOLOGY:

(L to R): **Scott Melvin**, Ph.D. candidate; **Mohan Baro**, Ph.D. candidate; **Dr. Jacek Ilow**, principal investigator on the CNSR Component A, Integrated Radio Frequency and Digital Signal Processing Designs Using Software Radios; **Dr. David Chen**, P.Eng., principal investigator on the CNSR Component B, Generic Smart Transceiver Systems for Wireless Communications.

of New Brunswick (UNB), and businesses in Atlantic Canada, including Bell Aliant, Leadership International Inc., Nautel Ltd., Nortel Networks, and Cobham Tracking & Locating Ltd.

The partnerships will undertake focused research to improve existing applications and develop new technologies in communication networks.

In co-operation with their respective industry partners, five CNSR principal researchers lead teams that are delivering findings in these areas:

- *Internet Data Traffic Analysis and Tools Development* – **Dr. Jalal Almhana**, Université de Moncton
- *Generic Smart Transceiver Systems for Wireless Communications* – **Dr. David Chen**, P.Eng., Dalhousie University

- *Adaptive Websites* – **Dr. Ali Ghorbani**, University of New Brunswick
- *Integrated Radio Frequency and Digital Signal Processing Designs Using Software Radios* – **Dr. Jacek Ilow**, Dalhousie University
- *Next Generation Wireless Telecommunications Systems for Mobility* – **Dr. Bernd Kurz**, University of New Brunswick

ICT stakeholders will gather at CNSR 2008 to share the latest in these and other cutting-edge research areas related to communication networks and services. The event is jointly sponsored by the participating universities and ACOA's AIF.

CNSR 2008 has also secured technical co-sponsorship from the Communications Society of the Institute of Electrical and Electronics Engineers, Inc. (IEEE), and in-cooperation status from the Association of Computing Machinery (ACM), with the Special Interest Groups Design of Communication (SIGDOC) and Web (SIGWEB).

Special-interest tutorials will be held on Monday, May 5, and three noted experts will take turns delivering a daily keynote

CNSR 2008 is Atlantic Canada's pivotal forum to showcase the broad-spectrum ICT research that strategic alliances have facilitated in the region.

session during the conference. The proceedings of CNSR 2008 will also be archived through the IEEE Xplore Digital Library.

An example of the depth and quality of CNSR research is the work by Dr. Ilow and his Dalhousie team with their industrial partner, Nautel of Halifax. Their Integrated Radio Frequency and Digital Signal

(IBOC) transmission in a concerted thrust to fully realize the potential of DAB in AM/FM bands. The IBOC system is designed to deliver CD-quality DAB using existing spectral channels without interfering with continuing analog AM and FM broadcast.

Specific challenges being addressed by Dr. Ilow's project are related to DAB with

Dr. David Chen, P.Eng., tutorial chair for CNSR 2008, believes the CNSR has served a vital role in meeting this escalating demand "The CNSR project is an excellent illustration of the benefits of the funding provided by AIF through ACOA, and the tactical alliances between the researchers and industry. CNSR has facilitated the development of new technologies and the training of highly-

“CNSR has facilitated the development of new technologies and the training of highly-qualified personnel positioned to perform in this rapidly-evolving sector.”

Processing Designs Using Software Radios project aims to develop solutions and design and build prototypes that enable the deployment of digital audio broadcasting (DAB) using existing RF equipment. Digital technology, with its higher quality audio, is fast becoming the standard for communications applications and radio, and Dr. Ilow's research attempts to enable the deployment of DAB using existing RF equipment that originally involved major investments by broadcasters and manufacturers.

Manufacturers and developers of radio broadcasting equipment are supporting the global standard for In-Band On-Channel

Nautel's high-power transmitters and include the performance tradeoffs of different modulation methods, transmitter linearity and spectrum utilization. The integrated RF-Digital Signal Processing (DSP) designs in development will be applicable to any radio system with multilevel modulation schemes to increase transmission speeds or for use where there is a need to use non-linear amplifiers, such as in satellite systems.

The explosive growth in wireless communication systems over the last decade has resulted in the need for increased multimedia communication services in a myriad of environments.

qualified personnel positioned to perform in this rapidly-evolving sector.”

To register for CNSR 2008 or get more information, visit <http://www.cnsr.info/Events/CNSR2008/cnsr2008main.php> or e-mail: cnsr2008@dal.ca



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LES BOURSES D'ÉTUDES SUPÉRIEURES - 6 000 \$ au total pour des études de deuxième et troisième cycle : 3 000 \$ pour la maîtrise et 3 000 \$ pour le doctorat. Attribuées chaque année à un membre cotisant de l'AIGNB, détenteur du titre ing. ou géosc., ou membre stagiaire inscrit depuis deux ans à compter du 1 ^{er} septembre de l'année de la remise de la bourse.	3 000 \$
	3 000 \$
LA BOURSE COMMÉMORATIVE OTTIS I. LOGUE - 4 000 \$ est attribuée chaque année à un diplômé d'ingénierie qui a été accepté dans un diplôme à la poste études à l'Université du Nouveau-Brunswick ou l'Université de Moncton.	4 000 \$

Pour tous renseignements, veuillez communiquer avec nous à rachael@apegnb.com



REGISTRATION SUMMARY

NOVEMBER, 2007, JANUARY & FEBRUARY, 2008

Registrations

Anstey, Gregory, P.Eng.
Arntsen, Clint, P.Eng.
Ash Richard, Gillian, P.Eng.
Aubé, David Civil, P.Eng.
Bailey, Joseph, P.Eng.
Bastow, Colin, P.Eng.
Bentley, Pamela M., P.Eng.
Burton, Leah, P.Eng.
Coles, Jill, P.Eng.
Comeau, Gilles R., ing.
Cormier, Marc, P.Eng.
Cowan, David, P.Eng.
Daigle, Marc, P.Eng.
DesRoches, Trevor, P.Eng.
Doiron, Matthew, P.Eng.
Estey, Andrew, P.Eng.
Glendenning, Kimberly, P.Eng.
Kilfoil, Matthew, P.Eng.
Lacombe, André, ing.
Laforge, Marc, P.Eng.
Lagacé, René, P.Eng.
LeBlanc Eric, P.Eng.
LeBlanc, Luc, P.Eng.
LeBlanc, Sylvain, ing.
Lolja, Rudina, P.Eng.
Long, David, P.Eng.
MacDonald, Tracy, P.Eng.
MacLeod, Erin, P.Eng.
Mason, Julie, P.Eng.
Maynard, Peter, P.Eng.
Munro, Andrew, P.Eng.
Nadeau, Pierre, ing.
Pype, Lucinda, P.Eng.
Quirion, Eric, P.Eng.
Robak, Anna, P.Eng.
Rose, Marlo, P.Eng.
Rowe, Robert, P.Eng.
Samson, R. Craig, P.Eng.
Scott, Stephanie, P.Eng.
Tai, Choo Sung, P.Eng.
Travis, Fenton, P.Eng.
Venkatesh, Balasubramanian, P.Eng.
Withers, David P., P.Eng.

Transfers-in

Akeroyd, James, P.Eng.
Aucoin, Elaine, ing.
Bradford, Barry E., P.Eng.
Desrosiers, Jean, P.Eng.
Dixon, Christopher, P.Eng.
Dumont, Marie-Claude, ing.
Fournier, Marc-André, ing.
Gamble, Dylan, P.Eng.
Garrett, Michael, P.Eng.
Holm, Kristian, P.Eng.
Jackman, Anthony, P.Eng.
Joyce, David, P.Eng.
Lassonde, André, ing.
McConnell, Paul, P.Eng.

Sheppard, Jack, P.Eng.
Steven-Power, Susan, P.Eng.
Tucker, Mark, P.Geo.

Members-in-Training

Abernethy, Matthew, MIT
Bagnan Beidou, Fatouma, MS
Balram, Christofer, MIT
Beal, Kristy-Lee, MIT
Blackmore, Adam, MIT
Bowland, Joseph, MIT
Calhoun, Lydia, MIT
Cheema, Qasim, MIT
Childs, Stanley, MIT
Chouinard, Jonathan, MIT
Crozier, Robert, MIT
Duguay, Mathieu, MS
Dupuis, Etienne, MS
Durette, Shawn, MIT
Greer, Bradley, MIT
Hallett, William, MIT
Harinarine, Karan, MIT
Harvey, Kevin, MIT
Hawkes, Margaret, MIT
Heeney, Darryl, MIT
Hill, Daniel, MIT
Hizem, Atef, MS
Howatt, Glen, MIT
Levesque, Christiane, MIT
Lundrigan, Derrick, MIT
Maston, Wayne, MIT
Mi, ZaiYan, MIT
Nabuurs, Darryl, MIT
Nolan, Shawn E., MIT
Norton, Erin, MIT
O'Brien, Caitlin, MIT
Otis, Benoit, MS
Parks, Matthew, MIT
Perry, Jonathan, MIT
Poirier, Sidney, MS
Richards, David, MIT
Sanon, Moise, MS
Scovil, Anthony, MIT
Shahabuddin, Mouri, MIT
Shee, Jeffrey, MIT
Somerville, Stephen, MIT
Souma, Gérard, MS
St-Amand, Andy, MIT
Surette, Luc, MIT
Wahiduzzaman, MD, MIT
Washburn, Russ, MIT
Webb, Craig, MIT
Wentzell, Kurt, MIT

Licenceses

Adhikary, Ramakanta, P.Eng.
Albert, Michael, P.Eng.
Anglin, C. David, P.Eng.
Artimy, Maen, P.Eng.
Beaudreault, Jean, ing.

Boudreau, Roland, ing.
Butt, Christopher, P.Eng.
Cardenas Gutierrez, Gerardo, P.Eng.
Cashin, Patrick, P.Eng.
Chow, Wilbey, P.Eng.
Covello, Angelo, P.Eng.
Cyr, Pierre, ing.
Dobson, William, P.Eng.
Fraser, Kevin, P.Eng.
Gibson, Bradford, P.Eng.
Goerz, Brent, P.Eng.
Goyal, Reena, P.Eng.
Ibrahim, Akram, P.Eng.
Kirkwood, Keith, P.Eng.
Korus, Andrew, P.Eng.
Leclerc, Stephane, P.Eng.
MacDougall, Bruce, P.Eng.
Maheux, Martin, ing.
Maurer, Michael, P.Eng.
Milette, Pierre, ing.
Monette, Claude, ing.
Morgan, Michael, P.Eng.
O'Hara, Michael, P.Eng.
Reid, Bill, P.Eng.
Rotella, Tommaso, P.Eng.
Samson, Luc Pierre, ing.
Schell, Joseph, P.Eng.
Sheridan, Edward, P.Eng.
Simpson, Neil, P.Eng.
Sissakis, Kyriakos, P.Eng.
Smit, Brian, P.Eng.
Spitzer, Frank, P.Eng.
Whiffin, R. Brian, P.Eng.
Wong, Sze Hung, P.Eng.

Certificates of Authorization – Resident

Corbo Inc., Caraquet, NB
Geo Explorations Inc., Fox Hill, NB
IEP Canada Ltd., Perth Andover, NB

Certificates of Authorization – Non Resident

Bouthillette Parizeau & Associés Inc.,
Montréal, QC
BRT Consulting Limited, Calgary, AB
Claypine Technologies Incorporated,
Mississauga, ON
Complete Crossings Inc., Stony Plain, AB
Engineered Lifting Systems & Equipment
Inc., Elmira, ON
Filiatrault, McNeil & Associés Inc., Laval, QC
Fishburn / Sherridan and Associates Ltd.,
Stittsville, ON
Halsall Associates Limited, Toronto, ON
Internetworking Atlantic Inc., Halifax, NS
Levac Robichaud Leclerc Associates Ltd.,
Rockland, ON
LKM, a division of SNC-Lavalin Inc.,
Toronto, ON

M&E Engineering Ltd., Vaughan, ON
Neegan Burnside Ltd., Orangeville, ON
Plant Performance Services - Canada,
Inc., Irving, TX, USA
W.F. Baird & Associates Coastal Engineers
Ltd., Ottawa, ON

Reinstatements

Bourque, Guy, ing.
Fyffe, Stephen, P.Eng.
Newcomb, Eric, P.Eng.
Proulx, Alexandre, P.Eng.
Pyke, Darrel, P.Eng.
Steeves, Michael, P.Eng.

Resigned

Christian, John
Dumont, Melissa
Farmer, Alan
Farrah, Wallace
Godfrey, Andrea
Graves, Garth
Green, John
Hawco, William
Jackart, Douglas
Kowalewski, Steven
MacKeen, Bruce
McClare, Jennifer
McCracken, Paul
Poplyansky, Gary
Ritchie, Alan
Ryan, Michael

Transfers-Out

Buckle, Kenneth
Buckley, Mark
Carpenter, Blaine
Godbout, Michel
Grant, Philip
Haines, Christopher
Humble, Lawrence
Kennedy, Evan
Lake, David
Meadus, Walter
Minor, Edward
Moore, Geoffrey
Morrison, Michael
Peyton, Derrick
Poirier, Nathalie
Rizzato, Chad
Smith, Mitchell
Stiles, Patrick
Thomas, Christine
Wilson, Jason

Deceased

Estabrook, Alden, P.Eng.
Guerrette, Joseph, P.Eng.
LeBlanc, Michel, P.Eng.
Parsons, R. Lloyd, P.Eng.

DIVERSIONS

WHERE'S ANDY?



...at the April 7-9 practice rounds for the 2008 Masters Tournament in Augusta, Georgia



...at the 11th fairway looking toward the 12th green (otherwise known as Amen Corner) at Augusta National Golf Club.

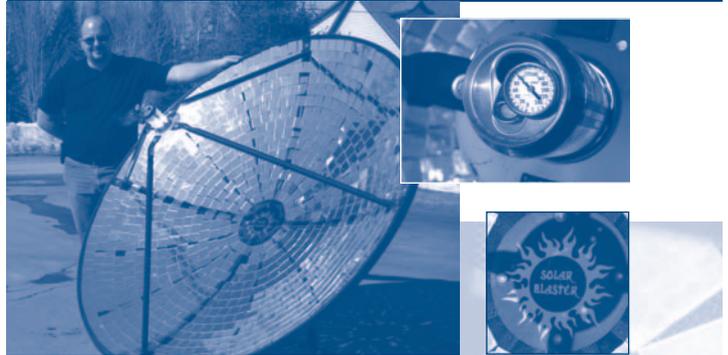


...at O'Donaghue's Pub in downtown Miramichi for APEGNB's 2008 Annual Meeting



...at the Thistle St. Andrews Curling Club in Saint John, NB, for the Hawaiian-themed curling night hosted by APEGNB's Saint John Branch in January 2008

INTRODUCING THE SOLAR BLASTER II



Eric Ouellette, P.Eng., showcases his Solar Blaster II which he says harnesses the sun's energy and can:

- set paper on fire under 10 seconds
- set wood on fire under 1 minute
- boil a can full of water in less than 10 minutes
- cook a hot dog to perfection as quickly as a microwave.

The 6-foot mirrored dish was built in one weekend from 100% recycled materials. Ouellette is currently trying to develop a way to make the Solar Blaster track the sunlight so it can be used for residential heating applications. For more information on this bright technology, email eric.ouellette@gemtec.ca.

THEY SAID IT BEST

"Make no little plans; they have no magic to stir men's blood and probably themselves will not be realized. Make big plans; aim high in hope and work, remembering that a noble, logical diagram once recorded will not die, but long after we are gone be a living thing, asserting itself with ever-growing insistence."

DANIEL H. BURNHAM—(1846-1912), ARCHITECT

"When I find myself in the company of scientists, I feel like a shabby curate who has strayed by mistake into a room full of dukes."

W.H. AUDEN—(1907-1973), WRITER, POET

"Great discoveries and improvements invariably involve the co-operation of many minds. I may be given credit for having blazed the trail but when I look at the subsequent developments I feel the credit is due to others rather than to myself."

ALEXANDER GRAHAM BELL—(1847-1922), INVENTOR

"It took me 17 years to get 3,000 hits in baseball. I did it in one afternoon on the golf course."

HANK AARON—HOME RUN KING

"A ship in port is safe, but that is not what ships are for. Sail out to sea and do new things."

REAR ADNURAL GRACE HOPPER —(1906-1992), COMPUTER SCIENTIST WHO INVENTED COBOL

21ST CENTURY'S GRAND ENGINEERING CHALLENGES UNVEILED

Leading Engineers Identify Advances That Could Improve Quality of Life Around the World

On February 15, 2008, the U.S. National Academy of Engineering (NAE) announced the grand challenges for engineering in the 21st century. A diverse committee of experts from around the world, convened at the request of the U.S. National Science Foundation, revealed 14 challenges that, if met, would improve how we live.

"Tremendous advances in quality of life have come from improved technology in areas such as farming and manufacturing," said committee member and Google co-founder **Larry Page**. "If we focus our effort on the important grand challenges of our age, we can hugely improve the future."

The panel, some of the most accomplished engineers and scientists of their generation, was established in 2006 and met several times to discuss and develop the list of challenges. Through an interactive website, the effort received worldwide input from prominent engineers and scientists, as well as from the general public, over a one-year period. The panel's conclusions were reviewed by more than 50 subject-matter experts.

The final choices fall into four themes that are essential for humanity to flourish—sustainability, health, reducing vulnerability, and joy of living. The committee did not attempt to include every important challenge, nor did it endorse particular approaches to meeting those selected. Rather than focusing on predictions or gee-whiz gadgets, the goal was to identify what needs to be done to help people and the planet thrive.

"We chose engineering challenges that we feel can, through creativity and commitment, be realistically met, most of them early in this century," said committee chair and former U.S. Secretary of Defense **William J. Perry**. "Some can be, and should be, achieved as soon as possible."

The committee decided not to rank the challenges. NAE is offering the public an opportunity to vote on which one they think is most important and to provide comments at the project website—www.engineeringchallenges.org.

The Grand Challenges site features a five-minute video overview of the project along with committee member interview excerpts.

"Meeting these challenges would be 'game changing,'" said NAE president **Charles M. Vest**. "Success with any one of them could dramatically improve life for everyone."

The Challenges:

- Make solar energy affordable
- Provide energy from fusion
- Develop carbon sequestration methods
- Manage the nitrogen cycle
- Provide access to clean water
- Restore and improve urban infrastructure
- Advance health informatics
- Engineer better medicines
- Reverse-engineer the brain
- Prevent nuclear terror
- Secure cyberspace
- Enhance virtual reality
- Advance personalized learning
- Engineer the tools for scientific discovery

The National Academy of Sciences, National Academy of Engineering, Institute of Medicine, and National Research Council make up the U.S. National Academies. They are private, nonprofit institutions that provide science, technology, and health policy advice under a congressional charter. 

"If we focus our effort on the important grand challenges of our age, we can hugely improve the future."

Spotlight on:

APEGNB'S ENVIRONMENT AND SUSTAINABLE DEVELOPMENT COMMITTEE

Submitted by: Michelle Paul-Elias, P.Eng.

The APEGNB Environment and Sustainable Development Committee was formed in early 2007 to develop the Association's positions on environment and sustainable

APEGNB SPONSORS BRIDGE BUSTERS COMPETITION

Submitted by Holly Young, P.Eng.



Approximately 75 students from the Lorne Middle School in Saint John participated in the APEGNB Bridge Busters Competition.

The City of Saint John recently became PALS (Partners Assisting Local Schools) with Lorne Middle School. In support of this partnership, the first ever APEGNB Bridge Busters competition was held on November 19, 2007 at the school. City of Saint John staff and local engineers volunteered their time to work with the local middle school students to design, build and test the student bridges.



Students line up to test the strength of their Popsicle stick bridges.

Approximately 75 students (all grade 8 students) participated in designing and building the popsicle stick bridges. Teams were created, criteria provided, and the students set out to design and build their structures. City engineers supervised design and construction and provided mentoring support. The design teams were evaluated by judges for strength and aesthetics.

There has already been a request by both the school and City engineers to coordinate future engineering events. Thanks to APEGNB and the City of Saint John for their sponsorship of this fantastic event. 



Project coordinator, Dean Price, P.Eng., supervises the competition.

Volunteers and judges included APEGNB members: **Dean Price**, P. Eng. (project co-ordinator); **John Campbell**, P. Eng.; **Nicole Taylor**, P. Eng.; **Kevin O'Brien**, P. Eng.; and **Holly Young**, P.Eng.

The winners of the strength event were **Shirin Talai** and **Hwany Son** (bridge strength: 87.42 lbs.) The aesthetics prize for most creative bridge design went to **Cody Smith**, **Rachel Chung** and **Andrea Johnston**. Congratulations to these students and possible future 'iron ringers'!



Holly Young, P.Eng., explains the bridge building competition to a local television station.

development as well as to participate and encourage member involvement in environmental initiatives.

APEGNB is a leader in many areas of the professions and to stay ahead of the curve, we need to look for opportunities to improve.

With topics such as climate change regularly dominating the evening news, society has become more attuned to environmental issues. As engineers and geoscientists, it is our duty to stay in touch with these issues and ascertain how we can lead the way in reducing and offsetting our carbon footprint.

The Committee meets quarterly and our initiatives will vary. We have been working with APEGNB Council to move the Association towards 'green' (or at least, 'greener') meetings. In addition, we have compiled a list of website references, participated in national surveys and provided feedback to Canada's ministers of environment.

Already, the Committee has seen some tangible results. APEGNB's 2008 Annual Magazine was printed on recycled paper and plans are underway to ensure all of the Association's publications meet greener standards. We applaud the efforts of APEGNB's 2008 Annual Meeting Committee for providing ceramic mugs instead of disposable cups during the event in Miramichi.

If any of our members would like to review our list of website links or have ideas to "green" our activities, we'd like to hear from you. Please use the "Contact Us" link at www.apegnb.com to let us know your concerns and suggestions. You can also contact any one of the following Committee members:

Larry Dionne, P.Eng.—Chair
Boris Allard, P.Eng.
Mike Mersereau, P.Eng.
Michelle Paul-Elias, P.Eng.
Tom Sisk, P.Eng.



Readers Respond

Rail enthusiast adds historical perspective

I enjoyed Georges Roy's article in the Fall/Winter 2007 issue of *Engenuity*, 'Something Old, Something New' concerning the restoration of Edmundston's heritage train station.

It is fortunate that this station survived not only because it was on a relatively minor branch line of the Canadian Pacific Railway but also because it is a fine example of atypical railway architecture that once dotted the land across Canada. Arched windows, generously wide eaves supported by heavy knee braces, and the train operator's 'bay window' are all classic features. The overall appearance is a solid and proud structure meant to last, befitting both the community and the company, while serving as the local gateway to the world. Sadly, just like the all brick post offices that are disappearing across the land, there seems to be no room in today's economy for such deference to posterity.

I have a couple points to nitpick. The article described the station as a "turntable between the St Lawrence River Valley ...". In railway terminology, 'turntable' refers to a bridge mounted on rollers and set in a circular pit to enable steam locomotives to be turned. It would be more accurate to describe Edmundston as a 'terminal' but also an 'interchange' between the CPR and both Temiscouata Railway and Canadian National Railways.

On a different matter, the 'ladies waiting room' was a very common feature in turn-of-the-century train stations, but calling it "gender segregation" is slightly misleading. In the culture of that time, ladies did not make idle chatter with strange men, and when traveling unescorted, they might feel more comfortable in a separate room

(far from foul-smelling cigars!), but it was optional and they were quite free to use the general waiting area. It has been said that women were a little uneasy sitting where they couldn't keep an eye on the traffic flow to the platform door, for fear of missing their train. In later years, the walls to these rooms were removed in many stations.

History buffs might be interested in knowing that the CPR connected Edmundston via the Upper Saint John Valley to their main line at McAdam where passengers could change trains for Saint John, Montreal or Boston. Originally, Canadian Pacific had their own track paralleling the main line of their rival CNR between Edmundston and Grand Falls but it was later partially abandoned in favour of 'running rights'. Portions of the right-of-way now lie under the old Trans Canada Highway and only a short spur between 'Cyr Junction' and the McCain's french fry plant remains.

The "St Lawrence Valley" connection was over the Temiscouata Railway, a picturesque short line, now part of the Trans Canada Trail network that wandered between 'La Republique du Madawaska' and Riviere du Loup. Edmundston also has one other (but far less attractive) station that was used as a yard office on the CNR, the only surviving railway locally.

Everyone connected with this preservation project should be commended for a job well done.

Mark H. Hymers, P.Eng
Senior Engineer
Engineering and Public Works Department
City of Fredericton



UNB CHEMISTRY LABS ARE SECOND TO NONE IN THE COUNTRY

University of New Brunswick science, engineering and forestry students now have the best undergraduate teaching facilities in the country due to a \$3.8 million renovation of chemistry labs in F.J. Toole Hall.

The two-floor, 10,000-square-foot renovation is the biggest renovation project ever completed at UNB Fredericton. The labs are safe, spacious and energy efficient, and will enhance the teaching and learning of undergraduate chemistry.

"These new laboratories will help us attract and retain the best undergraduate students," said **John McLaughlin**, P.Eng.,

UNB president. "They will also help us to sustain and build UNB's national and international reputation."

Dr. McLaughlin was among the speakers at an Open House that took place in the labs April 17 at UNB. Guests included New Brunswick Premier **Shawn Graham**, members of the UNB Board of Governors, alumni, students, faculty and staff.

According to **Andreas Decken**, a UNB chemistry professor, the renovation has provided UNB students with the safest and most innovative facilities around.

"Each student work station is equipped with terminals for computer-aided experiments, as well as individual ventilation which essentially eliminates all fumes," said Dr. Decken.

The renovation of four undergraduate laboratories included the replacement or upgrade of all laboratory services and casework, new fume hoods, a new ventilation system as well as the introduction of heat recovery technology to minimize energy costs.

Funding for the chemistry lab renovations came from the provincial government's University Infrastructure Fund Program and from UNB. 

"These new laboratories will also help us to sustain and build UNB's national and international reputation."

And the

2008 Award Goes To... Et le prix est décerné à...



**APEGNB
AIGNB**

If you know a professional engineer or geoscientist who has made an outstanding contribution to their profession and the people of New Brunswick, they may be eligible to receive an APEGNB Award at the 2009 Annual Meeting.

Si vous connaissez une personne qui exerce la profession d'ingénieur ou de géoscientifique et qui a contribué de façon remarquable à sa profession ou à la vie des gens du Nouveau-Brunswick, celle-ci pourrait mériter un des prix ou des distinctions de l'AIGNB qui seront décernés à l'assemblée annuelle 2009.

In order to recognize their efforts and accomplishments, the APEGNB Awards Committee needs to hear from you—the nominator. So call the Association for the easy-to-complete nomination kit and let us know who your choice is for the:

Afin de souligner le travail et les succès de nos collègues professionnels, le comité des prix et distinctions de l'AIGNB veut connaître vos suggestions, auteur de mises en candidature. Donc, communiquez avec l'Association pour une trousse de mise en candidature et pour nous signifier votre choix de candidats et candidates dignes des prix et distinctions suivantes :

- C.C. Kirby Award / *Prix C.-C.-Kirby*
- L.W. Bailey Award / *Prix L.-W.-Bailey*
- Citizenship Award / *Prix du mérite civique*
- Corporate Award of Excellence / *Prix d'excellence à l'entreprise*
- Individual Award for Technical Excellence / *Prix d'excellence technique*
- Honorary Membership / *Membre honoraire*
- Outstanding Educator Award / *Prix d'excellence en éducation*
- Outstanding Student Award / *Prix d'excellence dans les études*
- Service to the Profession Award / *Prix pour contribution à la profession*
- Support of Women in Engineering Award / *Prix de soutien aux femmes ingénieures*
- Young Professional Achievement Award / *Prix hommage à un jeune professionnel*

Deadline to receive nominations
La date limite de mise en candidature

**September 15, 2008
15 septembre 2008**

Call / Appelez au **506-458-8083**
e-mail / Courriel **info@apegnb.com**
visit / Consultez le site **www.apegnb.com**

to receive your nomination kit including award descriptions, criteria and forms.
pour obtenir votre trousse de mise en candidature comprenant la description des prix et distinctions, les critères et les formulaires.

FORMER PM PAUL MARTIN ADVOCATES FOR AFRICA AT UNB-FREDERICTON

Former Prime Minister, the Rt. Hon. Paul Martin, explained the importance of giving African countries the chance to flourish during the inaugural presentation of the UNB chapter of Engineers Without Borders' Lightbulb Lecture Series.

Speaking to a capacity crowd in the Dineen Auditorium of UNB-Fredericton on March 31, Mr. Martin discussed how business and government can help the continent climb out of poverty through practicing high global standards, establishing an African common market, and providing training across borders.

After his speech, Mr. Martin and **George Roter**, co-founder of EWB, fielded a spirited question-and-answer session from an audience comprised mostly of students. Also in attendance were APEGNB's president, **Tanya Horgan**, P.Eng., and past president, **David Crandall**, P.Eng.

Brent Langille, EWB-UNB president, said Mr. Martin was a natural choice to launch the chapter's Lightbulb Lecture Series. "As one of Canada's most successful finance



George Roter, co-founder of Engineers Without Borders, during the question and answer period following Mr. Martin's presentation.

ministers, Mr. Martin is a world leader who is uniquely qualified to discuss how businesses and government can make the economic decisions necessary to combat poverty and improve the quality of life of Africa's 53 nations. If we can harness the power of government and industry, we have a real chance to make a big impact on African prosperity through socially responsible practices."

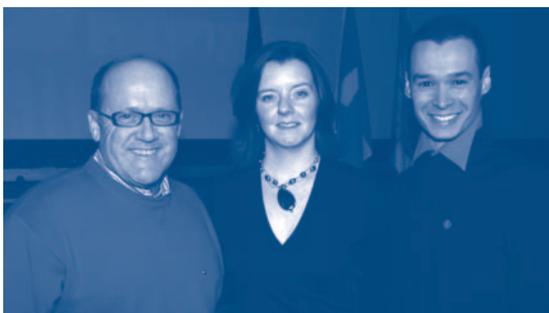


The Rt. Hon. Paul Martin, former prime minister of Canada, delivered a passionate presentation to a packed auditorium at UNB's Head Hall.

Mr. Martin served as Canada's 21st prime minister from December 2003 until February 2006.

Established in 2000, Engineers Without Borders is a non-profit, non-governmental organization that seeks to make Canada a model global citizen in addressing global poverty. The University of New Brunswick chapter of EWB was formed in 2004. It has since grown to be one of EWB's most active chapters with a membership of more than 400 students.

For more information on Engineers Without Borders, please visit www.ewb.ca



(L to R): **Andy Scott**, Fredericton MP; **Tanya Horgan**, P.Eng., APEGNB president; and **Alex Gomez**, UNB engineering student and event organizer.



Mr. Martin discusses his ideas about building prosperity for African nations with UNB student reporter, **Melanie Bell**.



(L to R): **Tanya Horgan**, P.Eng., president of APEGNB; **Mr. Martin**; **John McLaughlin**, P.Eng., UNB president and vice-chancellor.



(L to R): **Mr. Martin** and **David Coleman**, P.Eng., UNB's dean of engineering.





Members of APEGNB Council hosted the third annual reception for New Brunswick government officials on April 2 at the Crowne Plaza Lord Beaverbrook Hotel in Fredericton.

Premier **Shawn Graham**, 10 cabinet ministers, 20 elected officials and eight senior government representatives were in attendance as APEGNB President **Tanya Horgan**, P.Eng., promoted the contributions of New Brunswick's 5000 engineers and geoscientists.

Horgan applauded the government's recent investments in strategic infrastructure and reminded the audience that APEGNB's members are the people who lead innovation and spur economic growth. "We are passionate about transforming the economy and making the Province a better, safer place," said Horgan. "You'll find engineers and geoscientists serving and protecting the public's interests in all facets of New Brunswick's growth and development—from mining and forestry to energy and the environment."

Horgan also reminded those in attendance that Limitation of Liability remains a major concern for APEGNB members stating: "We look forward to seeing provincial legislation enacted by 2009 that will bring the ultimate limitation period in line with most other provinces—which is 10 or 15 years."

APEGNB PROMOTES MEMBER CONTRIBUTIONS AT 3RD ANNUAL MLA RECEPTION



Elected officials, government representatives and APEGNB Council members listen intently during President Horgan's speech.



President **Tanya Horgan**, P.Eng., welcomes guests.



(L to R): **Premier Shawn Graham**; **Tanya Horgan**, P.Eng.; **David Crandall**, P.Eng.



Allan Higgins, P.Geo., (left) with **Premier Graham**.



(L to R): **Holly Young**, P.Eng. (Saint John District Councillor); **Tanya Horgan**, P.Eng., president; **Premier Shawn Graham**; **Mireille Vautour**, P.Eng. (Northwestern District Councillor)



Premier Graham (left) with **Tom MacNeil**, P.Eng., Fredericton District Councillor



(L to R): **Tanya Horgan**, P.Eng.; **Rick Miles**, MLA for Fredericton-Silverwood; **Andrew McLeod**, APEGNB executive director.



David Crandall, P.Eng. and **Principal Secretary, Office of the Premier Joan Kingston**.



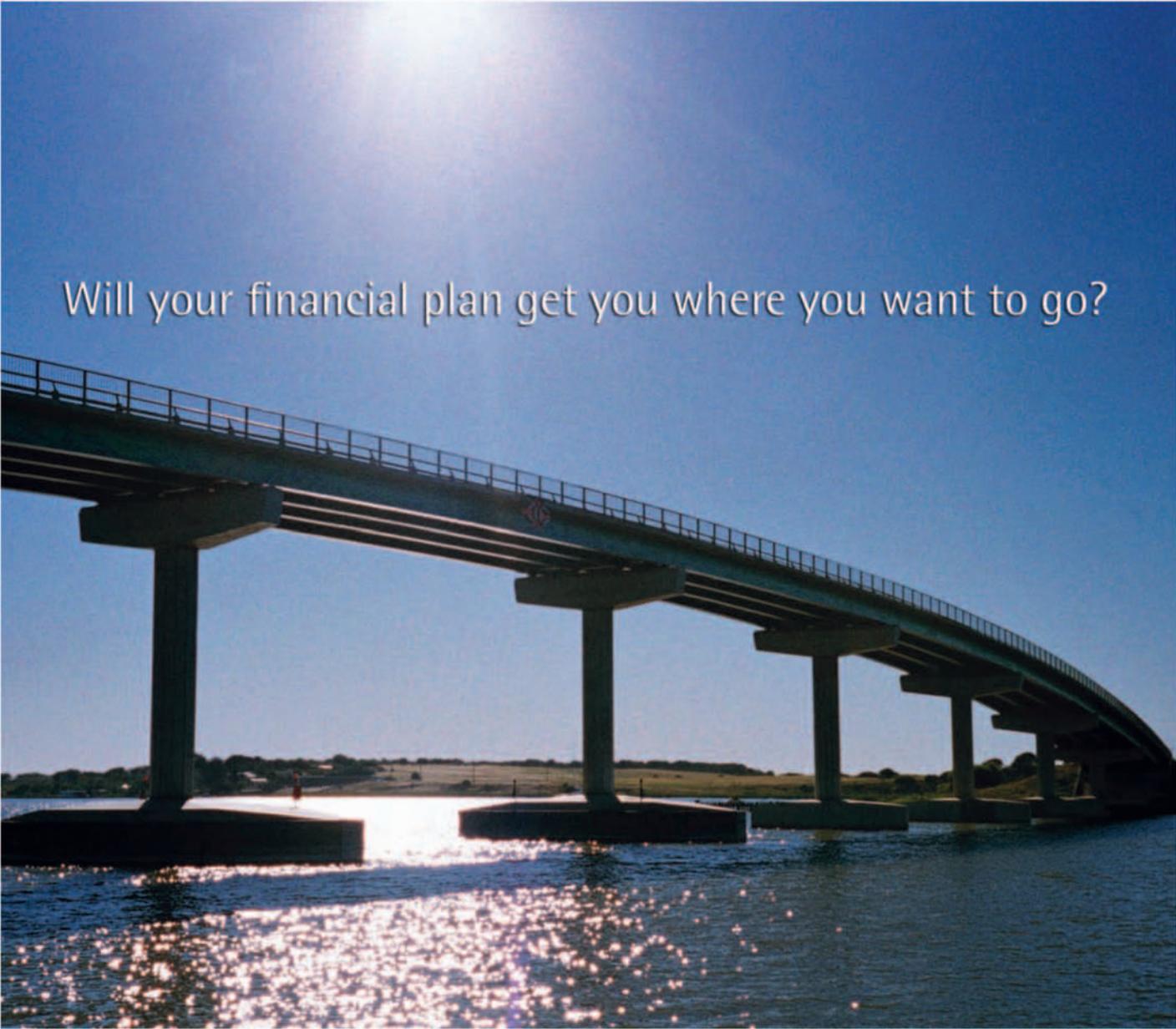
(L to R): **Mireille Vautour**, P.Eng.; **Carmel Robichaud**, MLA for Miramichi Bay-Neguac; **Hédard Albert**, MLA for Caraquet.



(L to R): **Keith Ashfield**, MLA for new Maryland Sunbury-West, and **Andrew McLeod**.



(L to R): **Greg Byrne**, Business New Brunswick Minister and **John Fudge**, P.Eng., executive director of CENB.



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