

# Members confirm building-related fee increase bylaw

By MICHAEL MASTROMATTEO

PEO members have confirmed a bylaw amendment that raises the annual licence fee by \$20 for the purpose of raising funds for the regulator's new corporate headquarters. As of May 1, 2008, the fee increased to \$220 from the previous \$200. The fee had been \$200 since 2002.

In the bylaw confirmation ballot, included with the PEO Council election material, members were asked to confirm the repeal of section 39(2) of By-law No. 1 and its replacement with: "Effective May 1, 2008, the annual membership fee is \$220." The vote was 6700 in favour of the new section 39(2) and 6243 opposed.

Under section 8(2) of the *Professional Engineers Act* (PEA), any bylaw passed by PEO Council is not effective until confirmed by a mail ballot of membership.

The ballot was accompanied by background information outlining the

procedures for bylaw amendments and the purpose of the amendment. An accompanying letter from then President Walter Bilanski, PhD, P.Eng., noted Council's

*"With a budget of \$30 million, we can acquire/build a building of which we would be proud."*

Walter K. Bilanski, PhD, P.Eng.

opinion that PEO should own its own building, and the rationale for a fee increase to enable PEO to purchase or build a facility. "It is clear that with a

budget of \$30 million, we can acquire/build a building of which we would be proud, and which could provide future meeting spaces and facilities that would enhance our operations and our profile," he wrote. The preferred location for PEO's new headquarters building is the downtown Toronto area.

The lease on PEO's current space at 25 Sheppard Avenue West expires at the end of 2009. At present, PEO spends more than \$1.3 million a year in rent. The current facility is also short of meeting and parking space.

The bylaw amendment plan and efforts to secure a new corporate headquarters were outlined in the January/February 2008 issue of *Engineering Dimensions* (p. 12). The article included respective arguments for and against the fee increase by then President Bilanski and then President-elect David Adams, P.Eng.

## The voters have spoken

By JENNIFER COOMBES

With the 2008 PEO election ballots cast and counted, it's time to announce the newly elected members of Council, who took office on May 10.

Catherine Karakatsanis, P.Eng., was elected President-elect and Diane Freeman, P.Eng., was elected Vice President. This marks the first time in PEO history that two of the top Council positions have been held by women simultaneously.

The following were also elected to Council:

- **Councillor-at-Large**  
John Vieth, P.Eng.
- **Eastern Region Councillor**  
Cliff Knox, P.Eng. (by acclamation)
- **East Central Region Councillor**  
Denis Carlos, P.Eng.
- **Northern Region Councillor**  
David Euler, P.Eng. (by acclamation)
- **West Central Region Councillor**  
Len King, P.Eng. (by acclamation)
- **West Central Region Councillor**  
Colin Moore, P.Eng. (by acclamation)

All members are eligible to vote for President-elect; this year, 17 per cent of the membership voted, up slightly from

16 per cent in 2007. Over the past four years, the percentage of voters has ranged from 16 to 18 per cent.

### How you voted

<b>President-elect</b>		<b>Eastern Region Councillor</b>	
Catherine Karakatsanis	5396	Cliff Knox	acclaimed
Patrick Quinn	2506		
Nick Monsour	1737	<b>East Central Region Councillor</b>	
Danny Young	1558	Denis Carlos	1779
Galal Abdelmessih	1380	Thomas Chong	1293
<b>Vice President</b>		<b>Northern Region Councillor</b>	
Diane L. Freeman	5573	David Euler	acclaimed
Chris Cragg	3851		
Ken Lopez	2976	<b>Western Region Councillor</b>	
<b>Councillor-at-Large</b>		Len King	acclaimed
John Vieth	4532	<b>West Central Region Councillor</b>	
Denis Dixon	2868	Colin Moore	acclaimed
Paul Ballantyne	2685		
Ravi Gupta	2171		

## Bylaw change confirmed

By JENNIFER COOMBES

The election mailing also included ballots for confirmation by members of an amendment to By-law No. 1. Under the Act, Council is authorized to make or amend PEO bylaws, which do not become effective until confirmed by members in a mail ballot.

Members confirmed repealing section 39(2) of By-law No. 1. The question “Do you confirm amendment of By-law No. 1 to repeal section 39(2) and replace it with: ‘(2) Effective May 1, 2008, the annual membership fee is \$220.’?” received 6700 votes in favour and 6243 against.

This confirmation paves the way for PEO to buy or build a building in the downtown Toronto core (see p. 11).

### Taking the reins



Outgoing four-time President Walter Bilanski, PhD, P.Eng. (left), passes the gavel to incoming President David Adams, P.Eng., at PEO's annual general meeting on May 10 in Windsor. Check news in the July/August issue of *Engineering Dimensions* for full coverage of the meeting.

## Professional service celebrated



Thirteen dedicated volunteers received the Order of Honour, PEO's highest award for commitment and service to the profession, at Windsor's St. Clair Centre for the Arts on May 9. Back row, Argyrios Margaritis, PhD, P.Eng., FCIC (Awards Committee); Peter R. Frise, PhD, P.Eng., FCAE (Officer); Robert Gravelle, P.Eng. (Member); Michael C. Wesa, P.Eng. (Member); Barna Szabados, PhD, P.Eng. (Member); John Lipsett, P.Eng. (Officer); Jeremy P. Cook, P.Eng. (Member); and Matthew Ng, MEng, P.Eng., MBA, PMP (Member). Front row, C.K. (Ches) Jonys, PhD, P.Eng. (Member); Geoff Clarkson, P.Eng. (Member); Nancy E. Hill, P.Eng., LLB (Companion); 2007-2008 President Walter Bilanski, PhD, P.Eng.; Jeannette Southwood, P.Eng. (Awards Committee Chair); Denis Dixon, P.Eng. (Officer); Kenneth G. Lopez, MAsc, P.Eng. (Officer); and Michael A. Ball, P.Eng. (Awards Committee). Absent from photo: Aziz Akhtar, P.Eng. (Member).

## Limited licence holders now on Brownfields QP list

### MICHAEL MASTROMATTEO

Ontario's environment ministry has adopted regulation changes that officially recognize PEO limited licence holders as qualified to file records of site condition (RSCs) for Brownfields remediation work.

Ontario Regulation 154/04 was officially amended April 1, 2008 to add PEO limited licence holders (and professional geoscientist limited members) to the qualified persons (QP) list.

The environment ministry had excluded limited licence holders from the list since the regulation was first put forward in 2004. Since then, PEO had been lobbying the environment ministry to review its QP list with a view to including limited licence holders.

Not only does the revised regulation recognize the value of the limited licence, it will also eliminate from the QP list practitioners not registered with PEO or the Association of Professional Geoscientists of Ontario (APGO). After October 31, 2009, only those licensed by PEO or APGO will be considered qualified to conduct or

supervise environmental assessments and file RSCs.

Officials with PEO's standards and tribunals department expressed relief the regulation changes proposed by the environment ministry in January will now take effect as indicated.

PEO has updated the Brownfields page on its website (click on Publications, then on Government Briefs, then on Brownfields) to provide a link to the amended regulation, and the latest news items and correspondence with the Ministry of the Environment.

## Engineers Canada hires new chief executive

By MICHAEL MASTROMATTEO

Chantal Guay, ing., M.Env., is the new chief executive officer of Engineers Canada, the federation of provincial/territorial engineering regulators.

Originally from Levis, QC, Guay obtained her engineering degree at Laval University in Quebec City, and later earned a master's degree in environmental science from the University of Sherbrooke.

Before coming to Engineers Canada, she worked for nearly 18 years as a consultant in environmental and geotechnical engineering, and as an employee of Montreal's public works department. During that time, she developed special expertise relating to Brownfields remediation work.

Guay has extensive experience in engineering governance and adminis-



Chantal Guay, ing., (Quebec)  
CEO, Engineers Canada

"All parts of our work are important, but the main mandate we have from the constituent members is the one in which we influence public policy at the federal level."

tration, having served as a member of Engineers Canada's executive, awards and research committees. She was also active with l'Ordre des ingénieurs du Québec (OIQ) as a member of its board of directors and as chair of the OIQ enforcement committee.

"I think it's primordial that we expand our government liaison work," Guay told *Engineering Dimensions* in a March 20 interview to discuss her priorities. "All parts of our work are important, but the main mandate we have from the constituent members is the one in which we influence public policy at the federal level. I think what [previous CEO] Marie Lemay and Engineers Canada have done over the past eight years has been a big step forward, and I totally intend to build on that."

In addition to government relations activities, Guay also hopes to facilitate increased mobility between provinces and territories for Canadian engineers. She said the comprehensive accreditation processes now used by engineering regulators across the country could serve as a ready model to permit easier mobility for professional engineers seeking licensing and registration in other than their home province or territory.

Meanwhile, the new Engineers Canada leader points to infrastructure renewal issues as a key focus of attention. "It's extremely important that we continue to work on such issues as infrastructure renewal and climate change adaptation," Guay said. "We put a lot of effort into the National Roundtable on Sustainable Infrastructure and on the Public Infrastructure Engineering Vulnerability Committee. It's crucial that we continue to work on these."

And in keeping with efforts to improve access and promote diversity within the profession, Guay also recognizes the need

for Engineers Canada and its 12 constituent members to continue efforts to overcome perceived barriers to licensing for internationally educated engineering professionals.

She said Engineers Canada has made foreign credential recognition a top priority in its discussions with federal immigration officials. She also said that in addition to providing licensing and registration information to would-be immigrants in a more timely fashion, immigration officials should allow provincial engineering regulators a greater role in assessing the credentials of immigrants looking for work in the self-regulated professions.

“Our long-term goal is that the government will resume the old practice of directing immigrants towards the appropriate professional regulatory body,” she said.

Guay is looking forward to raising Engineers Canada’s profile, and that of the entire profession, through its role as chair of the upcoming World Federation of Engineering Organizations’ Committee on Engineering and the Environment. The committee aims to develop a wider understanding of the link between engineering and sustainable development.

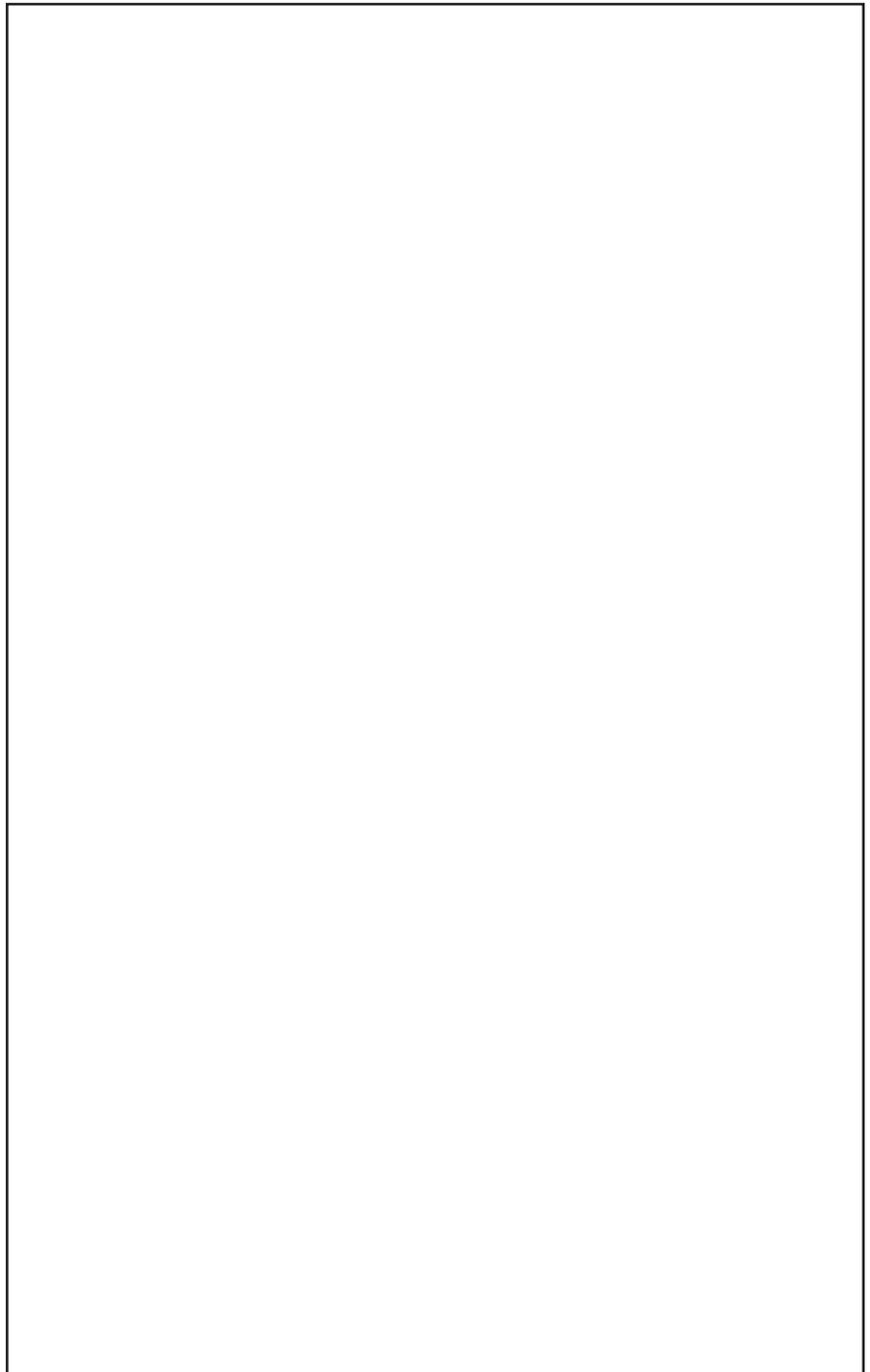
Engineers Canada is also about to begin a national campaign dedicated to raising awareness of engineering not only within the federal government, but also among young people and students, and employers of engineers. While the full details are still being developed, Guay believes the campaign is a logical extension of Engineers Canada’s basic role.

“We want the federal government to recognize that Engineers Canada is the ‘go-to’ place for information about the profession, but we also have the objective of having the federal government, young people and parents recognize that the profession is very important to Canadian society,” Guay said. “We are actually going to launch a national collaborative, long-term and sustained communications initiative that will aim to reinforce the concept that P.Eng. equals the engineering profession, and to underline the fact that to be called a

professional engineer, you must have a licence and be registered.”

Guay takes over as CEO from Lemay, who left the organization in January to take up a position as executive director of the National Capital Commission in Ottawa.

In welcoming Guay to her new role, Ken McMartin, P.Eng., chair of the CEO search committee, said the new leader’s experience and leadership represent an excellent complement to the existing Engineers Canada team.



# PEO website gets facelift, more work planned

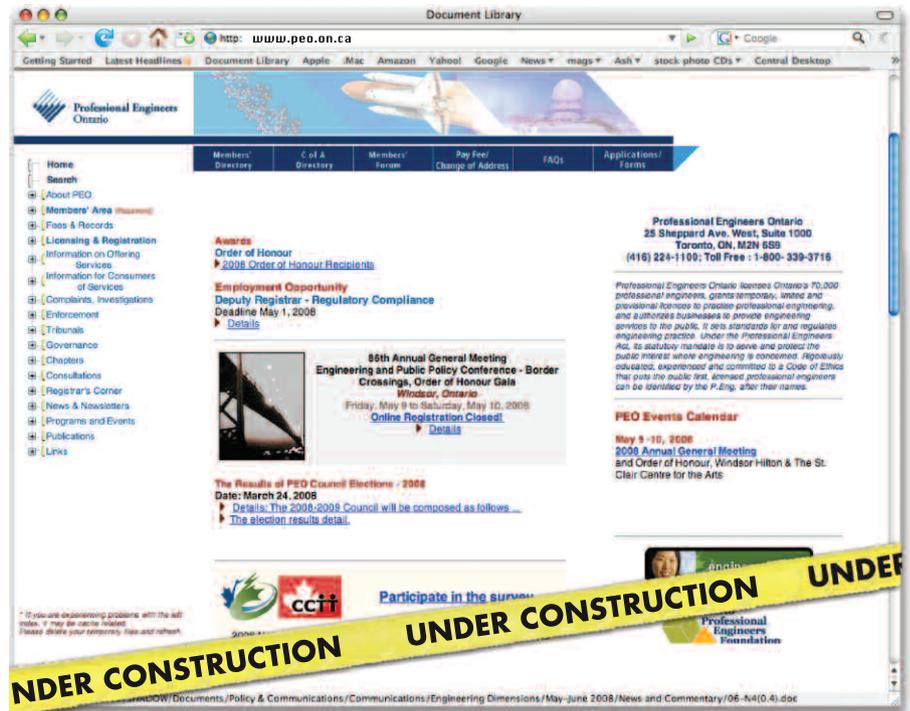
By PAULA HABAS

In early February, PEO launched phase one of its multiphase website restructuring plan, which is essentially a “clean up” phase with the objectives of: 1. Making the site easier to navigate, 2. Making it easier for users to find what they’re looking for, and 3. Developing a cleaner, more current, look and feel.

To achieve these aims, the new website’s top banner now has a link to all applications and forms. There are also quick links to the Member and Certificate of Authorization directories, the Forum, and fast access to pages where members can pay fees or change their personal information. A dynamic left index provides PEO the flexibility to grow the site.

Images on the top banner will soon be replaced by images of Ontario engineering achievement. PEO plans to hold a photo contest to solicit images from the membership to replace the current top banner images, enabling PEO to promote the profession and enhance the aesthetics of the website.

The challenge of phase one was to update technology and begin the restructuring



without bringing the website down for any significant time; the most labour-intensive part was cleaning and reformatting the web pages. Since 2001,

PEO’s website has grown to over 2 GB—2820 web pages, 2110 PDF files and 180 document files. Orphan files and out-of-date web pages have made searching the site difficult. Once the backend clean up is complete, PEO will look to improving the search functionality.

Phase two of the website redesign will focus on the user experience. A user-based navigation component will enhance the visitor’s experience by pushing relevant content to them rather than having the user search for information. Whether users identify themselves as potential applicants, EITs, P.Engs, or members of the public, the relevant information will be pushed their way.

The second phase redesign will require working with all types of users to define needs and requirements, and tracking users on the site to determine where to concentrate effort. Some work can begin now as a result of the website design’s new flexibility, but when the needs analysis is complete, a compre-

hensive project plan to overhaul the site will likely follow.

PEO's public website is one example of how PEO's online services have grown. Since the introduction of PRISM, chapter executive members have had an array of applications to facilitate their work, enabling them to manage their own email and postal lists, create and distribute electronic newsletters, and create and upload events to a PEO calendar (which is searchable by chapter, region and province). Recently, an event registration module was added so chapters can register members for events.

On the member side, the Members' Area continues to expand, and now includes voluntary annual reporting (VAR), a module for members to report their scope of expertise and practice, professional development activities, and other professional affiliations. There is also a member profile module they can use to view the information PEO makes publicly available through the Member Directory. Members can add their post-licensure degrees by going to Member Profile, and adding to their academic profile. Members wishing to belong to a different chapter for the purpose of attending events and receiving newsletters can also go to this site and reassign their chapter affiliation.

Besides online credit card payment, PEO is expanding online financial services across the board. Launched a year ago, PEO piloted its Engineering Intern Training Financial Credit Program (FCP) as its first program to feature online application. PEO is working to expand its online application offerings in 2008 and beyond.



## Survey notes gap in P.Engs' climate change knowledge

By MICHAEL MASTROMATTEO

More than 80 per cent of Canadian engineers believe climate change issues will have some impact on their practice, according to a national survey undertaken by the Canadian Standards Association (CSA).

Released in November 2007, the survey was designed to gather engineers' knowledge of climate change and to establish a baseline for future analysis of possible gaps in engineering knowledge and practice relating to climate change issues (see *Engineering Dimensions*, January/February 2007, p. 22). Conducted between April and June 2007, the survey was based on input from 2060 engineers from all 10 provinces.

Engineers with experience in four broad areas of built infrastructure (buildings, energy, transportation and water systems) were espe-

cially encouraged to consider how climate change impacts their practice decisions.

In addition to establishing practitioners' general knowledge of climate change issues, the survey sought respondents' perspectives on the priorities for addressing climate change and possible implications for university engineering curricula and professional development programs for engineers in the public infrastructure sector.

While 82 per cent of respondents agreed a changing climate will affect engineering decisions in the near future, more than seven out of 10 engineers said they need more information to incorporate the impact of a changing climate into their practice.

The survey revealed that engineers in the building sector appear most concerned

with implementing solutions to climate change, particularly in terms of reducing greenhouse gas emissions through energy efficiency strategies.

Survey organizers believe the study captured the general mood of infrastructure engineers toward climate change, and the need for practitioners to begin taking account of its impact in their practice.

"We were pleased at the degree of interest within the engineering community as represented by the robust response from across the country to this survey," said Michael Mortimer, P.Eng., program manager for construction standards, CSA. "We feel this is a good indication of engineering opinion across the country."

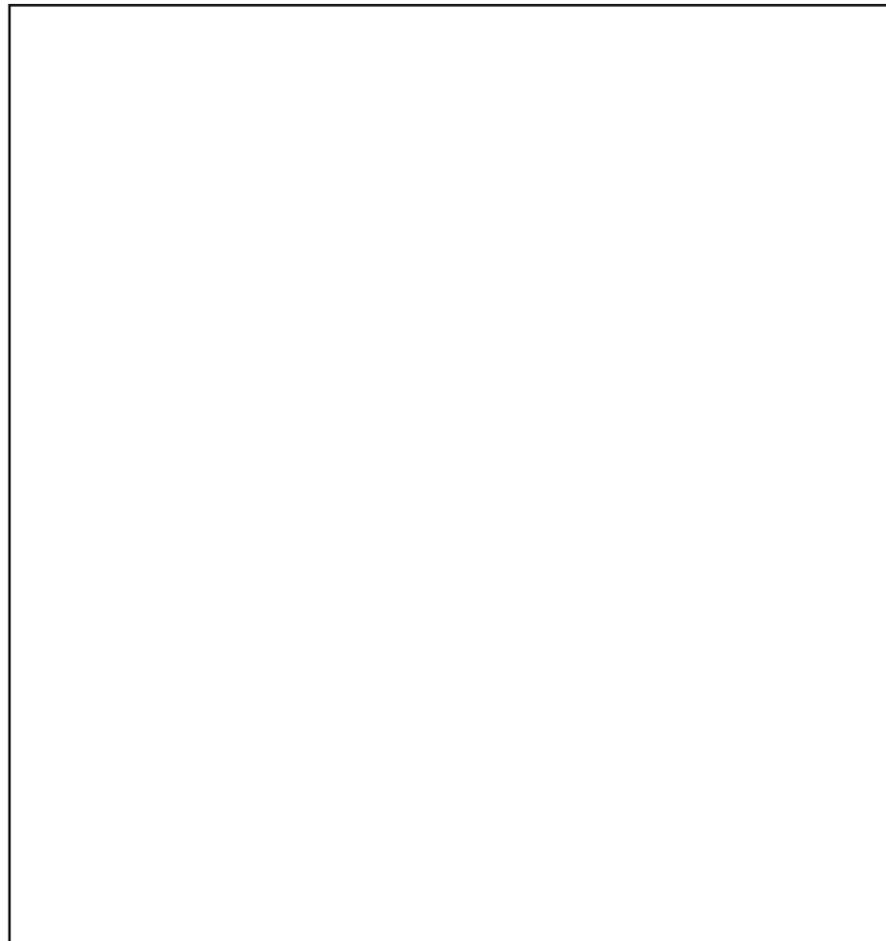
Mortimer said it was interesting to note that a large proportion of infrastructure engineers believe a changing climate will affect their practice in the near future, but many don't feel they have adequate resources or data available.

The study's findings, Mortimer said, suggest most of the topics identified for engineering education would be applicable for continuing education and professional development programs, although respondents were mixed on what delivery methods would be most successful.

"This type of knowledge would be useful to regulators, as well as all professionals who engage in the design, construction as well as operations and maintenance of infrastructure," he said.

Survey organizers reiterated that one of the core principles of the engineering profession is to make prudent decisions that do not compromise an engineer's duty of care to the public. Climate change issues are beginning to factor into this public protection imperative, they said.

More than half the survey respondents indicated they will likely seek additional climate change information in the future. These results suggest a need for educational resources, both for students entering the profession and as ongoing professional development for practitioners.



# 2008 EIF focuses on engineering-health care link

By MICHAEL MASTROMATTEO

Engineering is making inroads in delivering more effective health care for Canadians, said speakers at this year's Engineering Innovations Forum (EIF).

Held February 28 at the Ontario Science Centre in Toronto, the forum is a key part of Ontario's National Engineering Week, an annual event that helps raise public awareness of the engineering profession.

Emphasizing the engineering-health care link, speakers at the 2008 forum included Robert Pilliar, PhD, P.Eng., professor, Institute of Biomaterials and Biomedical Engineering, University of Toronto; James Valliant, P.Eng., national sales and marketing manager, diagnostic imaging, GE Canada; and Sonia Pinkney, P.Eng., human factors analyst, University Health Network, Toronto.

Pilliar described some of the latest methods for treating painful hip and knee joints. He said methods involving whole



PEO President-elect Catherine Karakatsanis, P.Eng., (far left) moderated the 2008 Engineering Innovations Forum February 28 in Toronto. Dedicated to engineering innovations in health care, the forum included presentations from (left to right) Sonia Pinkney, P.Eng., James Valliant, P.Eng., and Robert Pilliar, PhD, P.Eng.

joint replacement using metal, polymer or ceramic implants have a high initial success rate, but tend to wear out over time.

The latest work, he said, involves searching for alternative treatments using cartilage cells taken from other parts of a

patient's body and bonded with artificial materials in an effort to mimic natural tissue. Pilliar likened one of the new strategies to construction of a scaffold, whereby natural and artificial materials grow

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together as a more durable form of cartilage.

Human factors specialist Pinkney expanded on the salutary presence of engineering in a health-care setting. She said engineers' emergence "from the cellar of the hospital building" is making a positive impact on administration, and process, patient and staff safety, and more effective testing and use of new medical equipment.

Pinkney cited a 2004 study by the Canadian Institute of Health Research and the Canadian Institute for Health Information that found approximately 7.5 per cent of patients admitted to Canadian hospitals suffer harm as a result of their care. Known as the Baker Norton study, the report used the term "adverse event" to describe unintended complications in a health-care setting.

While human factors-trained engineers can't take sole credit for improved safety figures, their influence is leading to a system-wide and patient-focused approach to the overall hospital experience, she said.

"Human factors engineering is an approach that can respond positively to these adverse events in a health-care setting," Pinkney added. "Sometimes it's a case of substituting bad design or process for good, but the ultimate aim is to improve safety for patients, practitioners and hospital staff."

The final speaker, Valliant, emphasized engineering contributions to more effective diagnostic imaging equipment leading to more effective diagnosis and treatment—especially prior to the appearance of traditional symptoms and warning signs.

Valliant said the role of improved diagnostics is a major factor in transforming elements of health care from a "late disease" to an "early health" framework. He described diagnostic imaging advances that more effectively zero in on high metabolic activity in patients, allowing physicians more time to prescribe targeted treatment and remediation.

In particular, he described combination CT (computed tomography) and PET (positron emission tomography) scan-

ning as a more in-depth and revealing depiction of the true health of a patient's internal organs.

Such innovations, he suggested, not only improve survival rates for patients, but help reduce costs when compared to traditional cancer therapies.

Valliant urged today's engineering undergraduates to give some thought to their potential contributions to health care. "There is an enormous breadth of things you can now do in the health field with your engineering background," he said.

Prior to the main presentations, then PEO President Walter Bilanski, PhD, P.Eng., cited the importance of raising public awareness of the engineering profession.

The 2008 Engineering Innovations Forum was moderated by Catherine Karakatsanis, P.Eng., a senior vice president, Morrison Hershfield Limited, and PEO President-elect. Other speakers included Andre Rudnicky, P.Eng., chair, EIF 2008 committee; Steven Rose, P.Eng., vice chair, Ontario Society of Professional Engineers; and David Thompson, executive director, Ontario Association of Certified Engineering Technicians and Technologists.

The innovations forum was initiated in 1990 and has been part of National Engineering Week ever since. Previous innovations forums have focused on such topics as robotics, electricity supply, nanotechnology, green energy and virtual reality.

## Volunteers made Ontario NEW a success

BY JULIE COHEN

Across the province, volunteers celebrated National Engineering Week (NEW), held February 23 to March 2, by donating their time, energy and expertise at hundreds of activities and events. At five science centres and museums in Kitchener, London, Ottawa, Sudbury and Toronto, hundreds of engineering volunteers assisted at the K'NEX Family Construction Workshops, where participants spent hours building bridges using the popular colour-coded toy, only to have them tested to destruction to determine their weight-to-load ratio.

PEO chapters around the province held their own activities and events to celebrate NEW, all organized and run by dedicated engineering volunteers. Here are some examples of activities held in Ontario:

- The Algonquin Chapter marked NEW with a popsicle stick bridge-building contest.
- The Chatham-Kent Chapter invited senior and junior teams to participate



Brendan MacKinnon, P.Eng. (left), and Doug Hamilton, P.Eng. (right), present Matthew Barton with his prize and trophy at the Kingston Chapter popsicle stick bridge contest during NEW 2008.

in impromptu design competitions.

- The Niagara Engineering Week Committee sent groups of professional engineers, engineers-in-training and certified engineering technologists into local classrooms for a Half Day of Engineering Fun.

The National Engineering Week Ontario Steering Committee (NEWOSC) would like to thank all volunteers. "Once again, the contributions of the many dedicated volunteers were the key to the success of Engineering Week in Ontario," said Don Cleghorn, P.Eng., NEWOSC chair.