ONTARIO CELEBRATES efforts of 13 engineers

By Nicole Axworthy

THE ENGINEERING PROFESSION in Ontario will gather on Saturday, November 15 to honour its best at the 2008 Ontario Professional Engineers Awards gala, held at the Royal Ontario Museum in Toronto. Staged annually and presented by PEO and the Ontario Society of Professional Engineers (OSPE), the gala recognizes excellence across a broad range of engineering endeavours, including entrepreneurship, innovation and community involvement. For ticket information, visit www.ospe.on.ca.

Walter Curlook, PhD, P.Eng.

PROFESSIONAL ENGINEERS GOLD MEDAL

Walter Curlook, PhD, P.Eng., is a leader in the mining and metallurgical industry. At 25, he joined Inco as a research metallurgist and went on to foster new technologies and products, inventing or co-inventing several patented process innovations. Of particular note was the development of remote-controlled mining at Inco, which became a model for the world. Perhaps Curlook's finest achievement was his direction of Inco's sulphur dioxide abatement program in Sudbury. This $600-million program, completed in 1993, has been described as the largest environmental project ever completed by the mining industry. Now retired from Inco, Curlook is president of Goro Nickel, an Inco joint venture in the South Pacific, and adjunct professor, University of Toronto.

ENGINEERING MEDAL– ENGINEERING EXCELLENCE

R.L. (Bob) Hemmings, PhD, P.Eng., president and CEO, Special Separations Applications Inc., and president and chief investigator, MicheRo Inc., has served a long career at the forefront of nuclear power generation and fusion power development. Among his accomplishments, Hemmings led the thrust of Canadian nuclear talent to help after the Three Mile Island nuclear incident. He also led the application of a unique Canadian-developed technology to decontaminate nuclear plants in the US and France, and was involved in the design of the buildings and infrastructure of the experimental international thermonuclear reactor fusion project, a joint international research and development project that aims to demonstrate the scientific and technical feasibility of fusion power.

ENGINEERING MEDAL– ENTREPRENEURSHIP

Using his technical innovations in mine contracting, Roy Stephen Slack, P.Eng., managed the longest and largest diameter raise ever bored in the Canadian Shield and the deepest shaft in North America at the Kidd Mines in Timmins. In the late 1990s, when mine contractors were outsourcing their engineering, he established Cementation Canada Inc. Under his direction as

president, the company has grown to include more than 1200 employees and gross revenues of over $164 million. The company was named one of Canada's Top 100 Employers in 2007 and 2008.

ENGINEERING MEDAL–MANAGEMENT

Mark J. Hundert, P.Eng., is a pioneer in applying industrial engineering techniques in Canadian health care to improve hospital governance and the delivery of health care services. He has conducted over 350 major consulting assignments for clients across North America, and is regularly asked for counsel by hospital CEOs and Canadian health ministries. As the national director of Hay Group Health Care Consulting Group, Hundert led the development of a database benchmarking the clinical efficiency and quality of care of Canadian hospitals. He is also active in the community and is a mentor and regular guest lecturer at the University of Toronto.

ENGINEERING MEDAL–RESEARCH AND DEVELOPMENT

Through aggressive research and development, Alistair Davie, P.Eng., vice president, Comtek Advanced Structures, has helped revolutionize the aircraft industry with breakthrough advances that have lowered the cost and energy consumption of high-performance composite manufacture. Davie has been recognized by Transport Canada as a leader among the highly qualified engineers who are granted delegated ministerial authority for aircraft structural engineering, which is one of the most regulated areas of engineering. He has also played a leading role in research carried out at the National Research Council's Institute for Aerospace Research, focusing on the use of composite materials in structures.

Milos Popovic, PhD, P.Eng., assistant professor, Institute of Biomaterials and Biomedical Engineering, University of Toronto, and scientist, Toronto Rehab, has focused his research on neuroprosthetic systems. Popovic, along with his research team, was the first in the world to use recordings from the surface of the human brain to control an external device. They are now developing interfaces that use brain signals to control personal computers, wheelchairs and robots. His work has also given a new lease on life to many patients through the use of a walkman-sized device that helps to restore or replace the functions of a damaged nervous system.

Sohrab Rohani, PhD, P.Eng., FCIC, is an expert in crystallization and process control, who has applied his knowledge to the pharmaceutical, food and chemical industries, and energy and environmental sectors. Under his leadership as professor and chair, the chemical and biochemical engineering department at the University of Western Ontario has become a significant force in the Canadian chemical engineering industry. Rohani's stature in his field is shown by his over 140 refereed publications in scientific journals and more than 89 papers he has presented at conferences worldwide.

ENGINEERING MEDAL–YOUNG ENGINEER

In just over a decade, William Altenhof, PhD, P.Eng., has completed his doctorate, obtained his P.Eng. licence and founded an important research program investigating head and neck injuries children suffer in car crashes. He has also studied metal fatigue in the structures of trucks that transport large cars, which has helped enhance their safety and efficiency. An associate professor of mechanical, automotive and materials engineering at the University of Windsor, he and his research group at the university are also active in the development of energy dissipation systems for safety applications. His current designs are seeing implementation in safety harness systems.

Constantine Christopoulos, PhD, P.Eng., has focused his research on developing high-performance, earthquake-resistant systems and undertaken innovative projects that have earned him international recognition. One of these projects led to development of a performance-damping system that improves the response of high-rise buildings to wind-loading conditions. An associate professor of civil engineering and academic director of the structures laboratories, University of Toronto, Christopoulos received an Ontario Premier's Early Researcher Award in 2007 to recognize his record of undergraduate and graduate student supervision, and his success in funding his prolific research.

John T.W. Yeow, PhD, P.Eng., is a leader in the design of biomedical micro/nano devices. His research is focused on designing minimized radiation dosimeters, X-ray devices and endoscopes for effective treatment and early diagnosis of diseases. Because of the impact of his work, he has created a spin-off company, ARTsensing Inc., that commercialized the world's first transparent and flexible radiation detectors. Yeow is also a dedicated assistant professor who, since 2004, has directed the advanced micro/nano devices laboratory at the University of Waterloo.

PROFESSIONAL ENGINEERS CITIZENSHIP AWARD

Ranee Mahalingam, MEng, P.Eng., senior water engineer, Ontario Ministry of the Environment, helps young people look at engineering and environmental conservation as career options. She has been involved in National Engineering Week activities

and high school science fairs, and in 1999 the deputy minister of the environment awarded her a certificate of distinction for mentoring female high school students and new immigrants. As the first president of the Transnational Diaspora Network for Development, Canada, she has helped people affected by the 2004 tsunami and explored small water supply systems and solar power lights for the displaced communities in Sri Lanka.

Robert Henry Rehder, P.Eng., is an enthusiastic and creative engineer in his Peterborough community. He is known for his project to restore a local pioneer water-powered sawmill to a world-class museum. Rehder and his dedicated volunteer team began repairing and rebuilding the Hope Mill in 2002 and obtained donations of more than a quarter of a million dollars. His vision became reality in 2007 after 10,000 hours of volunteer effort, when the mill opened to the public. Rehder also played an active role in collecting Peterborough regional engineering archives for preservation in the local museum and in Ottawa, and has been involved in many projects of the Otonabee Region Conservation Authority.

Harold Usher, P.Eng., has worked tirelessly to bring equity and fairness to civic government and within his community as a councillor, City of London. He is the first and only person of African/Caribbean ancestry on the council and has been re-elected twice. An immigrant to Canada, Usher is involved with the Elgin, Middlesex, Oxford Local Training Board to ensure newcomers are represented in labour market initiatives, and also works with the London Black History Coordinating Committee to stage an annual program showcasing the talents of the black community. He was also a director of Toastmasters International, an organization that helps people hone their communication and leadership skills.

MATTHEWS NEW HEAD of PEO'S regulatory compliance department

By Michael Mastromatteo

BRUCE MATTHEWS, P.ENG., PEO's former manager of complaints and discipline, has been named deputy registrar, regulatory compliance.

Matthews, whose appointment was effective June 30, succeeds Roger Barker, P.Eng., who retired from PEO May 31.

Matthews joined PEO in February 2000 as an investigator, later becoming senior investigator. In September 2003, he became manager of complaints and discipline.

In announcing the appointment, PEO CEO/Registrar Kim Allen, P.Eng., said Matthews has demonstrated an in-depth knowledge of PEO's legislation, policies and procedures, and consistently shown excellence in fulfilling PEO's mandate and in building strong relationships with staff and committees.

"Bruce is an important addition to our management team as we move to a people and culture focus," Allen said. "Bruce will ensure that staff and volunteers work effectively together in two key regulatory areas: enforcement and our public complaints process."

The regulatory compliance department supports PEO's legal department, especially in prosecuting matters referred to the Discipline Committee.

"I'm a strong believer in continuous improvement," Matthews told *Engineering Dimensions*. "As the regulatory compliance department evolves to focus on the investigation of complaint and enforcement matters, I see a variety of opportunities to become more effective in fulfilling PEO's objectives under the *Professional Engineers Act*.

"Over the past eight years, I've had the benefit of working under two very capable individuals in Ian Eng, P.Eng., and, more recently, Roger Barker, P.Eng. While my style will no doubt be different from theirs, it is my intent to build on their achievements and ensure that PEO is seen as employing best practices in professional regulation as it relates to complaints and enforcement processes."

Prior to joining PEO, Matthews was in independent practice, focusing on the analysis, design and evaluation of human-system interfaces in complex operational environments, primarily in the aerospace, defence and nuclear power industries.

He graduated with a bachelor's degree in systems design engineering from the University of Waterloo in 1987 and was licensed by PEO in 1990.

In 2007, Matthews was elected to the board of directors of the Council on Licensure, Enforcement and Regulation (CLEAR), an international body promoting excellence in professional and occupational regulation.

New licence reinstatement rules **now in effect**

By Michael Mastromatteo

RECENT CHANGES to Regulation 941 have established a new process for reinstating the licences of P.Engs who have resigned their licences and P.Engs and limited licence holders whose licences have been cancelled for non-payment of fees.

The changes became effective June 16, 2008 (see *Engineering Dimensions,* July/August 2008, pp. 40, 42).

Key to the changes is a graduated reinstatement system in which fees and obligations increase based on the length of time the licence or limited licence has been cancelled. Previously, all those whose licences had been cancelled were required to pay the same reinstatement fee and to provide character references, regardless of how long the licence had been cancelled.

Under the amendments to the regulation, those whose licences have been cancelled for non-payment of fees and who seek reinstatement within 90 days of cancellation, will now pay $50, plus the licence fee for the current year (plus GST). No application is required.

The fee for those whose licence has been cancelled from 91 to 365 days is $230, any fee owing at the time of cancellation and the fee for the current year (plus GST).

Those seeking reinstatement one to two years after their licences have been cancelled must contact PEO's licensing and registration department to request a reinstatement letter, outlining the fees due (any fee due at the time the licence was cancelled and the current licence fee, plus GST) and any other requirements. The reinstatement fee remains at $230. They must also submit a completed Application for Licence to PEO and include the names and addresses of two character references.

Engineers whose licences have been cancelled for longer than two years must also contact the licensing and registration department to request a reinstatement letter. They will be required to pay a $460 reinstatement fee, any fee owing at the time of cancellation and the current licence fee, and submit a completed Application for Licence to PEO, including the names and addresses of two character references. They will be assessed by PEO's Experience Requirements Committee as to whether they have sufficient knowledge of the current laws and standards governing the practice of professional engineering.

Those who have resigned their licences are now required to contact PEO's licensing and registration department so that a reinstatement letter may be issued, stating the fees due and any other requirements. After receipt of the letter, they must submit a completed Application for Licence, including the names and addresses of two character references, the fee of $230 and the fee for the current year, plus GST.

The fees and process for limited licence holders who wish to have their limited licences reinstated is similar to that for professional engineers. However, if their limited licence has been lapsed for longer than one year and they wish to have the limitation on their licence changed, detailed academic and experience assessments may be required.

Full details of the reinstatement requirements are available in the brochure *Reinstatement Requirements–An Information Guide* at www.peo.on.ca.

PEO PREPARING FOR FAIRNESS COMMISSIONER AUDIT

By Michael Mastromatteo

PEO's licensing and registration department is gearing up for its latest round of interaction with the Office of the Fairness Commissioner (OFC), an agency created by the Ontario government in 2007 through the *Fair Access to Regulated Professions Act, 2006* (FARPA) to monitor the registration practices of the province's 34 regulated professions. Intended to reduce barriers to employment for internationally educated professionals, FARPA was a follow-up measure to a 2005 review of the appeal processes of Ontario's regulated professions.

The OFC's initial review of PEO's registration practices in 2007 was reported in its first annual report, released in June. It will now audit PEO's licensing and registration activity, beginning in March 2009.

"These audits are a good way for my office to find out if a regulatory body's registration is transparent, objective, impartial and fair. That's why they're important," Ontario Fairness Commissioner Jean Augustine told *Engineering Dimensions* August 12.

PEO will choose its own auditor for the compliance audit, which must be submitted to the fairness commissioner by June 2009.

Other regulatory bodies will also undergo compliance audits between September 2008 and December 2009.

Michael Price, P.Eng., PEO's deputy registrar, licensing and registration, says although PEO is now studying the OFC's audit guidelines, he believes it is generally well situated to meet expectations of transparency, fairness and consistency in its registration practices.

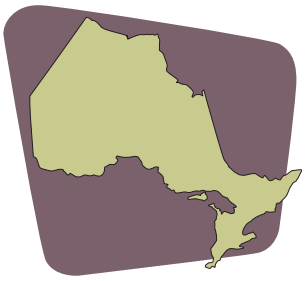
To date, PEO has fully co-operated with the OFC, supplying full information on its current registration practices and the first of its annual registration reports.

In fact, Augustine says the engineering regulator has been especially receptive to the need to reduce barriers to licensing and registration for qualified international applicants, which are among the largest groups of immigrant professionals arriving in Ontario each year.

"PEO gave us very helpful feedback during our consultations about the audits last winter," Augustine says. "We have tried to set out workable, reasonable guidelines for how the audits should be done. PEO has made great strides already in helping new Canadians pursue engineering careers. The more light we can shed on the registration process, the better it will be both for internationally trained applicants and for the profession itself."

New PEO region boundaries in effect

By Michael Mastromatteo



IN RESPONSE TO Chapter Boundary Task Force recommendations, PEO has redrawn the boundaries of its five regions (western, west central, east central, eastern and northern).

The new boundaries became effective June 16, 2008 when amendments to section 5 of Regulation 941/90 came into force (see *Engineering Dimensions,* July/August 2008, pp. 38, 40-42). The regions into which the 36 chapters in Ontario are grouped form the "electoral districts" from which are elected the 10 regional councillors on PEO council. The changes were necessary because the prior regional boundaries were based on outdated federal electoral districts. The new boundaries are based on the first three letters of postal codes (the forward sortation area) and fixed geographic features, such as highways and rivers. In two instances where it was not clear into which region members should be assigned, referenda of the affected members determined that those members in Collingwood, who had previously belonged to the Georgian Bay Chapter in the Western Region would be part of the Simcoe-Muskoka Chapter in the East Central Region, while members in Woodbridge, who had previously belonged to the Brampton Chapter in the West Central Region, would be part of York Chapter in the East Central Region.

Matthew Ng, P.Eng., PEO's chapter manager, says there are now four remaining steps to complete implementation of the Chapter Boundary Task Force recommendations. They are reprogramming PEO's LicenseEase database to revise the chapter affiliation of members affected by boundary changes and to assign new members correctly to chapters; creating a new West Toronto Chapter by amalgamating the former North Toronto and Toronto Dufferin chapters, which ceased operation on June 16 (see *Engineering Dimensions,* July/August 2008, pp. 38, 40-42); developing maps of the revised region and chapter boundaries, and informing members of the changes.

The deadline for the database programming to be completed is November 30 so that members may be correctly nominated for positions on PEO council. Deadline for nomination for the 2009 council election is December 1, 2008.

Members concerned that their chapter affiliation might have changed can consult Table 1 in Regulation 941/90 at www.e-laws.gov.on.ca/html/regs/english/elaws_regs_900941_e.htm. The revised boundary maps will be published to the chapter section of PEO's website when available. Members may also choose to become a registered P.Eng. in a chapter other than the PEO-assigned chapter, although this will not affect the region to which they are assigned for voting purposes. To register in another chapter, they should go to the Members' Area of PEO's website and register or log in to update their personal profile.

LOW LICENCE UPTAKE FIGURE INACCURATE: PEO

By Michael Mastromatteo

For the last five years, many in the engineering community have stated that only 20 per cent of graduates from programs accredited by the Canadian Engineering Accreditation Board (CEAB) obtain their professional engineer licence. An analysis of the records of graduates applying to PEO for licensure between 1999 and 2002, reported to council in June, however, indicates the average licensure uptake rate for Ontario graduates is actually 28 per cent.

It's believed that previous licence uptake studies failed to take into account the tendency of recent engineering graduates to delay their licence application until after they had acquired some of the necessary work experience. As a result, graduates who had not yet applied for licensing at the time of the study, but were intending to eventually, were lumped in with those who had no intention of ever obtaining their P.Eng., which artificially inflated the reported percentage of graduates not seeking the licence.

According to PEO's licensing and registration department, about one-third of graduates from Ontario engineering schools wait between one and five years before beginning the licensing process, but are more likely to remain on the path to full licensure than those who apply within the first year after graduation.

The revised data on licence uptake among Ontario graduates is significant given a recent survey of final year engineering students conducted by Ipsos Reid for PEO.

The survey of more than 500 students from nine Ontario universities found that 75 per cent of respondents intend to apply for their P.Eng. licence, and 97 per cent intend to practise in Ontario.

While concern has been expressed that the survey results might be skewed upward by the self-selection of the respondents, they nonetheless support the view that the more students know about PEO's role and licensing process, the more likely they are to apply for licensure.

Meanwhile, applications to PEO's Engineering Intern Training (EIT) program have been rising steadily since 2002, when slightly fewer than 800 graduates applied to be enrolled in the program, to 2007, when 1800 graduates applied. This increase is due in part to the May 2007 introduction of the EIT Financial Credit Program, which enables qualified graduates to apply for licensure at no cost and to be enrolled in the first year of the EIT program at no cost.

PEO heightens profile with ENGINEERING UNDERGRADUATES

ESSCO's 2008 executive meet with PEO and OSPE staff August 5 at PEO. From left to right are (back row) Suzanne Swaine (ESSCO), Noreen Calderbank, P.Eng. (PEO), Margaret Walcott (PEO), Mohammad Akhtar (ESSCO), Manoj Choudhary, P.Eng. (PEO), Gina van der Burg (OSPE), Marisa Sterling, P.Eng. (PEO), and (front row) Spencer McEwan, Alix Bertrand and Oscar Vega (all of ESSCO).

By Michael Mastromatteo

PEO CONTINUES TO GAIN a higher profile within the engineering undergraduate community through its ongoing support of the Engineering Student Societies' Council of Ontario (ESSCO).

ESSCO, established in 1993 at about the same time as PEO created its Student Membership Program, is an important channel of communication among the province's engineering students, PEO and the Council of Ontario Deans of Engineering (CODE). It now represents some 25,000 undergraduates in 15 engineering student councils.

On August 5, ESSCO executives for 2008 gathered at PEO headquarters to discuss objectives for the coming year. The executive meeting was a follow-up to ESSCO's June 27 annual general meeting at Ryerson University in Toronto, which attracted about 200 students from 10 engineering schools.

A key part of the annual meeting was focus groups aimed at gathering student impressions on government liaison and public policy work for the engineering profession. Students seemed especially receptive to taking part in PEO's Government Liaison Program (GLP), which since 2005 has worked to increase contact between the regulator and government leaders.

ESSCO's 2008 executive is Alix Bertrand of Laurentian University (president); Spencer McEwan of University of Waterloo (vice president, communications); Suzanne Swaine of Carleton University (vice president, development); Oscar Vega of Lakehead University (vice president, finance and administration); and Mohammad Akhtar of Queen's University (vice president, services).

"I have several priorities, including being the liaison among ESSCO and PEO, OSPE [Ontario Society of Professional Engineers], CODE and other professional organizations," Bertrand says.

A third-year mining engineering student, Bertrand says university campuses are fertile ground for PEO to provide information about the student-regulator link.

"I love that PEO is present at a number of ESSCO conferences," Bertrand says. "PEO staff really connect to the students. However, ESSCO conferences usually gather the same group of people year after year and to really connect with engineering undergraduates across the province, PEO might want to consider attending different events hosted by the schools."

Several ESSCO objectives for 2008 relate to PEO's emphasis on government relations and public policy influence. Through ESSCO, undergraduates are being encouraged to build an engineering and public policy culture in the province. Public policy-related activities being considered include submitting position statements to PEO's new Ontario Centre for Engineering and Public Policy, inviting MPPs and other politicians to speak to students on campus, and using campus media to publicize events aimed at raising the profile of the engineering profession among policy-makers.

Because many student-run organizations lose continuity when leaders graduate, PEO is considering a plan to maintain contact with former ESSCO officials and have them share their experience with younger students and strengthen the link between engineering undergraduates and the regulator.

"There's no doubt the link between PEO and ESSCO is stronger now than it has been in previous years," says Noreen Calderbank, P.Eng., PEO

PEO's Student Liaison Coordinator Manoj Choudhary, P.Eng., makes a point during the August 5 ESSCO meeting. At left is ESSCO's 2008 President Alix Bertrand of Laurentian University.

manager of prelicensing programs. "We were fortunate in having a strong executive team in place last year, and we're determined to build on the momentum that has been established."

In fact, ESSCO has added a new executive position, vice president of development, to explore ways of expanding the organization's reach throughout Ontario's engineering community.

In addition, PEO has asked ESSCO's past president, Ruth-Anne Vanderwater, a master's student at the University of Waterloo, to take on a new position as chair of the GLP/Ontario student public policy initiative. The chair is expected to work with PEO, its chapters and ESSCO executives to heighten awareness of engineering and public policy at universities across Ontario.

"Ruth-Anne Vanderwater is a natural fit for the chair position, not only because of her work as ESSCO president, but also because she's demonstrated a keen interest in engineering and public policy work," said Manoj Choudhary, P.Eng., PEO student liaison coordinator.

Scheduled fall events involving ESSCO include a September 19 and 20 Engineering Student Council Presidents' Conference at University of Ontario Institute of Technology in Oshawa, and the PEO Student Conference, November 7 to 9 in Windsor, for which ESSCO is working with PEO to develop the theme, speakers and workshops.

ESSCO is also developing additional Internet-based communications forums for students and supporters. For more information, start at the ESSCO website, www.essco.ca.

ADVERTISING CAMPAIGN TO PROMOTE VALUE OF LICENCE

By Michael Mastromatteo

Engineers Canada is taking the message about the value of the engineering licence to a national audience.

At its February meeting, the Engineers Canada board approved a national advertising campaign dedicated to the theme that the P.Eng. designation equals the engineering profession.

The campaign is scheduled for 2008 to 2012, and will be directed in segments to parents, students, employers and media.

"The Engineers Canada campaign is currently on track to deliver its year one messages and calls to action to employers and parents," says Engineers Canada CEO Chantal Guay, P.Eng. "Employers will see the first online and print ads in November, highlighting the value of the P.Eng./ing., and directing them to the campaign's employer website. Parents will see the first online and print ads in January 2009, displaying messages about exciting engineering careers and directing them to the campaign's parent website for further information and action."

Engineers Canada has asked that its constituent members–the engineering regulators from the 10 provinces and two territories–collectively provide additional financial support to the campaign to the tune of 50 per cent of years two, three and four (2009 to 2012) costs. Engineers Canada itself is funding the $880,000 year one costs.

Although at its June meeting PEO council chose not to allocate additional funds in support of the campaign, it remains fully committed to the advertising effort as a member of Engineers Canada. PEO CEO/Registrar Kim Allen, P.Eng., was a member of the original Engineers Canada task force on communications and advertising, which developed the campaign. Director of Communications Connie Mucklestone sits on the Campaign Advisory Committee, drawn from among constituent member communications officials, presidents and Engineers Canada board members.

The first year of the campaign will see messages directed specifically to parents and employers of engineers. Additional target groups, including high school and university students, engineering graduates and educators, will be added in subsequent years.

The campaign's print and online advertising will be supported by a tool kit of materials the associations can use regionally for even greater impact, and ongoing media relations. The campaign's messages and creative approaches to its target audiences will

START PLANNING NOW FOR NEW 2009

By Julie Cohen

THERE'S NO TIME to lose in starting to plan for National Engineering Week (NEW). The goals of NEW in Ontario (February 28 to March 8, 2009) include raising public awareness of the importance of engineering and technology in our daily lives and encouraging young people to consider careers in engineering and technology.

To promote these goals, NEW activities and events emphasize hands-on activities for children and youth that demonstrate real-life applications of the math and science they study in school.

"National Engineering Week in Ontario is a great opportunity to get involved and have fun at the same time," says Holly Anderson, P.Eng., chair of the National Engineering Week Ontario Steering Committee (NEWOSC). "It's also a great way to show our children the importance of the math and science they learn in school and raise the profile of the engineering and technology professions, while contributing to the future of the next generation."

Engineering volunteers interested in organizing an activity for NEW 2009 can find event ideas on the NEW Ontario website, www.engineeringweek.on.ca. Just click on Event Organizer Help.

NEWOSC offers funding to encourage volunteers throughout Ontario to organize activities and events for the public. After mid-September, information on how to obtain NEWOSC funding will be posted on the NEW Ontario website. The deadline for applications is Friday, November 7, 2008.

The Windsor-Essex Engineering Week Committee hosted a variety of events during National Engineering Week 2008, including a bridge-building design competition that attracted 70 students representing 10 high schools.

be based on research, and its reach and effectiveness in building awareness of and support for the P.Eng. will be measured throughout the initiative and adjustments made as necessary.

Research has shown that messages must be delivered consistently and over the long term to break through the clutter of information people face daily, and Engineers Canada believes the national communications campaign must be no exception if the public, parents, students, employers and educators are to come to a better understanding of the engineering profession.

"We have a big objective of having the federal government and others, such as young people and parents, recognize that the profession is very important to Canadian society," Guay told *Engineering Dimensions* in the spring. "The national collaborative and sustained communications initiative will reinforce the concept that P.Eng. equals the engineering profession and will underline the fact that to be called a professional engineer, you must have a licence and be registered."

Interprovincial mobility gaining strength

According to statistics kept by Engineers Canada, 99.5 per cent of the 2600 P.Engs who apply to transfer between provinces and territories across Canada are licensed by the receiving province within five business days.

By Michael Mastromatteo

Regulators in British Columbia and Alberta say mobility agreements between differing engineering associations are starting to pay dividends.

In a July 23 statement, the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC) and the Association of Professional Engineers, Geologists and Geophysicists of Alberta (APEGGA) announced that practically all of the professional engineers transferring between provinces and territories obtain their new licence and registration within five working days.

BC and Alberta regulators say this increased ease of mobility is evidence that national and interprovincial agreements are having positive results.

Easing the process for engineers transferring from one jurisdiction to another has been a priority for provincial associations since the Inter-Association Mobility Agreement (IAMA) was worked out by Engineers Canada and signed by its constituent members in 1999. The agreement was renewed in 2004.

In April 2006, the BC and Alberta governments signed the Trade, Investment and Labour Agreement (TILMA) which, in an effort to reduce trade barriers, streamlines the transfer for licensed professionals across their provincial borders.

"The IAMA predates TILMA and it is in large part because of the IAMA that APEGBC and APEGGA are, in essence, compliant with TILMA," says Philip Mulder, APEGGA manager of communications.

99.5 PER CENT OF THE 2600 P.ENGs WHO APPLY TO TRANSFER BETWEEN PROVINCES AND TERRITORIES ACROSS CANADA ARE LICENSED BY THE RECEIVING PROVINCE WITHIN FIVE BUSINESS DAYS.

In 2007, APEGGA received 848 transfer applicants, 150 of whom were from APEGBC. Also in 2007, APEGBC received 411 transfer applicants, of whom 177 were from APEGGA.

"Given these numbers, we are confident in stating that APEGBC and APEGGA are compliant with the requirements of [TILMA] as well as the national Agreement on Internal Trade," says APEGBC President Janet Benjamin, P.Eng.

The Agreement on Internal Trade is an intergovernmental trade agreement signed by Canadian first ministers that came into force in 1995. Its purpose is to reduce and eliminate, to the extent possible, barriers to the free movement of people, goods, services and investment within Canada, and to establish an open, efficient and stable domestic market. More recently, at their Council of the Federation meeting in Quebec City in July, the first ministers signed an Agreement on Interprovincial Movement of Workers that anticipates that the provinces will harmonize their requirements for job credentials by August 2009.

PLAN FIRMS UP FOR INTERNATIONAL ENVIRONMENT COMMITTEE

By Michael Mastromatteo

ENGINEERS CANADA HAS developed a strategic plan outlining its objectives as chair of the Committee of Engineering and the Environment.

The environment committee is one of six standing committees of the World Federation of Engineering Organisations, an international non-governmental body committed to advancing the profession. Its current emphasis is to utilize the engineering community in developing international programs to promote sustainability and offset the negative impacts of climate change.

Engineers Canada was named chair of the committee last November.

At the committee's February meetings in Paris, Engineers Canada past president Darrel Danyluk, P.Eng., presented the strategic plan, which outlines key objectives for the organization during its four-year term as chair.

The plan, which is expected to be ratified by the environment committee next December, emphasizes six themes for the years 2008 to 2011. Canada will be the lead country for examinations of engineering and climate change adaptation, and the environmental and sustainable practices of engineers.

Other themes include environmental impacts of major engineering projects, disaster risk management, sustainable development (general) and infrastructure in developing countries.

The approach is for lead countries, such as Canada, Japan, the United Kingdom, India and the United States, to assume responsibility to develop a work program for each theme under the direction of the committee chair.

In an April interview with *Engineering Dimensions*, Engineers Canada CEO

Chantal Guay, P.Eng., said serving as chair for the environment committee is an ideal opportunity for the Canadian engineering community.

"At a policy and decision-making level, you have to be part of a larger organization to learn what other countries are doing," Guay says. "We are also in Canada doing amazing work and research that we will be able to share with the global community. It's a great opportunity for the profession to be in that committee."

Engineers Canada hopes to further the committee's aims of developing a worldwide understanding of and commitment to sustainable development.

Additional information on the Committee of Engineering and the Environment is available at www.wfeo.org.

Sustainability adding new constraint for designers

By Michael Mastromatteo

New research into issues such as raw materials depletion, deteriorating civil infrastructure, and the rising cost of energy and construction materials in the demand for sustainable solutions was on display May 20 to 23 at a conference organized by McMaster University's Centre for Effective Design of Structures.

Designed as a venue for communicating advances in civil engineering materials and their impact on structures, as well as a forum for information exchange among delegates from the engineering profession, construction industry, research and academe, the conference attracted more than 120 civil engineers from six continents.

The McMaster centre has identified masonry, the remediation of structures, earthquake engineering and enhanced use of new and under-utilized materials as its four key research areas.

Simir Chidiac, PhD, P.Eng., director of the centre, says these four research priorities are key considerations for civil engineers in bringing sustainability to structure design, safety and long-term reliability.

Keynote speakers at the conference included Jacques Marchand, PhD, ing., a professor of civil engineering at Laval University in Quebec. Also editor of *Materials and Structures*, an international journal dedicated to the latest research on construction materials, Marchand outlined current issues in the understanding of service life for older bridges and related structures. He says the conference was intended to enable civil engineers to analyze all types of structures against the latest constraints imposed by sustainability, severe weather and steadily increasing usage.

"The progressive degradation of concrete infrastructure has been a subject of growing concern over the past decade," he said after the conference. "Recently, numerous computer-assisted tools have been developed to assist engineers in the design of durable construction and the optimum management of existing structures affected by different types of deterioration. The advantages and limitations of these tools were discussed both from a theoretical and practical standpoint."

Other topics highlighted at the conference include maintenance and monitoring of structures, durability/testing of materials and components, non-destructive evaluation of structures, material modeling, waste reduction and the re-use and recycling of waste materials, residual capacity of aged structures, service life and life-cycle analysis, building envelope and energy reduction measures.