

## PEO names nine to the ORDER OF HONOUR

*By Nicole Axworthy*



**THIS YEAR, PEO** will recognize nine individuals who have made substantial contributions to the engineering profession and the association. These individuals will be inducted as members into the Order of Honour, an honorary society of PEO, at a special ceremony on Friday, May 6, held in conjunction with PEO's annual general meeting (AGM) at the Westin Ottawa Hotel.

In two decades of service to the Chatham-Kent Chapter, including 15 years on its executive, **Joseph Calabrese, P.Eng., FEC**, ensured the success of the chapter by organizing such events as technical nights, AGMs and golf tournaments. As certificate coordinator, he made personal telephone calls to welcome newly licensed members, and increased communication to members as coordinator of the chapter's newsletter. He also judged at the local science fair and led many engineers in classroom presentations. In 2005, Calabrese left the chapter executive due to work commitments but continues to attend events and present a positive face for PEO in Chatham-Kent.

As a treasurer, event planner, strategist and passionate volunteer with the London Chapter, **Ian Cheng, P.Eng.**, has made a lasting impact on the engineering profession in southwestern Ontario. As treasurer of the chapter since 2000, he simplified chapter finances, successfully managed the accounts and worked with his executive colleagues to prepare and manage the budgets. As a result of his financial strategies, the chapter has been able to stage numerous events and programs. The most successful event is the kick-off luncheon during National Engineering Month (NEM), which Cheng has coordinated since 2002.

During his 15 years of service on the Toronto-Humber Chapter executive, **Ed Grandy, P.Eng., FEC**, has taken on the roles of chapter secretary,

chapter privacy officer, co-webmaster and events coordinator. He has also contributed significantly to successful joint ventures with other chapters in the region, such as the Etobicoke Chapter's engineer's dinner and dance, the Toronto Harbour cruise, industry seminars and multi-chapter licensing ceremonies. A fellow of Engineers Canada, his contributions to PEO were recognized by the Government of Ontario in 2010 with an Ontario Volunteer Service Award.

An active and influential volunteer within PEO's chapter system for 15 years, **Gordon Ip, P.Eng., FEC**, joined the Scarborough Chapter in 1997, where he served on the executive for seven years in various positions, including treasurer, vice chair and two years as chair. When a change in employment prompted his relocation, he brought his experience and leadership skills to the York Chapter executive in 2005. He has since served as certificate presentation director, secretary and privacy officer, as well as taken responsibility for the chapter newsletter. Ip is currently the chapter's mentoring director.

Throughout his 25-year association with the London Chapter and as a member of its executive, **James Victor Morris, MSc, P.Eng., FEC**, is committed to raising awareness of science and engineering within area high schools through the chapter's Education Outreach Committee, and by supporting the creation of programs during NEM. He has also served for many years on a committee judging engineering projects designed by fourth-year engineering students at the University of Western Ontario. Also an active participant in the local engineering community, he chaired the Technical Committee of the Canadian Society for Civil Engineering.

**Lawrence E. Pond, P.Eng., FEC**, was a dedicated member of the Lakehead Chapter executive from 1988 to 1994, including successful terms as vice chair, chair and past chair. He believes in the value of the profession and licensure and has demonstrated his beliefs while serving on the chapter executive, as well as on PEO's Consulting Engineer Designation Committee since 1992.

Changiz Sadr, P.Eng., FEC, has been an influential member of the Willowdale-Thornhill Chapter. He joined the chapter executive in 2000, and has chaired it since 2009. Under his leadership, the chapter's programs have undergone tremendous growth, including the development of a scholarship program for students pursuing engineering, networking events for engineering interns and the staging of two chapter events each month on average. Sadr has also been a motivational presence on several PEO committees, including the Experience Requirements Committee, Emerging Disciplines Task Force and an Advisory Committee on Volunteers subcommittee.

Matthew Xie, P.Eng., FEC, has been a passionate volunteer with the York Chapter since 2000. During his term on the executive—including as vice chair, chair and treasurer—York became one of PEO's most active chapters. Under his direction, the chapter launched a mentoring program at York University where local engineers work with fourth-year students as they prepare their final-year projects. Xie also demonstrates his commitment to the profession through service on PEO's Experience Requirements Committee where, since 2005, he has worked diligently to assess the acceptability of applicants' engineering experience and qualifications for licensure.

For over a decade, Otto Zander, P.Eng., has been a member of the Toronto-Humber Chapter executive, serving as chair six times and as vice chair four times. His initial involvement with the chapter system, however, dates back to 1961 with the Hamilton Chapter, which he joined shortly after graduating from the University of Alberta and relocating to Ontario. In the years since, he maintained an interest in chapter activities until he became licensed and involved with the Toronto-Humber Chapter in 1998. Zander is described as an outstanding leader and actively involved in most of the chapter's education outreach programs. He has also helped organize technical tours, guest speakers, licence certificate presentation ceremonies, AGMs and NEM activities.

## NEW DEPUTY REGISTRAR LEARNING THE ROPES AMID REVIEW OF KEY PROCESSES

By Michael Mastromatteo



Linda Latham, P.Eng., joined PEO on December 13, 2010.

PEO's newest deputy registrar comes to her role as a council task force is reviewing the engineering regulator's complaints and discipline function, the responsibility for part of which lies within her department.

Linda Latham, P.Eng., joined PEO as deputy registrar, regulatory compliance December 13, 2010.

She succeeds former deputy registrar Bruce Matthews, who left PEO in September to become deputy registrar with the Real Estate Council of Ontario. Matthews had been a deputy registrar at PEO since June 2008.

Latham's role is to oversee PEO's regulatory compliance activities, which is one of the regulator's core functions.

The department recently completed an audit of its operations with a view to enhancing them, and has also stepped up its compliance awareness and enforcement activities. It is currently reviewing the merits of a new alternative dispute resolution mechanism for resolving complaints against PEO licence and certificate holders.

Latham has more than 20 years of experience managing large-scale design and construction projects, having worked for Morrison Hershfield, AstraZeneca Canada, SNC-Lavalin Pharma, Nestlé Canada and Eli Lilly Canada.

First licensed by PEO in 1991, Latham is a graduate of the University of Toronto's industrial engineering program.

Key accomplishments of her work in industry include securing a \$150-million public-private partnership opportunity; the design and construction of a \$180-million sterile liquids manufacturing facility; being a member of management committees responsible for delivering \$20 million of engineering services; and the production, quality, safety, planning and distribution of approximately \$700 million of pharmaceutical products annually.

Latham says her first two months at PEO have been a whirlwind of activity and acclimatization. Her goal, she says, is to advance her department's main objectives, including ensuring the complaints process is both managed in the public interest and fair to complained-against practitioners. She is also committed to actively enforcing elements of the *Professional Engineers Act* and regulations concerning unlicensed practice and unauthorized use of engineering titles. Finally, Latham says she is keen to support PEO's legal department and investigators in the prosecution of matters before the Discipline Committee and enforcement actions in the public courts.

## Questions remain for IEPs looking to obtain P.ENG.

By Michael Mastromatteo

### INTERNATIONALLY EDUCATED

engineers remain confused about the distinction between engineering's regulatory and advocacy bodies in Ontario, says a veteran member of PEO council.

Rakesh Shreewastav, P.Eng., a lieutenant governor-in-council appointee to PEO council, was a participant in the eighth annual Internationally Educated Professionals (IEP) Conference, held January 14 at the Metro Toronto Convention Centre.

The conference drew a record 1700 internationally educated professionals, many of them engineering graduates, to receive advice and information for integrating into Canadian society and finding suitable employment in their chosen careers.

Shreewastav, an internationally educated engineer licensed by PEO in 2003, has attended the last five IEP conferences.

He took part in a panel with nine other engineers and human resources specialists that discussed self-regulation, licensing and Canadian experience issues for internationally educated professionals (IEPs).

Shreewastav says many new Canadians remain confused about engineering self-regulation in Ontario.

"Most new Canadians understand the requirement to have the designation [P.Eng.], but many of them still do not have a clear understanding of a regulatory versus advocacy body," he said. "Some of them also do not see the clear benefit to registration, as they often hear rumours about some P.Engs still looking for jobs, and some IEPs finding work without any designation."



PEO Councillor Rakesh Shreewastav, P.Eng., led one of several group discussions of engineering licensing issues at the January 14 Internationally Educated Professionals Conference in Toronto.

Shreewastav said that while PEO does a thorough job of informing IEPs about licensing and registration in Ontario, there is still room for improvement.

"PEO as a regulating organization has done a great deal of work through fairness and other initiatives, but when it comes to informing IEPs about the process and making them understand PEO's role versus the advocacy body's role, clearly and evidently we need to do much more to make a significant difference."

He added that IEPs remain frustrated about the 12-month Canadian experience component of the required 48 months' experience for licensing.

"They share their frustration by saying: 'Most of the employers are asking about Canadian experience. How can I have that if I just landed a few weeks or months ago?'" Shreewastav added.

He said other issues raised by IEPs include not knowing where to find assistance in preparing for assigned examinations, and perceived long wait times for news of next steps after first applying to PEO. Other IEPs, he said, were curious about how PEO recognizes foreign credentials, while others were more interested in advice on upgrading qualifications or how to obtain their first engineering job.

The annual IEP conferences have become a key networking and information-sharing exercise for new Canadian professionals. Keynote speakers at past conferences have urged IEPs to be flexible and adaptive as they negotiate the special requirements of self-regulated professions.

The keynote speaker at the 2011 conference was Ratna Omidvar, president of the Maytree Foundation, a Toronto-based organization seeking to bring greater diversity to the Canadian workplace.

Omidvar is also chair of the Toronto Region Immigrant Employment Council (TRIEC), which has worked with PEO and other regulatory organizations to establish bridging programs and other services to help IEPs become licensed in Ontario.

## WILLOWDALE/ THORNHILL Chapter talks impact of HST

By Jennifer Coombes



Minister of Revenue Sophia Aggelonitis

Minister of Revenue Sophia Aggelonitis was the special guest January 18 at a town hall organized by the Willowdale/Thornhill Chapter to discuss the effects of Ontario's Harmonized Sales Tax (HST) on professionals. She was joined by a panel that included PEO President Diane Freeman, P.Eng., FEC; OSPE President John Schindler, P.Eng.; Consulting Engineers of Ontario President Barry Steinberg, P.Eng.; Changiz Sadr, P.Eng., FEC, Willowdale/Thornhill Chapter chair; Bob Laramy, CGA, assistant deputy minister, sales and corporate tax transformation; and Michael Chan, MPP Markham-Unionville.

Aggelonitis began by saying that to understand the HST she had to explain it in the context of the full McGuinty government tax package.

"Sometimes changes happen without us—the worst recession in 80 years, for example," she said. "With the high dollar and strong competition, the Ontario economy dropped and the government had a choice: sit back and pretend that the old economy would return, or do what engineers do and fix the problem."

So, she said, on July 1, 2010, the province replaced the previous 50-year-old tax system with a modern, efficient one that makes Ontario a strong leader. She added that the HST is just one part of a tax package that involves: 1. making businesses more competitive, 2. increasing jobs, and 3. putting more money in the pockets of Ontarians.

As far as making business more competitive, Aggelonitis said Ontario was a province with an above-average tax burden—a layered tax that is a burden on the economy and a burden on businesses. She says the new tax system puts Ontario businesses on a level playing field with approximately 140 countries across the world that have a similar tax

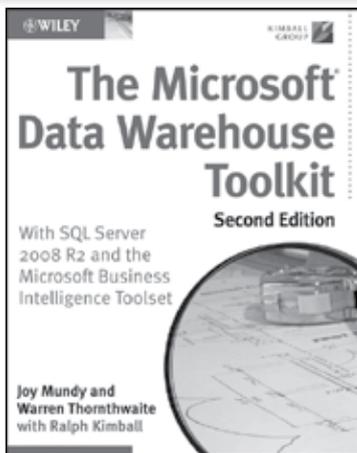
structure, and that the package will cut taxes on new businesses by half and will mean more exports to the US.

Aggelonitis said the tax package will create 600,000 new jobs in Ontario within 10 years. In fact, she said, in December 2010 alone, 23,000 new jobs were created, unemployment was down 1.8 per cent, and, overall, Ontario has recovered 96 per cent of the jobs lost during the recession (as compared to Japan, the US and the UK at 5, 13 and 47 per cent, respectively).

Aggelonitis said there will also be more money for Ontario families with this tax package, with 83 per cent of the things we buy seeing no change in tax: "Of course, big changes come with their share of challenges, but the tax package contains permanent and temporary cuts to help families adjust, such as the sales tax credit, the Ontario property tax credit, which has doubled to \$500, and the child's activity credit."

Overall, she said, the goal was to adjust quickly to the changing global economy: "And, we did. We're trying to make the transition from the old system to the new system as smooth as possible."

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# Seminar introduces new tools to assess climate change-infrastructure link

By Michael Mastromatteo



Environment Canada Meteorologist Heather Auld discussed climate change information for engineering decisions as part of a February 4 climate change-infrastructure workshop at PEO. David Lapp, P.Eng., Engineers Canada manager, professional practice, is at right.

About 40 engineers and EITs attended the workshop addressing the impact of climate change on Ontario's infrastructure.

**PROFESSIONAL ENGINEERS WILL** soon have additional tools to assess the impact of climate change on Ontario's public infrastructure.

Nearly 40 engineers and engineering interns (EITs) discussed the latest developments in forming an engineering response to the climate change-infrastructure challenge at a February 4 seminar at PEO, organized jointly by PEO, Consulting Engineers of Ontario, the Ontario Society of Professional Engineers and Engineers Canada.

Chief among the topics of discussion was development of a protocol to assess the impact of climate change and to plot out adaptation and mitigation strategies to reduce the risk associated with infrastructure degradation.

David Lapp, P.Eng., Engineers Canada manager, professional practice, who hosted the seminar, outlined Engineers Canada's role in developing the Public Infrastructure Engineering Vulnerability Committee (PIEVC) project, a multi-faceted initiative to assist professional engineers in quantifying and assessing the impact of climate change on infrastructure.

Established in 2007, PIEVC is a joint undertaking of Engineers Canada and Natural Resources Canada. Its chief role is to examine infrastructure vulnerability from an engineering perspective. Based on this work, PIEVC has created a new protocol to help engineers design, maintain and service public infrastructure to better withstand the weather extremes associated with a changing climate.

Now in its third phase, the PIEVC protocol is scheduled for completion in January 2012.

Lapp described it as "a tool for translating climate change into engineering action." He said engineers' traditional reliance on historical data must be updated and revised to account for the new constraints imposed by climate change.

"Engineers need to understand climate change risks and account for it in design and retrofitting of Canadian public infrastructure," Lapp challenged.

Lapp also pointed out that estimates of future climate activity can no longer be based on what's happened in the past. Existing infrastructure, he added, is designed based on historical design values, typically with conservative safety factors.

"Climatic design values based on historical data will be less and less helpful over time," Lapp warned. "However, some knowledge of the past is essential to understand the risks of future climate changes."

Other speakers at the day-long seminar included Heather Auld, associate director, adaptation and impacts research division, Environment Canada; Joel Nodelman, P.Eng., Nodelcorp Consulting; and Roger Rempel, P.Eng., a senior environmental engineer, Stan-tec Consulting (Winnipeg).

The seminar also included three case studies on applying the PIEVC protocol to different kinds of infrastructure. Ryan Ness, P.Eng., Toronto and Region Conservation Authority, led a study on water retention of dam infrastructure, while Dirk Nyland, P.Eng., British Columbia Ministry of Transportation, discussed highway infrastructure assessment.

The final case study was led by Brian Kyle, P.Eng., XTN Sustainable Life-Cycle Asset Management Consulting Ltd., who shared insights of a building assessment in the Tunney's Pasture (Ottawa) region.

A key topic of the day's activities involved an engineer's understanding of risk assessment. Nodelman, for example, outlined how climate change can exacerbate the normal stresses exerted on public infrastructure, forcing designers to revise standards and safety codes to account for its effects.

Seminar participants appeared to be especially impressed with the PIEVC protocol to account for the additional and unprecedented risk factors associated with climate change. It was made clear that historical data, upon which many previous safety and design codes were based, is less relevant to the new realities of climate change and weather extremes.

Jyoti Upadhyaya, a research assistant in the department of civil and environmental engineering at the University of Windsor, said the protocol is relevant to her line of research in infrastructure resiliency.

“I think the PIEVC is a great tool to assess the vulnerability of infrastructure to climate change, especially when there is no other tool available to professional engineers at this point,” she said. “PIEVC emphasizes local experience and expertise, and lots of professional judgment is required. I’m hoping the protocol will be evolved as a scientific tool, and the first few steps of the PIEVC protocol can be used as a screening tool.”

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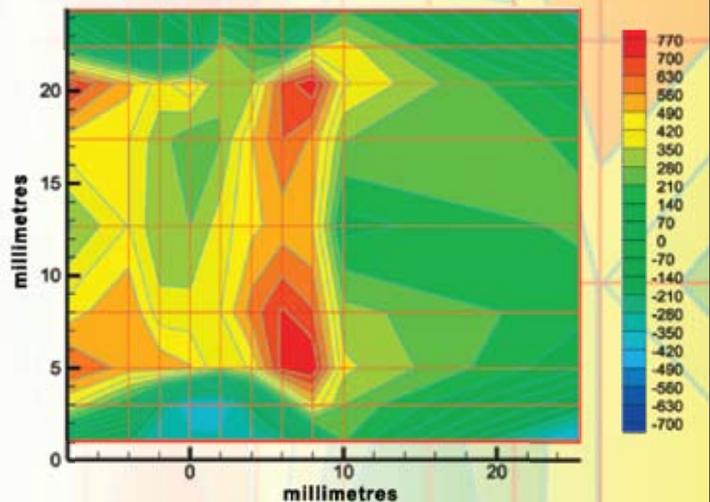
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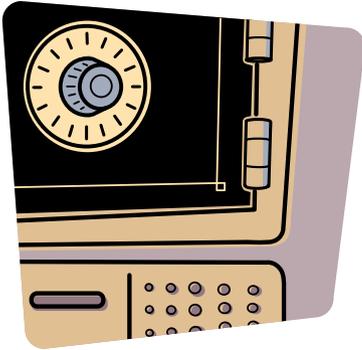
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## LICENSING COULD BE KEY TO ENHANCED CYBER SECURITY

By Michael Mastromatteo

Safeguarding digital communications and critical information infrastructure might eventually require licensing of operators, says the chair of a PEO task group on communications infrastructure engineering (CIE).

Speaking November 25 at an Ontario Centre for Engineering and Public Policy (OCEPP) policy engagement event, George Comrie, P.Eng., FEC, said licensing and regulation of critical information engineering operators would bring benefits, including “end-to-end design, with rigorous systems thinking and risk management as embedded principles.”

In his presentation, Comrie addressed cyber security and the protection of digital infrastructure as a public policy concern for professional engineers.

He described CIE as “systems-level architecture, design and management of reliable, secure networks for mission-critical and safety-critical applications, including those supporting other critical infrastructure.”

The CIE task group is a subgroup of PEO’s Emerging Disciplines Task Force, whose mandate includes determining if new practice areas are distinct new disciplines of professional engineering.

Audience members included information technology and Internet security officials from such organizations as Ontario Power Generation, Hitachi Canada, Atomic Energy of Canada Ltd. and the Toronto Police Service.

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In response to the federal government's consultation on developing a national strategy for Canada's digital economy, the CIE task group recently called for increased regulation of those involved in designing and managing critical communications infrastructure.

Comrie expanded on the task group's work in his presentation on cyber security, outlining the growing importance of digital communications to the Canadian economy, and the new safety concerns brought by the expanded reach of the Internet.

Comrie described the current regulatory landscape for communications infrastructure as the "best judgment" approach by proprietors and system operators. "In essence, we are relying on the diligence and good sense of operators to help keep these systems secure," he said.

For the most part, he said, common IT carriers are regulated for business, but not technology practice and certification. Although some technical standards exist, there is limited certification and no operator licensing.

Comrie concluded by noting our dependence on digital communications and its supporting infrastructure is more complete than many people realize, and that increased diligence in areas of cyber security is always in order.

He also outlined the benefits of licensing operators, designers and managers of critical information infrastructure, including protection of the public interest, professional accountability, and the establishment of professional knowledge and standards.

Comrie suggested the design and management of critical information will ultimately be recognized as the practice of professional engineering and that, in future, all operators will require some form of licence.

Afterward, Comrie invited Tyson Macauley, P.Eng., and Changiz Sadr, P.Eng., FEC, both members of the CIE task group, to the podium to help respond to questions from the audience.

Jennifer Wong, P.Eng., a modification team leader at Ontario Power Generation, attended the presentation and noted the challenge to professional engineers to help protect critical communications infrastructure.



George Comrie, P.Eng., FEC (left), chair of PEO's Communications Infrastructure Engineering (CIE) task group, led a seminar in cyber security November 25 at Hart House in Toronto. Joining him at the podium afterward were Internet security authorities Tyson Macauley, P.Eng. (centre), and Changiz Sadr, P.Eng., FEC, also members of the CIE task group. The event was part of the Ontario Centre for Engineering and Public Policy's policy engagement series.

"The protection of the public interest, welfare and safety is paramount to the engineering profession," she said. "This is especially relevant to my job as an engineer in the nuclear industry. I have an overriding responsibility to ensure the health and safety of our workers, the public and the environment are safeguarded against radiological hazards and risks."

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## 50th ANNIVERSARY FOR TORONTO-HUMBER CHAPTER



Nearly 25 past and current executive members of PEO's Toronto-Humber Chapter gathered February 18 for the chapter's 50th anniversary celebration and annual general meeting. Although several PEO chapters are celebrating golden anniversaries in 2011, Toronto-Humber was one of the first chapters to officially incorporate its bylaws and operating procedures, and to plan such an elaborate half-century celebration. The group photo at top features past and current members of the chapter executive (left to right): Liliana Urmuzache, P.Eng.; Jason Chen, P.Eng.; Neil Kazen, P.Eng.; Gary Zakaib, P.Eng.; John Bonfield, P.Eng.; Nicolae Comanescu, P.Eng.; Harneet Panesar, P.Eng.; Ed Grandy, P.Eng., FEC; Boze Zekan, P.Eng.; Don Grandy, P.Eng., FEC; Jim Fedorkiw, P.Eng., FEC (current chapter chair); Chizi Josi, P.Eng.; Otto Zander, P.Eng.; Peter Wolfi, P.Eng.; Rysard Abrozy, P.Eng.; Ken Lopez, P.Eng., FEC; Victor Blandon, P.Eng.; Danny Marmora, P.Eng.; Keith Cross, P.Eng.; Carlo Ceccarelli, EIT; and Pankaj Dhawan, P.Eng.

The lower photo shows (left to right) current Toronto-Humber Chapter Treasurer Don Grandy, P.Eng., FEC; Keith Cross, P.Eng. (executive member, 1971-1981 and 1985-1987); John Bonfield, P.Eng. (executive member, 1968-1976); and current Chapter Secretary Ed Grandy, P.Eng., FEC. The Toronto-Humber Chapter has played an important role in the leadership development of hundreds of engineers. As one-time chapter executive member Kathy Crewe, P.Eng., noted: "The Toronto-Humber Chapter was very good to me and a great influence in my becoming an engineer. I grew up in this chapter and was fortunate to attend a career night hosted by the chapter and it helped make my decision to pursue engineering."