

Clarity, persistence, unity key to engineers' government relations work

By Michael Mastromatteo

PEO'S NEWLY FORMED Government Liaison Committee (GLC) offered a full smorgasbord of advice and direction to a profession keen on sharing its technical and problem-solving acumen with policy-makers.

The first-ever engineering government relations conference, entitled Gaining Momentum, held September 12 in Mississauga, brought together representatives of Ontario engineering organizations and others to discuss ways of improving the profession's links with government.

Drawing more than 130 participants from PEO, the Ontario Society of Professional Engineers, Engineers Canada, Consulting Engineers of Ontario and other groups, the conference was also aimed at encouraging the "early engagement" of engineers in public policy development and exploring new approaches for more effective government relations work.

The legacy of Ontario engineer-statesman C.D. Howe, P.Eng., was invoked early and often at the conference. The 1940s minister of munitions and supply in the government of prime minister William Lyon MacKenzie King was held out as a classic melding of political and engineering power in service to the greater public good. But while not all engineers can expect to match Howe's level of authority, influence and productivity, today's practitioners were encouraged to be more assertive in their policy advising and government relations efforts.

Several presenters noted that with more than 230,000 members registered in the 12 provincial and territorial regulators across the country, engineers represent a formidable constituency in their own right, and their commitment to improved relations with government at all levels bodes well for the name and reputation of engineering.

The conference's keynote speaker was author, political strategist and communications consultant Terry Fallis, who offered special insights in the engineering-government relations dynamic (see "Author outlines 'engineering approach' to writing, public life," p. 10).

Among the guests at the Gaining Momentum conference were PEO President David Adams, P.Eng., FEC; Bill De Angelis, P.Eng., chair, Consulting Engineers of Ontario; Marie Carter, P.Eng., FEC, chief operating officer, Engineers Canada; and Mauricio Curbelo, president, Engineering Student Societies' Council of Ontario. Student leaders were



Bill De Angelis, P.Eng., chair, Consulting Engineers of Ontario, took part in one of several small group discussions aimed at putting government relations ideas into action.

especially prevalent at the conference, reflecting PEO's recent efforts to draw on the engineering student community as key players in the government relations strategy.

Barry Steinberg, P.Eng., president, Consulting Engineers of Ontario, and chair of PEO's GLC, struck a note of clarity and unity of purpose as the engineering profession seeks to improve its relationship with political leaders.

"If we're going to gain momentum in the delivery of a common, unified message, and change the perception of our target audiences as to the value of our profession to society and public safety, then we have no choice but to work together," Steinberg said. "Our first step is clearly to understand and accept the mandates of our respective organizations. Complex messages coming from conflicted organizations are a recipe for inertia and inaction, and proof that we make less of an overall contribution than we think we do."

Steinberg also called for a culture of mutual trust and respect among engineering organizations as the profession not only recognizes its contributions, but also seeks to put the engineering name to the service of policy development and political decision making.

In the opening session, PEO CEO/Registrar Kim Allen, P.Eng., FEC, outlined the Ontario regulator's government relations strategy since 2004. There is some irony, Allen said, in that it took the provincial government's incursion into PEO's regulatory realm—namely through the Ontario Building Code reform qualification and registration scheme and subsequent court challenge—to ramp up PEO's government relations effort. "We went from being practically ignored by the government to a position where they now look to engineers for help and advice on some of their issues," Allen said.

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“And now we want to stay on the same side as the government and provide our input in helping solve public problems that arise.”

In a similar vein, Marie Carter of Engineers Canada explained the national group’s enhanced relationship with the federal government. She said recent Engineers Canada initiatives, including integration of internationally educated engineers, mobility agreements and the creation of a membership database all underscore the profession’s efforts to anticipate government needs and take action in accord with government policy expectations.

The conference also featured advice from a panel of experts on how best to influence government leaders. Participants here drove home the importance of patience, consistency and clarity for any organization looking to win the attention of elected officials or to offer a profession’s support in the policy development forum.

Said Sean Conway, former Ontario minister of education with the David Peterson government, and a visiting fellow at the Queen’s University School of Policy Studies: “The questions in the elected official’s mind are: Who are you? What do you do? What do you want from my level of government? Can my level of government actually provide what it is you want? When dealing with government, don’t be shy about being very clear about what you want. It is hoped you are asking for something that government can actually deliver.”

Conway—who participated via teleconference—later advised engineers to take the time to build stable, lasting relationships with government leaders and policy-makers and, above all, to ensure that input and policy advice actually accord with the present government’s agenda and priorities.

Engineers at the conference were challenged to more effective government relations work by Doris Grinspun, PhD, executive director, Registered Nurses Association of Ontario (RNAO). Grinspun, whose RNAO enjoys a high level of public trust, said it’s important to impress on government leaders and policy-makers how the input from a professional organization can lead to better policy outcomes. She also suggested that a more proactive government relations campaign, and a willingness to engage the public in its efforts, pays immediate dividends to any professional organization. The RNAO, for example, prepares a full electoral platform at least 18 months in advance of each provincial election, and is often consulted by health ministry officials in the development of policy or legislative initiatives.

In the conference’s small group discussions, facilitated by members of PEO’s GLC, participants discussed how to raise the engineering profession’s profile in government circles, so that policy-makers can better understand that engineers are on hand to protect the public interest.

In summarizing the conference themes, Steinberg urged participants to develop a “strong and focused” government relations message for their respective organizations. He also recommended early engagement with government to set the stage for future policy development influence. In addition, Steinberg welcomed the input of students and newly licensed engineers as key players in the profession’s plan to stake out new ground in the government relations/policy development area.

The engineering government relations conference replaced for 2011 the annual Engineering for Ontario Day reception traditionally held each September at Queen’s Park.



Barry Steinberg, P.Eng., chair of PEO’s Government Liaison Committee, welcomes guests to the September 12 Gaining Momentum government relations conference.



Mauricio Curbelo of the Engineering Student Societies’ Council of Ontario and Shannon Pole of PEO’s Government Liaison Committee were two of the student delegates to the conference.

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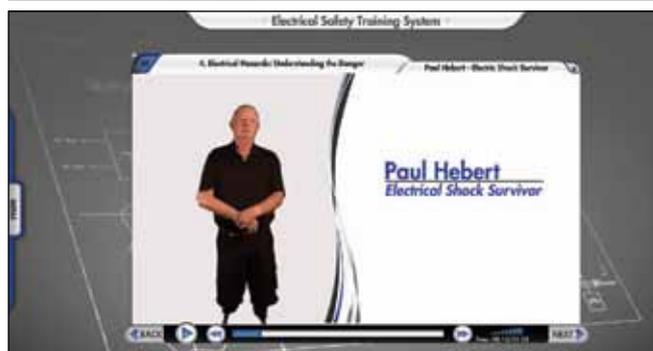
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Author outlines “ENGINEERING APPROACH” to writing, public life

By Michael Mastromatteo

An engineering graduate who “hasn’t practised a day of engineering” in his life still has good things to say about the profession’s link to more active civic engagement.

Terry Fallis, author of political satire novels *The Best Laid Plans* and *The High Road*, was keynote speaker at the September 12 Gaining Momentum conference organized by PEO’s Government Relations Committee.

A graduate of McMaster University’s engineering program (1983), Fallis has a long track record in federal and provincial politics. In 1995, he founded the Thornley Fallis Communications consulting agency.

Published in 2005, *The Best Laid Plans* won the Stephen Leacock Medal for Humour in 2008, the first self-published novel to win the award, and in February 2011 won CBC Radio’s Canada Reads competition as “the essential Canadian novel of the last decade.” Follow-up *The High Road* was published in 2010.

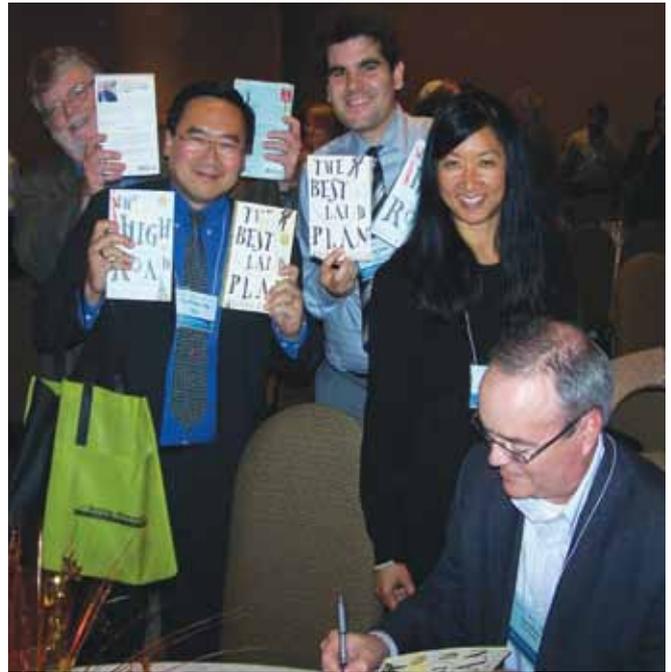
Despite a career path that eschewed engineering, Fallis believes his education still informs his communications and writing work.

“I have not practised a day of engineering in my life, although I’ve come to believe and I believe it more strongly now than I did 20 years ago, that every day I use my engineering experience in whatever it is I do,” Fallis said.

In outlining his methodical approach to fiction writing, Fallis described the painstaking notes, blueprints and character development sketches that went into his first two novels. He later joked that other novelists might benefit from an engineering approach to book writing.

“Most writers start with a hazy idea and just start writing, and five years later a story is produced,” he said. “I needed a bit more efficiency. I decided to approach novel writing as an engineer. So as an engineer, I wrote blueprints for my novel before I wrote a single word of the manuscript. It’s not that exciting or romantic, but quite mechanical. I could never understand how writers start with a hazy idea and just start writing a novel. I can’t really imagine what the building or the bridge would look like if that’s how the engineer worked.”

Fallis then read a long passage from *The High Road*, which focuses on the adventures of a long-time engineer’s entry into Canadian federal politics. In the story, Fallis’ protagonist,



Terry Fallis autographs copies of his novels following his talk at PEO’s recent government relations conference.

mechanical engineer Angus McClintock, is appointed science advisor to the federal cabinet. Despite having the executive branch of the government’s attention, McClintock quickly laments the lack of influence professional engineers enjoy in government policy-making.

Fallis segued from his protagonist’s experience to encourage professional engineers to pay more heed to government relations and policy development.

“I am really encouraged to see there are so many engineers interested in government relations,” he added. “I have discovered that what you know is far more important than who you know. You [engineers] bring a lot to the table. We need a lot more clarity. We need discipline and a methodological approach to problem solving, and you’re good at that sort of thing. So to those of you working in the government relations field representing your associations at government, keep up the good work.”

And in a boost to the professional engineers who sought election in the Ontario provincial election, Fallis said society would benefit from more engineers “on Parliament Hill, at Queen’s Park and in other legislatures across the country.”

In thanking the author for his appearance, Marisa Sterling, P.Eng., PEO enforcement officer, said Fallis represents the growing importance of government relations activity to the engineering profession.

“Terry Fallis stimulated an amazing momentum that I hope you all have observed within the engineering community,” Sterling said. “It has been six years since PEO’s Government Liaison Program was born, and here we are today with elected engineers at the municipal level, the federal level and at the provincial level.”

STUDENTS LOOK FOR MORE ACTIVE ROLE IN SUPPORT OF PROFESSION

By Michael Mastromatteo

STUDENT LEADERS HOPE to build on existing communications and networking channels to extol the benefits of engineering to new audiences.

During an August 24 planning meeting at PEO, executive members of the Engineering Student Societies' Council of Ontario (ESSCO) laid out strategy and direction for the coming academic year.

ESSCO is a coordinating body for all of Ontario's engineering student societies. PEO has worked with ESSCO since 1987 to support its Student Membership and Engineering Intern programs, and to spread information about licensing and registration to the undergraduate community.

ESSCO now represents 24,000 engineering students at 16 Ontario colleges and universities.

A key objective for the 2011-2012 academic year is to position ESSCO as the "go-to" place for meaningful inter-school communication among engineering student societies in Ontario.

Other goals include improving outreach to executive members of existing university-based student councils, and reviewing how engineering students can contribute to "public policy advocacy" for the engineering profession.

And in an ambitious change of policy direction, ESSCO officials pledged themselves to examining how students can be of assistance to PEO, the Ontario Society of Professional Engineers and Engineers Canada.

ESSCO President Mauricio Curbelo, a third-year engineering student at the University of Toronto, said it's time for student societies to take on a more active role in support of PEO and other engineering-related organizations, especially as the profession expands its government relations and public policy efforts.

"I think we're not going to fully realize our potential in helping governments create informed public policy initiatives until we are a part of the public discourse the way organizations like the Ontario Medical Association and Canadian Bar Association are," Curbelo said. "The public isn't fully aware what engineers do, so promoting the profession itself would be a smart thing to do. If we're going to actually provide leadership on issues like transit, energy, infrastructure and the environment, we're eventually going to have to take part in the political process and offer recommendations, and take those recommendations to media in addition to politicians themselves. I think we're doing some good work now, building relationships with public officials through the Government

Liaison Program (GLP), but we are a long way from influencing the public and becoming a regular part of debates on engineering-related issues."

The ESSCO president supports greater involvement of engineering students in PEO initiatives and especially welcomes the recent addition of students and EITs on PEO's Government Liaison Committee.

Former ESSCO president Ruth-Anne Vanderwater, EIT, and executive member Charlsie Searle, EIT, joined the committee at PEO's annual general meeting in May. Vanderwater also attended the August 24 ESSCO meeting.

"ESSCO is able to gather opinions from student society leaders at each school in a matter of days, and can disseminate information to 20,000 engineering students in Ontario in a matter of weeks," Curbelo said. "We're able to provide student feedback very quickly if we're asked for it. All it takes is involving a student on a committee or working group, or simply emailing us. Students could provide a fresh perspective on the role and future of the profession, and reaching out to ESSCO is a simple and effective way of seeking their feedback."

In addition to discussing objectives for 2012, the August 24 planning meeting included a presentation on leadership by Jeanette Chau, P.Eng., manager of student and government liaison programs at PEO. In addition, Howard Brown, PEO's communications and government relations consultant, urged students to maximize communications and networking opportunities in bringing the engineering message to a wider audience.

The annual PEO-ESSCO Student Conference is scheduled for November 11 to 12 at the University of Ottawa.



This year's executive of the Engineering Student Societies' Council of Ontario (ESSCO) includes (standing, left to right) Shane Comella, Mukhtar Galan and Cameron Winterink, and (seated) Racquel Almeida and Mauricio Curbelo. Former ESSCO president and current PEO Government Liaison Committee member Ruth-Anne Vanderwater, EIT, is at far right.



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Principles and Techniques of Ground Improvement (3 days)	18	Mississauga		29	2
Evaluation and Rehabilitation of Pavements	12	Ottawa			5-6
Traffic Signal Design and Operation	18	Mississauga			5-7
Design and Construction of Earthworks	18	Ottawa			21-23
Infrastructure Asset Management: A Strategic Approach Toward Sustainability	12	Mississauga			22-23
Planning, Design and Rehabilitation of Bridges	24	Ottawa			26-29
Construction			Jan	Feb	Mar
Successfully Selecting Contractors and Consultants	18	Ottawa	18-20		
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Grounding and Bonding of Electrical Systems	12	Mississauga	11-12		
Testing, Commissioning and Start-Up of Electrical Systems	18	Mississauga	16-18		
Fundamentals of Electrical Distribution Systems	18	Mississauga		13-15	
Environmental			Jan	Feb	Mar
Designing Wastewater Pumping Stations and Lift Stations	18	Ottawa	25-27		
Effective Streambank Stabilization and Stormwater Channel Design	12	Ottawa			26-27
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Understanding Industrial Codes PART 2 - ASME BPVC Sections II (Materials) and IX (Welding and Brazing); ASME B31 Pressure Piping Codes; and API Tank Codes for Compliance	18	Mississauga			5-7
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*PDHs: Continuing professional education for licensed engineers is measured in Professional Development Hours (PDHs). A PDH is one contact hour of instruction or presentation.

PEO KEEPING TABS on Hudak's sunset review plan

By Michael Mastromatteo



Ontario's engineering regulator will monitor a proposal by Ontario Conservative party leader Tim Hudak to review Ontario's public agencies, including PEO, for their public interest worthiness.

While leading the Opposition in the previous session of the Ontario legislature, Hudak spearheaded the private-member *Agencies, Boards and Commissions Sunset Review Act*, designed to force provincial agencies to prove their public effectiveness via a performance review.

As drafted, the act called for government and public agencies to justify their existence on a "reverse onus basis."

Although the bill failed on second reading last March, the Conservatives' new strength in a minority government could mean that the spirit of the bill might find its way back on the legislative agenda in 2012.

Reviewing agencies for their public worthiness formed a key part of the Conservatives' campaign strategy. The Conservatives' changebook election platform cited the need to review the province's 630 agencies, boards and commissions "to ensure they are providing good value to families." The agency review was seen as a check against government waste and inefficient use of taxpayer resources.

Alan Sakach, communications manager for the Ontario Progressive Conservative Party, said in September that the initiative offered a straightforward approach to the agency review. "If it works, leave it alone. If it's broken, fix it. If it cannot justify its existence, it goes," Sakach said.

Sakach also cited the government's Public Appointments Secretariat website www.pas.gov.on.ca/scripts/en/BoardsList.asp, which lists all provincial agencies subject to review. Included on the list is the "Council of the Association of Professional Engineers of Ontario."

Hudak's agency review initiative called for a mandatory value-for-tax-dollar review of government entities that either receive government funding or are established through government legislation. While Premier Dalton McGuinty trimmed down or combined 13 public agencies, the Hudak proposal would establish a formal process to systematically hold all 600-plus government entities to account.

Hudak's Conservatives gained 12 seats in the October 6 provincial election, which also saw gains by the New Democrats. The Liberals will need the support of one of the other parties to pass legislation, which may make it more receptive to initiatives of the other parties.

Regulator moving toward accessibility compliance

By Michael Mastromatteo



PEO WILL SOON ADJUST its customer service and administrative procedures to bring them in line with the requirements of the Ontario government's accessibility legislation.

The *Accessibility for Ontarians with Disabilities Act* (AODA), designed to prevent discrimination against Ontarians with disabilities, was proclaimed in 2005 and is being implemented in five separate stages.

The act aims to develop and implement accessibility standards "...in order to achieve accessibility for Ontarians with disabilities with respect to goods, services, facilities, accommodation, employment, buildings, structures and premises on or before January 1, 2025."

The customer service element of the act's five-stage implementation plan is scheduled to come into effect January 1, 2012. It requires all not-for-profit organizations offering goods or services to the public to remove barriers to accessibility for the disabled.

It also requires organizations to develop an accessibility plan, train employees about service to the disabled and report back to the government on progress.

Fern Goncalves, PEO director, people development, says the regulator is developing a plan to meet the accessibility requirements under AODA. The plan will include a review of the physical accessibility of PEO's headquarters building. Any identified shortcomings will immediately be addressed.

PEO's plan also includes eventual adjustments to its website, www.peo.on.ca, so that visitors will be able to obtain all the information they require. This is part of the "web accessibility" practice of making websites usable by people of all abilities and disabilities.

According to the Accessibility Directorate of Ontario, corporate websites are subject to information accessibility requirements under the Integrated Accessibility Standards Regulation, which follows international guidelines on accessibility of Internet-based information. Among the conditions to be considered in making website information accessible are visual impairments (including colour blindness), motor or mobility problems, auditory impairments, and susceptibility to seizures caused by visual strobe or flashing lights.

PEO seeks clarity on government's practice requirement review

By Michael Mastromatteo

Ontario's engineering regulator will continue to track the progress of an Ontario government initiative that could call into question the Canadian experience requirement for the Ontario P.Eng. licence.

In July, Ontario Premier Dalton McGuinty announced a plan to review the practice requirements and related regulations facing internationally educated applicants to self-regulated professions.

Although the review is aimed primarily at health-related professions, PEO confirmed in August that it will also apply to the engineering regulator.

The practice requirement review, to be administered by the Ontario Office of the Fairness Commissioner, is aimed at identifying and overcoming barriers to the labour market for internationally educated professionals coming to Ontario.

PEO officials, however, say they already outlined the regulator's practice requirements when in March 2011, PEO submitted its own entry to practice review to the fairness commissioner. Although the review covered a number of issues, it concentrated in part on the requirement under the *Professional Engineers Act* for applicants to obtain 48 months of suitable engineering experience, including 12 months under the supervision of a Canadian licensed engineer, to become licensed. In its submission to the fairness commissioner, PEO described the Canadian experience requirement as an opportunity rather than a barrier.

"This [12-month Canadian experience] requirement is not a barrier but an enabler for all engineers, particularly those who are foreign trained, to practise engineering successfully in Canada," the PEO submission reads. "Less than 12 months would not allow for adequate exposure to a full project cycle and for sufficient time to learn and experience the various requirements and seasonal differences. More than 12 months is not considered necessary provided that adequate exposure was attained."

Given the importance of applicants obtaining Canadian engineering experience, PEO did not recommend any changes to existing requirements.

"As a result of the review of the entry-to-practice requirements conducted, it is found that the experience requirements are relevant and necessary [and] that there are no PEO-imposed work place barriers," concludes the PEO submission. "Hence there are no recommendations for changes to the PEO licensing requirements."

In an additional attempt to streamline registration requirements for internationally educated applicants, PEO council in February 2011 approved allowing licence applicants to use a professional engineer collaborator or professional engineer monitor to meet the Canadian experience requirement.

In light of its many efforts to overcome obstacles to the profession for internationally educated applicants, PEO officials remain surprised the provincial government is still committed to a PEO experience requirements review.

Michael Price, P.Eng., FEC, PEO deputy registrar, licensing and finance, cites the entry-to-practice review for the fairness commissioner as an indication of PEO's transparency and responsiveness to access to the profession concerns.

"The February 2011 council decision likely does not put this question to rest," Price says. "We will have to wait and see what the latest government initiative will actually be."

Beatrice Shriever, communications director, Ontario Office of the Fairness Commissioner, says that as of September 1, her office had yet to respond to the McGuinty initiative.

LAKEHEAD UNIVERSITY STUDENT TEAM'S BIG MOMENT



A team of engineering students from Lakehead University in Thunder Bay recently captured the top prize in the 20th annual National Student Steel Bridge Competition, jointly sponsored by the American Society of Civil Engineers and the American Institute of Steel Construction. The Lakehead team, comprising (left to right) Dave Enns, EIT, Kristen Myles, Damien Ch'ng, EIT, Timo Tikka, PhD, P.Eng. (faculty advisor), Antony Gillies, PhD, P.Eng. (faculty advisor), Cory Goulet, EIT, and Chris Kukkee, was the overall winner of the 2011 contest, finishing first in the competition's construction speed, lightness and efficiency categories. It was the first time in the event's 20-year history that a Canadian university team has captured the top prize. More than 200 teams from the US, Canada, Mexico and China participate in the annual contest. The Lakehead team, which has taken part since 1989, enjoys the support and encouragement of PEO's Lakehead Chapter. Photo: Daniela Weaver Photography.



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Slight gain for P.Engs at Queen's Park

By Michael Mastromatteo

THE ONTARIO LEGISLATURE now has three professional engineers among its 107 members.

Of the 11 professional engineers who vied for seats in the recent provincial election, one Liberal and two Progressive Conservatives, got the nod from voters.

Engineers elected October 6 were Phil McNeely, P.Eng. (Liberal), who held on to his Ottawa-area seat, Jim McDonnell, P.Eng. (Progressive Conservative), in Stormont, Dundas and South Glengarry, and Jack MacLaren, P.Eng. (Progressive Conservative), of Carleton-Mississippi Mills.

Only two engineers, McNeely and Norm Sterling, P.Eng. (Progressive Conservative), sat in the previous provincial parliament.

First-time candidate Wafik Sunbaty, P.Eng., who has been active with PEO's Mississauga Chapter, ran for the Progressive Conservatives in the Mississauga-Streetsville riding, but finished second to Liberal incumbent Bob Delaney. Sunbaty polled just under 30 per cent of the votes in his riding.

PEO Enforcement Officer Marisa Sterling, P.Eng., who took a leave of absence to contest the election, was defeated in the Toronto-Danforth race by NDP incumbent Peter Tabuns, who has represented the riding since a 2006 by-election. It was nonetheless a strong showing for Sterling, who finished second with 11,358 votes (30.7 per cent). Had she been elected, Sterling would have been the first female engineer to sit as an MPP at Queen's Park.

As part of her concession speech, Sterling thanked her supporters, including PEO, for allowing her to make a first start in provincial politics.

Engineer candidates were not limited to the three major parties. Three engineers contested for the Green Party, one for the Ontario Libertarian Party, and one for the Family Coalition Party.

One Green Party engineer candidate, Peter Ormond, P.Eng., challenged NDP leader Andrea Horwath in her Hamilton Centre riding. Ormond finished fourth with 1243 votes.

In September 2010, PEO's Government Liaison Program launched its "11 in 11" campaign, in an effort to elect 11 professional engineers to the Ontario legislature in 2011. Although only three professional engineers were elected, 11 did contest seats, and the profession was well represented during the campaign. Throughout the 28-day election campaign, a number of PEO chapters organized all-candidates meetings and town halls and encouraged PEO members to bring their concerns to would-be elected representatives (see GLP Journal, p. 49).

THE 11 WHO RAN:

- Adam DeVita, P.Eng., NDP, Richmond Hill—defeated
- Rob Innes, P.Eng., Family Coalition Party, Hamilton East/Stoney Creek—defeated
- Gordon Kabanek, P.Eng., Green Party, Nepean-Carleton—defeated
- Jack MacLaren, P.Eng., Progressive Conservative, Carleton-Mississippi Mills—elected
- Jim McDonnell, P.Eng., Progressive Conservative, Stormont, Dundas and South Glengarry—elected
- Phil McNeely, P.Eng., Liberal, Ottawa-Orleans (incumbent)—elected
- Peter Ormond, P.Eng., Green Party, Hamilton Centre—defeated
- Marisa Sterling, P.Eng, Liberal, Toronto Danforth—defeated
- Rob Strang, P.Eng., Green Party, Dufferin-Caledon—defeated
- Wafik Sunbaty, P.Eng., Progressive Conservative, Mississauga-Streetsville—defeated
- Roger Toutant, P.Eng., Ontario Libertarian, Nepean-Carleton—defeated

INDUSTRIAL ENGINEERS ponder value of P.Eng. licence

By Michael Mastromatteo

The flexibility and versatility of an industrial engineering education formed a large part of discussions at a September 24 symposium celebrating the 50th anniversary of the University of Toronto's (U of T's) industrial engineering program.

Industrial engineering graduates from sectors as diverse as business, investment, health care, consulting and academe described how an industrial engineering education influenced their respective careers.

U of T actually established an industrial engineering program in 1959 from within its existing business and engineering/mechanical engineering programs, but the first official class of industrial engineering dates from 1961.

Many of the presenters paid tribute to the department founder, the late Arthur Porter, P.Eng., who was one of the first academics/engineers to promote a systems view of design, and to extend engineering undergraduate education in a more interdisciplinary direction. Older graduates remembered that it was Porter who advocated a more prominent role for industrial engineers in managing the impact of technology on society.

Among the PEO members presenting at the symposium were Ozzie Schmidt, P.Eng., who represented the finance and



Former PEO president George Comrie, P.Eng., FEC, was one of the panelists at a September 24 symposium to mark the 50th anniversary of the University of Toronto's industrial engineering program. Comrie, who graduated from the program in 1970, discussed consulting as one of the key career streams for industrial engineering graduates.

investment sector; Robert Bell, P.Eng., of the Royal Brompton and Harefield NHS Foundation Trust, from health care; Rick Ross, P.Eng., formerly of IBM Canada, who discussed the industrial sector; and Mark Hundert, P.Eng., national director of Hay Group health care consulting, representing the consulting panel.

In addition, former PEO president George Comrie P.Eng., FEC, addressed symposium delegates as an industrial engineering graduate specializing in consulting work. Comrie, who chairs PEO's Licensing Process and Emerging Disciplines task forces, graduated from U of T's industrial engineering program in 1970.

Comrie reflected on the tendency of industrial engineering graduates not to obtain the professional licence. In his time, he said, it was "part of the culture" to obtain the P.Eng. designation, even if the graduate's career work didn't require the licence.

"A lot depends on the question, Is industrial engineering really the practice of engineering or not?" Comrie said.

While only a fraction of industrial engineering graduates may go on to pursue the P.Eng. licence, practitioners were quick to celebrate the wide applicability of the degree.

Often referred to as process or operations engineering, industrial engineering graduates are finding many new venues to apply their undergraduate learning, particularly in health care, business and consulting.

Nonetheless, one theme that emerged from the symposium was the tendency of engineering undergraduates to wind up in the industrial engineering program almost by accident. A number of presenters suggested industrial engineering as an ideal study area for students uncertain as to which traditional engineering discipline to pursue.

Professor Michael Carter, PhD, LEL, a 30-year veteran of U of T's industrial engineering department, said that despite the low numbers of graduates who obtain the P.Eng., the program is essential in helping professionals "do their jobs better," no matter where they might wind up.

"Industrial engineering is the science behind helping people do their job better," Carter told *Engineering Dimensions*. "We use mathematics—queuing theory, simulation, probability—to measure their work and test new ways of doing things. We use

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By Michael Mastromatteo

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computers to support people in their work, and we use human factors engineering to improve the way they work [in such areas as] workplace design, lighting, layout and screen design.”

He said industrial engineers are similar to mechanical and electrical engineers in that all “design and analyze big, all-encompassing systems, such as in hospitals, plants and distribution networks.”

PEO lists more than 1750 industrial engineering graduates on its register.

Greg Jamieson, PhD, P.Eng., associate professor of industrial engineering at U of T, attributed the fact that the majority of industrial engineering graduates do not obtain their P.Eng. licence to the tendency of the graduates to work in “the service, retail, banking, consulting work and software industries, where engineers are rare.”

Sara Dolcetti, EIT, graduated from U of T’s industrial engineering program in 2009 and now works as an associate at the Boston Consulting Group in Toronto. Dolcetti, who moderated the September 24 symposium’s consulting panel, is focused on obtaining her P.Eng. licence, even if it is never required for her work.

“I intend to get the licence because it will round out my education, feed into the interests I already have and keep me connected not only to the engineering profession, but also to the critical role we have in positively impacting Canadian public policy and economic development,” Dolcetti said October 3. She believes that registering with a self-regulating profession provides an opportunity to join a network of professionals committed to accountability, social responsibility and the overall betterment of society.

Engineering lags behind other senior regulated professions when it comes to professional development programs for members, say participants at a recent seminar organized by PEO and the Professional Associations Research Network (PARN).

Held September 2 at PEO, the seminar examined the latest research on the impact of continuing professional development (CPD) programs on member practice.

PEO is an associate member of PARN, a British-based organization studying governance, administration and overall operations of professional associations.

PARN considers CPD a means by which members of professional associations maintain, improve and broaden their knowledge and skills and develop personal qualities required in their professional lives. It also believes CPD plays a vital part in any professional’s career and supports professional bodies to improve and update their CPD systems.

At the September 2 seminar, PARN Director Andy Friedman outlined the findings in his new book *Continuing Professional Development: Lifelong Learning of Millions* (Routledge Publishing). He suggested that while many professional associations are devoting more resources to CPD programs, engineering regulators have been slow to take up the challenge.

Friedman also outlined PARN’s latest research into CPD and invited participants to discuss some of the challenges involved with member buy-in. One key concept was the value of CPD in convincing government overseers that licensed members are committed to professionalism and competence assurance throughout their careers.

Friedman said that while CPD is becoming a specialized field, its overall value in enhancing an individual’s prac-

tice or competence is still uncertain. He added, however, that most organizations regard CPD as a demonstration of professionalism and a commitment to “whole career learning” beyond what is imparted for initial licensing.

He agreed that while most professional associations recognize the value of CPD, there is still resistance among some members to compulsory reporting schemes.

Bernie Ennis, P.Eng., PEO director, policy and professional affairs, attended the September 2 seminar. He reported that reservations from PEO members about compulsory CPD programs are based on the fact that not all licence holders actually practise engineering in their careers, making a requirement for all to demonstrate their professional development activities counterproductive.

In fact, some Canadian engineering regulators have adopted mandatory CPD reporting programs, while others are taking a voluntary approach. In 2009, PEO council endorsed a basic-level reporting system requiring members to declare how they have maintained competence in their performance of any professional engineering services they undertake. The proposed wording of this declaration is now the subject of a consultation through the PEO chapter system.

Engineers Canada has no strong position on CPD, other than offering the advice that, as professionals, engineers are expected to keep current on the latest advances in technology, materials, standards and practices. This expectation, and engineers’ duty to undertake only engineering work for which they are fully competent, are enshrined in Engineers Canada’s model Code of Ethics, as well as in subsections 1.iv. and 1.v. of Regulation 941/90 of Ontario’s *Professional Engineers Act*.