

Message from the Chair



In this message, I would like to address the importance of mentoring activities and their ultimate benefits for the engineering profession.

It can be safely concluded that the majority of foreign-trained engineers and new Canadian graduates are very keen on getting their professional engineering (P.Eng.) licence shortly after landing in Canada or graduating from university. However, despite that, we are still trying to reverse the relatively low registration rates with the Professional Engineers Ontario (PEO), presently estimated at about 30 percent of all engineering graduates (note that the rate for Canadian graduates is even lower than that of foreign-trained engineers).

Why do these enthusiastic engineering grads not want to register for their licence after entering the job market?

I have always pondered this question. I believe the main reason is the lack of public awareness about the profession and the impact engineers can make on their lives. How many people do you know have heard of the PEO? How many do you know can remember more than one or two disciplines of engineering?

As the vice chair of the Communications Infrastructure Engineering sub-group of the Emerging Disciplines Task Force, I am pleased to inform you that with the recent approval of PEO council to recognize this area as a new discipline, we now have 32 engineering disciplines that are recognized by the PEO. How many disciplines can you name?

Do we have the same issue with doctors or lawyers? Are they not aware of the different specialties in the practice of medicine or law? I do not think so! Our family doctors who send us to specialists must know the different areas of practice that exist in medicine in order to refer us to the right specialist.

When we engineers do not care about our profession, do not show interest in getting involved and do not encourage potential P.Eng. applicants to get their licences, how can we possibly compare engineering with medicine and law? And let's face it...we always do that.

How many times have you reported individuals who misuse the title "engineer"? The list of questions goes on and on, but the bottom line is that if we want a better life, greater recognition, and a higher income, we must do whatever it takes to educate people about engineering. We must encourage new grads and newcomers to get their licence. One way to achieve this is through mentoring, and sharing our experiences and knowledge with new Canadians, recent graduates, and high school students wanting to pursue an engineering career.

We must get involved and encourage more engineers to register with the PEO. The more members we have, the stronger our community becomes, and the more recognition we receive.

Your PEO chapter just recently held its first mentoring information session with over 110 attendees on September 21st. We have

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many would-be professional engineers who are waiting for experienced mentors to guide them towards their professional engineering licence. Mentoring is just one of many ways to increase public awareness and to publicize the important work that engineers do to make life easier.

Please step forward, get involved and help your profession and fellow engineers as

much as you can. Soon you will receive information on future mentoring events. Come out and help these mentees and future professional engineers. In the meantime, we would like to hear from you!

Regards,

Changiz Sadr, P.Eng.
Chair, Willowdale/Thornhill PEO chapter



Willowdale/Thornhill executives attended the PEO's fifth annual Engineering for Ontario Day reception at Queen's Park on September 22, 2010. Pictured above (from left to right): vice chair Nanda Lwin, P.Eng., government liaison chair Michael Chan, P.Eng., and chair Changiz Sadr, P.Eng.



Willowdale/Thornhill PEO chapter chair Changiz Sadr, P.Eng., talks to participants at the chapter's mentoring information session at North York Civic Centre on September 21, 2010. From left to right: Dale van Zant of ACCES, Gabriela Tavaru of ACCES, and Sadr.



Willowdale/Thornhill PEO chapter executives Ali Nabili, P.Eng., and Mohammad Horriyat, P.Eng., pose for photos at the chapter's mentoring information session at North York Civic Centre on September 21, 2010.

Engineers Without Borders Makes Inroads in Willowdale/Thornhill and Around the World

By Danielle Zacarias

Recently, Willowdale/Thornhill PEO chapter chair Changiz Sadr, P.Eng., a long time supporter and member of Engineers Without Borders (EWB), met with Danielle Zacarias, EWB's new fundraising coordinator. In the wake of PEO's signed partnership agreement with Engineers Without Borders last spring, they were intent on finding a way to collaborate. It was decided that an article that would give members a brief but comprehensive idea of what EWB does was in order, to be followed by a series of workshops relevant to Willowdale/Thornhill chapter members. For those interested in learning more about EWB's development work and roots the description below will provide you with the background you need, however future workshops in upcoming months will be centred around leadership and management in the workplace. EWB has a long history of providing effective team and leadership training to its staff and volunteers both in Canada and prior to deployment overseas. It's the kind of training that's been known to take recent graduates and experienced personnel alike and greatly increase their efficiency and effectiveness with colleagues and clients!

Ten years ago, Engineers Without Borders was little more than an idea scrawled on a napkin by George Roter and Parker Mitchell. The pair, both University of Waterloo grads, was looking for a way to combine their engineering training with their passions for a better world. They were both engineers and so far they had been intellectually engaged by tasks, but something was missing. They wondered if, as engineers, they could bring

something unique to the world of international development.

The pair decided that the answer to that question was a resounding yes, and in 2000 Canada's first engineer-run and -founded international development organisation was born.

Quickly EWB's reputation grew – people started to notice that an engineering ap-

proach was achieving results where it matters most. EWB won a number of national and international awards, and so did the founders who were recognized as among Canada's Top 40 Under 40 and invited to take part in then governor-general Michaëlle Jean's state visit through Africa. EWB became known as an organization willing to tackle the tough questions in an innovative and effective way.

Ten years later, EWB maintains its energy and commitment to change, and its approach of applying creative problem solving, results-based decision-making, and sustainable innovation. They remain steadfast focused on getting to the root of a problem, rather than applying quick bandage fixes.

While EWB was started with the idea that access to technology was the answer, they quickly realized that technology was often only part of the solution.

For example when Sarah Grant, EWB's agricultural team lead, worked in Ghana to

help impoverished rice farmers increase their profits, she found that the solution was not about increased crop yields, enhanced business training or improvements to rice processing factories. It turned out that there was a local preference for foreign rice, and that the more nutritious and affordable rice was undervalued in Ghanaian markets. Once that was established, Grant had to go a step further - even if people became aware that local rice was better, they likely had no idea where to get it. In partnership with Ghana's Ministry of Food and Agriculture, Grant launched an advertising campaign to build awareness of the nutritional value of locally grown rice, with a list of places to purchase it. In true EWB form, her solution was innovative and impactful. In just one year, farmers' profits doubled, and in the subsequent year increased by as much as 10 times.

This is what EWB is about - working with local organizations and communities to get to the root of a problem, and finding creative solutions to tackle it.

Danielle Zacarias is a recent addition to the Engineers Without Borders' (EWB) national office. She is a University of Toronto alumni who spent her time prior to joining EWB working in educational publishing and travelling as much as possible. After volunteering in Thailand at a woman's shelter she was profoundly moved by the need she perceived but found herself frustrated with how it was being handled. Determined to join an organization that would attempt to solve the core problems she found EWB and convinced them to take her on. She can be reached via e-mail at daniellezacarias@ewb.ca.

Want to Get Involved with EWB?

- Donate: Engineers Without Borders depends on combining creativity, determination and problem solving with capital.
- Volunteer: We're always looking for great people who are willing to contribute to our programs in Canada and for those willing to volunteer overseas.
- Raise awareness at work: Do you work for a place with strong corporate socially responsible values? Even if you don't, would you like to see your workplace get behind engineers who are driving change in Africa? If so, get in touch and help EWB connect with the decision-makers in your workplace.
- Learn and spread the word: Run a lunch and learn in your workplace (we'll help you through it every step of the way!) or a workplace campaign.
- Visit ewb.ca to learn more!

- Danielle Zacarias



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Willowdale/Thornhill PEO Chapter Executive

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The Chronicle publishes articles of interest to the membership of Willowdale/Thornhill Professional Engineers Ontario (PEO) chapter. The content of this newsletter does not necessarily reflect the opinions or policies of the council of PEO, nor does the PEO assume responsibility for the opinions expressed herein.

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Willowdale/Thornhill PEO chapter deputy programs chair Carey Cox, P.Eng., and his wife Jennifer Cox relax at a chapter-sponsored trip to Casino Rama in Rama, Ontario, on October 16, 2010.

ENGINEERING NOTES by Nanda Lwin, P.Eng.

Queen's Park Passes Changes to Engineers Act

Bill changes definition of professional engineering, requirements for PEO membership

Recent changes to the Professional Engineers Act are being billed by the profession as the most significant in 26 years. Bill 68, which includes a reworked definition of "professional engineering" and changes to the requirements of practitioners practising professional engineering in Ontario, passed a vote of MPP's at Queen's Park on October 21st.

Professional Engineers Ontario (PEO) officials were pleased to hear the news. PEO president Diane Freeman, P.Eng., said in a written statement that the amendments to the act – 66 in total – "reflect the provincial government's commitment to a strong engineering profession that can best serve the public and respond to the needs of Ontario businesses and individuals seeking to be licensed to practise professional engineering."

Among the changes to the act included in the bill:

- **Requirements for membership.** The requirement to be a Canadian citizen or a permanent resident of Canada in order to obtain an engineering licence has been removed from the act. Independent research conducted by PEO shows that new Canadians and practitioners living outside Ontario with engineering credentials are confused with the residency requirement, resulting in decreased applications from these groups. According to PEO, with the elimination of the residency requirement, qualified applicants can now arrive in Canada with a provisional licence and immediately enter the engineering workforce.
- **Definition of professional engineering.** The definition of the "practice of professional engineering" has been changed to include "any act of planning,

designing, composing, evaluating, advising, reporting, directing or supervising that requires the application of engineering principles and concerns the safeguarding of life, health, property, economic interests, the public welfare or the environment, or the managing of any such act."

- **PEO headquarters.** The requirement for the head office of PEO to be in Toronto has been eliminated.
- **Limited licenses.** According to a PEO media release, PEO has collaborated with the Ontario Association of Certified Engineering Technicians and Technologists to allow technologists and applied science graduates to practise engineering within their areas of expertise through a PEO-issued limited licence. Bill 68 enables practitioners holding limited licences to offer professional engineering services independently to the public. PEO says that having all practitioners publicly accountable through licences and certificates of authorization means that government does not need to invoke further, unnecessary regulations to protect the public.

PEO CEO and registrar Kim Allen, P.Eng. commented in a written statement: "We believe the changes to the Professional Engineers Act will increase the clarity, transparency, accountability and effectiveness of our work. At the same time, they streamline PEO's ability as a regulator to safeguard life, health, property, economic interests, the public welfare and the environment."

Nanda Lwin, B.A.Sc., MEPP, P.Eng., is a professor of civil engineering technology at Seneca College. He is a journalist and the author of several books. He can be reached at nanda.lwin@wtpeo.org.



Willowdale/Thornhill PEO chapter members inspect facilities at the University of Ontario Institute of Technology in Os-hawa during a tour of the university's wind tunnel facilities on October 30, 2010.



Executives from various PEO chapters came together on September 22, 2010 for the Engineering for Ontario Day reception at Queen's Park. Ottawa PEO chapter executive Ray Barton, P.Eng., and Willowdale/Thornhill PEO chapter vice chair Nanda Lwin, P.Eng., are pictured above.

Parting Shots...



Forty people were in attendance at Willowdale/Thornhill PEO chapter's first annual summer picnic at Downsview Dells Park, on August 28, 2010.

The Willowdale/Thornhill Professional Engineers Ontario (PEO) chapter, led by programs chair **Nanda Lwin, P.Eng.**, held its first annual summer picnic at Downsview Dells Park on August 28th. Approximately 40 people were in attendance.

The Willowdale/Thornhill PEO chapter held its first mentorship information event at North York Civic Centre on September 21st. The event was primarily an opportunity for participants to network and to gather information about licensing, the PEO, the engineers-in-training program, and employment prospects for engineers in Ontario. Hosted by education chair **Ramona Mirtorabi, P.Eng.**, the event had over 110 attendees.

PEO held its fifth annual Engineering for Ontario Day reception on September 22nd at Queen's Park. Willowdale MPP **David Zimmer** and Thornhill MPP **Peter Shurman** were in attendance. Also in attendance were Willowdale/Thornhill PEO chapter executives, chair **Changiz Sadr, P.Eng.**, vice chair **Nanda Lwin, P.Eng.**, and government liaison chair **Michael Chan, P.Eng.**

PEO's East Central Regional Congress held its quarterly meeting at PEO headquarters in Willowdale on September 25th. Chair **Changiz Sadr, P.Eng.**, and vice chair **Nanda Lwin, P.Eng.**, attended on behalf of the Willowdale/Thornhill PEO chapter.

Led by deputy programs chair **Carey Cox, P.Eng.**, the chapter took a leisure trip to Casino Rama in Rama, Ontario, on October 16th. Located near Orillia, the casino is home to gambling, shopping and entertainment venues, along with an upscale hotel and several eateries.

About 50 people were in attendance at a Willowdale/Thornhill PEO chapter mentorship event on October 26th at Fairview Library. The event, designed to update on happenings with the chapter's new mentorship program, included guest speaker, Ontario Society of Professional Engineers chapters-liaison chair **Matthew Xie, P.Eng.**

The Willowdale/Thornhill PEO chapter visited the new wind tunnel facilities at the University of Ontario Institute of Technology in Oshawa on October 30th. The facilities are currently being constructed at the university's General Motors Automotive Centre of Excellence. The trip was organized by chair **Changiz Sadr, P.Eng.**