

## Message from the Chair



In spite of a recent earthquake and several storm-like heavy rains, we are having a relatively pleasant and warm summer and I hope everyone enjoys it as much as possible.

We, at the chapter, are taking a break of sorts, with no monthly board meetings in July and August, although this does not mean that we have completely withdrawn from active duty.

Since my last message in The Chronicle, we have held a few successful events. We also have a handful of activities on the planning board leading right into the fall.

On May 25th, we had our chapter first ever engineer-in-training (EIT) networking night featuring a presentation by Professional Engineer Ontario's (PEO's) pre-licensing manager.

On June 21st, more than 60 members attended our teambuilding workshop, hosted by corporate magician Anthony Lindan. The latter broke a chapter record for the most people attending a seminar or workshop. That session was very interactive and very welcomed by the attendees, based on the positive feedback we received.

On June 28th, we presented scholarships, each worth \$500, to four local Grade 12 students who have demonstrated academic excellence in high school and are pursuing studies at an Ontario engineering school. We had a tough job selecting these four students amongst the 12 students recommended from four schools in Willowdale/Thornhill. PEO's vice president Cornelio Chisu was on hand to convey congratulations and best wishes on behalf of the PEO council. These scholarships were part of an inaugural initiative for our chapter.

Another event unprecedented in the history of our chapter was our meeting with representatives from three employment firms specializing in new Canadians. We met with Skills for Change, ACCES, and COSTI on June 9th to discuss our newly-established mentoring program. We talked about how our chapter can assist their clients in gaining their licence as a professional engineer. As an extension of this activity, I gave a talk on July 19th at the ACCES office in Don Mills to interested mentees. I spoke about the benefits of becoming a licensed professional engineer in Ontario.

We are also holding a potluck networking event for all members in late-August. A notice is on page 4 on this newsletter. Looking to the fall, we hope to plan student-outreach and education-committee activities, such as Mathletics or a bridge competition, in addition to other interesting seminars and tours.

We need your ideas on what we can do to serve you better. We also need your help us to organize and conduct these activities.

In the end, I am hoping to hear from you soon for your ideas for seminars, tours, and other events, as well as to see you participate in our subcommittees.

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

## Council's Recommendation Curbs Democracy in the PEO

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

We are all aware of the recent changes to the Professional Engineers Act, proposed by the Professional Engineers Ontario (PEO), and more specifically of PEO council's suggestion to select the president and vice-president amongst the members of council, thereby eliminating the need for an election among members for president and vice-president.

A survey was sent out to all members in June regarding the latter subject. I responded immediately, as I had discussed this matter with colleagues of mine, and knew about the subject and had given it plenty of thought. As you know, the council has 29 members, 13 of whom are Lieutenant-Governor appointees (LGA's) who may not even be engineers. Furthermore, none of them are elected by the members and hence, cannot represent the PEO members at large.

Considering the number of LGA's sitting in council, they can change the voting results for PEO president and vice-president, if we agree with council's recommendation. In politics, it is possible that a leader of a government be elected indirectly through an internal vote of the governing party, or of members of caucus. So, it is still democratic to hold an internal vote of councillors this way, but the LGA's must be out of this exercise.

I am personally strongly against this suggestion and believe that the members have the right to get directly involved in the governance of the PEO as a self-governing organization. However, if a majority of members vote for council to select the top PEO officers, then I am in favour of eliminating LGA's from voting.



Willowdale/Thornhill PEO chapter chair Changiz Sadr, P.Eng. speaks at the chapter's scholarship presentation at the North York Civic Centre on June 28, 2010.

On June 26th, there was a meeting of East Central Congress (ECC) of the PEO and this issue was one of the hot topics that was discussed. Our chapter raised a motion that if the council's recommendation is going to be accepted and adopted, then the LGA's should be banned from voting. Only the elected councillors can participate in voting for PEO president and vice-president. Here is the exact wording of this motion that was raised by our vice chair, Nanda Lwin, P.Eng., at the ECC meeting:

"Be it resolved that in the event that the president is elected by council, the electors be limited to members of council, acclaimed or elected by the membership; and exclude appointed LGA's, and any members not elected to council by the membership."

I wanted to share this with you and ask for your opinion. I would appreciate your feedback; my e-mail address is below. I can then reflect upon your opinion of this vital issue.

**Changiz Sadr, P.Eng.**, is the chair of the Willowdale/Thornhill PEO chapter and is a member of various PEO committees. He can be reached at [chair@wtpeo.org](mailto:chair@wtpeo.org).

## PEO Offers Many Awards for Engineers

By Hamid Tabrizi, EIT  
Awards Committee Chair, Willowdale/Thornhill PEO chapter

One of the objectives of the Willowdale/Thornhill Professional Engineers Ontario (PEO) Awards Committee is to inform engineers of the possible awards that are available to honour those who have shown great concern and care for engineering. These awards also recognize those who have committed themselves to introducing the profession to younger generations.

There are quite a number of awards available to honour engineers. The awards include the Service Awards (also known as the Order of Honour), the Ontario Professional Engineers Awards, the Fellow of Engineers of Canada, the G. Gordon M. Sterling Engineering Intern Award, the S.E. Wolfe Thesis Award, and the V.G. Smith Award. The following is an excerpt from the PEO website:

**Service Awards (also known as the Order of Honour):** The Order is an honorary society of the PEO. It honours those professional engineers and others who have rendered conspicuous service to the engineering profession, normally through association. Candidates should have made a substantial contribution to the operation of the profession, its professional status, or one of the many specialized functions of the professional association. The association chose the name Order of Honour following extensive research to recognize the service rendered to the profession itself as a symbol that the profession accepts this responsibility with pride. There are four levels at which this award can be distributed: Companion (exclusively reserved for individuals whose distinguished service has profoundly influenced the profession), Officer (for those who have served the engineering profession for many years and whose sustained leadership has contributed greatly to its operation or improvement in its status), Member (honour those who have served the engineering profession by contributing substantially to its operation or improvement in its status), and

Honorary Membership (designated to those individuals who are not professional engineers for extraordinary contribution to the profession). PEO is currently calling for nominees for this award. For the guideline and nomination form please refer to [www.peo.on.ca](http://www.peo.on.ca).

**Ontario Professional Engineers Awards:** Presented since 1947, this award recognizes outstanding individuals for engineering excellence and community service. The annual awards program will be presented by PEO and the Ontario Society of Professional Engineers. There are three levels for this award: the Gold Medal, the Engineering Medal (Engineering Excellence, Management, Research and Development, Entrepreneurship, and Young Engineer Award), and the Citizenship Award. The Gold Medal is awarded only when there is an outstanding candidate. It is given to an association member who is recognized widely as a distinguished practitioner of the profession and has rendered outstanding public service in other fields on a federal or provincial basis. The Engineering Medal is given to association members who have contributed substantially to advancing the engineering profession in any of its branches. Five categories of the Engineering Award are Engineering Excellence, Management, Research and Development, Entrepreneurship and Young Engineer Award. The Citizenship Award is given to association members who have made substantial contributions to humanity, while maintaining their identities as professional engineers. PEO is currently calling for nominees for this award. For the guideline and nomination form please refer to [www.peo.on.ca](http://www.peo.on.ca).

**Fellow of Engineers Canada:** This award is given to those individuals recommended by PEO to be recognized by Engineers Canada for having given noteworthy service to the engineering professions. Engineers who are awarded have the privilege of the

use of the designation "Fellow of Engineers Canada" (FEC). Non-engineers who receive this award have the privilege to use the designation "Honorary Engineers Canada Fellow" (FEC Hon.)

**G. Gordon M. Sterling Engineering Intern Award:** Named after the late G. Gordon M. Sterling, P.Eng., who had a passion for encouraging engineering graduates to take their places in society by seeking licensure as professional engineers. He believed in leadership development among professional engineers as a means of enhancing their careers, and their contributions to society and the governance of the engineering profession. This award will provide funding of up to \$3,500 to help defray the out-of-pocket costs associated with the award recipient pursuing leadership development activities.

**S.E. Wolfe Thesis Award:** The S.E. Wolfe Thesis Award is conferred annually on a member who has passed at least one examination and whose thesis has been awarded the highest mark of all those presented during the year. The awards are administered by the PEO registrar and are the result of competition, rather than a nomination procedure.

**V.G. Smith Award:** The V. G. Smith Award is presented annually to an engineer who has achieved registration during the past year by examination. The successful recipi-

ent possesses the highest standing of those completing examinations in that year. The awards are administered by the PEO registrar and are the result of competition, rather than a nomination procedure.

For the guidelines regarding the above mentioned awards, please refer to [www.peo.on.ca](http://www.peo.on.ca).

**Ontario Volunteer Service Award:** This award is not being awarded or administered by the PEO; the provincial Ministry of Citizenship and Immigration is the sponsor of this award. Volunteers are a big part of any organization. Without the volunteers, a lot of activities would have been impossible. The Ontario Volunteer Service Awards honour the thousands of people who generously contribute their time as volunteers across Ontario. These awards are an important way to recognize volunteers who have provided service over many years. The PEO wants to work with the chapters to identify eligible candidates. For more information regarding this award, please refer to:

<http://www.citizenship.gov.on.ca/english/citizenship/honours/vsa.shtml#1>.

**Hamid Tabrizi, EIT**, is the chair of the Willowdale/Thornhill PEO chapter awards committee. He can be reached at [awards@wtpeo.org](mailto:awards@wtpeo.org).

## ONE LAST SUMMER PICNIC!

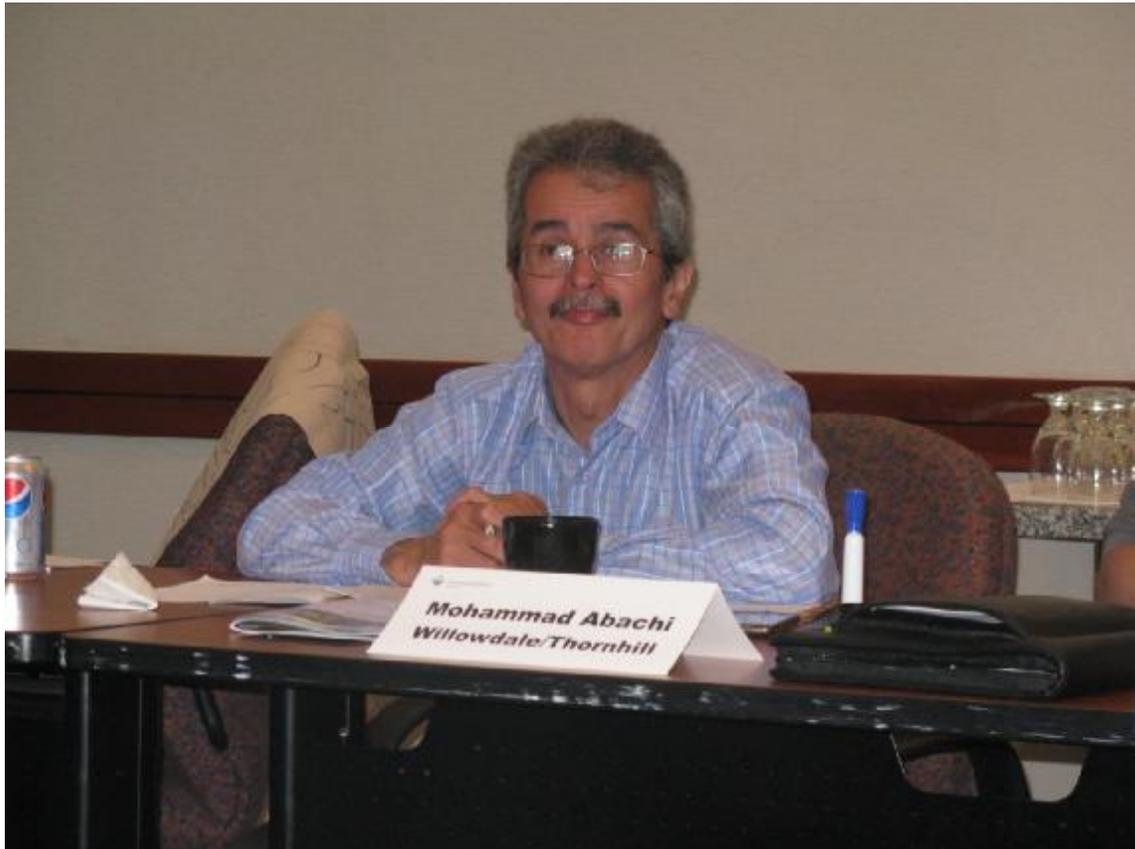
Join us for a three-hour summer potluck picnic networking get together. Bring your best cooking and we'll supply the (non-alcoholic) drinks and some complementary food!

**WHEN:** Saturday, August 28, 2010, from 12 noon to 3 PM

**WHERE:** Downsview Dells Park, Sheppard Ave W (between Jane St and Keele St), Area 2

**COST:** Free

No alcoholic drinks are allowed. Please confirm your attendance by e-mailing [Vimbai B. Munyukwisa](mailto:Vimbai.B.Munyukwisa@wtpeo.org). In the event that you have confirmed your attendance but will be unable to attend, we would appreciate you advise us accordingly by e-mail.



Willowdale/Thornhill executive Mohammad Abachi, EIT, attended the PEO's East Central Congress at Novotel in Willowdale on June 26, 2010. Various items related to PEO business were discussed at the congress.

## **THE CHRONICLE**

**Editor:** Nanda Lwin, **Contributors:** Hamid Tabrizi, Changiz Sadr

### **Willowdale/Thornhill PEO Chapter Executive**

**Chair:** Changiz Sadr, **Vice Chair:** Nanda Lwin, **Past Chair:** Noubar Takessian, **Treasurer:** Mehrangiz Kafi, **Secretary:** Vimbai Munyukwi, **Certificate Presentations:** Gary Marcarian, **Government Liaison:** Michael Chan, **Education:** Ramona Mirtorabi, **Programs:** Nanda Lwin, **Engineers-in-Training:** Vimbai Munyukwi, **Publications:** Nanda Lwin, **Web Support:** Mohammad Horriyat, **Awards:** Hamid Tabrizi

**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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ENGINEERING NOTES by Nanda Lwin, P.Eng.

## Nanotechnology and its Big Future

**PEO recognizes the newest (and smallest) distinct discipline of engineering that promises to have a huge impact on the profession**

Make room for the latest in engineering. Nanotechnology, defined as the engineering of tiny structures, machines and devices at the nanoscale, was formally recognized as a distinct discipline by the Professional Engineers Ontario (PEO) council this spring. The move comes after more than a year of research conducted by the PEO's Emerging Disciplines Task Force (EDTF). The EDTF ultimately recommended that nanotechnology and molecular engineering join the ranks of 26 other disciplines of the profession, as recognized by the PEO. (Concurrently, the EDTF launched a committee studying the merits of recognizing communication infrastructure engineering, of which Willowdale/Thornhill PEO chapter chair Changiz Sadr, P.Eng., is vice chair).

Ontario is seemingly leading the way in embracing nanotechnology as an engineering discipline. Alberta, British Columbia, Saskatchewan and Nova Scotia have yet to recognize it and are looking to Ontario to tackle the issues head-on.

Nanotechnology's effect is multidisciplinary drawing from expertise in chemistry, physics, mechanical engineering, electrical engineering and chemical engineering. Ultimately, it's hoped that these new technologies will lead to breakthroughs in medical treatment and tools; more efficient energy production, storage and transmission; improved access to clean water; more effective pollution reduction and prevention; and stronger, lighter materials. More specifically, according to the EDTF and other sources, its many promising applications include the following:

- Nanomedicine, including diagnostics, targeted drug delivery and synthetic biology

- Power generation, such as the manufacturing of batteries, solar cells and fuel cells
- Industrial applications in construction and aerospace. New materials for these industries will be developed.
- Novel semiconductor devices, optoelectronics and quantum computing in the information and communication fields
- Development of new consumer goods such as novel sports equipment, genetically modified foods, textiles and cosmetics

And its predicted growth moneywise is phenomenal. In 2007, \$60 billion worth of nano products were sold; by 2008 it was predicted that it would reach \$180 billion. By 2014, the market size is expected to exceed \$2.6 trillion, according to the Lux Research group.

However, all of this comes at a price. Studies have suggested carbon nano-tubes can be as threatening to human health as asbestos, and a 2009 study reported on serious respiratory illnesses related to nano products. In addition, the recent deaths of two workers in China following exposure to nano-particles contained in spray paint have raised further health concerns.

Peter DeVita, P.Eng., chair of the EDTF, told Engineering Dimensions magazine: "We want nanotechnology and molecular engineering because they will do very many good things for humanity. But there are risks associated with those good things if not handled properly."

**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](mailto:nanda.lwin@wtpeo.org).

## Parting Shots...



Four high-school students attending engineering school for the first time this September were awarded \$500 scholarships at the North York Civic Centre on June 28, 2010. From left to right: education committee chair Ramona Mirtorabi, P.Eng.; Terrence Lau of Earl Haig Secondary School, teacher Tim Langford of Newtonbrook Secondary School, Ashkan Parcham Kashani of Newtonbrook Secondary School, chair Changiz Sadr, P.Eng., PEO vice president Corneliu Chisu, P.Eng., Keith Christensen of Newtonbrook Secondary School, and Jennifer Yoon of Newtonbrook Secondary School.

The Willowdale/Thornhill PEO chapter education committee held its first scholarship program on June 28th at North York Civic Centre. **Keith Christensen** of Newtonbrook Secondary School, **Ashkan Parcham Kashani** of Newtonbrook Secondary School, **Terrence Lau** of Earl Haig Secondary School, and **Jennifer Yoon** of Newtonbrook Secondary School are the successful recipients of \$500 scholarships from the chapter. Kashani and Lau are pursuing engineering science at the University of Toronto in September, while Christensen and Yoon will be studying chemical engineering at the University Waterloo and the University of Toronto, respectively.

Corporate magician **Anthony Lindan** held a 'Magic of Collaboration' Team Building Workshop on June 21st at the Fairview Library. The workshop whose aim was to use magic tricks to explain the importance of team-building, was attended by 60 people.

Willowdale/Thornhill PEO chapter chair **Changiz Sadr, P.Eng.** spoke at the ACCES offices in Don Mills on July 19th. Sadr spoke to the audience comprising mostly of new Canadians about how foreign-trained engineers can register with the PEO.

The Ontario Society of Professional Engineers' (OSPE) first annual summer barbecue was held on July 31st in Milne Park in Markham. In attendance were Willowdale/Thornhill PEO chapter executives, chair **Changiz Sadr, P.Eng.**, and vice chair **Nanda Lwin, P.Eng.**

## Parting Shots (continued)...



Willowdale/Thornhill PEO chapter chair Changiz Sadr, P.Eng., spoke to new Canadians about licensing as a professional engineer, at the ACCES offices in Don Mills on July 19, 2010.

The **Willowdale/Thornhill PEO chapter** is expected to hold two events in the near future that will be of interest to professional engineers. First, the chapter will host presentations from three career-development organizations specializing in new Canadians. The event is slated to be held on September 21st at the North York Civic Centre. The chapter is looking for volunteers who are interested in serving as mentors.

In addition, the chapter is scheduled to hold a panel discussion on the recent introduction of the harmonized sales tax (HST) and its impact on the engineering profession, scheduled for late September. To submit your ideas please e-mail [GLP@wtpeo.org](mailto:GLP@wtpeo.org). More details on both events to follow via e-mail.

**[www.wtpeo.org](http://www.wtpeo.org)**

The official website of the Willowdale/Thornhill PEO chapter.