



Chapter Activities – Summary

- 26 July: Technical Seminar - Emerging Disciplines in Engineering
- 28 August: Digital Camera – Training for Volunteers
- 5 October: Preventive and Predictive Maintenance – Technical Seminar

Details on events on chapter website –

www.scarborough.peo.on.ca/Cha_def.htm

Forthcoming Events

- 28 October: Light and Health – Technical Seminar
- 27 November: Mathletics 2010
- November: Microsoft Word Advanced Techniques – Training for Volunteers
- 9 December: Cost estimation for major projects – Technical Seminar

Ongoing Activity

- Mentorship Program – started in June 2010 and ongoing through first quarter of 2011



*Mentorship Program Training Session
July 24, 2010*

Please submit your ideas for future events – seminars, technical visits, workshops, etc. – at editor@peoscarborough.ca

Letter from the Editor

Dear Friends,

I am glad to meet you again on the pages of PEO's Scarborough Chapter Newsletter, and I hope all of you had a wonderful summer.

Although summer is seen as a vacation season by most of us, this year it proved to be a very busy time for both the association, with the ongoing changes to the *Professional Engineers Act* and PEO's bylaws, and for our chapter.

You can read the latest updates from PEO Council in page 3, in the new permanent column called "The Councillors' Corner".

The event of the fall will be – beyond any doubt – the 2010 edition of Mathletics. Detailed information regarding this exciting math and engineering competition are presented on page 3. If you would like to get involved in this year Mathletics, please contact the organizing committee using the email address provided.

As we mentioned in the previous issue of the Newsletter, Scarborough Chapter is one of the five PEO chapters selected to participate in a mentorship pilot project, designed to assist engineering interns to progress towards obtaining their licensure. The program started in June and is ongoing through the first part of 2011. Within PEO Scarborough Chapter, 20 pairs of mentors-mentees have been formed and all participants are taking training sessions specially designed for the program.

One of the concerns raised by some of participants (both professional engineers and EITs) was that this type of program doesn't address the main obstacle internationally trained engineering interns face in obtaining the licensure: the one year Canadian engineering experience.

How important is this? In 2009, 1495 of 2038 licence applications were submitted by internationally trained engineering graduates.

PEO has created the provisional licence, designed to help engineering interns get the job needed to fulfill the experience requirement. However, in many engineering fields, prospective employers look more at an applicant's knowledge and experience, and do not care if the applicant is the holder of a provisional licence.

If you'd like to share your experiences and your ideas on this subject, please email us at editor@peoscarborough.ca, and we'll open the Newsletter pages for the debate.

Pompilian Tofilescu, Engineering intern, Editor

Emerging Disciplines in Engineering

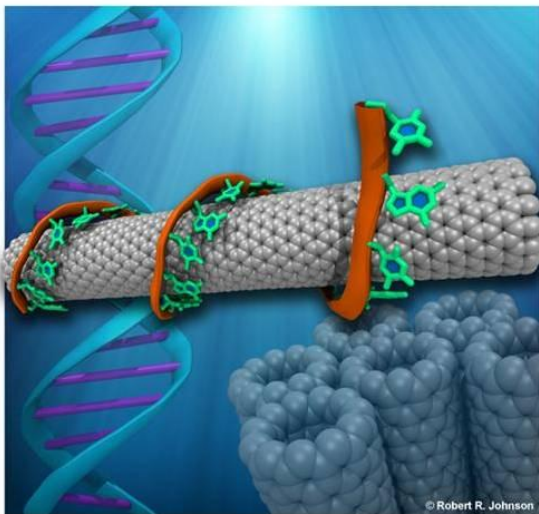
(Summary of the presentation given at the seminar organized by PEO Scarborough Chapter on July 26)

By Peter M DeVita, P.Eng.,
M.A.Sc., M.B.A., MCIPS, MADR, F.E.C.

The PEO is charged with the responsibility to govern the practice of engineering. Hence, as new areas of practice are recognized, it must act to ensure that these are properly regulated so that the public interest is served and protected.

Emerging disciplines are unique conditions of only the engineering profession. As new technologies are formed, entirely new areas of practice are also formed. For example, a surgeon can do surgery using a stainless steel knife or with a Laser machine. Either way, the surgeon is still doing surgery so the basic scope of practice has not changed. However, in engineering, it is a radical change to go from making stainless steel to making a laser cutting machine.

Even though we have recently (in the last 15 years or so) recognized emerging disciplines, this has been happening all along, just at a slower pace. Civil engineers began to organize themselves in England in 1818. Mechanical engineers saw themselves as a new discipline in 1848. Later came electrical engineers, getting into the early 1900's. Where these new areas were emerging every 50 years or so, they are now expected every five to seven years. Which now begs a big question for the profession: how are we going to continue to handle these as we move into the future?



*Nano molecular engineering is one of the emerging branches of engineering that recently - 2010 - came under PEO attention
(Picture provided by the author of the article)*

PEO Scarborough Chapter Sponsors F1 Team from Dr. Norman Bethune Collegiate Institute

By Rane Mahalingam, M.Eng., P.Eng., O.M.C

"F1 in school" is a Formula 1 car competition, designed to promote engineering at the high school level. The competition requires students to design, analyze and manufacture a 1/20 scale CO2 powered F1 car made out of balsa wood to a given specification. Cars manufactured by the students are raced and the best performing car is selected. For the past three consecutive years, Dr. Norman Bethune Collegiate students from Scarborough participated in F1 in School competition and won several awards, including second place at the Canadian Nationals. In 2009, the team achieved first place overall in Canada, as well as received the award for "Best Design Using Solid Works". In addition, the car demonstrated its highest performance by completing a 20-meter track in a record time of 1.117 seconds.



Formula 1 car and CO2 cylinder

The Scarborough team is now on its way to Singapore, representing Canada at the F1 in Schools World Final competition. The school principal and the team mates were pleased with the support, encouragement and sponsorship provided by the PEO Scarborough Chapter and awarded a plaque in appreciation at the fund raising dinner held on September 1, 2010.

We wish the students the best at the competition.



Scarborough Chapter officers Asogan N, Madusuthanan N, and Rane Mahalingam receiving the certificate of appreciation from the Formula 1 Team

Mathletics 2010

Started in 2007, the Mathematics competition, initially dedicated to students from primary and middle Scarborough schools, has become one of the most successful events organized by the Scarborough Chapter of PEO.

Mathletics is now so popular that other organizations such as Visions of Science (VOS), National Society of Black Engineers (NSBE), and other PEO chapters have sought the assistance of Scarborough Chapter to conduct this challenging game of Math and Engineering at their locations.



Winners of Mathletics – Provincial Level
November 28, 2009

This year Mathletics will take place on November 27, at Scarborough Civic Center (150 Borough Drive, Scarborough).

For more information on this exciting event, please visit our [Mathletics](#) webpage.

The Mathletics 2010 organizing committee can be contacted at mathletics2010@peoscarborough.ca.

Event Agenda:

Registration starts	10:00 a.m.
Inauguration	10:30 a.m.
Introduction to Round one	10:35 a.m.
Senior Level Event - Round one	10.45 a.m.
Junior Level Event - Round one	11.30 a.m.
Lunch break	12.15 p.m.
Introduction to Round two	1:15 p.m.
Junior Level Event – Challenge - Round two	1:30 p.m.
Senior Level Event – Challenge - Round two	2:15 p.m.
Guest Speakers	3:00 p.m.
Prize Distribution	3:15 p.m.

*Pompilian Tofilescu, engineering intern,
"Mathletics 2010" Project Manager*

Councillors' Corner

Report on the 23 and 24 September 2010 Council Meeting

*by Denis Carlos, P.Eng., MBA
East Central Region Junior Councillor*

- Council spent Thursday evening trying to decide how to fund the Ontario Centre of Engineering and Public Policy as it continues with ever growing expenditures now somewhere in the million dollar range per year.

- Representatives from the Natural Scientists groups made a presentation to Council. They were very concerned that PEO had not consulted them before changing the *Professional Engineers Act* via bill 68 that removed the exclusion for natural scientists. The Attorney General received in excess of 700 letters of complaint.

- Additional funding for the OPEA gala was approved by Council. PEO sponsorship is now 150 seats for \$60,000 per year.

- Multi-million upgrades to the new building have been given open-ended approved.

- In February, Council changed how the President and other officers are chosen. Instead of the current system of members electing the president, Council decided that it has the regulation making authority to choose its own President. After hearing member concerns at the AGM, Council decided to conduct a survey. 2,367 voted against Council's question vs 1772 for. Over 100 pages of comments were received. Continuing to have more members support Council's decision, a formal referendum will be conducted in February 2011 to be accompanied with appropriate communications.

- In April, Council decided "to establish all fees and prescribe them in PEO's bylaws and provide the ability for council to approve bylaws that are effective without member confirmation, while maintaining the ability for council to seek member confirmation before a bylaw is effective if it so chooses" [*Engineering Dimensions*]. On obtaining feedback, Council has now decided to consult members. I encourage you to respond when consulted.

➤ **News from the Office of the Fairness Commissioner regarding engineering profession**

- **Conducting Hearings:** Although the Registration Committee has always had the authority to conduct pre-hearings, it only began holding pre-hearings in 2009. In some of those pre-hearings, the committee decided that a hearing cannot be conducted until the applicant writes the Professional Practice Examination and the Registrar assesses all of the applicant's registration requirements, including experience. (Previously, if an applicant did not satisfy PEO's academic requirements, then the applicant could request a hearing and trigger the issuing of a Notice of Proposal to Refuse to issue a licence.)

- **Proposed Amendment:** On July 31, 2009, PEO sent proposed changes to O.Reg. 941/90 to the Ministry of the Attorney General. In October, the OFC received a copy of the draft version of the regulation that PEO forwarded to the Legislative Counsel for review. OFC staff noted that PEO did not take into account OFC's recommendation regarding the Canadian experience requirement.

(The OFC had previously encouraged PEO to consider alternative options to the 12-month Canadian experience requirement, such as relevant courses that would adequately familiarize the applicant with applicable Canadian codes, regulations and standards for the practice of professional engineering.)

As of March 31, 2010, a decision is pending on the draft regulation.

- **The top five source countries** for internationally trained engineers, applicants for PEO licence in 2009: India, China, Iran, Pakistan, and Bangladesh.

Note: The Office of the Fairness Commissioner (<http://www.fairnesscommissioner.ca/en/index.php>) is an arm's-length agency of the Ontario government, reporting to the Minister of Citizenship and Immigration. It is independent of the Ontario government and of the regulated professions. The Office works with the regulated professions in Ontario to ensure that they have registration practices that are transparent, objective, impartial and fair.

It requires the professions to:

- *Examine their own registration practices and submit yearly reports about them.*
- *Undergo compliance audits.*
- *Review their registration practices to find and eliminate practices that may not be fair.*

Editor: Pompilian Tofilescu, engineering intern

We welcome our readers' contributions:

- Articles of engineering interest, and subjects of interest to engineering community (within guidelines of PEO)
- Suggestions for future events – seminars/technical visits/ workshops, etc.
- Suggestions for improvement of newsletter/website.

Contact: editor@peoscarborough.ca, Website: www.scarborough.peo.on.ca

➤ **Scarborough Chapter participates at Liberal BBQ – Aug 11, 2010**

The Scarborough – GTA East Liberal Caucus – Wayne Arthurs, MPP; Bas Balkisson, MPP; Lorenzo Berardinetti, MPP; Hon. Margaret Best, MPP; Joe Dickson, MPP; Hon. Brad Duguid, MPP; Hon. Gerry Phillips, MPP hosted a BBQ on August 11, 2010 at Masaryktown Park with special guest Hon. Dalton McGuinty, MPP.



Chapter was represented by the Vice Chair – N. Asogan, P.Eng.

➤ **PEO Vice President participated in Conservative Party events**

- July 13 - PEO Vice President, Maj (ret'd) Corneliu Chisu, CD, P.Eng was a guest speaker at the Conservative Party of Canada Pickering - Scarborough East Riding Association AGM. His presentation was on Canadian Military Engineers in Afghanistan

- August 31 Conservative Party fundraising event - Corneliu Chisu is seeking nomination for Scarborough East-Pickering Riding of the Conservative Party of Canada

➤ **PEO Representative running on incoming October elections**

Thomas Chong, M.Sc., P.Eng., PMP, PEO East Central Regional Councillor is running on October 25 for the Ward 3 Richmond Hills councillor seat. Let's wish him the best of luck, and provide him with our support.