



Chapter Activities – Summary

- 8 May – PEO AGM and Training Seminars
- 8 May – Mathletics at Vision of Science
- 23 May – Licensing Seminar for New Immigrants
- 28 May – Mathletics at Ontario Colleges Mathematics Association
- 31 May – Licence Certificate Presentation Ceremony
- 19 June – Microsoft Project Training for Volunteers

Details on events on chapter website –
www.scarborough.peo.on.ca/Cha_def.htm

Forthcoming Events

- Started in June and ongoing for the entire year 2010 – Engineering Intern Mentorship Program
- 26 July – Technical Seminar: Licensing for Emerging Disciplines
- 21 August – Digital Camera: Training for Volunteers
- 16 October – Microsoft Word Advanced Techniques: Training for Volunteers
- 27 November – Mathletics 2010



(Licence Recipients – Spring 2010)

Upper row left to right: Peter Wong, P.Eng.; Alicia Wong, P.Eng.; Jian Min Wang, P.Eng.; Rakesh Shah, P.Eng.; Mohammad Qamar, P.Eng.; Jatin Patel, P.Eng.; Kiran Yashvadan Patel, P.Eng.; Eliza Ngai, P.Eng.; Ernie Lo, P.Eng.

Bottom row left to right: Freeman Liang, P.Eng.; Brad Harper, P.Eng.; Sam Gnanasabesan, P.Eng.; Egal Egal, P.Eng.; Andrew Daley, P.Eng.; Alakesan Appadurai, P.Eng.; Mark Adamaley, P.Eng.)

Letter from the Editor

Dear Colleagues,

Welcome to the spring issue of the 2010 PEO Scarborough Chapter Newsletter. Once again we try to offer to our readers useful information, interesting opinions, and reviews of the latest events organized by the PEO Scarborough Chapter or activities that involved the participation of our chapter members.

The main event of the spring, largely covered on the Newsletter pages, was the ceremony where, encouraged and congratulated by very distinguished guests, 18 new professional engineers received their licence certificates.

The current Newsletter will also offer information regarding the 2010 PEO AGM, Mathletics 2010, and the launch of a new PEO mentorship program, Scarborough Chapter being one of the five pilot chapters chosen to be part of the program.

In the end, we would like to remind you that none of what the chapter does is possible, neither this Newsletter nor any of the chapter activities, without the membership's active involvement. Therefore we encourage and welcome your contribution, either as volunteers with the chapter, authors of articles for the Newsletter, or simply by sending us your suggestions for improvement and for future activities.

Because the vacation season is just starting (not for us, Scarborough Chapter executives and volunteers...), till next Newsletter I wish you all a relaxing, and wonderful summer.

Pompilian Tofilescu, Engineering intern, Editor



(Licence Certificate Presentation Ceremony)

From left to right: Georg Kralik, P.Eng., West Toronto Chapter Chair, Kam Leong, P.Eng., York Chapter Chair, Maj.(ret'd). Corneliu Chisu, P.Eng, Vice President, PEO, Hon. Bas Balkissoon, MPP Scarborough-Rouge River, Ernie Lo, P.Eng., licence recipient, Dr. Santosh Gupta, P.Eng., Lieutenant Governor Appointee, PEO, and Raju Chander, P.Eng., Scarborough Chapter Chair)

Message to the New Licensees

(Excerpted from the Chair's welcome speech during the Certificate Presentation Ceremony held on May 31, 2010)

This is an opportunity for the chapter to welcome the new engineers into the fold of Scarborough Chapter on behalf of PEO. This licence, which will be awarded to you today, is a symbol of recognition that has been bestowed upon you by the people of Ontario. The people of Ontario have created an act that gives you certain privileges, recognition and a title. This recognition or title also comes with an obligation, an obligation on your part to honour the will of the people. The people of Ontario have confidence in this profession, in the engineering profession, that engineers will create something that will improve their quality of life while protecting them from its hazards, i.e. public safety. Public safety is always in your hands and that is demonstrated by the licence that has been given to you. Your licence certificate is a piece of paper that is a symbolic representation of this recognition. From today onwards, you have this special privilege that has been given to you by the government of Ontario. As you realize, when some confidence is bestowed on us it becomes imperative on our part to live up to that promise and expectation. The same act that has given you the right to call yourself and serve as an engineer has also attached a liability. From today onwards, you will be liable for your work. If you do not live up to the expectations of the people, you will be punished. The same act that has given you the right to be an engineer has also put this liability on you. Please bear in mind that as professional engineers we are being monitored all the time, not by PEO but by the people of the province.

(Continued on page 3)



(From left to right: Mark Adamaley, P.Eng., licence recipient, Thomas Chong, P.Eng., Sr. Councillor, East Central Region, Robert (Bob) Morrison, P.Eng., Vice President and Chief Nuclear Engineer, Ontario Power Generation, Denis Carols, P.Eng., Jr. Councillor, East Central Region, Roger Jones, P.Eng., Councilor-at-Large, and Raju Chander, P.Eng., Scarborough Chapter Chair)

A Great Volunteer – 15 Years of Dedication for the Chapter

(Extracted from Chair's speech during the Certificate Presentation Ceremony held on May 31, 2010)

Now is the time for a special recognition and I have not shared this message with any of the volunteers, including the volunteer who is going to get it. He has been working for the chapter for the last 15 years. When he told me he has conducted this sort of ceremony 25 times, I was not just surprised but amazed. You can just imagine the amount of patience and commitment he has demonstrated to do this. It's really amazing. Normally, people come for one or two occasions and then they get bored. But here was this gentleman who has worked and worked and he will never come to the forefront. He will never come to the podium. He will be farthest person from the stage. In addition to that, he was the person who just stepped aside this year. Why? Not because he was tired. Not because he did not want to do it. But he stepped aside so that younger volunteers could get into the chapter board. This is something that is not happening in many other chapters. People just don't make way. They stay there and that's the end of it, a static system without any dynamism. Their inertia grows and kills the system.

That great volunteer is nobody other than Ken Chiu. I can tell you this is the first time he is seen by people. Most of the time, he is an unseen hero. Usually when a person steps aside from the board we give him a certificate from PEO for the service rendered. But this time we decided, or I decided, not to give the certificate because he has decided not to leave us. He is going to be with us. He has just stepped aside. He has earned this recognition not as a committee member but as a volunteer.



(Cheers for Ken Chiu, P.Eng., with an award from Hon. Bas Balkissoon)

Message to the New Licensees

(Continued from page 2, excerpted from the Chair's welcome speech during the Certificate Presentation Ceremony held on May 31, 2010)

It came to my mind that one of the most recent engineering problems is creating an environmental havoc in the Gulf of Mexico. If you look at this, it was an engineering feat to get the oil out from a well that is over 10,000 metres deep. This magnificent engineering act has given access to a huge reservoir of oil embedded so deep under the ocean. But whatever the task we do, it's a mandate on us that we do it safely. When we say safely, it is with reference to the safety of the people and environment. Here, the conflict of interest could become one of the most important issues. You are working for a corporation that has its interests that are tied to corporate profits, but at the same time you have to bear in mind that you are first an engineer and you have to live up to the licence through which the public has placed a trust in you as an engineer, and the corporation is second. Thus, if there is a conflict between a corporation's interest and the public interest, as a licensed professional engineer, and according to the *Professional Engineers Act*, it is expected you will live up to the expectations of the people. That you are there to protect their interests....

As engineers, we should be proud that statistically about 90 per cent of the population have confidence in engineers; they trust us. This trust in engineers is something we should maintain and see to it that our profession becomes one of the sought after professions. Unfortunately, we have a problem. Engineers' work cannot be seen by the people. They use our services, but they are not able to relate the engineering profession to these services. For example, everything in this building including the building itself, has been designed by engineers. Everybody uses this facility and everybody knows that this is required, but they do not realize there is an engineer behind every such structure. We take it for granted that electricity will come to our home. Yes, it does. It's a thing for which you are paying. But it will not come if engineers don't exist. Unfortunately this is something that needs to be brought to the public focus. And that is one of the mandates of the chapter. We try to tell people that engineers are there for you and are doing a service for you everyday. We want the public to realize and perceive the reality! This is the only way people can be enlightened. Why am I telling you this? Because the engineering profession is slightly different from other professions, like doctors, accountants, lawyers, etc. People see their work and they realize what a doctor does, but they do not realize what an engineer does. They can see

what a lawyer does. They can see what they are doing. They enjoy it. The people do not come to you to get their product, but the product goes to them! So the onus is on us to educate the public and change their attitude. One of the vehicles to do this is the chapter. Another thing is the public's perception. The most important thing to realize is that what people carry in their mind is their perception. People do not go by data and real things. People are always carried forward by perception. And that perception is something we have to create. We have to show constantly that the engineering profession has done so many things. That so many wonders of the world are due to engineers. And this perception is what we have to inculcate into people's mind. What I am telling you here is something that can be done by the chapters and that can be done by you. If you join the chapter, you will be able to carry this message forward – which is in your interest and in the interest of the regulating body, which is the interest of the profession.

Raju Chander, M.S., P.Eng.

Mentorship Program

PEO has launched a program of mentorship to assist engineering interns progress towards obtaining their licensure. Scarborough Chapter is one of the five chapters selected to participate in this pilot project. Details of this program and application forms are available from PEO at: www.peo.on.ca/Program/mentorship. This program connects an engineering intern with a professional engineer of similar discipline to guide the EIT in preparing their reports and write-up to obtain their licence.

The pilot program was launched on June 1, 2010, and since then the response from EITs is overwhelming and about 43 EITs have already registered as mentees. The intent is to have at least 25 mentor/mentee pairs in the first pilot program. All the mentors and mentees will be trained by PEO. This is a very good opportunity for professional engineers to help the new foreign trained engineering graduates and the young Canadian graduates. Participation in this program will help senior engineers to develop their leadership skills.

Our chapter contact for the mentorship program is: Whitefield Ye, P.Eng.

Email: mentorship@peoscarborough.ca

More details are available at:

www.scarborough.peo.on.ca/events/2010/jun10-mentorship/

Mathletics at Visions of Science

By N. Madusuthanan, P.Eng.

On May 8, 2010, a team of volunteers from PEO's Scarborough Chapter met at Ryerson University in downtown Toronto to volunteer at the Visions of Science Symposium. Visions of Science Network for Learning Inc (VoSNL) is a not-for-profit organization that advances the educational achievements and career aspirations of African Canadian and other under-represented youth in the fields of science, mathematics and technology. This is the second year the Scarborough Chapter has participated in this great event.

The symposium consisted of many exhibit booths, lectures and presentations on science, mathematics and technology laid out in various halls and the corridor. Our Mathletics was held in a large lecture hall. We had streams of students, parents and teachers coming in and participating at the Mathletics contest. The contest was facilitated by Vjayanthi, supported by Pervez Akhtar, Perani Chander, Ruba Arulrajah, David Dias, Sania, Rani Madu and Madusuthanan, who volunteered from the Scarborough Chapter.



Mathletics is a unique form of mathematics competition developed by PEO Scarborough Chapter and made very popular in the province by our chair, Raju Chander. In this competition, a concept involving maths and science/engineering is introduced to the children. The theme for this Mathletics was Sports. The concept of science in sports is explained by projecting the fundamental idea, formula and applicable units on one introductory screen. After this, the projection on a second screen gives participants a question based on the concept introduced. Thus, the participants are first taught the concepts and formula. Then, they are given a question. The students provide answers using the remote wireless clickers provided to each of them. They are supplied calculators to do the required computing. The students' responses are received and processed by the computer. A large audience can witness and enjoy the contest.

The highlight of this competition was the detailed explanations given to the students who were weak

in the language or understanding of the questions. Vjayanthi explained the questions to some students who were more conversant in Tamil. Two volunteers who attended the symposium on behalf of the National Society of Black Engineers (NSBE) also assisted in explaining the questions with minute detail and patience to enable the students to comprehend and respond with better understanding of the questions.



It was a greatly successful event, and we thank the Visions of Science Symposium organizers for giving our chapter this opportunity to participate.

Report on PEO AGM 2010

By Raju Chander, P.Eng., and N. Asogan, P.Eng.

This year, the PEO AGM was held on May 7 and 8, 2010 in Toronto, along with the 2010 Public Policy Conference on "Engenuity at Work". The PEO AGM is held every year and all members are eligible to participate. It is usually held in the month of May. Details of the AGM are posted on the PEO website and notices are sent to members through *Engineering Dimensions*.

Our new president, Dianne Freeman, took the office from outgoing president Catherine Karakatsanis. President-elect Dave Adams will take office as president at the 2011 AGM.

A very interesting debate took place during the AGM on the operation of the Discipline Committee, the election of the president, member submissions etc. This AGM indicated that members are becoming more and more active and keeping a close eye on the operation of PEO, a positive step in the right direction.

Raju Chander, N. Asogan, Murad Hussain, Kannan Dorairaj, Alireza Shamshiri and Melissa Hernandez participated in the AGM from Scarborough Chapter. To encourage participation in the AGM, our chapter agreed to sponsor for the AGM luncheon and training for the members who volunteered to attend the sessions.

The Public Policy Conference brought many current issues into focus, like the reduction in participation by women in engineering, the importance of engineering in a knowledge-driven economy, the role of engineers in sustainable societies, emerging technologies like nanotechnology, reorienting engineering education by including more social science subjects, etc.

Updates, Feedbacks, Reactions, Reviews...

• **PEO's Chapter Executive Training Seminar**

After PEO's Annual General Meeting on May 8, 2010, PEO conducted a few training seminars for its chapter volunteers. One of the training seminars was catered to educate new and prospective chapter executives on how to manage a chapter (within the guidelines of PEO) and what a chapter can do within its community. The seminar initially provided a brief overview of PEO, its organizational structure (identifying groups that chapter executives might deal with over their tenure), the PEO Council, the chapter's impact on the council, and also PEO's governance. Following the overview, the seminar highlighted and discussed some key elements of a chapter that is transition planning, succession planning, treasurer training, business planning and ways to build a business case. This was essential in enlightening new and prospective chapter executives on what to expect within the chapter and also on how to operate a chapter. Various other elements of chapter operation were also addressed during a question and answer period. As part of the seminar, a council manual was provided to all of the attendees that details all of the issues addressed by the seminar. A copy of the council manual can be obtained through your chapter or by contacting Kannan Dorairaj.

• **Mathletics 2010**

Mathletics is a competition designed for students of grade 8 and lower to create a passion in the application of mathematics in solving day-to-day scientific and engineering problems. Students are challenged to be active and creative in the use of mathematics to solve engineering problems.

An important part in the preparation for this event is creating the questions. We require about 60-80 questions for this event. We are appealing to all volunteers of the chapter to write at least one question. The questions should be geared for students in the grades 4 to 6 range, and students in the grades 7 to 8 range. Before presenting the question, the concept and the required formula are provided and explained. Some examples of questions are given on our website at http://www.peoscarborough.ca/events/20091115-mathletics/2009_model_questions.html.

As a guide, below is a summary of some of the

concepts taught at the various grade levels:

- Grade 4 - simple pulleys and gears,
 - Grade 5 - simple concepts of force, and energy
 - Grade 6 - force, properties of air, concepts of lift and drag, conductors, series & parallel resistance
 - Grade 7 - simple structures and the effects of force, centre of gravity, solutions, evaporation, heat as a form of energy
 - Grade 8 - extension of grade 7 concepts, plus simple fluids (mass, volume, density, viscosity).
- Questions can be emailed directly to Paul Morton, pgmorton@rogers.com.

This year's Mathletics will take place at Scarborough Civic Centre on Saturday, November 27, 2010. In the past years, this event has been very successful. To make it successful again, we are looking forward to increasing our reservoir of questions with your help.

Paul Morton, P.Eng.

• **Thoughts on CPC – Spring 2010**

"The PEO Certificate Presentation Ceremony is an excellent opportunity for new engineers to be recognized for their hard work and for reaching an important milestone in their lives. It is equally important to recognize the support and encouragement the engineers received from family and friends as they worked hard to achieve their goals.

This celebration provides the perfect occasion for this recognition. As well, the ceremony offers the possibility for networking with fellow engineers, other PEO members, businessmen, and members of the community.

*Bas Balkissoon, MPP
Scarborough-Rouge River"*

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*"As the CPC was my very first interaction with the Scarborough Chapter, I wasn't sure what to expect. As it turns out, I was very impressed with the entire evening: From the classy venue to the excellent meal, from the many special guests to the high profile guest speakers.*

*It was clear to me that not only the Scarborough Chapter but the entire engineering community in Ontario was standing behind us as we took our first bold steps into the world of responsibility that is being a professional engineer.*

*Thanks to everyone at the Scarborough Chapter for making the evening a special one for me!  
Andrew L. Daley, P.Eng."*

**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](mailto:editor@peoscarborough.ca), Website: [www.scarborough.peo.on.ca](http://www.scarborough.peo.on.ca)