



# Chapter News

SEPTEMBER 2015

EAST TORONTO CHAPTER

VOLUME 2015-2

## Chair's Message

### General Information

**Seminar:**  
Radiation Effects on Humans -  
Overcoming Fear of Nuclear  
Energy.

**Seminar:**  
Cloud Computing and its  
benefits for small and medium  
businesses

**Seminar:**  
Future Prospects of Biomass for  
Renewable Energy in Canada

**Seminar:**  
Engineering Skills Shortage,  
Fact or Fiction

**Seminar:**  
Licensure and its Processes

**Seminar:**  
Sustainable Green Building  
Projects

PEO President  
Town Hall Meeting  
for East Central Region

New Member  
Licence Certificate Presentation  
Ceremony

**Seminar:**  
Why Referrals Are Important to  
Your Engineering Firm

East Toronto Chapter  
Annual General Meeting (AGM)

2015 Chapter Board

## Chair's Message

Some changes to the Board took place in the 2015 spring-summer season. Georges Livanos, P.Eng. and Kong Seto, P.Eng. both left the board due to personal reasons. Their contribution is gratefully acknowledged and appreciated. The new GLP Subcommittee Chair is Harnet Panesar, P. Eng. who has solid GLP experience from his past involvement with Toronto-Humber chapter. Another change to the board composition is the election of Ron Clarkin, P.Eng. as Chair - Education Outreach. Ron takes over from K. Shahzad Baig, P.Eng. who was holding this position in addition to his other duties as Chair- LAP (Licensure Assistance Program). Thus, Shahzad will continue as Chair-LAP only. We sincerely thank Shahzad for his past contribution to Education Outreach and extend a warm welcome to Ron as the new Chair-Education Outreach.

Some of the highlights of the preceding season worth noting.

- a) Co-hosting a very successful event with West Toronto Chapter and OSPE. This was a forum on The Future of the Gardiner Expressway. This event was held in anticipation of and to provide engineering input to the City of Toronto ahead of their meeting on the subject. This event took place on May 17 at the Toronto Rehabilitation Institute in downtown Toronto. A panel of experts and a member of Toronto City Council presented some of the re-construction options being considered for the eastern portion of the expressway, and then took questions from the floor. Deputy Mayor Denzil Minnan-Wong was one of the panellists. Approximately 100 people attended this event, which was organized with very short lead time and notice.

- b) Our 2015 Summer BBQ took place on August 22 at Cherry Beach Park. This is our second event of this kind after our

equally successful first time ever BBQ last year. This year we were honoured to have PEO President Thomas Chong, P.Eng., as well as former OSPE President and Chair Paul Accchione, P.Eng. Also in attendance was PEO West Toronto Chapter Past Chair Georg Kralik, P.Eng. Approximately seventy people attended and they all had a fun-filled day over food, drinks and camaraderie. The weather was great. Mad Science entertained the children with fun and educational experiments.

Future events are as follows:

- a) A series of seven seminars from mid-September to end of November;
- b) The Chapter AGM on January 27, 2016;
- c) Participation in PEO Town Hall Meetings (details below);
- d) Our LAP has fifteen pairs of Interns and Guides, who will have their initial training meeting on October 14. After that, Interns and Guides will meet one-on-one once per month for the next six months.

*Hugo Maureira, P.Eng.*  
Chair

## General Information

Unless otherwise noted, the following information applies to seminars.

- Seminars are held at the S. Walter Stewart Public Library, 170 Memorial Park Ave., Toronto, ON, M4J 2K5.
- If riding the TTC, take the East - 70 O'Connor bus from Coxwell Station toward Warden Station, going northbound on Coxwell Ave. Drop off at Barker Ave., walk north 30m, then turn left (West) into Memorial Park Ave. and walk for two blocks to reach the library.
- If driving, you will find limited parking at the library and additional free (after 6 pm) parking on the City of Toronto parking lot immediately north of the library.



- Reception is from 6:30 pm to 7 pm. Seminars start at 7 pm and end typically around 9 pm. Please sign the attendance book on arrival.
- P.Eng., EIT and their guests including family members and friends are welcome.
- Submarine sandwiches of various types, including vegetarian, are served, as well as cookies, soft drinks and bottled water.
- Seminars are free but pre-registration is required.
- Pre-register using the link provided in the notice of seminar that is mass e-mailed to chapter members fourteen days before the seminar. Alternatively, you can sign up by clicking on the calendar in the chapter website (but no sooner than 14 days ahead of when the event goes live).
- If you are not able to attend, please cancel your registration online no later than two days before the seminar. This is to avoid ordering excess food.
- For questions regarding the presentations, please contact Hugo Moreira, P. Eng. at hamxyz070@gmail.com
- For questions regarding the online registration, please contact James Tait, EIT at james.tait@outlook.com

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**Seminar:  
Radiation Effects on Humans -  
Overcoming Fear of Nuclear  
Energy.**

**Date:** Wednesday September 16, 2015  
**Presenter:** Jerry Cuttler, P.Eng.

The ongoing crisis of radiation fear led our speaker to examine the political motivation for creating this fear. He also uncovered evidence of a lower leukemia incidence of the Hiroshima atomic bomb survivors who were in the low radiation zone. The leukemia data fit a hormetic J-curve with a threshold at 50 rem. Dose- response data on lifespan reduction also show a radiation threshold. This contradicts the basis for radiation protection and risk assessment that was established in 1956-58. Beneficial effects, thresholds and the biological mechanism are explained. The rate of spontaneous DNA damage far exceeds the rate caused by background radiation. The effect of radiation on the very powerful adaptive protection systems is what determines the dose-response characteristic. Low radiation up-regulates the adaptive protection systems, while high radiation impairs these systems.

The remedy for radiation fear is to expose and discard the politicized science.

**Dr. Jerry Cuttler, P.Eng.** graduated from the University of Toronto (Engineering Physics, Nuclear) in 1964. He received his M.Sc. and D.Sc. degrees from the Israel Institute of Technology (Nuclear Engineering and Nuclear Sciences) in 1967 and 1971 while employed by IAEA as a research engineer and by the IIT as a laboratory manager. He was the Technical Manager of Seforad Applied Radiation from 1971 to 74, and then began a 26-year career at Atomic Energy of Canada Limited in 1974. He led the team that designed and procured the nuclear instrumentation for three CANDU 6 reactors and for Pickering B and Bruce B stations. Jerry was later AECL's engineering manager for Bruce B, resident engineering manager in Romania, engineering manager of the SLOWPOKE district heating reactor, manager of AECL services at Pickering, CANDU 9 engineering integration manager, and a technical services manager. After retiring from AECL in 2000, Cuttler & Associates has been very busy serving Ontario Power Generation, AECL and Bruce Power for Pickering-4 return to service, the MAPLE medical isotope reactors, and the Bruce 1&2 Restart. He continues to provide services to Bruce Power and to OPG for nuclear plant life extension. Dr. Cuttler served on the council of the Canadian Nuclear Society for about 15 years and was president.

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**Seminar:  
Cloud Computing and its  
benefits for small and medium  
businesses**

**Date:** September 28, 2015.  
**Presenter:** Changiz Sadr, P.Eng.

We all use minimum one form of cloud services in our daily lives, but do we really know what that is, how it is built, how it functions, and many other questions related to cloud? This interactive seminar starts with a brief history of communications from telegraph to cloud, growth and evolution of the communications systems and technologies, and its impact on businesses. It will then takes you to how a cloud computing system functions and what benefits it can bring to small and medium businesses.

**Changiz Sadr, P.Eng.** is a telecommunications engineer with over 30 years of experience in this field. He has been a licensed professional engineer in Ontario

since 1999 practising as a consultant in the fields of ICT (Information and Communications Technology) and CIE (Communications Infrastructure Engineering).

Changiz was nominated as the finalist for the Telecom Professional of the Year for year 2008 by AOTMP (Authority On Telecom Management Practice), which is a global organization based in Indiana USA. He delivered a workshop for Telecom Dashboard in the TEM2009 conference of AOTMP in Orlando FL in 2009, where he received his certification of the finalist telecom professional of the year. He was the only candidate from Canada.

Beside his job, Sadr led the PEO's Emerging Discipline Task Force as the vice chair of the Communications Infrastructure Engineering sub-group of the task force from 2008 to 2011. During this time, the group under supervision of Changiz created The Core Body of Knowledge for CIE and presented to all related stakeholders including PEO, which resulted in approving CIE as the 32nd engineering discipline of Ontario in 2010. Furthermore, this group responded to government of Canada's Digital Economy Consultation in the area of Cyber Security, which is published on their website and can be viewed here:

<https://www.ic.gc.ca/eic/site/028.nsf/eng/00272.html>

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**Seminar:  
Future Prospects of Biomass for  
Renewable Energy in Canada**

**Date:** October 8  
**Presenter:** K. Shahzad Baig, P.Eng.

To have energy security, improve air and water quality, and community development it is necessary to search for alternative source of energy and look beyond fossil fuels. Canada has abundant renewable resources including wind, solar, ocean and biomass (agricultural waste) energy. In order to best use of these resources, it is needed to ensure that a mature and competitive renewable energy industry is available. Fortunately, Canada has the expertise and technologies to produce energy from renewable sources in the form of electricity, industrial heat, thermal energy for space and water conditioning, and transportation fuels. Canada's forests and agricultural waste are ideal for producing sustainable renewable fuels. This talk will



bring awareness to use agricultural waste as renewable energy. Challenges facing the further development of renewable energy by using agricultural waste and existing policies will be discussed.

**Khurram Shahzad Baig** is a professional engineer. He has over 10 years of experience in chemical and environmental fields. Identifying renewable energy source and utilizing renewable energy is his passion. He is a Ph.D. candidate in the department of Chemical Engineering (Renewable Energy) at Ryerson University. Currently, his research is concentrated on the pre-fermentation steps in the production of bioethanol from agricultural residues. He has presented some of his research topics in 58th, 62nd and 63rd Canadian Chemical Engineering Conferences in Canada.

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### **Seminar: Engineering Skills Shortage, Fact or Fiction**

**Date: October 21**  
**Presenter: Paul Acchione, P.Eng.**

This is a seminar from OSPE Labour Market Policy Series. It discusses why employers can't find engineers for their vacancies while at the same time engineers looking for work cannot find suitable engineering jobs.

The presentation is 1 hour followed by a question and answer period and will provide information from OSPE's engineering labour market advocacy studies, including:

- Global competition and the employment changes it has caused
- Societal value changes and their impact
- Changing employers views on training and their impact
- Engineering labour supply and demand gaps and their impact
- 2011 National Household Survey data
- Skills demanded by employers
- What is needed to produce job-ready engineers
- Some hopeful progress (UNENE, EPEEC, SME, Bombardier)
- What individual engineers can do

**Paul Acchione, P.Eng.** has a B.A.Sc. and M.Eng. degree in Mechanical Engineering from the University of Toronto. Paul is a licensed professional engineer in Ontario and is a member of ASME, ANS, IEEE, ISA and is a fellow of the Canadian Academy of

Engineering (CAE). Paul has over 44 years of engineering and management experience in the power generation industry. He worked for 31 years with Ontario Power Generation (OPG) and its predecessor companies. He is now a Management Consultant at Market Intelligence & Data Analysis Corporation. Paul was the 2013-14 President and Chair of the Ontario Society of Professional Engineers (OSPE), was its Acting CEO from Apr – July 2014 and is currently a volunteer on OSPE's Energy Task Force.

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### **Seminar: Licensure and its Processes**

**Date: November 3**  
**Presenters: Barna Szabados, P.Eng.  
and Santosh Gupta, P.Eng.**

This presentation is given in two parts. The first one is given by **Dr. Szabados**. It discusses the importance of being a P.Eng. and reviews the Mandate and principles of the ARC (Academic Requirements Committee). It shows the tools used to evaluate applicants including exemptions, and ERC (Experience Requirements Committee) referral, that are available to applicants who seek waiving examinations through their experience.

The second part is presented by **Dr. Santosh Gupta** and it is focused on ERC aspects, specifically: Committee Mandate and Organization; Committee Roles and Responsibilities; How does ERC Function (the process); Hot Issues Facing the Committee; How can the members get involved and help; Q&A (both presenters)

**Barna Szabados, P.Eng.** received the Diplôme d'Ingénieur ('67) from the University of Grenoble, France, and Master's and PhD from McMaster University ('72) in Electrical Engineering. Dr. Szabados has a lengthy and distinguished career in academia and industry. He has been recognized and awarded in France and in Canada. Dr Szabados has served on the "Canadian Engineering Accreditation Board" (CEAB) for 9 years, spearheading the emerging software engineering accreditation. He is very active with PEO where he was serving on the Software Engineering Task Force, the Licensing Process Task Force and presently he is chairing the "Academic Requirements Committee" and is the vice chair of the "Licensing Committee". Dr Szabados has also left his imprint on community affairs, having

been President of the "Canadian Fencing Association", member of the "Canadian Olympic Committee", senior fencing coach, as well as involved in the direction of his Church.

**Santosh Gupta, P.Eng.** earned a bachelor of science (engineering) in 1961 and a master of engineering in 1962 from India. He obtained a PhD from the University of Waterloo in 1974 and became a member of PEO in 1976. Dr. Gupta worked for Hydro One/Ontario Hydro in several management and professional engineering positions from 1981 to 2000. Prior to this, he worked in Montreal, Kenya and India on a variety of engineering projects and as a professor. Currently, Dr. Gupta serves on PEO's Experience Requirements Committee (ERC) as chair, the Audit (AUC), Licensing (LIC) and Discipline (DIC) committees, the National Framework Task Force (NFTF), and the Academic Requirements Committee/ERC subcommittee. He is also the executive secretary of the Council of Ontario Deans of Engineering, and participates on Canadian Engineering Accreditation Board engineering program accreditation teams at Ontario universities. Dr. Gupta is Lieutenant Governor Appointee to PEO Council.

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### **Seminar: Sustainable Green Building Projects**

**Date: November 18**  
**Presenters: Steven Gray, P.Eng.  
and Michael Pathak, EIT**

**From Cradle to Construction:**  
Understanding what is required to design and undertake a sustainable green building project.

**This presentation will discuss:**

1. The Integrated Design Process (IDP) and how IDP is needed in designing and building cost effective desirable green buildings.
2. The concept of appropriate technologies and design strategies and how one technology may be good for one project but not another.
3. A summary of the construction process related to: Air barrier detailing, thermal bridge-free construction, advanced window installation, radiant ceilings, shallow geothermal loop, etc.
4. A Case Study: Initial capital cost comparison with a theoretical Passive House build.



**Steven Gray:** As a P.Eng and a LEED® AP, Steven was involved in an engineering capacity on several major commercial construction sites before choosing to jump into the trenches and get his hands dirty as part of the Greening Homes crew. Steven brings a passion for energy efficiency and alternative approaches to every project – including the building and design of his own super-energy efficient home out of Structural insulated panel SIPs. He is also an accredited Certified Passive House Consultant (CPHC).

**Michael Pathak, EIT:** As project manager at Sustainable EDGE, he is involved in designing energy efficient buildings, assisting clients with incentive programs and energy benchmarking. He uses his experiences and degrees in Engineering Physics and Masters in Photovoltaic Solar Thermal design to derive innovative and unique solutions on every project.

### PEO President Town Hall Meeting for East Central Region

**Date:** November 12.  
**Visit the PEO website at [www.peo.on.ca](http://www.peo.on.ca)  
to register to attend**  
**Time:** 7 pm to 9 pm

**Location:** Radisson Hotel Toronto East, 55  
Hallcrown Place

**Moderator:** John Glover, P.Eng.

### New Member Licence Certificate Presentation Ceremony

**Date:** To be determined, tentatively in  
November. Details to follow.  
**Time:** 6:30 pm – 9 pm

**Location:** The Arts and Letters Club of  
Toronto, 14 Elm Street, Toronto M5G 1G7

### Seminar: Why Referrals Are Important to Your Engineering Firm

**Date:** November 30  
**Presenter:** Jill Schoenhofer

This presentation will discuss:

1. There are different referrals to grow your engineering business. There are 3 types of referrals to grow your business and collaborate with other firms on projects.
2. How to gain more referrals is crucial for any engineering firm. Details of 10 steps to more referrals will be discussed. These are steps you may implement immediately for gaining for projects.
3. 10 Networking tips will be discussed. Make the right impression when meeting new people. There are specific skills required when making new connections at events. Also, find out fruitful places to network.

Networking and Referral Trainer/ Consultant **Jill Schoenhofer** has an MBA in Marketing and an Adult Education Certificate. She worked at graphic design companies and advertising agencies for ten years. Jill taught business and marketing courses in colleges in Ottawa and at Centennial and Seneca College for over nine years. Today Jill through her business, WellConnected, works with business professionals to work smarter not harder. She leads seminars on building business with referrals. Jill loves to work with companies and see their revenue grow.

### East Toronto Chapter Annual General Meeting (AGM)

**Date:** January 27, 2016  
**Time:** 6:30 pm – 9 pm

**Location:** The Arts and Letters Club of  
Toronto, 14 Elm Street, Toronto, ON M5G-1G7



### 2015 Chapter Board

#### Officers

**Chair** Hugo Maureira, P.Eng.  
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**Secretary** Dan Mireanu, P.Eng.  
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#### Executives

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**Volunteers:** Megha Mariam Varughese, E.I.T.,  
Michael Pathak, E.I.T., Omid Sadeghi, E.I.T.,  
Muhammad Kaleemullah, E.I.T.

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