



Professional Engineers
Ontario

chapternews

» » SUMMER 2011 | MISSISSAUGA CHAPTER

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Chair's Message

Dear engineers,

I am honoured and delighted to be elected as Chair of the PEO–Mississauga Chapter for the year 2011/2012. I would like to sincerely thank all the executive members of this chapter for their dedication, professionalism and valued time invested in numerous activities held at this chapter.

As you may know, this chapter is the second largest and one of the most active amongst the 36 Ontario chapters. The enthusiastic members and volunteers of this 6000-member chapter plan, organize and execute numerous valuable activities that promote the engineering profession in various ways. Some of these activities include meetings and seminars on current engineering topics, tours of interesting engineering plants, Bridge Building and Mathematics challenges for school students, the mentorship program for engineering graduates to help them obtain their P.Eng. licence, the government liaison program to influence government engineering policies, and forums for women in engineering and engineering interns. These activities include our semi-annual newsletters, which are circulated to all members informing them of all the activities of the chapter. In our semi-annual certificate presentation ceremonies, licence certificates are presented to all new professional engineers in the chapter in an appropriate mode. I would strongly invite you to attend our events and join our volunteer program. We are always looking for additional volunteers, ideas, and suggestions from our colleagues. Who better to promote our profession than you, the practitioners?

If you would like to volunteer or attend any of our events, have suggestions or comments, please contact us at khaled.el-rahi@peo-mc.ca.

I look forward to the continued success of this chapter and to continuing to work with our dynamic team, the members of the executive board and the volunteers of his chapter.

*Khaled El-Rahi, P.Eng.
Chapter Chair*

The Combined Cycle Power Plant

On February 23, 2011, 90 members and guests of the Mississauga Chapter came to the South Common Community Centre to hear John Mikkelsen from TransCanada talk about the Combined Cycle Power Plant. TransCanada is a Canadian company that builds and operates pipelines, power stations and gas storage facilities.

After the introduction, Mr. Mikkelsen looked at the basic principles of the combined cycle power plant. It is a power plant that combines two thermal dynamic cycles to produce electricity. This type of power plant combines a gas turbine (Brayton cycle) with a steam turbine (Rankine cycle). The waste heat from the gas turbine heats the water to produce steam to power the steam turbine.

Mr. Mikkelsen's presentation proceeded to talk about gas turbine technology and how heat from the gas turbine exhaust is recovered to heat the water to produce steam. He concluded this part of his presentation by looking at the different methods of cooling the steam.

Besides the combined cycle power plant, there are two other types of gas turbine power plants. There is the simple cycle that uses only the gas turbine. An example of this type of power plant



is the peak power plant. The second type is the cogeneration power plant that uses the remaining waste heat from the combined cycle power plant for such purposes as heating buildings.

The concluding part of the presentation examined the environmental impact of the combined cycle power plant. In comparison to a coal burning power plant, a combined cycle power plant produces lower levels of such air emissions as SOX and NO₂. Also, carbon dioxide levels are lower in comparison. The noise level of a combined cycle power plant is designed to meet the lowest permissible sound at the nearest receptor as set by provincial regulations and local by-law.

Prepared by Allan Giacomelli, P.Eng.

Ministry of Environment Approvals Changes



On June 14, 2011, an information session was held in the Harbour Green Room at the South Common Community Centre on legislative changes to the *Environmental Protection Act* under the province's Open for Business initiative. Tim Krsul, Project Manager, Implementation, Ministry of the Environment, presented an overview of the upcoming changes to the current certificate of approvals process and what to expect in the future. The presentation was organized by the Mississauga Chapter's Environment Committee.

The Modernization of Approvals initiative aims to create faster, smarter government to business services while protecting the public interest. Changes in the legislation may affect you if you are currently involved in any of the following activities:

- release of emissions into the atmosphere;
- discharge of contaminants into groundwater or surface water;
- provision of potable water supplies; and
- storage, transportation or disposal of waste.

Approximately 50 engineers were in attendance. Several questions were posed on the transition to a Registry process and Environmental Compliance Approvals, along with the primary differences from the existing Certificate of Approvals process under the changes to the *Environmental Protection Act*. Brochures outlining the changes were also distributed to the participants.

Further information on the changes can be viewed at the following link: <http://bit.ly/kjlxau> and a copy of the presentation is available on the chapter website at <http://bit.ly/iCtbec>.

By Lisa MacCumber, P.Eng.

Licence Presentation Ceremony



Mississauga Chapter held its semi-annual professional engineer licence presentation ceremony on Tuesday, May 31, 2011.

The certificate presentation went very well overall. Prior to the event, there were 172 guests registered in total, 57 of them certificate recipients. Approximately 160 guests actually attended, 52 of them certificate recipients.

Guests were treated to the finest appetizers offered by the Credit Valley Golf Club, which included an assortment of canapés and sandwiches. Dessert consisted of fine pastries. Complimentary

coffee, tea, soft drinks and juices were also served.

Our keynote speaker was Mark Zimny, P.Eng., M.Sc., President & CEO of Promotion Engineering. He spoke about engineers as entrepreneurs. Mr. Zimny's keynote address was very genuine and he provided insight into the history of how he started his business. He also discussed how engineers have a unique perspective on entrepreneurship.

The following engineers attended the ceremony and were presented with their professional engineer licence certificates.

Adriana Gallardo, P.Eng.
Ali Hesson, P.Eng.
Andres Mauricio Alvarez, P.Eng.
Ashraf Abdelrazk El Sayed, P.Eng.
Aziz Akhtar Chouhdery, P.Eng.
Bashkaran Ramanathan, P.Eng.
Beatrice Wen Ying Sze, P.Eng.
Beebee Naseem Begum
Mohamadhossen, P.Eng.
Boris Lekakh, P.Eng.
De Jin Kong, P.Eng.
Dimitar Stoianov Dimitrov, P.Eng.
Emil Karam Ibrahim Ibrahim, P.Eng.
Emma Halilovic, P.Eng.
Feroze Irani, P.Eng.
Gabriel Idowu Ogundele, P.Eng.
Gautam Mahindru, P.Eng.
German Alberto Aragon, P.Eng.
Giovany Barco, P.Eng.
Gurpreet Singh Thind, P.Eng.
Hua Zi Cong, P.Eng.
Hilda Ifeyinwa Esedebé, P.Eng.
Imtiyaz Usmangani Kazi, P.Eng.

Ioan Sorin Bosca, P.Eng.
J. Brian Gihm, P.Eng.
Jennifer Pil Soon Verellen, P.Eng.
Jessie Liu, P.Eng.
Joshua Michael Allen Guin, P.Eng.
Jun Zhao, P.Eng.
Kanchan Bala, P.Eng.
Kevin W Bharrien, P.Eng.
Leona Lai On Au, P.Eng.
Lin Kang Yu, P.Eng.
Lokesh Sharma, P.Eng.
Maher Nazem Traboulsi, P.Eng.
Marwa Soliman ElDebeiky, P.Eng.
Ming Li, P.Eng.
Mohammad El Naji, P.Eng.
Muhammad Waqas Uddin Siddiqui, P.Eng.
Nabil Boshra Wisa Abd El-Said, P.Eng.
Nisha Patel, P.Eng.
Paul Brian Radcliffe, P.Eng.
Philip Yaropolk Mikitchook, P.Eng.
Qingrong George Zeng, P.Eng.
Qiu Xiang Ding, P.Eng.

Reza Mowlae, P.Eng.
Robin Scott Klem, P.Eng.
Slobodan Basic, P.Eng.
Srinivasan Duraisamy Nathamuni, P.Eng.
Sriram Narasimhan, P.Eng.
Sumei Luo, P.Eng.
Tariq Mehmood, P.Eng.
Tiohakwente Peter Horn, P.Eng.
Vladimir Mitchkov, P.Eng.
Xiang Lin, P.Eng.
Xiang Wu, P.Eng.
Yi Hua Lin, P.Eng.
Yuan Yong Xu, P.Eng.

By Brett Chmiel, P.Eng.





Bridge building challenge 2011

Left to right: Wafik Sunbaty,
Amr Kaoud, George Nimer
and Ron Starr



In the Bridge Building Challenge, Mississauga Chapter provided the registered students with a Bridge Building Kit comprising 110 Popsicle sticks, white school glue, construction paper and Bridge Building specifications and procedures. Each team of two or three students was expected to work together and build the bridge according to the given specifications. The teams were to come to the challenge day with their bridges fully constructed and ready for the judging process and load test.

On March 5, 2011, the Education Committee conducted the annual Bridge Building Challenge at Tomken School and over 150 students from schools in the Peel Public and Catholic school boards participated in the challenge. The students presented the bridges to the judges and the bridges were then tested on the bridge crushing machine. The top three teams were awarded by the Mississauga Chapter Board and all students received a certificate of appreciation.

Mississauga Ward 6 Councillor Ron Starr, P.Eng., was the distinguished guest during Bridge Building Challenge 2011. Mr. Starr addressed the students, parents and all attendees, explaining the importance of these types of events in developing the skills of the students and having an impact on their future and career.

*Prepared By Amr Kaoud, EIT,
Education Committee Chair*

Georgian Bay Chapter Bridge Building Competition



On April 8, 2011, the Mississauga Chapter took part in the first annual Bridge Building Competition organized by the Georgian Bay Chapter. The event brought together students, parents and teachers from three different schools in the Bluewater District School Board, as well as Georgian Bay Chapter Executive Committee members. Due to the rural location of this chapter, this event was significantly smaller than the event held by the Mississauga Chapter on March 5, 2011. Due to this much smaller size, judges were able to spend more time with the students, and the students were able to see every bridge break without distraction. At the end of the day, trophies were handed out to the first-, second- and third-place teams. The event was a great success and everyone had a great time. The Georgian Bay Chapter was very grateful for the participation of the Mississauga Chapter. This is hopefully the first of many events to come in partnership with the Georgian Bay Chapter.

Prepared by George Nimer, EIT

Science Fair 2011



Left to right : Brett Chmiel, Amr Kaoud, Eric Ma and George Nimer

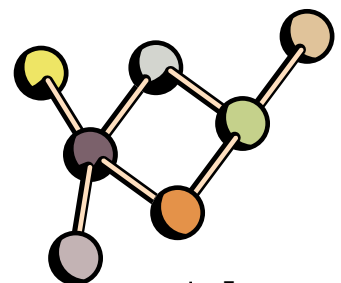


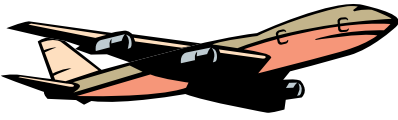
The Education Committee participated in the Canada Wide Science Fair (CWSF) during May 16 and 19, 2011. The CWSF was conducted in the Newnham Campus of Seneca College. The event brought together over 500 grades 6 to 12 students from every province and territory in Canada—the winners of their regional science fairs—to compete at the week-long national event.

During CWSF, the Education Committee presented the Bridge Testing Machine and gave students the opportunity to build bridges during the science fair at our booth. In addition, the students were able to build a structure such as a tower using various items and to understand more about potato battery cells.

The event was an excellent opportunity to promote the engineering profession and provide more information to students who are interested in studying engineering at university.

*Prepared By Amr Kaoud, EIT,
Education Committee Chair*





The Tour of Bombardier



On May 27, 2011 thirty six members of the Mississauga Chapter of PEO participated in the Tour of Bombardier's Toronto manufacturing and assembly facility. At this facility Bombardier manufactures the Q400 turboprop commercial aircraft, the Global Express business jet and the wings for the Lear business jets. Bombardier's Toronto plant in the past was de Havilland Canada. When the tour entered the Plant there were pictures posted of various aircraft manufactured by de Havilland such as the Beaver. The group of participants were divided into tour groups of 10 people each. The guides were Bombardier engineers who were involved in the design and production of the aircraft.

The tour took the participants through a number of different bays in which Bombardier assembles its aircraft and manufactures the wings for the Lear business jets. There was so much to see that a good tour of this plant would take three hours but this tour lasted one and a half hours.

The tour began in the bay where the assembly of the fuse or the body of the Q400 turboprop and Global Express takes place. Each bay is sub-divided into sections that assemble a component of the fuse. For each section there is a manager who oversees the operation of that section. Records are kept of production progress and quality inspections. These records are constantly reviewed to ensure that a quality product is manufactured on time to meet customer requirements. The group moved to another bay that involved the mating of the wing and fuse to make the complete aircraft. Then there was a bay where the finishing work on the aircraft took place. Also the group got a chance to see the manufacturing of the wings for the Lear business jets. At the end of the tour the group got a chance to tour a Q400 turboprop and try out the seats.

At the end of the tour everybody commented that this was an enjoyable tour.

*Prepared by Allan Giacomelli, P.Eng.,
Newsletter Editor*

Award and Nomination Committee

The Award Committee of Mississauga Chapter is seeking individuals who might meet the requirements of the following awards:

- PEO Order of Honour
- Ontario Professional Engineers Awards
- Ontario Volunteer Service

If you know of someone who might be eligible for any of the above awards, or all of them, you may submit a nomination on your own, or through us, and we will pass the information on to PEO on your behalf. Just come forward and

introduce yourself, along with supporting documents that detail your nominee's credentials.

You may also submit an application for the:

- G. Gordon M. Sterling Engineering Intern Award

More information on nomination guidelines and forms can be found at www.peo-mc.ca under Office/ Committees / Award and Nomination.

Please send your comments or questions to the Award Committee at katherine.diep@peo-mc.ca



Mississauga Chapter Executive Board

Khaled El-Rahi, P.Eng.	Chair	khaled.el-rahi@peo-mc.ca
Pappur Shankar, P.Eng.	Past-Chair, Environmental Committee Chair	pappur.shankar@peo-mc.ca
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Brett Chmiel, EIT	Certificate Presentation Committee Chair	brett.chmiel@peo-mc.ca
Katherine Diep, EIT	Award & Nomination Committee Chair	katherine.diep@peo-mc.ca
Rishi Kumar, P.Eng.	Mentoring Committee Chair	rishi.kumar@peo-mc.ca
Omar Al-Shareeda, EIT	Environmental Committee Vice-Chair	omar.al-shareeda@peo-mc.ca
Mirko Manojlovic, P. Eng.	Privacy Officer	mirko.manojlovic@peo-mc.ca



**Professional Engineers
Ontario**

Mississauga Chapter of Professional Engineers Ontario presents

Town Hall



Meet Your Provincial Candidates

Thursday, September 8, 2011

7 p.m. - 9 p.m.

(registration starts at 6:30 p.m.)

**LOCATION: NOEL RYAN AUDITORIUM, MISSISSAUGA LIBRARY
301 BURNHAMTHORPE RD. W. MISSISSAUGA, ON L5B 3Y3**

- Meet candidates from five ridings and all political parties in Mississauga, representing Conservative, Liberal, NDP and Green parties
- Listen to what candidates have to say
- Use this unique opportunity to ask questions of the most importance
- Generate your own opinion about candidates

Please be advised that seating is limited to a maximum of 300 people. Light refreshments will be served.

Registration on <http://peo-mc.ca>



Professional Engineers
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This chapter event is being hosted by the Mississauga Chapter, PEO, Women in Engineering Committee

Managing Change

by Allison Corabatir, P. Eng.



Tuesday, September 13th, 2011, 7:00pm - 9:00pm

Speaker:

The Mississauga Chapter Women in Engineering Committee is pleased to present Allison Corabatir, Director, Lean Manufacturing and Six Sigma, Magna Exteriors and Interiors. Allison will speak on Managing Change.

Location:

Mississauga Central Library,
Classroom 3
301 Burnhamthorpe Road West, Mississauga, ON, L5B 3Y3

For additional information please visit our website at
<http://www.peo-mc.ca/1/pub/events>

Contact: Lisa Macumber, P.Eng.
Email: Lisa.maccumber@peo-mc.ca

Networking Event



24th September 2011, 6:00 – 9:00PM

*"It's not only what you know but who you know, too,
that makes the difference."*

PEO Mississauga Chapter invites you for a chance to meet up with professionals in leading engineering organizations and build your career connections. You will also enjoy lucky draw, door gifts and light dinner.

Location: Canadian Coptic Centre, The Trinity Hall
1245 Eglinton Ave. West, Mississauga, ON L5V 2M4

Cost: \$10.00/person if paid over PayPal (see instructions on peo-mc.ca)
\$15.00/person at the door, 200 seats available

For additional information please visit our website at
www.peo-mc.ca



Professional Engineers
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This chapter event is being hosted by the Mississauga Chapter, PEO, Environment Committee

Environmental Assessments in Major Resource Projects



Monday, September 26th, 2011, 7:00pm - 9:00pm

Speaker: Stephen Lindley, Corporate Vice President of Aboriginal and Northern Affairs, and Director of Environmental Assessment and Planning for the SNC-Lavalin Inc.

Location: Mississauga Central Library,
Classroom 3,
301 Burnhamthorpe Road West,
Mississauga, ON, L5B 3Y3

For additional information please visit our website at
<http://www.peo-mc.ca/1/pub/events>



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Environmental Effects on Capital Projects



The Mississauga Chapter Environmental Committee is looking to hold a half-day seminar in the first quarter of 2012, titled "Environmental Effects on Capital Projects". We are looking for speakers, workshop topics, and sponsorship. If you can help with any of these, please contact us. A town hall meeting will start the seminar, followed by workshops and panel discussions.

Watch your email for further information and to register.

Contact: Lisa MacCumber, P.Eng., Pappur Shankar, P.Eng.

Lisa.maccumber@peo-mc.ca

Pappur.shankar@peo-mc.ca