

[NATIONAL ENGINEERING MONTH]



2015 ONTARIO EVENT HIGHLIGHTS

National Engineering Month (NEM) is a Canada-wide, month-long celebration designed to raise awareness of engineering and engineering technology and its contributions to our everyday lives. This March, Ontario will celebrate by hosting nearly 200 events staged by volunteers from our engineering student and professional communities. Members of Professional Engineers Ontario (PEO), the Ontario Association of Certified Engineering Technicians and Technologists (OACETT), Engineers Without Borders Canada (EWB) and the Ontario Society of Professional Engineers (OSPE) will team up to offer great opportunities to have fun, learn and give something back to the community. Come join in! You can sign up to volunteer, take your family to an event, log onto nemontario.ca to follow the action throughout March, or follow us on social media at [facebook.com/nemontario](https://www.facebook.com/nemontario), and Twitter and Instagram @nemontario.

Here is a partial list of the events planned and hosted by PEO chapters for National Engineering Month 2015. All information is complete as of the day of publication. Please refer to nemontario.ca/events for a comprehensive list of events.

BARRIE

ENGINEERING & TECHNOLOGY PROJECTS DAY

March 7, Innisdale Secondary School

This event will focus on such STEM-oriented projects and activities as bridge building and strength testing, catapult, robotic arm (new), walking robot competitions (new), engineering quiz, RaspberryPi demonstration and AM radio construction. Contact Michael Simpson, P.Eng., at michael.simpson@ieee.org or 705-735-0143.

CHATHAM

LOCAL STUDENT ENGINEERING CHALLENGE

March 7, John McGregor Secondary

Two concurrent impromptu design competitions are planned for the Lambton-Kent area schools: Junior Division (grades 7 and 8) and Senior Division (high school). Both events will have teams build an apparatus to complete a specific task using provided materials. Contact Ellen Sinclair, EIT, at ersinclair@uniongas.com or 519-352-3100, ext. 5002064.

ETOBICOKE

ENGINEERING IDOL March 7, Ryerson

University Our eighth annual "Engineering idol" competition will see teams from 10 high schools participate in the challenging engineering task of designing a Mars Lander for human transport. Each team of four to six students will have a teacher or supervisor for moral support. This will be a design and build competition giving students the opportunity to create a landing device that will cradle passengers safely to the surface, keeping in mind Mars' thin atmosphere. Students will brainstorm creative ways of slowing and guiding

the lander with minimal deceleration upon touchdown in a low-friction environment. Contact Andrew Demeter, P.Eng., at ar.demeter@gmail.com or 416-505-8433.

MISSISSAUGA

BRIDGE-BUILDING CHALLENGE

February 28, Tomken Road Middle

School The annual Bridge-Building Challenge for grades 6, 7 and 8 students is back! See www.peo-mc.ca for more details. Contact Brett Chmiel, P.Eng., at brett.chmiel@peo-mc.ca or 647-648-1461.

PETERBOROUGH

2015 NATIONAL ENGINEERING MONTH DESIGN CHALLENGE March 4,

Evinrude Centre This year's event will be a "Mars lander" competition in the form of a classic egg drop. The students will be provided a variety of materials to construct a device to safely land an egg (the payload) dropped from various heights. We'll discuss the challenges of landing a craft on Mars due to its unique combination of gravity and atmosphere, how the challenge has been met in the real world in the past, and how that relates to the devices they will be building. Contact Daniel Manns, P.Eng., at daniel.manns@ge.com or 705-939-6278.

SAULT STE. MARIE

SAULT STE. MARIE ENGINEERING MONTH EVENT March 1 to 8, Sault

Ste. Marie Station Mall We are running a series of engineering outreach activities in various local schools throughout the week leading up to the March 7 mall event. On Saturday (March 7), we will be hosting our annual engineering day at the mall. This includes engineering displays from local businesses, a team math

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challenge, colouring contests, robotics displays and other exciting interactive displays. Contact Michael Paciocco, EIT, at 705-949-1033, ext. 205.

SUDBURY

NATIONAL ENGINEERING MONTH 2015 March 14, New Sudbury Centre

An engineering showcase featuring information for students, engineering professionals and the general public. There will be displays of engineering products and work, prizes and 3D models. Contact John Le, at jle@tracksandwheels.com or 705-690-1942.

PEO SUDBURY'S BRIDGE BUILDING 2015 March 12, Dynamic Earth

This competition for students in grades 1 to 12 introduces practical skills, critical thinking and passion for engineering in a fun and friendly way. It will introduce different facets of physics, carpentry and construction while providing hands-on experience in engineering problem solving. Contact Jeff Shaw, EIT, at jeffkshaw@gmail.com or 705-885-8419.

THOUSAND ISLANDS

BRIDGE-BUILDING COMPETITION Various weekdays in March, schools within the Upper Canada District School Board

Annual in-school bridge-building competitions featuring our bridge buster. Contact John Ireland, P.Eng., at john@ireland.ca or 613-283-1788.

TORONTO

2014 RED PLANET GAMES—THE "WINDRACER" CHALLENGE March 7,

Thistletown Collegiate Institute, 20 Fordwich Crescent Grades 11 and 12 "WindRacer" Challenge: design and build a scale model and compete to

win prizes. Judging will address creativity, imagination, presentation and simulation testing of the scale models. Contact Shiva Bissoon, P.Eng., at sbissoo2@hotmail.com or 416-704-9214.

DON'T WAKE MOM! AND MISSION TO MARS INTERACTIVE YOUTH WORKSHOPS FOR GIRL GUIDES

Various dates throughout March, Girl Guide units (Sparks, Brownies, Guides, Pathfinders and Rangers) across Ontario Are you an engineer looking for a great way to engage with your community? Could you help spark a life-long interest in engineering by facilitating a workshop for youth aged 5 to 18 in Ontario? Sign up to visit a local Girl Guide unit in your community. The two themes "Mission to Mars" and "Don't Wake Mom!" are fantastic programs that look at real engineering challenges affecting the world around us. We provide all the training and supplies you will need. Sign up to volunteer at www.eventbrite.ca/e/nem-2015-volunteer-sign-up-tickets-13659751685. Contact Rose-Marie Almond, EIT, at rosealmond@ewb.ca.

NOTHING BUT NEM: KICKOFF

February 27 The Toronto Raptors and Golden State Warriors will face off on February 27 at the Air Canada Centre for Engineering Night! OSPE and National Engineering Month Ontario are thrilled to present this incredible evening for engineers to celebrate the engineering profession and National Engineering Month. Enjoy dinner and engineering camaraderie at the pre-game tip-off party at Real Sports Bar and Grill, followed by an evening with the Toronto Raptors and exciting engineering-themed surprises on the court! Contact Ruth Gorriz at rgorriz@ospe.on.ca for tickets and more information.

PURPLE POWER: WRAP-UP AND SPONSOR APPRECIATION EVENT

March 26 Often cobbled together from found objects, a Rube Goldberg

Machine utilizes a deliberately complicated sequence of actions to perform a simple task. Each year during National Engineering Month, Ontario engineering students take the Rube Goldberg concept to a whole new level by connecting, via the Internet, machine components located at campuses across the province. The ultimate action? Lighting a high-profile provincial landmark purple—the colour traditionally associated with engineering. This NEM Ontario wrap-up event welcomes local professionals, students and members of the public to gather at one of Canada's most iconic locations. NEM Ontario sponsors are also invited to an exclusive networking reception following the public event. Contact Ruth Gorriz at rgorriz@ospe.on.ca.

SPRING FORWARD TO ENGINEERING March 26, Palmerston Junior Public School Gymnasium, 734 Palmerston Avenue

We're raising the awareness of engineering as a profession with youth through hands-on demonstrations of engineering concepts. We link them to real-world applications and thereby pass on the message that engineering shapes the world around us and engineers make a difference. Contact Meggen Janes, P.Eng., at Meggen.Janes@ch2m.com.

WATER FOR THE WORLD March 2 to 6, libraries throughout the greater Toronto area

Enjoy engaging with the movers and shakers of the future? Put your passion to work by taking part in Water for the World workshops held at public libraries across the greater Toronto area. Join Engineers Without Borders during National Engineering Month to deliver Water for the World Workshops (W4TW) to students in grades 5 to 9. By sharing your time, you can introduce students to the issues surrounding global access to clean water. Take a day off from the regular grind and help inspire young minds! Training is provided in February. For more information, or to sign up, contact waterfortheworldworkshops@toronto.ewb.ca.