



2014

ONTARIO NETWORK OF WOMEN IN ENGINEERING



Among youth who perceived their mathematics skills to be good, 36% of males opted for a STEM program, compared with 15% of females. Furthermore, 66% of males who perceived their skills to be excellent chose a STEM program, compared with 47% of females. Therefore, there is still a gender difference, even among those who had a better perception of their mathematical ability.

- STATISTICS CANADA DECEMBER 2013 — Gender differences in science, technology, engineering, mathematics and computer science (STEM) programs at University.

# ONWiE

For almost ten years, the Ontario Network of Women in Engineering (ONWiE) has operated to promote the engineering profession to girls and young women across Ontario. ONWiE is a unique partnership between all the accredited schools and faculties of engineering across Ontario, to collaborate and provide opportunities for women and girls to explore and excel in engineering professions. ONWiE continues to be a platform to allow collaboration between member institutions in developing joint activities and initiatives.



Mary A. Wells Ph.D. P.Eng.  
ONWiE Chair



Ms. Rohini Wittke  
ONWiE Coordinator

**ONWiE is committed to:**

## **COLLABORATING**

ONWiE members and supporters work together to improve the participation rate of females as students and professionals in engineering in Ontario.

## **ENGAGING**

Through programs such as Go ENG Girl, Badge Day and AWESome lectures, ONWiE members engage girls and young women in hands-on activities and introduce them to engineering profession.

## **SHARING BEST PRACTICES**

Through communication of best practices and opportunities around mentorship, communication materials and assessment strategies.

## **PROVIDING OPPORTUNITIES**

By offering opportunities for participants to network and to share information and available resources related to women in engineering across Ontario.

For more information please contact us at [onwie.ca](http://onwie.ca).



... I really appreciate your organization which encourages girls to pursue engineer study and career. My daughter Sophie went to one of the Go ENG Girl event six years ago; and she was very much encouraged and applied civil engineering. Now she has graduated from civil engineering and working in the field which she studied. Just want to let you know your work has done a good job and want to thank you for your hard work for encouraging girls to face the challenge and not shy away from being an engineer.

**- THANK-YOU NOTE RECEIVED FROM A GO ENG GIRL/GENIALES, LES FILLES PARENT**

# INSPIRING TOMORROW'S ENGINEERS

Go **ENG Girl/GÉNIales, les filles** is an exciting opportunity for girls in grades 7-10 to visit one of sixteen university or college campuses across Ontario that offer accredited engineering programs, meet with engineering students and professionals and engage in fun hands-on engineering activities. This province-wide program is coordinated through the Ontario Network of Women in Engineering (ONWiE) and has been an annual event since 2004.

During this event, the girls work with engineering students and peers through hands-on activities that encourage them to think like engineers and design creative solutions to challenging problems. Girls leave Go ENG Girl/GÉNIales, les filles with a new understanding about the diversity of careers possible as an engineer, the importance of continuing to pursue math and science courses in high school and what engineers do. In 2014, each participant took home a Rubik Cube shaped USB, full of information about the engineering University programs available in Ontario and helpful links that contain more information about the profession.

At this years Go ENG Girl event we decided to do a twitter campaigns to highlight the fact that Go ENG Girl was celebrating its 10th anniversary. Using **#GEGturns10** we asked girls and their parents to record the day and tweet about it. Check out all the tweets from around the province about the 10th annual Go ENG Girl event <http://bit.ly/ONWiEtweets>.

Thanks to the help of our sponsors, Go ENG Girl/GÉNIales, les filles is offered free of charge to girls and their parents each year. To date, over 12,000 girls and their parents have participated in this program.

## 2014 BY THE NUMBERS

**904 GIRLS**

**646 PARENTS  
AND GUARDIANS**

**312 VOLUNTEERS  
AND ORGANIZERS**

## DESIGNING, CREATING AND SOLVING TOGETHER

- Hydraulic draw bridges
- Engineering towers
- Water for the world challenge
- Programming with scratch
- Build a heart valve
- Build a prosthetic arm
- Extreme roller coasters
- Design an App
- Toothpaste chemistry



“

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Girls are almost three times more likely to consider careers in science, math and engineering if they participate in science fairs and summer camps – particularly in the early grades.

- GLOBE AND MAIL JANUARY 22, 2014

I thought this would be boring, but it's the best thing I've done at girl guides!

- BADGE DAY participant

# ENGAGING THE NEXT GENERATION

**Badge Day** is an opportunity for Girl Guides to visit an accredited engineering university or college campus, and complete the required activities to earn their engineering badges. This program is modeled off the success of **Go ENG Girl/GENiales, les filles** and has been coordinated by ONWiE since 2010.

During **Badge Day**, the Girl Guides complete the following activities to meet the requirements for their badges:

- hear from a current engineering student to find out what an engineer does and the things they make;
- categorize simple machines;
- learn about the tools that engineers use;
- engage in hands-on activities on magnetism, chemical reactions, or electricity;
- building a simple device using engineering principles;
- and perform a circle check on a car.

**Badge Day** precedes **Go ENG Girl/GENiales, les files** by reaching girls ages 9-11 (grades 4 - 6). The participants leave with a confidence in the sciences that will inspire them to keep their options open in high school and beyond.

## 2014 BY THE NUMBERS

**750** girls guides and

**25** path finders

**7** ONWiE members offered a **Badge Day** program



In Fall 2014, almost all the schools and faculties of engineering across Ontario saw increases in the enrollment of women in their 1st year. In fact, some Universities experienced record high numbers of women entering their engineering programs.

- MARY. A. WELLS Chair of ONWIE



# LOOKING FORWARD

2015 will be ONWiE's 10th anniversary. 10 years of collaborating across Ontario to help solve a chronic issue around low enrollments of women in engineering. ONWiE will build on the successes of 2014 and offer a new outreach program entitled: **GO CODE GIRL**. This program will this year to reach out to more girls with the message that engineering is an exciting, hands-on, and people-oriented field and that science and math have real-world applications.

This year ONWiE celebrated the 10th anniversary of Go ENG Girl/GENiales, les filles. In recognition of this milestone a video capturing the spirit, impact and reach of the event was developed <http://bit.ly/10yrsGEG>.

ONWiE launched a new program entitled: **AWESOME lectures**. These lecture feature Awesome Women Engineering (AWE) who are making an impact in our community and taking on leadership roles. This program is being done in partnership with the Ontario Society of Professional Engineering (OSPE) and local PEO chapters.

ONWiE launched its new website in June 2014. The new website contains valuable information about the engineering profession and engineering programs across Ontario, the outreach programs ONWiE runs as well as an opportunity to meet both engineering students and professionals across Ontario. The website also serves as a resource for statistics about engineering programs across Canada and the enrolment of women in these programs.

Check it out! [onwie.ca](http://onwie.ca)

## MARK YOUR CALENDARS

**GO ENG GIRL/  
GENIALES, LES FILLES**  
October 18th, 2015

**GO CODE GIRL NEW**  
February/March 2015

**BADGE DAY**  
Varies – Typically in  
March-June 2015

# BEHIND THE SCENES

ONWiE events are supported by a dedicated team of leaders at each campus locations. Teams are comprised of engineering students, faculty, staff, and alumni who manage all aspects of the program. This year, these dedicated individuals were joined by over 400 volunteers who helped make the events as exciting and insightful as possible.

## THANK YOU!



### CARLETON UNIVERSITY

Dayna Peloquin, Mawuena Torkornoo, Natalie Linklater



### CONESTOGA COLLEGE

Karen Cain and Nancy Nelson



### LAKEHEAD UNIVERSITY

Heather Moynihan and Meilan Liu



### LAURENTIAN UNIVERSITY

Donna Cortolezzis, Marty Hudyma, Ramesh Subramanian and Claudine Beausoleil



### McMASTER UNIVERSITY

Carm Vespi and Linda Coughlin

**QUEEN'S UNIVERSITY**

Maria Lahiffe

**ROYAL MILITARY COLLEGE OF CANADA**

Sara Creber

**RYERSON UNIVERSITY**

Nika Zolfaghari, Subagaari Seevaratnam and Shari Hodges

**UNIVERSITY OF GUELPH**

Andrea Bradford and Caroline Charbonneau

**UNIVERSITY OF ONTARIO INSTITUTE OF TECHNOLOGY**

Michelle Tsui-Woods, Adam Wu, Min Dong and Theeben Jegatheesen



uOttawa

**UNIVERSITY OF OTTAWA**

Nathalie Vallieres and Pamela Lee-Shanok

**UNIVERSITY OF TORONTO**

Dawn Britton, Darlee Gerrard and Elizabeth Christy

**UNIVERSITY OF WATERLOO**

Claire Heymans, Dana Kulic, Andrea Scott, Rohini Wittke, Mary Wells and Martin Scherer

**UNIVERSITY OF WINDSOR**

Edwin Tam, Mike Konstantino, Shelly Scurr and Jacqueline Stagner

**WESTERN UNIVERSITY**

Lesley Munteer and Joanne Colling

**YORK UNIVERSITY**

Gayathry Wright, Magdalena Krol and Harshil Patel

# THANK YOU TO OUR SUPPORTERS

ONWiE gratefully acknowledges the support of our provincial and local supporters

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