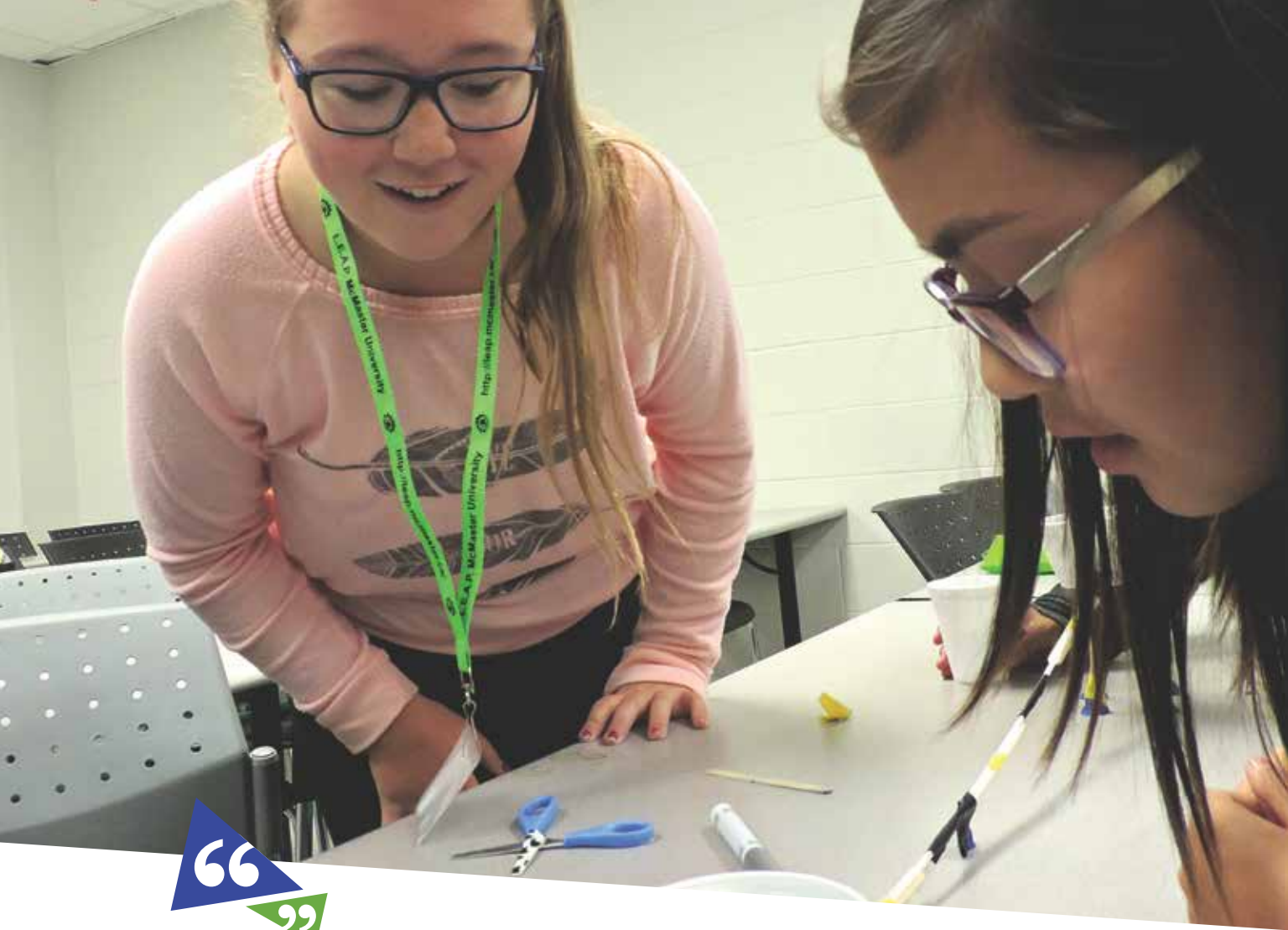




2015

ONTARIO NETWORK OF WOMEN IN ENGINEERING



“ Young men with lower marks in high school were more likely to choose a STEM program than young women with higher marks... Young women with higher mathematics marks in high school (at least 90% in grade 9 or 10) were less likely to opt for a STEM university program than men with marks in the 80% to 89% range.

- STATISTICS CANADA DECEMBER 2013: GENDER DIFFERENCES IN SCIENCE, TECHNOLOGY, ENGINEERING, MATHEMATICS AND COMPUTER SCIENCE (STEM) PROGRAMS AT UNIVERSITY.

10 Years of ONWiE

Celebrating 10 years of excellence, the Ontario Network of Women in Engineering (ONWiE) promotes 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, collaborating to provide opportunities for women and girls to explore and excel in engineering professions. ONWiE continues to develop joint activities and initiatives in collaboration with member institutions across the province of Ontario. With the support of our sponsors and partners, we're proud to continue delivering high-quality programming that encourages new voices in engineering. A video of the flagship ONWiE outreach program Go ENG Girl which has been running across Ontario for the past ten years was developed bit.ly/10yrsGEG.



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



Ms. Rohini Wittke
ONWiE Coordinator

ONWiE is committed to Inspiring the next generation of thought-leaders and game-changers through:

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.

Please visit us at www.onwie.ca.



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Engineers are the behind the scenes people who are hardworking and have creativity and intelligence to make the world a better place.

- ONWIE PROGRAMS ATTENDEE



PAINTING A NEW PICTURE

Our three outreach programs, Go ENG Girl, Go CODE Girl, and Badge Day, engage girls and young women in hands-on activities and introduce them to the engineering profession. ONWiE also runs the AWESome Lecture Series, which showcases the work of women engineers who are making a difference.

PROVIDING OPPORTUNITIES FOR WOMEN AND GIRLS

Since 2005, the Ontario Network of Women in Engineering (ONWiE) has been promoting the engineering profession to girls and young women across Ontario. ONWiE is a unique partnership between the accredited schools and faculties of engineering across Ontario, collaborating to provide opportunities for women and girls to explore engineering career options. ONWiE continues to offer a collaborative platform, enabling member institutions to jointly develop activities and initiatives. ONWiE members and supporters work together to improve the participation rate of female students and professionals in engineering across Ontario.



- ONWIE PROGRAMS ATTENDEE

ONWiE SUMMIT

To celebrate ONWiE's 10th anniversary, we held a summit at the University of Waterloo on Friday November 20th with close to 40 people in attendance. The purpose of the summit was to bring the ONWiE members together to reflect on the past ten years of collaboration as well as consider our future together and priorities we should focus on.

There was widespread agreement that the collaborative model of ONWiE to approach outreach activities across Ontario was working well and provided leverage as a provincial voice for issues related to diversify in engineering. The ONWiE model of collaboration amongst the schools and faculties of engineering has led to benefits that extend beyond running outreach programs together and over the past ten years Ontario has seen a dramatic increase in the number of women who apply to engineering programs.

The appeal of engineering increases dramatically when branded as a 'caring' profession. Ideally, outreach activities and courses that include social impacts reinforce this message and strengthen the narrative of engineers as caring societal problem-solvers serving the public good.

WE NEED MORE WOMEN IN ENGINEERING

In a rapidly changing world, we are facing new and unique 21st century engineering challenges. Women and girls bring a new perspective, providing new approaches to problem-solving and leadership.





I am writing this email to let you know I really appreciate your organization which encourages girls to pursue engineering. My daughter Sophie went to one of the Go ENG Girl events six years ago; and she was very much encouraged and applied to 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

Go ENG Girl GÉNIales, les filles

Go ENG Girl/GÉNIales, les filles engaged over 1200 girls in grades 7-10 in 2015. Throughout the month of October, these girls visited one of sixteen accredited university or college campuses across Ontario, meeting with engineering students and professionals and engaging in hands-on engineering activities. Go ENG Girl also expanded outside Ontario and is offered at three Universities in British Columbia and one University in Alberta.

This program encourages girls to think like engineers, designing creative solutions to challenging problems, developing a new understanding about the diversity of careers possible as an engineer, and the importance of pursuing math and science prerequisites in high school. Thanks to the help of our sponsors, Go ENG Girl/GÉNIales, les filles is offered free of charge to girls and their parents. To date, over 12,000 girls and their parents have participated in this program.



2015 BY THE NUMBERS

**1205 GIRLS
ACROSS CANADA**

**850 PARENTS
AND GUARDIANS**

**350 VOLUNTEERS
AND ORGANIZERS**

These outreach events
help empower young women
to make decisions.



- ONWIE PARENT



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Before today I thought
engineering was just for boys.

- BADGE DAY PARTICIPANT

BADGE DAY

Badge Day gives Girl Guides the opportunity to visit an accredited engineering university or college campus, and participate in hands-on activities to earn their engineering badges. Having engaged close to 1200 girls grades 4-6 in 2015, this program is modeled after the success of Go ENG Girl and has been coordinated by ONWiE since 2010. During Badge Day, the Girl Guides completed activities to meet the requirements for their badges in physics, engineering and aerospace. **Activities are facilitated to leave participants with a confidence in the sciences and inspiration to keep their options open in high school and beyond.**



I think engineers are modern day heroes – they create most of the things we use today which is truly amazing.

- BADGE DAY PARTICIPANT



2015 BY THE NUMBERS

1247 girls (1197 girls guides and 50 path finders)

6 ONWiE members offered a Badge Day program



I didn't realize engineering was
such a creative profession.

- GO CODE GIRL PARTICIPANT

Go CODE Girl Allez coder les filles

Go CODE Girl/Allez coder les filles is a new and successful pilot program launched in 2015, offering over 250 girls grades 9-11 the opportunity to learn about coding and software development, and to discover opportunities in computing and engineering.

NURTURING INNOVATION

Our programs reach out to young women between the ages of 9 and 17 years, fostering and nurturing their interest in engineering and technology at several crucial stages of development. With your support, we will continue to encourage young women to lead in engineering and technology fields.



2015 BY THE NUMBERS

252 girls

6 ONWiE members
offered a Go CODE
Girl program



What a fabulous experience
with great role models.

- ONWiE PARENT



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In Fall 2015, almost all the schools and faculties of engineering across Ontario saw increases in the enrolment of women in 1st year. In fact some Universities experienced record high numbers of women entering their engineering programs.

- MARY. A. WELLS, CHAIR OF ONWIE



AWEsome Lecture Series

This lecture series showcases Awesome Women Engineers who do work that makes a difference in our lives. The AWEsome lectures were started in 2014 as a joint initiative between the Ontario Society of Professional Engineers (OSPE) and the Ontario Network for Women in Engineering (ONWiE).

In March 2015, Dr. Ana Luisa Trejos was a guest speaker for the AWEsome lecture series, sharing her research on smart devices within the healthcare field. Her research is focused towards evaluating how novel mechatronic devices can improve patient care during surgery, therapy and rehabilitation. This includes the design of smart wearable mechatronic braces that can provide improved treatment options for musculoskeletal disorders. Ana Luisa Trejos is an Assistant Professor in the Department of Electrical and Computer Engineering at Western and an Associate Scientist at Canadian Surgical Technologies and Advanced Robotics, Lawson Health Research Institute.

These lectures are meant to be hosted across Ontario at the various schools and faculties of engineering and held in conjunction with local Professional Engineers Ontario (PEO) chapters, and we look forward to many more lectures by Awesome Women Engineers, hosted by ONWiE members in partnership with their local PEO chapters.



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These outreach events provides girls with the confidence that they can succeed in engineering

- ONWIE OUTREACH EVENT PARENT



LOOKING FORWARD

2015 was ONWiE's 10th anniversary. 10 years of collaborating across Ontario to help solve a chronic issue around low enrollments of women in engineering. ONWiE continues to build on its successes and in the spirit of collaboration Go ENG Girl! is now starting to be offered across Canada. ONWiE continues to reach out to girls and their families with the message that engineering is an exciting, hands-on, and people-oriented field and that science and math have real-world applications.

MARK YOUR CALENDARS

**GO ENG GIRL/
GENIALES, LES FILLES**
October 15, 2016
October 22, 2016

GO CODE GIRL
February 2016

BADGE DAY
Varies – Typically
January-June, 2016

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

Mawuena Torkornoo, Dayna Peloquin, Melanie Blainey and Robyn Chadwin-Davies



CONESTOGA COLLEGE

Karen Cain and Nancy Nelson



LAKEHEAD UNIVERSITY

Heather Moynihan and Meilan Liu



LAURENTIAN UNIVERSITY

Ramesh Subramanian



McMASTER UNIVERSITY

Carm Vespi and Linda Coughlin



QUEEN'S UNIVERSITY

Scott Compeau



ROYAL MILITARY COLLEGE OF CANADA

Sara Creber



RYERSON UNIVERSITY

Nika Zolfaghari and Shari Hodges



UNIVERSITY OF GUELPH

Lynn Dony and the WISE group at Guelph



UNIVERSITY OF ONTARIO INSTITUTE OF TECHNOLOGY

Jing Ren and Michelle Tsui-Woods



uOttawa

UNIVERSITY OF OTTAWA

Julie Olivier, Julie Cormier, Pamela Lee-Shanok and Frank Bouchard



UNIVERSITY OF TORONTO

Dawn Britton, Shreyas Upahdyay, Dominic Abogado, Justin Carter, Darlee Gerrard, Kelli Seepaul, and Brittany Lauton



UNIVERSITY OF WATERLOO

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



UNIVERSITY OF WINDSOR

Shelly Scurr, Dr. Edwin Tam, Mike Konstantino, Dr. Jacqueline Stagner, Dr. Jennifer Johrendt, Kora Farokahzedeah, Katie Doe Larysa Hyzka, Verana Kunberger, Ryler Urban, Ellie Paguaga



WESTERN UNIVERSITY

Lesley Mounteer and Joanne Colling



YORK UNIVERSITY

Marisa Sterling, Amy Gaukel, and Gayathry Wright

THANK YOU TO OUR SUPPORTERS

ONWiE gratefully acknowledges the support of our provincial and local supporters.

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SILVER SPONSORS



IN KIND



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