



2011 Record of Achievement

October 1 • 2011



ONWiE

Presented by

The Ontario Network of
Women in Engineering

Engaging Girls Across Ontario in Engineering

Go ENG Girl/GÉNIales, les filles is an exciting opportunity for girls in grades 7-10 to visit their local University campus, meet with engineering students and professionals and directly engage in engineering projects. The province-wide program is coordinated through the Ontario Network of Women in Engineering (ONWiE) and has been an annual event since 2005. On October 1, 2011, Go ENG Girl/GÉNIales, les filles brought together 840 girls, 635 parents and guardians, and more than 270 volunteers and organizers. There were 2 new event locations in 2011 providing participants with a choice of 13 possible locations across Ontario.

The participants work with role models and peers through hands-on activities that encourage them to design, create, and innovate. Girls leave Go ENG Girl/GÉNIales, les filles with new ideas about the limitless possibilities they may design and create in their futures. In addition, each participant leaves with a USB stick containing useful information about engineering in our everyday lives and programs at Ontario universities.

Next year's Go ENG Girl/GÉNIales, les filles will take place on October 13, 2012. Each year, ONWiE aims to reach out to more girls with the message that engineering is a creative process, and that math and science can help them solve problems worth solving. Watch for more information and registration for Go ENG Girl/GÉNIales, les filles 2012 at www.ospe.on.ca/goenggirl.

**"Our 2011 event set an attendance record!
Many thanks to the local organizers and
volunteers for their sustained commitment
to Go ENG Girl/GÉNIales, les filles."**

Valerie Davidson, Chair of ONWiE and former NSERC/RIM
Chair for Women in Science and Engineering for Ontario.

ONWiE's membership consists of representatives from fifteen Schools and Faculties of Engineering in Ontario. ONWiE works to support and promote the participation of women in engineering. Information about ONWiE is available online: www.onwie.ca



While 47% of the Canadian labour force is female, women make up only 12.2% of the total engineering workforce (Statistics Canada 2006). In education, women comprise 17.4% of the undergraduate enrolment in accredited engineering programs and 21.5% at the post-graduate level (Engineers Canada, 2010).

Designing, Creating & Solving Together

A key component of Go ENG Girl/GÉNiales, les filles is the hands-on activities that help girls experience the creativity, innovation and teamwork involved in engineering. Girls learn engineering concepts, use problem-solving skills and tackle real-world problems in small groups. Here are some of the design challenges they undertook:

- LED circuits for marine navigation
- Toppling Towers
- Bears on ice - rescue engineering
- Elastic cars
- Single & Double Lane Bridges
- Float Your Boat
- Rainwater Catchment System
- Engineering Scavenger Hunt
- Speakers for your music device
- Rescue Rover
- Wonderful Water Filters
- Rockets
- Electric Circuits are a snap
- Balloon Car
- The Mighty Inverted Tower
- Toothpaste Challenge
- Program Light Bot to accomplish her mission
- Hydraulic Arms



"GÉNiales les filles - c'est vraiment génial! Le contact avec des filles super motivées, des leaders étudiant(e)s passionné(e)s et des parents enthousiastes nous renforce dans nos convictions que le génie c'est un domaine passionnant et créatif pour tous et toutes."

"We love having so many enthusiastic girls and their parents come together for a Saturday of fun and challenge. What a great program!"

Catherine Mavriplis, University of Ottawa
NSERC Pratt & Whitney Canada Chair
for Women in Science & Engineering
(Ontario region)



Here's what participants told us on the feedback surveys for the 2011 event:

Their top
3
expectations

Learn more about **engineering**
To **have fun!**
Design and **build** things

3 out of **4** respondents said that the program was effective or very effective in meeting their expectations.

Comments at end of the 2011 event:

"I liked the hands-on activities, because it made me think. I also like the speeches, because the speakers are actual women engineers and they really know what they are talking about."

"I got to meet two new awesome friends who have similar interests to mine."

"I liked the presentation about the water purifier system that could be used in countries where people die from a lack of clean drinking water."

"Engineering is a lot more fun than I thought."

"I liked learning about industrial engineering because I didn't know it existed."

I also liked winning the roller coaster contest :)"

SURVEY OF PAST PARTICIPANTS (2005-2010)

Since 2005 more than 6000 girls have participated in Go ENG Girl/ GÉniales, les filles at campuses across Ontario. This is some of the feedback from our recent survey of past participants:

"I am going into engineering next year. Before Go ENG Girl I had no idea what engineering was about :)"

"I am still unsure about my path but Go ENG Girl gave me some interest in taking Physics next year."

"I was also able to experience the university campus life and I realized what a great place it was."

"I am currently studying Mechanical Engineering - I did not choose to study this subject based solely on my experience at Go ENG Girl but it definitely sparked an interest in this field."



Feedback from Parents

Parents and guardians are consistently the number one choice when participants are asked about whom they would consult for advice and information about post-secondary education.

Parental involvement is a key aspect of Go ENG Girl/GÉniales, les filles. At each event location, parents participated in a panel discussion while their daughters worked on the design challenges. Faculty, alumnae, and current students talked about their personal experiences in classes, co-op positions and engineering careers. Many parents commented on the speakers' enthusiasm and they appreciated the practical advice that was shared.

94% of survey respondents felt that Go ENG Girl/GÉniales, les filles was effective or very effective in meeting their expectations.

Survey respondents who plan to encourage their daughters to pursue engineering

65%

COMMENTS BY PARENTS

Has this day changed your view of engineering?

"Absolutely – I had no idea of the possibilities!"

"In my point of view, engineering is one of the best courses for my child."

"Learned about diversity in careers."

"If Go ENG Girl had existed 20 years ago - I would have taken engineering."

"As a non-engineer, I did not realize the scope of the field and was impressed by the presenters' abilities to convey this information so well."

"There are many more opportunities than there were 26 years ago when I was an engineering student."

"Go ENG Girl – c'est extraordinaire. Vous faites la différence dans la vie de nos filles. Je vous encourage fortement à continuer cette activité."



Exhibits

Participants and their parents were able to discover more about potential education and career paths by visiting interactive exhibits hosted by engineering student groups, organizations, employers, and campus clubs.

PARTICIPATING EXHIBITORS:

Aero Glider Team, University of Windsor
 Alternate Fuels, University of Waterloo
 ASME Team, Ryerson University
 Biomedical Engineering Society
 Canadian Association for Girls in Science (CAGIS)
 Confederation College
 Co-op career services
 Creative Encounters, University of Guelph
 Deep River Science Academy
 Engineering Science Quest (ESQ), University of Waterloo
 Engineering & Management, McMaster University
 Engineering & Society, McMaster University
 Engineers Without Borders
 FIRST Robotics & FIRST Lego League
 Genivar
 Gryphon Race Team
 Institute of Electrical and Electronics Engineers (IEEE)
 IEEE Women in Engineering
 Learning Enrichment Advancement Program (LEAP) Summer Camp, McMaster University
 Let's Talk Science
 Mechanical & Aerospace Eng Student Society (MAE)
 National Society of Black Engineers
 Ontario Power Generation
 Professional Engineers Ontario
 Robotics Association, University of Toronto
 Robot Racer, University of Windsor
 Ryerson Aero Design
 Shad Valley
 University engineering faculties and schools
 Venture Summer Camp & Venture Girls Club, McMaster
 Waterloo Unlimited
 Women in Engineering Women in Science and Engineering (WiSE)
 Waterloo Unlimited

Media Interest

Go ENG Girl/GÉNIales, les filles is advertised at both the provincial and local levels through a variety of media including electronic, print and broadcasting. This year's event was publicized at a province-wide level on the OSPE, ONWiE and CWSE-ON websites, as well as a Girls4Science group on Facebook. The OSPE website was linked to a local website for each location.

Many local and campus papers, alumni newsletters, and radio and television stations promoted the event.





The People Behind Go ENG Girl/GÉniales, les filles

Outstanding efforts and continued contributions from many dedicated volunteers make Go ENG Girl/GÉniales les filles come alive! Engineering students, faculty members, alumnae and staff are involved in all aspects of planning and leading activities, providing mentorship and helping out to ensure an unforgettable day for participants. Thank you!

CARLETON

Safaa Mohamed and Mawuena Torkornoo

GUELPH

Andrea Woon-Fat, Valerie Davidson, Melanie Veltman and Bethany Deyell

KINGSTON

Ana Popovic

LAKEHEAD

Heather Moynihan and Mielan Liu

LAURENTIAN

Janet Wiebe and Brahim Chebbi

MCMASTER

Natalia Nikolova, Carm Vespi, Linda Coughlin and Iwona Centurami

OTTAWA

Isabelle Leduc, Joan Haysom, Franck Bouchard, Dami Adekoya and Catherine Mavriplis

RYERSON

Frankie Stewart, Nika Zolfaghari and Martina Novacic

TORONTO

Tamar Adourian, Dawn Britton, Darlee Gerrard, Janet Hunter, Tara Wu

UOIT

Marnie Ham, Laura Purdy, Joe Stokes, Janelle Macdougall, Joanna Campbell, Adam Wingate

WATERLOO

Mary Wells, Rohini Wittke, Martin Scherer, Jinu Kurian

WESTERN

Lesley Munteer, Jennifer Hinton, Cynthia Dunning

WINDSOR

Edwin Tam, Shelly Scurr, Katia Benoit and Mike Konstantino

Go ENG/Girl/GÉniales, les filles is made possible by the support and participation of the Ontario Deans of Engineering:



Thank you to Our Sponsors

ONWiE gratefully acknowledges the support of our provincial and local sponsors

PROVINCIAL SPONSORS

PATRONS



CWSE-ON

SPONSORS



LOCAL SPONSORS

Accolade Consulting
Christie Digital Systems Canada, Inc.
City of London Engineers Office
Dillon Consulting
Engineers Canada
Execulink
Google
IBI Group
IBM
KRAFT Canada Inc.
Newalta
PEO - Thunder Bay & Oshawa chapters
Raytheon
Research in Motion (RIM)
Sybase
Toyota Motor Manufacturing Canada Inc.
Union Gas

SUPPORTERS



GO ENGGIRL
GÉNIales, les filles

SATURDAY, OCTOBER 13TH • 2012
WWW.OSPE.ON.CA/GOENGGIRL