**Kids discover excitement of engineering at WIES Design Competition**

By Hilary Whiting, EIT

This past August, PEO's West Toronto Chapter teamed up with the Toronto Rehabilitation Institute (TRI) and the University of Toronto's faculty of applied science and engineering to show local youth what engineering is all about through the Women in Engineering and Science (WIES) Design Competition. The hands-on competition took place over the course of two weekends and engaged over 50 students in grades 6 to 9 and 30 volunteers in projects involving engineering design and prototype building.

Through the keynote address by TRI Director Geoff Fernie, PhD, the participants learned not only about how cool and fun engineering is, but also about the vital roles engineers and scientists play in solving society’s tough problems.

The goal of the WIES Design Competition is to engage youth and promote a diverse and collaborative environment that is respectful and open to ideas brought forward by all. For that reason, this year’s competition was open to both girls and boys, with boys making up about half of the participants.

The theme of this year’s competition−the 2015 Parapan Am games−tasked participants with designing and building a prototype of a prosthetic arm. The participants worked in teams of three or four along with an engineering mentor who currently studies or works in the field. The groups came up with innovative and thoughtful designs, which were judged based on strength, cost efficiency and creativity. The winning teams were recognized for their user-centered designs and clearly communicated ideas.

**Transcript of closing remarks:**

“Today mark the last day of the 2015 women in engineering and science design competition. You have all taken part and done an amazing job throughout each day of the program completing demanding tasks and producing incredible results. But you might still be asking yourself one question: why **Women** in engineering and science?

You look around the room at your fellow participants and what do you notice? There are boys here, there are a lot of boys. In fact 53% of our participants this year are young women, and 47% are young men and those are numbers which we are extremely proud of! Did you know that a room of people like this is extremely rare? Usually, on average only 18% of students in engineering programs are women. Our goal with this program is to change that. But we don’t want there to only be 18% men, we want a 50/50 split with a wide diversity of people represented in our profession. That’s why this year, our program was open to both girls and boys and personally, I think we’ve done a pretty good job of showing how great we can work together to create some really amazing things.

If we’ve learned anything over the 4 days of this competition it’s that engineers and scientists solve problems. Sometimes they may be very technical problems like how can we put materials together to be stronger and hold more weight but often, the technology we create is used to solve much bigger problems such as how do we make people who have different abilities feel included in society? This is a very tough problem and we don’t want only half of our population to be working on solving it.

We see strength in diversity. Strength in diversity of gender, women and men being equally represented, diversity in age, with youth engaged in solving tough problems faced by others in society and diversity of professions with people from different backgrounds working together to build lasting solutions.”