

Eastern Nebraska Professional Section

2010 WOW! That's Engineering Summary

By Amanda Stahlnecker, 2010 WOW That's Engineering Chair

The Eastern Nebraska Section of the Society of Women Engineers (SWE) held its third outreach event called **"Wow! That's Engineering!"** at the University of Nebraska-Omaha, Milo Bail Student Center on Saturday, October 23, 2010 from 8:30am to 3:00pm. The event was free for middle and high school girls and with lunch provided. In addition to the girl attendants, parents were invited for a special parent session from 1:00 to 3:00pm. The event was made possible by generous local sponsors including Kleinfelder, HDR, URS, Raytheon, University of Nebraska at Omaha (UNO), Zachry Engineering, Olsson Associates, and Engineers Without Borders Omaha Professional Section. Without the sponsors, this event would not have been such a great success.



WOW!
THAT'S ENGINEERING

ENGINEERING AROUND

- * Saturday, October 23, 2010
8:30am - 3:00pm
- * University of Nebraska at Omaha
Milo Bail Student Center
6001 Dodge Street
Omaha, NE 68132
- * For more information, visit:
www.swe-nebraska.org

Upon check-in the girls received a Math Counts bag with a folder containing information about the days' events and engineering and many promotional items from the event sponsors. The parents also received a folder with information about college admission, scholarships, and other resources about engineering. The registration was headed by Rebecca Reinhardt, Northern Natural Gas Company. Over 120 girls and 40 parents registered for the event, but due to some potentially problematic weather, only about 80 girls and 20 parents attended the days festivities.

Amanda Stahlnecker, a Civil Engineer with HDR, moderated the event and introduced the Keynote presenter, Karla Romereim. Karla engaged the girls first thing in the morning by talking about what she does for Kellogg Company and how anyone with a passion for anything can find a way to incorporate that into an engineering career.

After the Keynote presentation, the girls were divided into four groups, each group being led by a volunteer for the day. Each of the groups then took part throughout the day in four different sessions. Each session introduced a different area of engineering via presentations and hands-on activities. To further express how engineering is all around the world, each session was also related to a specific geographical location in the world. To recognize

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each of the bronze level sponsors, each session was associated with a sponsor. The following describes each of the four sessions.



“Can You Build It?”, sponsored by Raytheon and led by Gabriela Ostler and Carla Pessolano (both from Raytheon), focused on systems and civil engineering. The girls were partnered up, with one using only words to create a set of instructions to build a structure, and the other using those instructions to build the structure via a model.

Water filtration, sponsored by HDR and led by Stephanie Mayo, Novartis Consumer Health, focused on what’s involved in filtering water through chemical engineering. She also discussed the importance of clean water for third world countries.

Pop Fly, sponsored by URS and led by Cybil Boss, URS Group, Inc., and Angel McMullen-Gunn, Hamilton Sunstrand, focused on teamwork, problem solving, and mechanical engineering. The goal of the activity was to launch a ping pong ball using specific materials provided.

Steady Hands, sponsored by Zachry Engineering and led by Sonja Ostler, a UNL student studying Computer and Electronics Engineering, utilized a kit purchased from National SWE, focusing on electrical engineering. The end product was similar to the child’s game Operation.

Two sessions were held in the morning and two in the afternoon, being split by a lunch break. Over the lunch break, the girls were exposed to even more engineering, including a career-fair style exhibition and a robotics engineering demonstration. The girls were broken up into two groups. One group, after eating their lunch, took part in a challenge called the Exhibition Roadmap. The challenge consisted of visiting six different exhibits provided and hosted by sponsors. At each stop, the girls were to interact with the hosts and learn about the company or organization. The girls were given a worksheet that provided them questions to ask each company/organization to prompt the interaction. Once the worksheet has been stamped by each exhibitor, it was complete and turned in to end the challenge. In addition to the sponsors exhibiting, the UNO CEENBoTs team had a table with some robots for the girls to fill the remainder of the time. The other group listened to a presentation about robotics engineering and then took part in a robotics obstacle course.



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After sending the girls to the afternoon sessions, the parents arrived for their session sponsored by Kleinfelder, led by Lara Syrocki, Kleinfelder. She provided general information about engineering and was joined by Dr. Bing Chen, UNO Chair for the Department of Computer and Electronics Engineering, who provided additional information about women in engineering. In addition, Carmen Hippen presented information on college admissions and preparation and scholarships to assist the parents of those girls who choose to enter into an engineering degree program.

At the end of the day, the girls were all brought back together for a closing session to recognize the sponsors of the day, complete feedback forms, and win some door prizes. Some of the feedback received follows.

My favorite part of the day was:

“Getting to know people. I made friends, and I love being social! I love making things.”

“Everything.”

“Learning about engineering.”

“The exhibition because it let me meet people in different fields of engineering.”

“All of the hands on sessions.”

“I enjoyed meeting people with engineering careers.”

The best feedback we received was received the following Monday.

“My granddaughter attended the engineering program at UNO this weekend and had a great time. When I got home Saturday afternoon she was already building a water filtration system. Just wanted to say thank you for taking the time to participate in this worthwhile event.”



With all the positive feedback and smiles on the girls faces as they left, we know this event was a tremendous success and look forward to doing it again in the future. Thank you to all those that supported the event through sponsorship and volunteerism.