



SOCIETY OF WOMEN ENGINEERS CENTRAL OHIO SECTION NEWSLETTER

April 2007



PRESIDENT'S PEN

Hello Central Ohio SWE Members!

It is hard to believe we only have 3 months left in this fiscal year! I hope we can wrap up the year with a successful membership meeting along with succession planning for FY08. I want to thank our entire membership for a strong 9 months of work for Central Ohio, without your support we would not have successfully completed our events to date.

It seems over the past few months life has been moving fast for everyone; I encourage our section to "take time and smell the roses". Remember that SWE can be a positive outlet for both professional and emotional support. It may seem like we do not have time to participate, however consider the idea that attending an event may actually be helpful.

As we come to a close of FY07, please let me know if you are interested in filling in a officer or committee positions. We have quite a few officers and committee chairs that will be unable to participate next year and are looking for some new volunteers.

Thank you!

Regards,

Lee Ann Schwope

Central Ohio SWE President

lschwope@gmail.com

WELCOME



CENTRAL OHIO SWE PAMPERED CHEF FUNDRAISER PARTY!!

Please Join us at the

SWE Pampered Chef Fundraiser Party Sunday, April 15, 2007

SWE is hosting a Pampered Chef Party to raise funds for the SWE Student Outreach Programs and Membership Programs. Join us for this social event and enjoy appetizers, desserts and drinks.

This will be a catalogue party where SWE is able to receive up to 15% of the total sales. Family and Friends are welcome!!! Feel free to bring a favorite recipe to share with the group and/or your favorite Pampered Chef product.

The party will be hosted by:

**Peggy Panagopoulos Flaherty
SWE Newsletter Editor
12821 Jeffrey Drive
Pickerington, Ohio 43147
Time: 3:00-5:00 PM**

RSVP to peggy.panagopoulos@itt.com or
614-863-6315
By April 9th, 2007

Please help make this event a HUGE success!!

WELCOME TO OUR NEW MEMBERS

Welcome to our new members! We look forward to seeing you at our Pampered Chef Party!

Miranda King
Kristine Shiffman
Elizabeth Shamp
Katie Ott

FY08 OFFICER & COMMITTEE CHAIR POSITIONS

President
 Vice President
 COR
 Secretary
 Treasurer
 Membership Chair
 Newsletter Chair
 Outreach Chair
 Professional Development Chair
 Website Chair

All positions are 1-year terms, we will run elections in June. Please contact Lee Ann, Ischwope@gmail.com, if you have any interest in volunteering or running for a position! All support is welcome!

SWE OUTREACH

Introduce a Girl to Engineering Day @ OSU

Introduce a Girl to Engineering Day at The Ohio State University, held on Saturday, February 24th, was a big success!

The OSU Women in Engineering Program hosted about 200 girls (grades 3-6) and their parents for a day of fun! The girls participated in several hands-on activities such as making ice cream and building a bridge out of index cards. Several of our SWE members participated in the day, including Jessica Flasche, Kristina Kennedy, and Glenda La Rue.

If you would like to learn more about outreach or would like to get involved in future outreach events, please contact Kristina Kennedy (kennedy.443@osu.edu).

CO SWE FY07'S

OFFICERS & COMMITTEE CHAIRS

President – Lee Ann Schwope
Vice President – Jessica Flasche
COR – Meghan Roe
Secretary – Lynne Waldron
Treasurer – Inaas Darrat
E-Week Chair – Anna Shumpert
Membership Chair – Suzanne Miller
Newsletter Chair – Peggy Panagopoulos
Outreach – Kristina Kennedy
Professional Development – Elizabeth Widman
Student Liaison – Michelle Miller
Web/Media – Rachel Lewis

SWE T-SHIRTS FOR SALE

Show your SWE pride and buy a Central Ohio SWE t-shirt! Shirts are \$15 and you can buy them at any SWE event or from **Inaas Darrat**. Email her at IDarrat@trinityconsultants.com if you would like to get one



MEMBER SPOTLIGHT

Glenda La Rue
Director of the Women in Engineering

Glenda La Rue has held the position of Director of the Women in Engineering program (WiE) at The Ohio State University since October of 2003. As WiE Director, she oversees programs to recruit and retain women engineering students into and within the College of Engineering. Examples of these programs include a mentoring program which matches first-year engineering students with upper-class engineering students and also gives participants access to professional mentors (several of whom are local SWE members); a summer bridge program that introduces new freshmen engineering students to the College of Engineering; workshops and seminars to promote the professional and personal development of students; networking opportunities with companies who hire engineers; and general student advising and counseling. Another component of Glenda's program includes K-12 outreach activities ranging from half-day sessions to week-long summer camps. The WiE program works with other university departments, corporate partners, educational institutions and youth groups to sponsor events to excite young students about career possibilities in engineering. At OSU, Glenda also serves as the faculty advisor for the student section of SWE.

Glenda was born and raised in Richmond, Virginia, and is from a family of engineers. Her father worked as a mechanical and industrial engineering for Philip Morris and her mother as an environmental engineer for the state of Virginia

before they both retired. Both she and her sister must have inherited their parents' math, science and problem solving abilities, as they both graduated with engineering degrees.

Glenda received her bachelor's degree in Civil Engineering from Virginia Tech and decided to stay for another year and half to obtain a master's degree in Civil Engineering, specializing in water resources. She started her engineering career during college as a summer intern for the Virginia Department of Environmental Quality, where she worked four rotations. After obtaining her Master's degree, Glenda worked for the Tennessee Valley Authority (TVA) - River Systems Operations section, where she worked on a team that used a customized computer model to forecast inflows and discharges at TVA's 47 lakes and dams.

In 1994, Glenda moved to Columbus and began working for a small environmental consulting firm in Dublin, Ohio and in 1997 was granted her Professional Engineer's license. After two years in consulting, Glenda decided to work for the City of Columbus, where she spent six and a half years managing local flood control projects, most notably the Franklinton Floodwall Project, a multi-year, multi-phase joint project with the U.S. Army Corps of Engineers that currently protects over 2800 acres of west Columbus from flooding of the Scioto River.

When not at OSU, Glenda spends her time volunteering for her neighborhood association and for the Junior League of Columbus, and enjoys renovating her 90-year home in Franklin Park with her husband, Jeff. Glenda and Jeff are the proud parents of two dogs, an Airedale/German Shepherd mix and a French Bulldog, and have their first baby on the way - due this September!



2006-07 FUTURE CITY COMPETITION – OHIO REGION



TOP FIVE WINNING TEAMS

1ST Place – Heritage Middle School, Westerville

2nd Place – Genoa Middle School, Westerville

3rd Place – Bexley Middle School, Bexley

4th Place – Felicity-Franklin, Felicity

5th Place – Arbor Hills, Sylvania

SPECIAL AWARDS

Best Architectural Model

Honorable Mention – Felicity-Franklin Middle School, Felicity

Winner – St. Vincent de Paul, Mt. Vernon

Best Essay

Honorable Mention – Blendon Middle School, Westerville

Winner – Genoa Middle School, Westerville

Best Infrastructure

Honorable Mention – Hamersville Middle School, Hamersville

Winner – Southern Hills Academy, Chillicothe

Best Map

Honorable Mention – Arbor Hills, Sylvania

Winner – Batavia Middle School, Batavia

Best Moving Part

Honorable Mention – St. Vincent de Paul, Mt. Vernon

Winner – Valley View Middle School, Germantown

Best Use of Ceramics

Honorable Mention – Blendon Middle School, Westerville

Winner – Heritage Middle School, Westerville

Best Use of Energy

Honorable Mention – Peaceful Children Montessori, Kirtland

Winner – Genoa Middle School, Westerville

Best Use of Recreation

Honorable Mention – St. Vincent de Paul, Mt. Vernon

Winner – Southern Hills Academy, Chillicothe

Best Use of Recycled Materials

Honorable Mention – Southern Hills Academy, Chillicothe

Winner – Bexley Middle School, Bexley

Best Use of Transportation

Honorable Mention – Perry Middle School, Worthington

Winner – Felicity-Franklin Middle School, Felicity

Best Use of Water Resources Engineering

Honorable Mention – Lakewood Middle School, Hebron

Winner – Monroe Middle School, Columbus

Most Economic Project

Honorable Mention – Heritage Middle School, Westerville

Winner – Blendon Middle School, Westerville

Most Environmentally Friendly

Honorable Mention – Glen Este Middle School, Cincinnati

Winner – Southern Hills Academy, Chillicothe

Rookie of the Year

Honorable Mention – Peaceful Children Montessori, Kirtland

Winner – Olentangy Orange Middle School, Lewis Center

People's Choice

Honorable Mention – Heritage Middle School, Westerville

Winning School – Bexley Middle School, Bexley

WORDS FROM THE WISE:

http://mycooljob.org/wise/materials_engineer.php

Mycooljob.org is designed for middle-schoolers and early high school students, to give them a taste of the real world after graduation, to show the pluses – and minuses – of real jobs. Interviews and photos of the professionals are paired with videos of them, as well as interactive blogs.

The project was funded by a grant through [E-Tech](#), which specializes in using new technology so that Ohio learners will succeed in the world of tomorrow. [The Columbus Dispatch](#) also contributed to the site, offering free job-related content from its pages.

Four major career fields are highlighted: Engineering, Information Technology (IT), Arts and Communication, and Health Sciences, all of which

will be in demand in the next five to ten years, the same timeframe in which students looking at the site will graduate. In all, 15 full-time professionals offered to be part of the site. They share stories about their professional lives, which almost never follow a direct path, in an effort to demonstrate that career paths are never a straight line. Each voice allows students to meet and get honest advice from people who love what they do for a living, and find out why.

Lee Ann Schwope, QA & Manufacturing Manager/Materials Engineer

What exactly do you do?

Excera sells armor and molten metal handling equipment. We work closely with the Air Force, Army, Navy, and private companies in the armor business. In general, I am responsible for the day to day operations, including everything regarding the facility to purchasing. The manufacturing team and I create and implement production plans as well as ensure ISO compliance.

Describe a typical day.

Production means that there is no typical day! Priority number one is to solve any problems/issues preventing shipments. Following that, there is daily support on marketing, sales, and government contracts. We also have regular interaction with the customers and suppliers.

What's the coolest part of your job?

We are working with a material that was discovered at OSU within the last 20 years and we're turning it into a saleable product. A lot of materials are discovered, however only a fraction of those materials go into industry; we hope Onnex is one of them.

How do people react when they learn what you do?

Most people are really intrigued by ballistic armor but they don't ask specifically about Onnex (the ceramic strike plate we manufacture and sell). They want to know about ballistics, and the government, how it affects the war. It often becomes a political

discussion, which is not necessarily a bad thing because it proves that engineers do effect the world we live in today and that is pretty exciting!

How did you become a Materials Engineer?

When I first transferred to The Ohio State University, I did not even know Materials Engineering existed. I thought that I wanted to be a Chemical Engineer, due to the fact that I wanted to develop new materials, work on race cars, and learn about composites. I discovered that Chemical Engineers do not actually do that, Materials Engineers do. That's when I realized that's what I wanted. Then through two internships, I started to love the idea that you can actually change materials by modifying the composition and therefore make it more suitable for specific applications.

I think when I was in high school, I realized that I wanted to learn how things work. I liked the math, but I didn't really want to be a scientist. I liked computers, but I didn't want to be in IT (information technology). I filled out a career guidance questionnaire, and it steered me towards engineering.

What disappoints you about your job?

That we can not make a bigger difference today.

How has your job changed over time?

Materials engineering was big in the 1980s and 90s, when people were discovering new nanotechnologies. Recently, it has changed because it is more focused on products like fuel cells. It is important to discover new technologies; however we need to figure out how to apply the technology to the world we live in today.

How will your job be different ten years from now?

Ten years from now armor companies may be out of business because the world we be at peace; we can hope at least! I am sure new challenges will arise and Excera will apply there technology in other applications outside of armor.



I hope that in ten years engineers have worked with society to successfully integrate multiple forms of geothermal energy into our daily lives.

What are some of the most important skills and abilities needed for this job?

For engineering in general, you have to find some confidence within yourself in order to make a decision and see it through. Problem solving is especially important. Determining where or who can help you to find an answer. For example, say we start working with Titanium diboride; I'm not an expert regarding this material, therefore who do I go to or what book can help me? How do you use the internet or library to find out more?

What advice do you have for people who want to enter this field?

Go for it! Engineering is very rewarding. Once you become an engineer, you can branch out and do other things outside of the typical engineering role. You could go on to medical school. You could go to law school to be a patent attorney. You could go on to be the president and CEO of a company. You could be an engineer for the rest of your life! You could start selling products, for example sales and marketing for some exotic material or medical device. The education is challenging and requires a lot of hard work, nonetheless once you're done with your four or five years of college, it is worth it.

What do you wish someone had told you before you left high school that would've helped you with your career?

I wish someone had told that going away to school and studying engineering was going to be harder than it seems. Not just the class work, but also being away from home, the social side of it, trying to figure out who your friends are. The real world is much different than college. It's ok if you don't love studying to be an engineer, however try being an engineer through an internship to see if you really want to have this as your career path. Sometimes figuring out what you do not want to do is the best way to figure out what you do want to do.