President’s Letter

It has been a few weeks since I returned from WE13 in Baltimore, MD. I had a busy conference with all the Professional Development sessions and networking, along with the SWE business. This is my 5th Annual Conference and each year the conference grows in attendance, with 7000+ attendees at WE13. It was fun to celebrate the recognition of my SWEsters at the Awards Banquet. Congratulations once again to Naomi Brill and Charlene Willenbring on their awards. You can read more about the conference in the Section Rep’s column in this newsletter.

We just finished another successful Girl Scout Patch Day hosted by our Outreach Committee and sponsored by Boston Scientific. Thanks to our dedicated volunteers for we were able to increase the capacity to 200 girl scouts. We had a successful track for the adult influencers sharing STEM resources, panel discussion, and a hands-on activity. This event is close to my heart because I was introduced to SWE-MN and outreach committee for the first time, six years ago, volunteering for it. I helped with the Parents Track leading a hands-on activity – Bouncy Balls.

My husband, Vijay, and I enjoyed the Twins Stadium Tour organized by our Professional Development committee. We got to see how the stadium was built, the efforts taken to achieve LEED certification, and the history of Twins. It was memorable to experience this with my SWEsters and their family members. Congratulations to our PD chairs on organizing a successful tour with 40+ attendees.

There are many more events coming up before we hit the holiday season. Send me an email if you have any other questions or concerns.

~Kalyani

president@swe-mn.org
VP Spotlight

'Making the Connection' Between Education and Business through Science, Technology, Engineering, and Math

Minnesota High Tech Association (MHTA) and STEM Education

An Overview …

MHTA is an association of more than 350 technology companies and organizations. Together, they fuel Minnesota’s prosperity through innovation and technology. Members include some of the world’s leading corporations, mid-sized companies and startups. They are united behind a common vision to make Minnesota one of the country’s top five technology states. Minnesota High Tech Association members represent IT, bio-sciences, advanced manufacturing, clean, green and edtech. Once a company or organization joins MHTA, all its employees become members.

MHTA and getSTEM-MN …

Science, Technology, Engineering and Math (STEM) is a statewide campaign that has been made possible through the support of state organizations including: Minnesota Department of Education, Minnesota High Tech Association, Minnesota Business Partnership, and Minnesota Chamber of Commerce. It is directed towards K-12 school students, their parents and educators, promoting the importance of achievement, the value of rigorous courses, particularly math and science, and the need for early career and postsecondary planning. STEM has become the economic currency that makes students employable in the global economy. Each day STEM teachers and professionals connect through MHTA and their getSTEM-MN.com website to foster relationships that help Minnesota students excel in the classroom. Through this web portal, teachers needing resources are provided equipment and expertise for their classroom. Engineers and educators alike, check out getSTEM-MN.com.

Tricia Walker
SWE-MN Vice President
patriciawalker77@gmail.com
You’re Invited to the SWE-MN Annual Holiday Party!

**SWE-MN Holiday Party**
Monday, December 9th 6:00 PM-9:00 PM  
1701 Madison St. NE, Minneapolis, MN 55413  
Call 218-280-0384 to be let in the building.

Join us for a night of creativity and fun as we host a painting class for our annual holiday party! The artists from Wine & Canvas will be guiding you through a 16x20 canvas that is yours to keep at the end of the night.

Cost of the class is $35/person. All painting supplies will be provided, and SWE-MN will serve treats, appetizers, and non-alcoholic beverages.

You NEED to sign up and pay with credit card at this link:  

Click on the "Society of Women Engineers Annual Holiday Party" on December 9th and select your seat! Payment will be due at that time. Only 24 will be able to sign up for the class based on the capacity of the room.

Feel free to bring a bottle of wine to share! Email Claire Rydeen at rydee018@umn.edu with any questions.

**FY14 Sponsorship**

- **Silver**
  - BANNER ENGINEERING  
  - CATERPILLER FOUNDATION  
  - HORMEL  
  - MEDTRONIC SWEnet

- **Bronze**
  - ECOLAB  
  - GENERAL DYNAMIC– AIS  
  - GE WOMEN’S NETWORK  
  - LORAM  
  - LUMIN ADVANTAGE  
  - MEDTRONIC
Citation:
For decades of contributions and support of the SWE mission on all levels of the Society, and for distinction as an engineer, educator, role model, and leader.

Naomi Brill has been active in the Society of Women Engineers since high school, when she helped her mother, Yvonne Brill, mail the New Jersey Section newsletter. In the 40 years since then, Naomi Brill’s support of SWE has been indefatigable. Her participation—particularly in outreach to high school and college students—has inspired countless girls and women to pursue careers in science, technology, engineering, and mathematics (STEM). Founding scholarships, nominating women engineers for awards, and establishing professional development conferences and academic certificate programs: Brill’s professional and SWE careers have centered on encouraging women to become engineers and ensuring that they succeed.

Brill formally joined SWE as a collegiate member at the University of Minnesota, where she served as a section officer and SWE career fair chair. She was president of the Minnesota Section from 1991 to 1993, and served on the council of representatives from 1993 to 1998. She institutionalized strategic planning and operational excellence, created section leadership awards, and fostered creation of the annual professional development seminar. She is the driving force behind her section’s scholarship and certificate of merit programs. Through these efforts, and her work with the Minnesota Center for Engineering and Manufacturing Excellence and Project Lead the Way, Brill has brought recognition of SWE’s mission and the Minnesota Section to all corners of the state.

In 2001 and 2002, Brill became involved in Region H as deputy director and served as region director from 2003 to 2004, strengthening region operations and creating region-level leadership awards. She then became SWE’s inaugural director of regions. Since then, Brill has served on numerous committees and task forces. She was nominating committee representative and chair, and she judged and coordinated the Distinguished New Engineer and Entrepreneur awards.

Her engineering career in the manufacture of instrumentation and medical devices spans more than 25 years. Working in senior manufacturing engineering positions at a variety of advanced manufacturing companies in Minnesota, Brill managed technical development and commercialization of implanted monitors, in-vitro blood assays, and drug infusion pumps. A second career in engineering and technology education has enabled Brill to influence Minnesota’s technical work force. From 2005 to 2012, she taught manufacturing engineering technology classes at Hennepin Technical College in Brooklyn Park, Minnesota. She also created a medical device manufacturing specialist degree, providing students with marketable skills and area medical device companies with highly qualified employees.

Using funds from several sources, Brill established “Girls GET IT!—Girls Grow with Engineering Technology and Industrial Technology,” a free summer camp for eighth- and ninth-grade girls. Although the camp closed after two years due to budget cuts, it has been a model for other programs that promote STEM education and careers to young girls.

Active in the Society of Manufacturing Engineers since 1984, Brill was the first and remains the only woman officer of the 75-year-old Minnesota chapter. Brill holds a B.A. in biology from Carleton College, and a BME and MBA from the University of Minnesota. Her hobbies include gardening, hand weaving, helping with her husband’s woodworking business, and mentoring neighborhood youth into STEM careers.

*This text was taken from the SWE Magazine—Fall 2013 Conference Issue*
Charlene Willenbring received her bachelor’s degree in aerospace engineering and mechanics in 2003 from the University of Minnesota. After completing an internship with Goodrich Corporation, Willenbring accepted a full-time position as a design engineer. (Goodrich was acquired by United Technologies Corporation and rebranded as UTC Aerospace Systems in 2012.) She worked on a team that developed Goodrich’s first solid-state inertial system product, the AD-AHRS, an air data and aircraft attitude upgrade for the F-5 fighter aircraft. Willenbring led the qualification effort, and the program received a Technical Team Achievement Award in 2005.

In 2005, Willenbring became a project lead in the temperature center of excellence. An expert on aircraft temperature sensors, her key accomplishments include designing outside temperature sensors to meet extreme environmental conditions, and acting as the sub-tier liaison engineer for a suite of over 50 engine sensors on two key engines. Her programs have included the Airbus A380, A400M, and A350 outside air temperature sensors and the Trent 900 and 1000 engine programs.

Recently, Willenbring transitioned to a business development manager with UTC Aerospace System’s military fixed wing segment. Her responsibilities include evaluating business opportunities, developing pricing and negotiation strategies, and growing the military business.

Willenbring joined the SWE University of Minnesota (UMN) Collegiate Section as an undergraduate and held many leadership positions, including section president and co-director of the College of Science and Engineering’s largest career fair. After graduation, she joined the Minnesota Section (SWE-MN) and became membership co-chair, planning the first new member/new graduate events to encourage more new college graduates to join the professional section. Membership grew by 28.4 percent, and the section received the Society Outstanding Membership Program award for 2006. Willenbring also has acted as SWE-MN’s vice president, section representative, and nominating committee chair. She has been honored with SWE-MN’s Most Active New Member, Professional Spirit, and Most Dedicated Member awards. At the Society level, she was the 2013 bylaws committee chair and counselor coordinator-elect.

A commitment to supporting collegiate members drives Willenbring’s contributions as the UMN section counselor. She has held this position since 2006 and has expanded it to include serving as a liaison to SWE-MN. She chaired the 2011 Region H Transition Membership Program and served on the collegiate interest committee. Willenbring is also the section’s connection to the professional engineering world, sharing her own experiences as a professional engineer at meetings and activities, and attending the section’s annual Dinner with Professors and Professionals. She also uses her SWE network to find engineers to speak at UMN events to expose members to a wide variety of professional engineering experiences.

Educating young women about opportunities in science, technology, engineering, and mathematics (STEM) is the focus of Willenbring’s community involvement. She volunteers as a math tutor and at many STEM outreach events. She enjoys spending time outdoors with her husband and two children. The couple has visited every Minnesota state park and hiked all 196 miles of state park hiking club trails.

*This text was taken from the SWE Magazine—Fall 2013 Conference Issue*
Congrats to SWE-MN for receiving the following awards at WE13!

- Region H Membership Retention Award - Large Section
- Region H Membership Recruitment Award - Large Section
- Region H Membership Growth Award - Large Section
- Region H Continuous Improvement Award for SWE-MN Open House
- Region H Distinguished Service Award - Elizabeth Bierman
- SWE Membership Recruitment Award - Large Section
Professional Development News

On Tuesday October 29th, we had a great turnout for the Target Field Engineering and Architecture Tour hosted by SWE-MN! The group of 43 SWE-MN members, family and friends enjoyed seeing backstage area of Target Field including the mechanical rooms, the beer keg rooms, locker rooms, and club areas. Thank you to everyone who was able to make it out for the tour and thank you to Target Field for having us!

Photo Credit: Sherri Leu
Greetings! As I write this I’m still encouraged, excited and exhausted from last week’s WE13 Society conference in Baltimore MD. I was among 7,000 attendees at this record breaking conference. This is such a unique conference. I’ve done other professional society conference, and other conferences in the medical arena, but this one offers the diversity of thought that can only come from SWE. This year I attended sessions on gaining visibility within an organization, a risk management tool session, project management (such as when is it time to stop innovating and start doing) and 15 minute “lightning talks” to provide a quick introduction to ideas like influencing without authority, or jumping from engineering to sales and marketing.

One of my favorite sessions was “Leading with 20/20 vision in 2020”. Cecilia Rose, a career coaching consultant, empowered the audience to take charge of our own careers. She encouraged us to think of a career lattice, instead of a career ladder—you may not always be stepping “up” into your next role. She also warned against spending too much time in your comfort zone. Check out the picture below.

There were a number of SWE business meetings during the conference. Did you know that SWE has over 22,000 members across the globe? Bonus factoid-- our region has around 20% of that membership! In the Region H meeting, leaders highlighted that we have a fairly new membership class of “K-12 educator” that only costs $20, but gives the teacher access to all of our great SWE tools, as well as the SWE publication. Maybe your child’s teacher would love to have these resources?? What a wonderful holiday gift for an educator in your life!

Congratulations to SWE-MN for 4 awards received this year! Congratulations also to all SWE-MN members who put in long hours at the career fair, or presenting a session.

~Cathy and Lynn

Where are you???
- Anxiety Zone– new role, lots of new learning
- Learning Zone- still new concepts in your job
- Comfort Zone– nothing new, complacency, time for a move
On Saturday November 2nd, SWE-MN hosted its annual Girl Scout Patch (GSPD) and welcomed 183 Girl Scouts and 60+ adult influencers (parents and troop leaders) for a day full of engineering fun and learning! Special thanks to Boston Scientific for hosting the event at their Arden Hills Location and for sponsoring all the experiment supplies, lunches, t-shirts and goodie bags for the Girl Scouts!

The day was a busy one but so much fun! The experiments this year included:

- Geodomes
- Bath Scrub
- Brilliant Bracelets
- S’Mores Packaging

All the experiments challenged the girls to think like engineers, work as a team, and get their hands dirty! Thank you to the MANY volunteers we had from SWE-MN, family and friends to help with setup, event planning, and on the day of the event– we definitively couldn’t have done it without each of you!

Stay tuned for more details in early 2014 for our next Signature Outreach Event - Spark Slime Speed at the Science Museum of MN. Save the date - Sunday February 16, 2014!
University of Minnesota—Twin Cities
Wins Outstanding Section Award - Silver at WE13

Congrats to the U of MN - Twin Cities for their Outstanding Section Award!!

SWE-MN Career Expo - A Success!

The Career Expo held at Westin Edina on Nov 9th was a huge success. It was attended by about 260 individuals. About 35 corporate recruiters set up their booths and never had a moment to beat an eyelid once the crown started pouring in steadily throughout the afternoon. "It will likely be our biggest fundraiser this fiscal year! The event was a huge success. We saw attendees from diverse technical backgrounds, fresh graduates to experienced professionals. There was an even spread between male and female attendees. The networking portion of the event allowed time for some chat with industry peers in a relaxed, fun environment.

This event has played a crucial role in establishing SWE-MN’s intent to foster awareness and increase networking not only among aspiring professionals but seasoned industry leaders as well.
This month, SWE-MN will be launching our new website!

Be sure to check your email for an announcement when it is live!

**November/December**

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Looking for Member News:
Recently got a new job or promotion? New marriage, child, grandchild? If so, we’d love to hear about it!
Send in your exciting Member News to newsletter@swe-mn.org to be included in the next newsletter.

SWE-MN Allison Pedersen welcomed a son, Samuel Brandon, on September 26th! Congrats parents - Allison and Brian!

SWE-MN Lindsey Roberts McKenzie welcomed a son, Lewis Aston, on September 24th! Congrats parents - Lindsey and Chris!