President’s Letter

I guess Mother Nature decided it is going to be fall after all. Our first Family Celebration at the Twin Cities Harvest Festival was a hot at 80˚ on the first weekend in October! The event was a lot of fun with a few EC families coming out to enjoy the festivities, which included a large corn pit. Then the following weekend, we hosted Girls Scout Patch Day and the weather was very chilly so I am glad we were indoors. It was awesome seeing so many volunteers ranging from long time SWE-MN participants to newer college students and even a small group of older Girl Scouts. This was a fabulous event with registration at its capacity. Special thanks to the organizers, experiment leads and Boston Scientific for making this event possible.

I feel very lucky to work with so many dedicated volunteers within the SWE-MN Executive Council as well as the membership. We have some fun new events planned for SWE-MN this fall and I look forward to seeing you there.

Finally, as a reminder, don’t forget to read your weekly emails, connect on Facebook, twitter and LinkedIn to see all the wonderful activities we have coming up.

~Holly Kimball - president@swe-mn.org

Thank you to our sponsors!

Special points of interest:
- Last call for Corporate Scholarship Sponsors!
- Have you registered for WE12 yet??!
- Check out the recap and pictures from GSPD!
- Read about the “Next in Line” Award deadline!
Who’s Who in SWE-MN?

Region H Leaders

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<td>Governor:</td>
<td>Jennifer Morikawa</td>
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<td>Cathy Krier*</td>
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<td>Katie Amelio</td>
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<td>Michelle Ngatino*</td>
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<td>Region Awards Chair:</td>
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<td>Region H CLCC East Coast Deputy Chair:</td>
<td>Molly Morgan*</td>
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<td>Kalyani Mallela*</td>
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<td>Region H Transition Membership Program:</td>
<td>Holly Kimball*</td>
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Society Leaders

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<td>Lana Fountain Flakes</td>
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<td>Director, Education:</td>
<td>Kelly Griswold Schable</td>
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<td>Director of Membership Initiatives:</td>
<td>Jonna Gerken</td>
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<td>Director of Professional Development:</td>
<td>Linette Dawson</td>
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<td>Collegiate Director:</td>
<td>Kaitlyn Bunker</td>
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<td>Speaker of the Senate:</td>
<td>Helen O. Patricia</td>
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<td>Director, Regions:</td>
<td>Colleen Layman</td>
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<td>Executive Director &amp; CEO:</td>
<td>Betty A. Shanahan, CAE, F.SWE</td>
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<td>Special Director of International Initiatives, FY12:</td>
<td>Janet Bandows Koster</td>
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*Indicates individual is from SWE-MN
As a Leadership Sponsor of Engineering for Change (E4C), SWE encourages all members to learn more about – and become involved in this initiative. In SWE All Together last month, there is a section about this and provided some links to find out more about how engineers really make a difference. I read about “Kitchen in Kenya” and was fascinated by how a team from Engineers Without Borders New York Professional chapter used their engineering background to improve the kitchens in Kenyan schools. The picture below shows the design proposed by this team.

Cooking in the old kitchen was difficult because it was hot, and smoky. This new stove requires less wood and saves time because the water boils faster. It is also much cleaner. To read more about this through a photo essay visit the Engineering for Change website. Engineers are making a difference each day. If you would like to share your story or the story of a fellow engineering, please contact me at vp@swe-mn.org

~Kalyani Mallela
vp@swe-mn.org
Scholarship News

The Fall Semester 2013 SWE-MN Scholarship program is well underway. We are working with current corporate partners and some potential new partners for donations towards this year's scholarships.

The SWE-MN Scholarship program serves women students in engineering and computer science at schools in Minnesota, North Dakota and South Dakota with accredited programs. Corporate partners are asked to provide a donation of at least $1,000 per named scholarship and may specify the discipline of study of the woman who receives their scholarship(s). This is a great way for companies to create a higher profile with the students at the 11 schools in our program service area, where companies may not recruit in person. We advertise our scholarships and sponsors on the SWE-MN website, in written materials that go out to each school and SWE section, and in a number of emails that announce the program.

Our deadline for donations is quickly approaching. If you know a company that might be interested in participating in our program, please provide that information us and we will pursue the contact.

Email us at scholarships@swe-mn.org!

Erica Girard & Naomi Brill

---

Do you know a female engineering student at one of these schools? If so, be sure to stay connected with SWE-MN to find out when the scholarship application is posted online!

UM Duluth  SDSU  SD School of Mines

MSU, Mankato  St. Thomas  NDSU

UND  St. Cloud  Winona State  UM Twin Cities
Membership Happenings

Fall is upon us!

Happy Fall to everyone! We hope you are all as excited as we are about some of our new social events coming up. Harvest Fest was a good kick-off to the season, and we have some other fun activities planned. Check out the new Social Committee section for more information.

Thanks to everyone who completed the membership survey! We use the survey results to determine best types of activities, locations, etc. for our SWE-MN members. Also, congratulations to Sue Cox who won the $25 gift card drawing for completing the survey.

If you would like to get involved with our committee or if you have any membership questions, please contact us at membership@swe-mn.org.

~Lynn Davenport and Nicole Danielson–Bartelt · membership@swe-mn.org

Please check out some of our upcoming events below!

SWE-MN New Member Event / Dessert Social
We hope you come join us for our New Member Event / Dessert Social at fabulous Café Latte on November 15th! All new members (joined within the last year) will receive an invite via e-mail in the next couple of weeks, which will be your “ticket” to a free dessert.
Please come out to meet and mingle with new members, and enjoy some good food, drink, and yummy dessert.
Details:
  Date: Thursday, November 15th
  Time: 5:30-7:30pm
  Location: Café Latte, 850 Grand Avenue, Saint Paul, MN 55105
  Cost: Free, but you pay for your own food and beverages.
  RSVP: RSVP at membership@swe-mn.org

SWE-MN Volunteer Event at FMSC
We will once again be holding a Volunteer night at Feed My Starving Children, just in time for the holiday season. More details to come, but mark your calendars for Tuesday, December 11th!
Details:
  Date: Tuesday, December 11th
  Time: 6:00-9:30pm (Volunteering from 7:30-9:30pm)
  Location: FMSC Coon Rapids
  Cost: Free, but you pay for your own food and beverages.
  RSVP: RSVP at membership@swe-mn.org

FUTURE EVENTS (more details to come):
• Happy Hours: Many more to come!
• Holiday Party – See the Social Committee section for more info
The 2013 SWE Region H Conference planning is well underway! The conference, being held at the University of Minnesota – Twin Cities, is all about learning, networking and skill building to become the best woman engineer one can be. The theme, Create Your World: Engineering Your World with SWE, highlights all of the astonishing engineering feats used in everyday living.

School has started and everyone has been busy with classes. However we’ve had our first meeting and started delegating leadership roles to our committee members and action items will be initiated in the next week.

A rough draft agenda has been finalized for the weekend and our break out session facility, the entire building of STSS is in the works of being reserved by the College of Science and Engineering. Companies and speakers have already been reserving sessions such as “Harnessing the Mississippi,” “Ace Your Interview,” and “Out of Overwhelm: A relief from Stress.” Catering for the weekend will also be finalized within the next couple weeks.

The committee has raised about 2/3 of the funds needed for the conference however we are still actively seeking platinum and keynote level sponsorships. If you and your company wish to sponsor or support a speaker for the 2013 SWE Region H Conference please contact the Conference Planning Committee’s treasurer, Sam Madden at madd0194@umn.edu. The Planning Committee would deeply appreciate help from all professional SWE-MN members.

Please also be sure to check out current sponsors, section information and much more on the Conference website at http://sweregionh.wordpress.com/.

Region H Conference at the U of MN Update

WE12 in Houston, Texas is coming soon... “3 Days of Energy. A Lifetime of Opportunity.”

The Annual Conference is jam packed with networking events, professional development sessions, keynote speakers, and more!

Online registration and Hotel Information can be found here.

Some events that you will want to check out include:

- November 8th - WE12 Keynote Breakfast*
- November 8th - Career Fair Opening Ceremony
- November 9th - SWE Award Banquet*
- November 10th - Celebrate SWE! *

*cost is not included with conference registration

Going to WE12?? Let us know!

If you are planning on attending WE12 in Houston, Texas in November and want to exchange contact information with other SWE-MN members, please fill out the SWE-MN Contact Form here. There will be plenty of opportunities for networking, lunches, and social gatherings during our time in Houston!
Get to Know SWE-MN Member, Jen Doubet

Growing up on a dairy farm in upstate NY, I had a very fun and adventurous childhood – my memories were snowmobiling, 3-wheeling, making hay forts, and driving tractors with my 3 siblings. Even as a kid, I was always interested in science and engineering – I loved helping dad weld equipment, change tires, or plan construction of a barn. When it was time to go to college, I chose Cornell University, only 20 miles from home, but it felt like it was across the country. At Cornell, I majored in Mechanical Engineering and became involved in SWE. As a member of SWE, I was co-chair of Company Information Sessions, where we brought students together with corporations in an effort to provide student with more information about the jobs available to them.

After college I moved around ‘a little’, living in Mississippi (where I jumped out of a plane and learned to water ski), Seattle for Grad school (where I learned to snowboard and got a Master’s degree in Material Science), Vermont (where I bought my first road bike), and Boston (where I lived for a short 11 months). I’ve now been in Minneapolis for almost 10 years where I’ve worked for Medtronic and now Boston Scientific. I currently work in Boston Scientific’s Vascular division as a supplier quality engineer where we produce stents, balloons, and catheters.

My husband Ryan and I have a 3 year old daughter, Sophia and a white fluffy dog, Oskar. Ryan, Sophia and I love to travel and we just got back from vacation in Europe, where we attended Oktoberfest in Munich and also spent 2 days in Paris (in the rain).

Only this year did I become re-engaged in SWE and joined SWE-MN as Outreach co-chair. It has been a great opportunity to meet some fabulous women from all over MN who are working through their engineering careers plus reach hundreds of growing minds through our Outreach programs!
Hi All, my name is Michelle Ngatino and I am the newly appointed SWE-MN Social Committee Chair. I am pleased to announce our new Committee and exciting upcoming social events:

- Dessert social hour at Café Latte on November 15th
- Holiday Party on December 8th
- Wine Testing Event in January
- Friday Night Happy Hour (before Region H Conference) on February 8th
- Celebration for St. Patrick’s Day in March

If you are interested in helping plan these events, please contact me at social@swe-mn.org.

Save the Date: Spark, Slime, Speed!

SWE-MN’s Annual E-Week Outreach Event will be held at the Science Museum of Minnesota in Discovery Hall on Sunday, February 17, 2013. Volunteers will be needed for prep and the day of the event. You won’t want to miss out!

Upcoming SWE-MN Committee Meetings

**SWE-MN Executive Council Meeting**
When: Tuesday, October 16th at 12pm  
Where: Conference call  
RSVP: president@swe-mn.org

**SWE-MN Outreach Committee Meeting**
When: Wednesday, October 17th at 6:30pm  
Where: TBD (in person)  
RSVP: outreach@swe-mn.org

**SWE-MN Fund Development Committee Meeting**
When: Thursday, October 18th at 6:30pm  
Where: G&K Services, Minnetonka  
RSVP: fd@swe-mn.org
Hello from your Awards Chair, Tricia Walker!

I am excited to say that SWE-MN entered 4, yes I said 4, STRONG candidates for EWeek's New Faces of Engineering competition. This is awesome! Thank you to all that submitted and reviewed the applications. Good luck to our candidates! Stay tuned for the results in December.

"Next in Line": MFESTS Awards: Young Engineer of the Year and Distinguished Engineer of the Year
(Sponsored by MFESTS*)
Deadline Early January 2013

Young Engineer of the Year
The Minnesota Federation of Engineering, Science and Technology Societies (MFESTS) annually presents an award to an individual (35 years of age or less) chosen from a list of nominees submitted by the MFESTS member societies. The Award is typically presented at an Awards Banquet that is held during annual National Engineers Week. Only one "Young Engineer of the Year" award will be presented each year. Each MFESTS member society may nominate one candidate for this Award.

Distinguished Engineer of the Year
The Minnesota Federation of Engineering, Science and Technology Societies (MFESTS) annually presents an award to an individual (a minimum of 25-years of professional service/contributions) chosen from a list of nominees submitted by the MFESTS member societies. The Award is typically presented at an Awards Banquet that is held during the annual National Engineers Week. Each society may nominate more than one candidate.

*The Minnesota Federation of Engineering, Science, and Technology Societies (MFESTS) is an umbrella organization comprised of engineering-related member societies within the State of Minnesota. There currently are eighteen societies/chapters, representing approximately 6,000 individuals, that are members of MFESTS.
Thank you to the Curious About Engineering Volunteers!

On Saturday September 22nd, The Children's Museum of Minnesota hosted the first annual Curious About Engineering event. Over 2200 guests visited the museum to learn about engineering and check out fun hands-on activities from local companies and organizations - including SWE-MN. SWE volunteers helped kids and parents make one of our favorites - Silly Putty! Thanks to the volunteers for spending their day with us at this great event. Check out the pictures below plus learn how to make your own silly putty at home!

Make your own silly putty!

One baggie per person

1 Tbsp of Elmer's glue

I Tbsp of water.

I-2 drops of food coloring.
Mix.

1 Tbsp of Borax/Water Solution. Mix.
(1 Tbsp of Borax per 1 cup of water)
I want to send a big shout out and thank you to all of our volunteers that helped make our GSPD event a success! This was a big year for us, both as our 10th anniversary of the event and as our largest event ever with over 250 people participating between girls, leaders, and volunteers. We mixed things up a little bit this year, picking a new theme “Design Your Future” which included new shirts, that looked pretty awesome! If you missed the shirts, don’t worry, we’ll continue with that theme and similar shirts next year :)

Following some new guidelines from Girl Scouts of Minnesota and Wisconsin River Valleys, all program events must track to a Girl Scout merit badge. So our Girl Scouts earned and received the Junior Product Designer merit badge in addition to the SWE patch. As part of this badge, the content of our programming had an increased focus into engineering design concepts and engaging girls to think about product design in the world around them, especially with things they use or see every day.

With our record attendance, we extended our day to 5 sessions, including experiments Egg Mobile, Lip Balm, Lego Mall Lady, Brilliant Bracelets, and Brush Bots. Each of these sessions went off without a hitch, they were all exciting and hands-on. Our parents track offering had great attendance too, where they covered STEM concepts, an education panel discussion, hands-on learning SWE experiment Bug Circuits, and networking. Overall the event has received rave reviews from the Girl Scouts in attendance, with 99.3% Awesome or Good compared to GS goal of 95% and current average 92%. Our event is a clear favorite amongst the Girl Scout community and is setting the bar for their STEM offerings. Some highlights from girl reviews included “more sessions” “more hands-on” “more take home” “more inventions” and “more chemical engineering”. There were several reviews that included specific comments about how much they liked about the sessions and ideas for next time. When it was time to go, the girls were pretty excited about their day and ready to show off what they made.
~ Girl Scout Patch Day 2012 Recap ~

This event was sponsored by: Boston Scientific
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**Lakeville High Career Jamboree**

**SWE-MN Field (trip) to MECC**

**St. Cloud Networking Lunch**

**EC Meeting**
SWE-MN

HOLIDAY PARTY!!!

It is almost the end of the year and that means the holidays are just around the corner and we should celebrate it together with the other SWE-MN members and friends!

This is a POTLUCK family style party; so, please bring a dish and drink to share.

We will also be hosting a cookie swap. Please bring 10-15 cookies to swap with the others. (OPTIONAL)

When: December 8th @6:30 PM
Where: TBD
DRESS CODE: express yourself with your ugliest holiday sweater

This is an OPEN Party for everyone. Therefore, feel free to bring a friend or family member to get to know more about SWE and network.

Are you excited to have fun and join this social event?

Please RSVP to Michelle by November 22 at social@swe-mn.org.
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.

Congrats to SWE-MN Member and Fund Development Co-Chair, Jesse Narr on her new job. She recently started as a Senior Environmental Engineer at G-K Services in Minneapolis.

Her primary responsibility at G&K includes developing programs, processes and procedures to support regulatory compliance and environmental stewardship.

Just for fun…..
Why Engineers don’t Write Cookbooks
Chocolate Chip Cookies:
Ingredients:
- 532.35 cm$^3$ gluten
- 4.9 cm$^3$ NaHCO$_3$
- 4.9 cm$^3$ refined halite
- 236.6 cm$^3$ partially hydrogenated tallow triglyceride
- 177.45 cm$^3$ crystalline C$_{12}$H$_{22}$O$_{11}$
- 177.45 cm$^3$ unrefined C$_{12}$H$_{22}$O$_{11}$
- 4.9 cm$^3$ methyl ether of protocatechuic aldehyde
- Two calcium carbonate-encapsulated avian albumen-coated protein
- 473.2 cm$^3$ theobroma cacao
- 236.6 cm$^3$ de-encapsulated legume meats (sieve size #10)

- To a 2-L jacketed round reactor vessel (reactor #1) with an overall heat transfer coefficient of about 100 Btu/F-ft$^2$-hr, add ingredients one, two and three with constant agitation. In a second 2-L reactor vessel with a radial flow impeller operating at 100 rpm, add ingredients four, five, six, and seven until the mixture is homogenous. To reactor #2, add ingredient eight, followed by three equal volumes of the homogenous mixture in reactor #1.
- Additionally, add ingredients nine and ten slowly, with constant agitation. Care must be taken at this point in the reaction to control any temperature rise that may be the result of an exothermic reaction.
- Using a screw extrude attached to a #4 nodulizer, place the mixture piece-meal on a 316SS sheet (300 x 600 mm). Heat in a 460K oven for a period of time that is in agreement with Frank & Johnston’s first order rate expression (see JACOS, 21, 55), or until golden brown. Once the reaction is complete, place the sheet on a 25C heat-transfer table, allowing the product to come to equilibrium.