



The Gear

Sept 2003

Contact Information

Section President: Position Open

Section Vice-President:
Lisa Henn
h: 608-223-9125
lisa.henn@swe.org

Section Representative:
Abby Peele
w: 414-647-4579
abigail.peele@med.ge.com

Section Secretary:
Dina Bertolini
h: 608-930-8787
dmechanics@yahoo.com

Section Treasurer, Newsletter Production
Manager:
Gina Janke
w: 262-636-1315
h: 262-681-8373
gina.janke@swe.org

Newsletter Editor:
Andrea Cole Fyhrlund
w: 262-512-8113
h: 262-268-1092
afyhrlund@ameritech.net

Membership Co-Chair:
Deb Nelson
w: 608-224-2828 x246
h: 608-836-1243
nelsond@chorus.net

Membership Co-Chair:
Karen Spence
w: 262-783-7745
h: 262-820-9848

Article deadline for "The Gear" is the fifteenth of the preceding month. Trial subscriptions are available to persons interested in membership. Send articles to: Andrea Cole Fyhrlund, Editor, 126 W. Chestnut St., Port Washington, WI, afyhrlund@ameritech.net. Trial subscriptions & address changes to Gina Janke, 1801 Newberry La., Racine, WI 53402, gina.janke@swe.org

Inside this issue:

"President's" Corner	1
SWE-Wisconsin Event Notice	2
2003 SWE National Conference	3
Section Website	3
Volunteers Needed	4
Women in the Engineering Industry	5
Upcoming Events	8

Serving the 82 Members of the Wisconsin Section, and Its Supporters

"President's" Corner – By Lisa Henn, Wisconsin Section Vice President

It's September and we're hitting the ground running! We have most of our calendar year decided upon now. In September alone we have **two** great meetings—one for fun, one for professional growth (see inside for details):

- September 25, Women in Technology Forum
- September 27, American Players' Theater ("The Tempest", by William Shakespeare).

And we're only awaiting input from the returning students to finalize the last few events on our calendar.

We want to make the Wisconsin section more fun, more meaningful, more valuable for you. So for our goals this year we are:

- Targeting meetings and events to what different member groups would want
- Having more *fun* meetings!
- Making sure we have more person-to-person contact.
- Making our section more vibrant by attracting greater participation.

Be sure to give us feedback on our calendar. We hope you'll enjoy this year's programs!

Volunteer Highlights—we'd like to do a little bit more in these areas:

- Final touches for the 2004 National Conference in Milwaukee (contact Abby Peele at Abigail.peele@med.ge.com or (414)647-4579)
- We'd like to put together an Outreach/Career Guidance Committee (contact swewi@idcnet.com or Lisa Henn at (608)223-9125)
- Assist with a couple of meetings. (contact swewi@idcnet.com or Lisa Henn at (608)223-9125)

Finally, thanks to everyone who has renewed their memberships. We sure do appreciate your continued support. We hope to see you during the coming year.



SWE -Wisconsin Event Notice

What: Tour of the Electric Power Plant in Pleasant Prairie, WI (near Kenosha)
Sponsored by ASCE SE Wisconsin, ACI Wisconsin, Society of Women Engineers - Wisconsin

Where: WE Energies Power Plant, 8000 95th Street, Pleasant Prairie, WI 53158 (near Kenosha)

Date: Thursday, November 13, 2003 (RAIN or SHINE)

Time: TOUR CHECK IN TIME: 5:00 pm, Tour departs at 5:15 pm 90 minutes planned for tour, 60 minutes planned for technical presentations while eating. BOXED MEAL TIME: 7:00 pm, choose honey baked ham, beef or turkey sandwich. Includes side dish, cookie and soft drink. For special needs, please contact Ed Gebauer

Cost: DINNER COST: \$11. Full time students receive \$5 discount from sponsors. MAKE CHECKS payable to ACI WISCONSIN.

RSVP: RESERVATIONS requested by noon, Monday, November 10, 2003. E MAIL reservations preferred: ed.gebauer@lafarge-na.com or FAX to 608.846.2116. PHONE reservations, and those after 11.10.03, call Gebauer at 608.334.7129.

RUNNING LATE or CANCELLING? Please call Gebauer at 608.334.7129

Our tour will begin with a video overview of the power plant, followed by a walking tour of the control room, fuel handling system, steam turbines and generators. From the power plant roof, we will overview the complex.

Next we board a Laidlaw bus and travel to: Railroad coal-car unloading area, cooling towers, water treatment plant, fly ash product silos, ash fuel re-burn system, ash landfill recovery operation, and concrete pavements made with high volume fly ash. Guests are asked to wear clothes suitable for the plant environment, sturdy leather field shoes and a raincoat if necessary. Hard hats, safety glasses and hearing protection will be issued for the tour. Wear your own hard hat, if you prefer.

Next we pick up boxed meals in the plant conference room and settle in for the technical presentations. The first will overview types of fly ash, quality control testing of Class C fly ash and the second will explain the technology of energy extraction from high carbon fly ash when it is added to the plant's coal fuel stream.

DINNER NO SHOW POLICY:

If a walk in guest does not purchase your meal, you will be invoiced. Please send a substitute guest if you have a last minute conflict

Directions from Milwaukee:

South on Interstate 94, East on Highway 165, Left on Highway H, Right on 95th Street,
Left on first driveway into the Pleasant Prairie Electric Power Plant
Look for REGISTRATION sign in parking lot
If lost, call Gebauer at 608.334.7129 or Plant Security at 262.947.5267

See all the upcoming announcements at <http://www.msn.fullfeed.com/~swewi/upcoming.htm>

2003 SWE National Conference: October 9 through 11 in Birmingham, AL

1. Sign-up Now!

The SWE Conference is just weeks away and programming is changing every day. Make sure you check our website for the latest and greatest about the conference sessions, social events, networking activities, career fair and technical exhibits...and you can sign up on-line! Just click here <http://www.swe2003.org>

2. Don't forget the tours!

Many of the tours require pre-screening and will be closing soon. Get all of the detailed information and tour options on our conference web site (<http://www.swe2003.org>) and sign up today!

3. Student Activities - Sat., Oct. 11.

We have planned something very special this year to recognize SWE's students and their achievements. First it's the Mentoring Banquet at the McWane Center, an interactive science center that adds to the "interactive" atmosphere of SWE members and students getting to know each other. Tickets will also be available for the Titanic Artifacts Exhibit at a reduced rate - \$7.50 (normally \$16.00!). Tickets for the exhibit can only be purchased at the SWE Concierge desk at the conference. See the website - <http://www.bbhinc.net/titanic.html> for exhibit details. The Conference grand finale is the Student Awards Ceremony. This will be held at the beautifully restored historic Alabama Theatre. So come celebrate the SWE Students, their achievements... and the golden age of movie theatres. Sign up today.

4. And don't forget your hotel reservations!

The hotel reservation cut-off at our published rates is September 10. To make sure you get your reservation in on time, just go to the special Sheraton web site and make your reservation right on-line. Rooms are still available...but only until September 10. Just click <http://starwood.e-secureserver.net/econtent/swe/> to make your reservation. Or call 1-888.627.7095.

2003 Conference Committee
Kathy Mergl, Chair

Section Website: <http://www.msn.fullfeed.com/~swewi>

Check out the website for lots of useful SWE information! Do you have other ideas? Let us know! We'd love to add even more material to the site! Send e-mail to swewi@msn.fullfeed.com.



Volunteers Needed!

Interested in being involved? Here's your chance! Consider these great opportunities:

We have what we hope is a fun year outlined at <http://www.msn.fullfeed.com/~swewi/upcoming.htm>! We would be interested in help with two meetings in Milwaukee and one in Madison. In Madison we are hoping to plan a family event, so ideas on that are particularly welcome. If you are interested in meetings elsewhere in the section, also let us know. Email to swewi@idcnet.com.

The 2004 National Conference will be in Milwaukee! Most of it is planned, but there's still a chance to participate. Contact Abby Peele Abigail.peele@med.ge.com for more information.

There are also opportunities at the national level. The Society of Women Engineers will be the lead society for National Engineers' Week (E-week) in 2006. If you want to be on the steering committee, you can contact Patti Garland at patti.garland@swe.org.

Other national and regional volunteer opportunities are posted regularly to the mailing list RegionH-Business. See <http://www.msn.fullfeed.com/~swewi/moreswe.htm> for more on mailing lists.

<h1>ENGINEERING MANAGEMENT MASTERS PROGRAM</h1> <p><i>for working professionals</i></p> <p>UNIVERSITY of WISCONSIN UWMILWAUKEE</p> <p><i>offered jointly by the School of Business Administration and the College of Engineering and Applied Science</i></p>	<p>SPECIAL FEATURES:</p> <ul style="list-style-type: none"> • Balanced curriculum designed to advance your career in engineering, technology, and management • Program is 17 months long including breaks • Classes meet Friday afternoon and all day Saturday, every other week • All inclusive: tuition, books, parking
<p>VISIT OUR WEB SITE: www.emmp.uwm.edu OR CALL 414-229-3721</p>	

G R O W YOUR CAREER

WITH AN MBA IN SUPPLY CHAIN MANAGEMENT

- **Selective admissions:** 10 to 12 students admitted each year
- **Cross-functional curriculum, personalized attention, and access to supply chain executives**
- **Summer internships:** ten consecutive years of 100% placement
- **Class of 2003 results:** 89% placed at graduation and an average base salary of \$84,968, a 7% increase over the class of 2002

"Within minutes of my first visit to the Grainger Center, I was extremely impressed with the caliber of the students and faculty. They were all collectively committed to making quantum improvements to supply chain processes. Their attention with industry is second to none."

—Maureen Strahan
VP Global Supply Operations
Hewlett-Packard

For more information:
www.bus.wisc.edu/grainger
graingerctr@bus.wisc.edu
608.262.1941



SCHOOL OF BUSINESS
University of Wisconsin-Madison

Women In the Engineering Industry: by Kaitlin Duck Sherwood

Editor's Note: The following is Part 1 of an article written by Kaitlin Duck Sherwood. Part 2 of this article will appear in the next issue of The Gear.

Women In the Engineering Industry
Copyright 1994 Kaitlin Duck Sherwood

Being a woman in engineering industry is different from being a man in engineering industry. Not better, not worse, but different. I'm going to try to talk about the things that are going to annoy you and help you when you get out to The Real World.

Please note that not everything I am going to say will apply to everyone here. (Many of them don't even apply to me, as a relatively tall woman with very masculine speech patterns.) These are rampant generalizations, but I can't talk about anything interesting if I don't generalize.

Physiology

Men and women have physiological differences, as you may have noticed. You would think that this shouldn't make any difference in the workplace, but it does.

Continued on page 6

Women In the Engineering Industry – Continued from page 5

Temperature

Women, prepare now for being cold at work for the rest of your life.

Those of you who have taken thermodynamics know that heat production is a function of volume (radius cubed), while heat dissipation is a function of surface area (radius squared). So the generation to dissipation ratio goes as the radius, and so the smaller you are, the colder you will be. Furthermore, because women menstruate, they are more prone to anemia, which can also make you cold. I've also read that women have much tighter tolerances on their core temperature regulation, to provide for a better growing environment for potential fetuses. So when a woman's core temperature drops by a little bit, all the blood gets sucked back from the extremities to the core. When men's core temperature drops by a little bit, and it just sits there, no problem.

Toss in that the ultimate control over building thermostats usually lies with large, well-fed men in three-piece suits in south-facing window offices, and you're going to be cold a lot. When I was working, I would always bring a coat to work with me, even in the height of summer.

Now, before you run and slap the next guy you see for being so insensitive, note that men are frequently hot - especially in a tie and a nice wool suit! Furthermore, I've seen some things that lead me to believe that part of why women live on the average eight years longer than men is their superior temperature regulation system. I don't know if this is true or not, but believing it gives me great comfort. On bad days I can sit there and think evil thoughts about the men in charge of the thermostats: "I may be freezing, but you're going to die!"

Carpal Tunnel

In addition to being colder, women in my experience seem to be more prone to carpal tunnel syndrome. I have a friend whose theory is that because men's shoulders are wider and their handspan greater, they don't have such a big excursion when hopping from keyboard to mouse or reach for funky keys. My anecdotal evidence is that the Sun keyboards with two keys between semicolon and return are the worst, by the way.

It may also be that tables and chairs are the wrong size for people who are substantially bigger or smaller than the average. This can lead to neck strain, back strain, eye strain, brain strain, whatever. If you start getting any of these problems, deal with it right away. Repetitive stress injuries don't go away with time, they get worse. Ask for a monitor stand, a different chair, put your computer on a box, the floor, get a new desk, whatever. And don't feel bad about asking for this: a new desk and chair is cheaper for the company than two years of physical therapy.

(See also Computer Related Repetitive Strain Injury.)

Language

You do need to be careful about how you ask for a more suitable workspace, and this brings me to the other major difference between men and women: language.

Continued on page 7

Women In the Engineering Industry – Continued from page 6

Phrase Everything As A Win-Win

Do not walk into your boss' office, throw a hissy fit, and say that you need new furniture NOW! Negative style points. Whenever possible, explain your ideas in terms of how they would benefit the other person, not how they would benefit you. Women tend to be more sympathetic, so tend to expect sympathy more readily. Forget it. You have to make them understand why they want to do what you want them to do.

Learn To Say "No" Well

You also need to be able to say "no" well. If the boss says, "We'd like you to write a statistical process control package for our line in one month", the appropriate response is not "you're out of your mind", nor is it "that can't be done". The appropriate response is, "Well, we could do that, but only if we hire about five contractors and rent six computers for development." It may be that the project is important enough that they are willing to do just that. If your boss really pushes you and basically tells you that you have to do it all by yourself in a month, you need to tell your boss, "I will do the best I can to get this done in a month, but let me go on record as stating that I feel that this is a schedule aggressive enough that it is not possible for anyone to do." If you can back that up with examples of time-to-completion for similar projects, even better. Put it in writing and keep one for your files, even better.

This is very important. The saddest case I ever saw of a woman not fitting into the culture was one of the sweetest women you'd ever want to know. She was universally highly-regarded technically. And she had a reputation for being very difficult to work with.

She is so sweet that when they ask her to do impossible things, she'd end up capitulating relatively easily because she wanted to be nice. She'd work her brains out, day-in, day-out, evenings, weekends, all the time, get all frazzled. Then when it got close to deadline and it wasn't ready, they'd start to come down on her, and she would just explode. She'd go totally non-linear. And nobody would understand what set her off. So she'd get nailed for being hard to work with.

This obviously was extremely frustrating for her, so it would be even worse next time. It was very sad. Here was a human being who spent a lot of time being very unhappy and a company that lost a great resource. Moral of the story: learn to say no! And if you can't say no, you'd better be darn-shootin' sure to keep your boss well-apprised of your progress.

*Continued in next issue of
"The Gear"*

Advertising Information

Newsletter ads, per issue: 1/2 page ad = \$25 full page ad = \$50. For more information, contact Gina Janke (gina.janke@swe.org, or 262-636-1315)

Webpage ads, per 2 month period: \$50 for text & simple graphic link. Graphic should be in one of the following software formats: JPEG, GIF, BMP, TIFF, TGA, RAS, EPS, PCX, PNG, and PCD
For more information, contact Lisa Henn (lisa.henn@swe.org, or (608)241-3496)

Upcoming Events!



- Sept. 25, 2:00 PM GE Medical Systems Women's Network panel discussion. See <http://www.msn.fullfeed.com/~swewi/Sept25Mtg.htm> for details
- Sept. 27, 3:00 PM Join us in Spring Green, WI for the American Players' Theater presentation of The Tempest! See <http://www.msn.fullfeed.com/~swewi/Sept27Mtg.htm> for details.
- Oct. 9 – 11 SWE National Conference – Birmingham, AL

About The Society of Women Engineers...

Our Principles:

The Society of women Engineers is a non-profit organization dedicated to informing young women, their parents, counselors, and general public, of the qualifications and achievements of women engineers, and the opportunities open to them.

Mission:

- Stimulate women to achieve full potential in careers as engineers and leaders.
- Expand the image of the engineering profession as a positive force in improving the quality of life.
- Demonstrate the value of diversity.

Address changes to:

Wisconsin Section, Society of Women Engineers
1801 Newberry La.
Racine, WI 53402