



# **Society of Women Engineers Philadelphia Section April 1998**

## ***Letter from the President, Janet Anderson***

Please support the future of our profession by attending our scholarship banquet on 4/21. I can't wait to hear what this year's winners have done. Last year, we had a winner who ran a polymer reactor in her basement! Please remember that we will NOT have a board meeting before the banquet (we do not have access to the room until 6 pm).

The Philadelphia Section runs on the strength of its many volunteers. We will be calling soon to find help for a number of positions (officers and chairs). Many of these positions take only a few hours a month or are active only part of the year. We hope you can help! See page 6 of this newsletter for vacant committee chairs.

The ballots for officers will be sent out soon as a separate mailing. Please return them to Vicki Land for tabulation so she receives them by May 15. We intend to announce the election results at the May dinner.

One of our members, Barbara Zubenko, is involved with the IEEE and has arranged a Saturday seminar (5/30/98) on "Multimedia Technology and Systems: Learn what makes multimedia tick". Her primary speaker is Dr. Julie Frank from Widener. See page 4 for more information or contact Barbara at 302-234-2050.

On a more personal note, I've been learning to be crew for the tall ship Kalmar Nyckel, a replica of the ship that brought the first Swedes to Delaware in 1638. It's official commissioning is May 9th. Please join in the festivities!! The Foundation is lining up sailings for the Kalmar Nyckel later this summer so if you are involved in a group or business that would like a unique experience, please call Eric at 302-429-7447.

## ***MARCH MEETING HIGHLIGHTS***

Dr. Vicki Brown, Associate Professor of Civil Engineering at Widener University, spoke on "Women in Academia: Special Challenges and Rewards of a Female Engineering Professor." Dr. Brown showed statistics for engineering degrees awarded to women in 1996-97: 18.7% of B.S. degrees, 19% of M.S. degrees, 12.3% of Ph.D. degrees. Since some Ph.D. recipients move into industry, there is a long way to go to build the number of women faculty in engineering education. She talked about the criteria for the evaluation of faculty performance: teaching (including advising students), research, and service (to the university and the profession). Dr. Brown feels that her interests lie more on the side of teaching, but she does do some research. She believes Widener is a good location for her because it also emphasizes teaching. Dr. Brown then listed the many tasks that a professor has: teach, secure funding, maintain a research program, publish, attend technical meetings and conferences, perform professional service, advise/mentor students, consult (local industry), participate in university governance, and recruit potential students. She also provided a glimpse at a new study that has found that:

- (1) Women professors spend more time on teaching,
- (2) Women students tend to rate male and female professors equally,
- (3) Male students tend to rate female professors lower, and
- (4) Students prefer to study with professors of the same gender.

# **SWE Philadelphia Section**

**April 1998**

***1998 Philadelphia Section Scholarship Awards Dinner  
will be held at the Radnor Hotel, Lancaster Avenue (Rt. 30),  
April 21<sup>st</sup>, 6PM***

Come and help us celebrate the achievements of local engineering college students. Students from University of Pennsylvania, Drexel University, Temple University, Villanova University, Swarthmore University, Widener University, and the University of Delaware have been notified our scholarship program. The Scholarship Committee is busy selecting this year's recipients.

SWE-Philadelphia has received over \$5,000 in contributions from businesses for this year's scholarship fund. Companies that have been supportive our scholarship fund drive include: Merck, Conectiv, ARCO Chemical, Bell Atlantic-Mobile, and Ford Electronics.

Please show your support by attending the banquet or by making a donation. We are still taking contributions for the Dorothy Hoffman Memorial Scholarship Fund. To make a contribution to the SWE-Philadelphia Scholarship Fund, please contact Susan Best.

## ***Certificate of Merit Presenters Needed***

- High schools within Eastern Pennsylvania and Delaware present Certificates of Merit to outstanding female students in Mathematics and Science. Last year, our section awarded over 150 certificates to local high school students. Some schools request a SWE member to present the award at their assemblies. Please contact Barb Faust if you are available to present awards at local high schools. Barb will have a list of schools, dates, and times that presenters are needed.
- Delmar High School, 200 N. Eighth Street, Delmar, Delaware, is requesting a presenter on Monday, June 1<sup>st</sup> at 8:30 AM.

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## ***FY 99 Section Ballot***

The ballot for next year's officers will be mailed separately by April 18th. So far, most of the incumbents will run again. The Secretary position is open. If you would like to be Secretary next year, please call Vicki Land to have your name appear on the ballot. Good luck to all the nominees!

## ***Region E Conference***

The Twin Tiers Section of the Society of Women Engineers presents: "Breaking the Glass Ceiling without Shattering your Life's Balance" for this year's Region E Conference. Workshop sessions will include: *Personal Power, High Performance Work Systems, Photonic Technologies, & Optical Fiber Tutorial.*

# **SWE Philadelphia Section**

**April 1998**

## ***FOR YOUR INFORMATION***

### ***Region E Conference***

Radisson Hotel  
Corning, NY  
April 17-19, 1998

Registration fees after April 3<sup>rd</sup> are \$100 for SWE Members, \$120 for Non-members, and \$40 for Student members.

### ***Family Day at the Crayola Factory***

May 16, 1998

Contact Michele Groen from the New Jersey SWE Section at (908) 771-1291 for tour time, location, and directions  
Cost \$9.00

### ***Engineering Society Day***

On February 24<sup>th</sup>, Lockheed Martin M&DS held their first Engineering Society Day. SWE was represented by Heather Bernardin in a panel discussion of the role of Engineering Societies. There were tables set up outside the conference center with SWE literature including the SWE-Philadelphia Section brochures provided by Susan Best. At the SWE table, representation was provided by Carole Stowell and Maggie Schwartz. Several employees expressed interest in the Society of Women Engineers.

SWE-Philadelphia thanks Lockheed Martin M&DS for their continued support.

### ***Murder Mystery Train***

At the last section meeting, we discussed the possibility of going on a murder mystery train ride. The train would leave Hockessin, Delaware (Route 41 near Yorklyn Road) at 8:00 PM on a Tuesday evening. The cost would be \$40.00 per person. The murder mystery train is hosted by local volunteers.

Please let Sue Sciarratta know by May 9<sup>th</sup> if you would be interested in attending. The dates would be either May 26, June 23, July 28, or August 25. Reservations need to be made in advance.

Cancellations would be accepted no later than 48 hours in advance.

*Early registration deadline for Houston SWE Convention is April 25, 1998.*

# **SWE Philadelphia Section**

**April 1998**

## ***VOLUNTEERS NEEDED***

Penn State wants you! Penn State is seeking help with a program for twelve year old girls. On either May 15th or 29th (Fridays), spend the day working with these girls with the goal to influence them to select careers in mathematics, science, engineering. Make three presentations in the morning to girls in groups of ten or so. Stay for lunch, Q&A session, Career Fair.

Contact Terry Devlin at 610-892-1331.  
(NOTE: Someone did the "asphalt" example last year.)

## ***WEB PAGE UPDATE***

Since September, our web site has been viewed over 1,150 times, which averages 7 page views per day. Previous reports from Libertynet were based on "hits" which might be misleading. Page views are now the measure of activity.

### **Definition of Page Views vs. Hits**

When a visitor views a web page on your site, it's counted as one page view. If that page contains three graphics, each of those is counted as a hit. Therefore, a page containing three graphics will record one page view, and four hits (one for the web page, three for the graphics).

Details are also available on the number of hits per web page. The home page, of course, get the highest number of page views. However, in three out of five months that it was available, the Job Bank page was the most frequently accessed. The calendar page is the second most frequently accessed page.

Information on the visitor's subdomain is also passed along and many of these addresses are numeric. We do not know any individual's user name who accessed the site, but we do know that visitors from Lockheed Martin are among the top visitors each month.

## ***MULTIMEDIA TECHNOLOGY AND SYSTEMS: LEARN WHAT MAKES MULTIMEDIA TICK***

A Seminar Sponsored by the Delaware Bay IEEE Computer Society

Bring your questions and ideas as we explore the following topics in a one-day seminar.

How are still and moving images compressed? What are the ideas behind the standards?

What are the transmission choices? ISDN? ATM? Digital Subscriber Lines? Cable modems? Wireless? Use of TV instead of PC? Direct TV?

Industry/Marketplace trends? Telco vs. Cable vs. Satellite? Convergence of computing, communications, entertainment?

Dr. Julie Frank, the instructor, is a technology and patent consultant and an Adjunct Professor in the graduate electrical engineering program at Widener University. She is a 35-year veteran of industry with R&D and management experience with Bell Labs (retired), RCA, FIT, New York Telephone, Wall Street, and nine years in academe.

She is the sole patentee of seven patents in image coding, satellites, and information processing. At Bell Labs, she received the Distinguished Member of Technical Staff Award for Sustained Achievement. One of her image coding methods was (1) used throughout Bell System for coding Yellow Page Graphics and (2) proposed by AT&T to the CCITT as a standard for facsimile coding.

DATE: Saturday, May 30, 1998  
TIME: 9:00 AM to 3:00 PM  
LOCATION: Widener University  
University Center, Room A  
COST: \$50 IEEE Members  
\$60 Non members  
LUNCH: \$6

To register, send name, address, phone number & e-mail address to: Barb Zubenko, 32 Somerset Lane, Newark, DE 19711

Make checks payable to: "IEEE, Delaware Bay Section." Write your IEEE membership number and "Multimedia" on the check.

# SWE Philadelphia Section

April 1998

## **EMPLOYMENT OPPORTUNITIES**

### **Project Engineer, Facilities and Construction Services**

*Job Location: Houston, TX or Parkersburg, WV*

*Experience: Current college graduate up to 10 years experience*

*Date Needed: Summer 1998 (timing flexible)*

#### *Position Responsibilities:*

Responsible for a specific segment of a given project, or segments of each series of concurrent projects, at a field construction site. The engineer influences the productivity, quality of work, cost and performance of site contractors by providing direction, setting expectations, and auditing to assure achievement of safety goals, appropriate supervision, development of people, and full implementation of value engineering - development of improved means of construction, control and reduction of costs, and inclusion of latest construction technology.

#### *Skills Required:*

BS/MS - Chemical, Electrical, Mechanical, Civil, Industrial Engineering

### **Mechanical Engineer, Power & Energy Engineering**

*Job location: Wilmington, Delaware*

*Experience: Current college graduate up to 5 years experience*

*Date needed: Summer 1998*

#### *Position Responsibilities:*

The successful candidate will contribute to conceptual front-end loading design of power and utility facilities for new or modified DuPont plants. The candidate will consult with DuPont plant power and utility operations, maintenance and technical support personnel.

General familiarity and specific interest in several of the following technical areas is important:

- combustion processes
- prevention and treatment of environmental effluent from power and utility facilities
- influent water treatment
- process heating systems (Dowtherm, Therminol)

- heating, ventilating, and air conditional (HVAC)
- refrigeration
- air compressors
- steam distribution systems
- pinch technology
- heat transfer and fluid dynamics
- energy conservation surveys

### **Chemical Engineer, Process / Project Engineering**

*Job Location: Wilmington, Delaware*

*Experience: current college graduate to 5 years experience*

*Date needed: Summer 1998*

#### *Position Responsibilities:*

Engineer would have varying levels of responsibility in the areas of Process Development, Process Design, and Process Improvement. Work would be conducted primarily in conjunction with either DuPont Fluoroproducts or DuPont Advanced Fiber Systems business.

#### *Skills Required:*

BS/MS - Chemical Engineering

If you are interested in any of these positions, please forward a resume and a cover letter to

DuPONT ENGINEERING  
1007 Market Street  
Nemours Building - 11458  
Wilmington, DE 19898

Contact: John Larock  
Recruiting Supervisor  
Phone: 302-774-2480  
Fax: 302-774-2497

For more information on  
**EMPLOYMENT  
OPPORTUNITIES,**  
visit the Job Bank page  
on our web site