



Philadelphia Section Newsletter

Society of Women Engineers

May 2001

Vol FY01.7

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May Section Meeting

Joint SWE-AIChE Meeting May 15, 2001

Technical Tour of Glaxo-SmithKline Pilot Plant Operation and Dinner at the Gypsy Rose Restaurant in Collegeville, PA

The SWE-Philadelphia Section will meet in Collegeville on Tuesday, May 15th for a joint technical tour of the GlaxoSmithKline pilot plant operation, networking, and dinner with members of the American Institute of Chemical Engineers (AIChE)-Delaware Valley Section. All interested parties are welcome to attend.

There is a limit of 50 people for the tour. A buffet dinner will be at the Gypsy Rose Restaurant in Collegeville. After dinner there will be a presentation by Burns and Roe.

Tour of GlaxoSmithKline plant:	5-6 pm
Networking/Cocktails at Gypsy Rose:	6-6:30 pm
Dinner at Gypsy rose:	6:30 pm
Dinner Cost:	\$25

(cost is payable at the door with checks made out to AIChE-DVS)

RSVP: by 5 pm on May 13th to Carole Stowell, 610-531-5320 or
carole.n.stowell@lmco.com

Directions to GlaxoSmithKline:

From King of Prussia take Rt 422 West to Collegeville exit (Rt 29). Turn right onto Rt 29 from the off-ramp. The Plant is on the right side of Rt 29.

Directions to the Gypsy Rose Restaurant:

Continue past the Plant on Rt 29 to the intersection of Rt 29 and Rt 113. Turn left on Rt 113. The Restaurant is on the left.

South-Central PA Sub-Section Meetings

May meeting in Lancaster

Contact Marsha Bischel, msbischel@armstrong.com

June or July social event at a Harrisburg Senators minor league baseball game. Families are invited.

Contact Catharine Miller, millercl@erdmananthony.com

SWE Philadelphia FY 01 Calendar of Events

Date	Event	Location
May 15	Joint Meeting & Technical Tour with AIChE	Collegeville
May 15	Lehigh Valley Tour of Bethlehem Brew Works	Bethlehem
May	South-Central PA Sub-Section Meeting	Lancaster
May 18	Math Options Career Day	Penn State Delaware Valley Campus
May & June	Certificate of Merit Presentations	Various
June	Election of New Officers Sub-Section Meetings Golf Outing	
June 26-30	National Conference	Denver, CO

Announcements

Requests for Volunteers

- The **Math Options Career Day** will be held on Friday, May 18th at **Penn State's Delaware County** campus in Media, PA. This program was created to introduce elementary school girls to the disciplines of engineering and science. **Volunteers** are needed to share their knowledge of engineering and/or science through a 40-minute presentation to a class of 15 students. Volunteers are also needed for different panel discussions. For more information, please contact Pat VanLeuvan, Project Director, at 610-892-1462.
- **Archbishop Ryan High School** is seeking engineers to serve on the **Review Board for the Container Design Projects** designed by students in the senior calculus class. The projects will be presented on Tuesday, May 29th. Reviewers are requested to be at the school by 12 noon for a light lunch and meeting to clarify the role of the reviewers. The student presentations will begin about 12:25 pm and continue until about 2:45 pm. If you are interested, please contact Sister Alice Hess, IHM (ahess@juno.com or by phone at 215-637-2424 after 4 pm).

Job Opening

- There is an opening for **Mechanical Engineering Technology faculty** at SUNY-Morrisville. For information, contact Joan V. Dannenhoffer, P.E., Civil and Environmental Engineering, Assistant Professor of Physics, SUNY-Morrisville, by phone at 315-684-6294 or 315-682-0593, e-mail: dannenjv@morrisville.edu or joan.dannenhoffer@juno.com

New Arrival

- **Lisa Hutchings** and her husband Tod are the proud parents of Gail Lynne who was born on April 5, 2001 at 12:32 pm. She weighed in at 7 lb-1 oz and 20 3/4 inches long. All of the family is adjusting rather easily to the new arrival.

New Golf Outing Coordinator

- Our new Golf Outing Coordinator is **Megan Kline**. The event this year will be held at Woody's, the site of last year's inaugural outing. Contact Megan at 215-650-8101 or mkline@gfnet.com for more information.

SWE-Lehigh Valley Spring Membership Meeting

- Join SWE-Lehigh Valley on Tuesday, May 15, 2001 at 6:00 pm for their Spring Membership Meeting that features a tour and dinner at the Bethlehem Brew Works, 569 Main Street, Bethlehem, PA.

Established on April 15, 1998 by the Fegley Family, Bethlehem Brew Works successfully captured the essence of Bethlehem's steel industry in a 250-seat brew-pub. Signature beers include Fegley's ESB, Valley Golden Ale, and the award-winning Steelworkers' Oatmeal Stout. In addition, three seasonal taps have been supplied with beers ranging from Pale Ales and Wheats to Pumpkin Ale and Belgian Lambics. You are invited to join with the LV SWE members for a short tour, discussion by the brewmaster, samples of all the current beers, and dinner.

Dinner includes appetizers, choice of sandwich (hamburgers, wraps, chicken, etc.), fries or salad, non-alcoholic beverage, and samples of all beers. Dinner cost is \$18 for SWE Members, \$16 for students or non-working Members. RSVP to Liz Davidson (davidsea@apci.com or 610-481-3967) by May 10.

SWE National Conference

The **2001 SWE National Conference** will be held in Denver, CO on June 26-30. In addition to the book sent to all SWE Members, registration forms, hotel information, descriptions of the Career Enhancement courses, schedule of SWE training workshops and committee meetings, and tour information may be obtained at the conference web site, www.swe.org/SWE/Convention/den01/2001M.htm. This site also provides updated program and hotel information. The primary conference hotels are already sold out. Arrangements are being made with other hotels in the area.

Cathy W. Lauro, one of the speakers at the conference, has invited all SWE members to attend the **Career Odyssey Track Seminar** on Thursday, June 28, 2001 from 2:30 to 4:00 pm. In this seminar - "Let Go, Lighten Up & Get on With It!" TM - Cathy will share some of the best strategies for personal and professional success, and for living life to the fullest. Learn:

- 1) What you need to let go of and what to hold onto;
- 2) How to lighten up, feel healthier, be more productive, and experience more joy; and
- 3) Effective methods to get on with creating a more successful life.

For more information, contact Cathy W. Lauro, speaker-author-trainer-success coach, at 817-729-6463, 800-215-3644, mind@CWLauro.com, or www.CWLauro.com. Look for her book: *The Inside Advantage: How Ordinary People Can Accomplish Extraordinary Things*.

Note that there will be no National Conference in FY 02 (July 2001 - June 2002) because of changes in conference scheduling. However, there will be a Council of Section Representatives (CSR) meeting held, with a tentative date of March 9, 2002

Slate for National SWE Officers for FY 02

Ballots should have been postmarked by May 1st to be considered valid.

President: Rachel McQuillan
Vice President: Alma Martinez-Fallon, Ronna Frazier, K'Andrea Bickerstaff, Mabel Esteves
Secretary: Vi Bran, Suzanne Hakam
Treasurer: Katherine Kent
Trustee: Ada Pressman, Amy Calistri

Volunteers Needed for Region E Officers

Nominations will be taken up through the Region E meeting at the National Conference for the following positions:

Deputy Director
Secretary
Treasurer
Nominating Committee Rep (to National Nominating Committee)

The duties and responsibilities of each position are described in the Region bylaws posted on the web at <http://www.swe.org/SWE/RegionE/RegionBylaws.doc>. Contact Holly Ross, Region E Director, as soon as possible with any nominations: 607-974-0195 or rosshr@corning.com.

Kutz Elementary Kindergarten Science

by Lisa Hutchings

Kindergarten students at Kutz Elementary School in Doylestown are given a special treat starting after the Winter holiday break. Each child is assigned one week when they are the "Star of the Week." Lisa's daughter Elizabeth's turn happened to occur in Engineers' Week. Elizabeth chose to do scientific experiments at the end of the week as her special treat. Lisa was looking forward to the opportunity to demonstrate science and math to 12 girls and 10 boys in her daughter's class. However, because of the Friday snow storm that week, the program was canceled. The teacher has promised to reschedule for a day in June.

While practicing at home, Lisa and Elizabeth were able to impress their friends and neighbors with experiments such as Cloud-in-a-Bottle, making a "volcano" with baking soda, vinegar, and "playdough" or clay, and making a static-charge finder. Contact Lisa Hutchings at 215-348-3218 or hutching@netaxs.com for more details on these and other science projects suitable for young children.

Science Fair Awards

The Philadelphia Section provided a number of **Special Awards** for student projects in the grade 6-7-8, 9, 10, 11, and 12 fairs held at the Delaware Valley Science Fairs (DVSF) competition on April 11th at the Fort Washington Expo Center. Each student won the right to compete by winning in one of 12 regional fairs held in Delaware, Southern New Jersey, and Southeastern Pennsylvania. Nearly 1000 projects were entered this year. The DVSF Medal Winners in the upper four fairs earn an all-expense-paid trip to compete in the International Science and Engineering Fair that is being held this year on May 6-13 in San Jose, CA.

The SWE awards included a \$500 scholarship to a high school senior who has been accepted to an accredited engineering college, copies of the new edition of the book *The Way Things Work*, and Honorable Mention certificates. Each winner received a SWE Certificate that included the student's name and school, project title, and level of award. All of the SWE Special Award recipients are listed below. Maggie Schwartz, Carole Stowell, Colleen Gaskill, and Barb Faust served as the SWE Special Awards judges.

SWE Special Award Winners - Delaware Valley Science Fairs 2001

Delaware Valley Science Fair - Grade 12

Scholarship	Robin Davis	Upper Dublin HS	Environmentally Friendly Cements: "Delisting EAFD for Safer Landfill
HM	Rashmi Ankam	Lower Moreland HS	Volumetric Determination of Calcium in Eggshells
HM	Sharon Hartranft	Harry S Truman HS	Can the Presence of Rohypnol Be Detected in a Drink?

Marie Curie Science Fair - Grade 11

Book	Lucy Jacobson	Central Bucks HS West	Going with the Flow: The Fountain Effect in Superfluid Helium
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Ben Franklin Science Fair - Grade 10

HM	Charli Tabler	Cape Henlopen HS	Which Store Matches Color Samples Most Accurately?
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Benjamin Banneker Science Fair - Grade 9

Book	Elena Glassman	Lenape Middle School	Signal Dissection by Repetitive Smoothing and Extraction
Book	Rebecca Davis	Upper Dublin HS	Slip & Slide: Calculating the Coefficient of Friction of Various Flooring Surfaces
HM	Rebecca Duane	Easton Area HS	The Effect of Different Amounts of Retention Aid on Paper Properties
HM	Brigette Kolson	Ridley HS	The Rate of Radiant Heating of Water as a Non-Linear Function of the Distance from the Heat Source

Albert Einstein Science Fair - Grades 6-7-8

Book	Victoria Marion	St. Agnes School-8th	The Effect of Fan Blade Pitch on Air Flow Rate
Book	Amy Lynn Styer	Styer Homeschool -7th	Spring Diameter versus Strength
HM	Kelsey Gibbons	Orefield Middle Sch-8th	Pollution of the Schuylkill River
HM	Jodi Gaeman	Baldi Middle School -8th	Insulation for Energy Conservation

We are pleased to learn that Elena Glassman, recipient of our first place award for the Benjamin Banneker Science Fair (9th Grade), finished as one of the overall medalists selected to compete in the International competition. Elena's project involves developing a method that is more accurate than Fourier transform and short-time Fourier transform for analyzing signals such as voice patterns that change over time. She developed her own code and used it to analyze data for two simple voice commands that could be used with a robot.

SWE Philadelphia Annual Awards Banquet

The Philadelphia Section held its annual **Scholarship Awards Banquet** on April 19th at the Wyndham Suites Valley Forge Hotel to honor recipients of this year's scholarship awards and recognize the contributions of our corporate sponsors. This year there are four scholarship recipients:

Li Ma, a full-time Ph.D student in the Department of Mechanical Engineering at Drexel University, received the \$1000 Rohm and Haas award. Li grew up in an engineering family; both of her parents are engineers. She majored in mechanical engineering at Tianjin University in China, where her senior design project was a vector chain solution of joint-type kinematics. After graduation, she worked for three years at the Tianjin Mechanical Research and Design Institute before returning to Tianjin University for her master's degree. Li's Ph.D project at Drexel University is microform modeling, simulation, and prediction of Rockwell hardness. This project is of great interest to the National Institute of Standards and Technology (NIST), which will be providing post-doctoral support for Li to continue with her work in this area.

Veronica Grower, a senior in Civil Engineering at Widener University, received the \$1000 Merck & Co. award. Veronica is President of the Widener SWE Student Section this year. She decided to go into engineering as a result of participating in a "Women's Day in Engineering" at Drexel when she was a junior in high school. Veronica credits her best friend for encouraging her to attend the Drexel one-day program that provided her with "a reality moment" that the interests of engineers are similar to her own. Now, as described by one of her professors, she "is a wonderful 'big sister' to the younger women, providing sound advice and encouragement."

Loren Minutoli, a sophomore in Civil Engineering at Widener University who participates in the University Honors program, received a \$1000 Philadelphia Section award. Veronica is also an athlete who has earned varsity letters in tennis and basketball. Through participation in sports she realizes the value of teamwork in solving problems, something that most engineers have to do in their jobs. According to one of her professors, "despite her busy schedule, Loren is always the first to volunteer" for SWE and other student organization activities.

Robin Davis, a senior at Upper Dublin High School, received a \$500 Philadelphia Section award for her Delaware Science Fair project, "Environmentally Friendly Cements: 'Delisting' EAFD for Safer Landfill." Robin was accepted into the engineering schools at both MIT and Carnegie Mellon University. Currently she is planning to attend MIT and major in chemical engineering.

The keynote speaker was **Jim Waddington**, Director of Communications for **Lockheed Martin Management and Data Systems (M&DS)**, one of our longtime corporate sponsors. Jim spoke of Lockheed Martin's engineering force and their accomplishments. M&DS is one of the few companies that have merited the Software Engineering Institute (SEI) rating of 5 and the *only* company in the world to merit the System Engineering rating of 5.

The work force at M&DS is diverse and in order to attract and keep such a diverse work force is a challenge for M&DS. One way that the company addresses this issue is to provide a variety of different benefits. Another is to provide the employees with good leadership, the opportunity to develop their careers, and challenging assignments.

Jim congratulated the award winners and left us with two of the words of wisdom that he always tells his children:

- 1) Remember that each choice you make can affect the rest of your life.
- 2) Never say that you can't do something. Saying you can't do something means that you won't do it.

Presenters Needed for Certificate of Merit Awards - 2001

Because we now have more members in the western part of the Section, our Certificate of Merit program has been extended to some of the schools in York and Lancaster counties. At the time this newsletter was finalized, we had received nominations from 59 high schools within the Philadelphia Section boundaries. Several schools have requested a SWE Member to present the Certificates at a school award assembly. The current list of schools, dates, and times is shown below. If you are interested in participating in one of these assemblies, please contact Barbara Faust at 215-257-6463 or Barbara.Faust@swe.org.

School	Location	Date	Time	Presenter
Pottstown Sr. HS	Pottstown	Mon, May 7	6:30 pm	Marjon Parham
McCaskey HS	Lancaster	Tues, May 15	7:00 pm	Marsha Bischel
Pennsbury HS	Fairless Hills	Wed, May 23	7:00 pm	
Strath Haven HS	Wallingford	Wed, May 23	7:00 PM	
Garden Spot HS	New Holland	Thurs, May 24	7:00 pm	Susan Best
Downingtown Sr HS	Exton	Wed, May 30	7:00 pm	
Nazareth Academy HS	NE Phila	Thurs, May 31	7:00 pm	
Great Valley HS	Malvern	May 31*/ Jun 1	7:30 am/7 pm	
Villa Joseph Marie HS	Holland	Thurs, May 31	9:30 am	
Pottsgrove HS	Pottstown	Tues, June 5	8:45 am	Megan Kline
Wissahickon HS	Ambler	Tues, June 5	Evening	
Springfield Twnshp HS	Erdenheim	Mon, June 11	10:00 am	
Sun Valley HS	Aston	Mon, June 11	evening	Mary Ann Skehan
Conestoga HS	Berwyn	Tues, June 12	7:00 pm	

*if possible, Great Valley HS would like the presentation to be made during the WISE (Women in Science and Engineering) meeting on May 31 rather than at the general Awards Assembly the next night on June 1.

Lehigh Valley Section is also seeking presenters for the following schools:

Northern Lehigh HS	May 30	
Jim Thorpe Area HS	May 25	at 8 am
Palmerton Area HS	June 1	at 1 pm
Kutztown Area HS	June 3	at 3 pm
Nazareth Area HS	May 29	at 6:30 pm

If you are interested in presenting Certificates of Merit at any of these schools, contact Colleen Kulick by phone at 610-855-2131 or 610-777-5426 or e-mail to colleen.kulick@persons.com.

SWE Philadelphia Section
c/o The Engineers' Club of Philadelphia
215 South 16th Street Suite 36
Philadelphia, PA 19102

ADDRESS CORRECTION REQUESTED

Visit our Web Site: <http://www.libertynet.org/sweps>
Contact us by E-mail: phila_info@swe.org

SWE Philadelphia Section
May 2001 Newsletter

Joint AIChE-SWE Meeting
Tuesday, May 15, 2001

Tour of Glaxo-SmithKline Pilot Plant Operation
Collegeville, PA

Dinner at Gypsy Rose Restaurant
Collegeville, PA

RSVP to Carole Stowell by May 13, 2001

Newsletter copying and distribution is underwritten by a grant from
Lockheed Martin Management and Data Systems.

Thank you!