



Society of Women Engineers

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E-SWEeper December 5, 2007

E-SWEeper: An electronic newsletter for Rochester-area Society of Women Engineers' members and other interested parties. The Rochester Section of the Society of Women Engineers will use this format to distribute newsworthy information to area members on a monthly basis. If you have any questions or submissions, please contact Lisa Norwood at (585) 275-4155, or lnrw@seas.rochester.edu. We will gladly include news items and activities from SWE Student Sections and nearby SWE Sections as time and space permits. Please forward this to colleagues as you see fit.

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Next SWE-ROC Board meeting

TODAY, Wednesday, December 5, 6:30 pm, RIT's Ross Building 10, Room A252

For a campus map go to: <http://facilities.rit.edu/campus/maps/general/generalmedium.gif>

Call-in number: 585-319-2353

All members, new and old, are invited to attend Rochester SWE's monthly board meetings on the first Wednesdays of the month at 6:30 pm at RIT. At these meeting, we discuss upcoming events, hear committee reports, and review any new or old business. This is another great opportunity to network with other female engineers and get involved in the inner-workings of SWE. If possible, please let June Kanik <jakanik@rochester.rr.com> know if you think you might attend or call into one of these meetings.

Volunteers Needed: Finger Lakes FIRST LEGO League Tournament

Sunday, December 9, Goergen Athletic Center

www.seas.rochester.edu/SEAS/FLL.html (Account: Volunteer; Password: 2007)

Would you like to make a difference and inspire a next generation scientist or engineer? You can help by serving as a judge, referee, team host, time-keepers/score-keepers, and more at this year's Finger Lakes FIRST LEGO League Tournament.

Young boys and girls ranging from the ages of 9-14 have been tasked with building a robot in the FIRST LEGO League program and engaging themselves in a research topic around this year's topic of Power.

Volunteer registration is now open for the Finger Lakes FIRST LEGO League Tournament. Double-click on the "Volunteer Registration" link on the left hand column of the above page, and then click on the "FLFLL Database" link. Access to the system is limited to five simultaneous connections at one time, so if you try to get on and you can't, please try back a little later.

If you volunteered last year, you already know it was a great time for everyone, and the middle school competitors gave us high praise for the work of the volunteers. If you have any questions about the registration system or tournament, contact John Ballou at 275-7899 or blou@mail.rochester.edu.

Web Seminar: Women Leading the Diversity Advantage

Thursday, December 13, 2007, 5:00 p.m., free for SWE members; \$49 for non-members

<https://www.swe.org/msc-swe/registrationtype.aspx?EVENT=WEBSEMINARDVRST07&bhcp=1>

Have you ever been asked to "share the woman's point of view?" As a leader do you sometimes feel your efforts being judged as a "woman engineer" rather than as an engineer? Join Lenora Billings-Harris, to explore ways to successfully lead without carrying the burden/responsibility of all of womankind. You will end the session with actionable tips and techniques that build upon your strengths and will enable you to experience future career successes.

About the Speaker:

Lenora Billings-Harris, is an international consultant, certified speaking professional (CSP), and author of *The Diversity Advantage: A Guide to Making Diversity Work*. With more than 25 years of experience in the public and private sectors, Lenora has developed a unique way of presenting sensitive topics in a high-energy, thought-provoking and non-threatening way. She designs and delivers presentations and helps coordinate initiatives for Fortune 500 companies as well as professional associations and educational institutions. She also served as an adjunct professor for Arizona State University, and is currently on the adjunct faculty of the Bryan School of Business and Economics, University of North Carolina-Greensboro. Lenora has presented to audiences in South Africa, Spain, Germany, Belgium, Russia, Ukraine, Mexico, Canada, the Caribbean, Canada and the South Pacific as well as all across the United States. Lenora served as president of the National Speakers Association for 2006-2007. Lenora received her M.A. degree from The University of Michigan and her B.S. degree from Hampton University.

Get Your Celebrating Structural Art 2008 Calendar

<http://www.erdmananthony.com/douglassanthonybridge>

Rochester loves its new Frederick Douglass-Susan B. Anthony Bridge! It's a first in the United States. It's winning national design awards. It's a source of community pride. Celebrate by buying our 2008 bridge calendar and turn your pride into action. *All profits go to our local Habitat for Humanity, helping build more pride in our city.*

The calendar, "Celebrating Structural Art," offers stunning black-and-white photos of the new bridge, facts on the engineering behind the structure, and inspirational quotes from renowned engineers and historical figures. From Erdman Anthony, the engineering firm responsible for the structural design of the new bridge, this unique calendar makes a great gift.

Don't miss this opportunity to share a bit of the best of Rochester with everyone on your gift list! Throughout the holiday season, you can buy the calendar at Parkleigh, George Eastman House gift shop, Susan B. Anthony House, The Creator's Hands (High Falls), Different Point of View (Pittsford), Liftbridge Books (Brockport), Nazareth College Bookstore, and RIT Bookstore, or online where you'll also find a fascinating slideshow of the bridge being built.

Join us to share your community spirit and build on it!

Park & Ride: Amusement Park Design for Girls

Saturday & Sunday, January 12-13, 9:00 am-4:00 pm, Rochester Institute of Technology

\$25 per person

Register at www.rit.edu/~women

Do you know a girl who would like to design a creative robotics demonstration? Learn about engineering? Use state-of-the-art LEGO Mindstorm kits? This pre-engineering program for 6th-8th grade girls will teach them how to design and program a roller coaster vehicle, during a two-day weekend event. There are a limited number of scholarships based on need, as well as interpreting services.

Save the Date: Membership Upgrade Social

Saturday January 26 at 2:00, location TBD

Join the SWE Rochester Section in celebrating with soon-to-be graduates of RIT and the University of Rochester student sections. Please come and encourage our students to become professional members!

SWE National Conference A Huge Success

This year's SWE national conference attendance in October reached more than 5,000 attendees for the first time ever. The career fair is highly recommended for anyone who is in the market for an internship or engineering job. The fair was sold out so attendees had the luxury of visiting with representatives from over 200 companies. Interviews were conducted on the spot and attendees had the opportunity to ask questions informally about company culture, company expectations, location, and anything else they were questioning. It was definitely a job seeker's market. Save the date for next year's National Conference - November 6-8, 2008 in Baltimore, MD, in our own Region E.

As is the norm, the Council of Representatives met to conduct Society business. Below are the results of the bylaws proposals, motions, and the Mega Issues resolution that were adopted. The original motions may be reviewed on the SWE COR website (available to all SWE members) at www.swe.org/COR.

- Bylaws Proposal #1: Differentiation between MALs and international members was approved;
 - Bylaws Proposal #2: Change in COR quorum was approved;
 - Bylaws Proposal #3: Increase Collegiate Representation on the Council of Representatives was approved;
 - Motion: Contingency Reserve Fund Resolution was approved with modification to 5% versus 25% and added the proviso:
 1. In the event the audited Fund balance as of June 30 is below the Base Level, a minimum of 5% of the audited national conference excess shall be transferred to the Fund; any amount greater than 5% may be transferred if approved by the Board of Directors.
 2. Proviso - Request the BOD to evaluate the need for performing a risk analysis and report recommendations by March 2008.

 - Motion: Reduced Dues Joint Membership Programs with NSBE and SHPE and AISES Collegiate and Professional was approved;
 - Motion: Update on Strategic Plan Refresh Activities was approved;
 - Motion: Mega Issue Resolution was approved.
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Volunteers Needed: MentorNet

www.mentornet.net/join

Did you know that both RIT and the University of Rochester have partnered with MentorNet, a nonprofit e-mentoring network, to pair science and engineering professionals in industry and government, either currently active, on leave, or retired, with engineering and science undergraduate, and graduate students, particularly women and underrepresented minorities, who are interested in pursuing a professional future in the fields of engineering and science?

The MentorNet Mentoring Program is a chance for SWE members to make a big difference in the life of a student in as little as 20 minutes a week for eight months. Because mentors and students communicate entirely by email, they can communicate wherever and whenever they choose. MentorNet's research-based programs have proven effective by providing "real world" information, encouragement, advice, and access to networks for students, and particularly for those underrepresented in engineering and science fields.

How can you volunteer to be a mentor? Complete the MentorNet Community Registration form at www.mentornet.net/join, and then follow the One-on-One Mentoring Programs links to create a mentor profile. Sign up today, you'll be glad you did!

Reviewers Needed for ASEE Women in Engineering Division

<https://survey.vt.edu/survey/entry.jsp?id=1193188253412>

Are you interested in reviewing papers for the American Society for Engineering Education (ASEE) 2008 Conference? The Women in Engineering Division is seeking paper reviewers. You will be asked to review 3 or less papers during a January 10th to February 7th timeframe.

If you are interested, please go to the above website where you will be asked for your name, email and preferred paper topics for review.

Register Now: SWE Region E Conference

Women Engineering a Sustainable Future, March 7-9, 2008, Richmond, VA

<http://www.swe.org/regione/documents/2008regionconferenceregistration.doc>

The Richmond Professional Section and the VCU Collegiate Section of the Society of Women Engineers (SWE) are jointly hosting the Mid-Atlantic Regional Conference. The goals of the conference are:

- Network with regional members
- Build skills to be successful in the engineering workforce
- Meet employers and learn about the diversity of engineering career paths and internships
- Attend technical workshops that explore sustainability

Register now!

Discovery Channel Seeks Female Engineer

Impossible Pictures is currently developing a prestigious engineering series for the Discovery Channel in the US, in which they plan to build prototypes of technologies which aim to mitigate or combat climate change. For this series they're currently looking for a female engineer who would like to join us in an exciting series of large-scale, ambitious experiments.

The ideal woman would have excellent communication skills, a hands-on and creative approach to problem-solving, an assertive attitude to working under pressure, a real passion for their subject, and the ability to convey an emotional response to the various projects featured in the series. The main thing they're looking for is a strong character who comes across well on screen, and a genuine interest in climate change is also a necessity.

There is a significant time commitment but for the right person this could be an extremely exciting and rewarding experience, and importantly, act as an inspiration to young women interested in a career in engineering. Please contact Jo Foster at jo.foster@impossiblepictures.co.uk if you are interested.

Positions Available: Leo J. Roth Corporation

Contact Tom Roth, at 585-872-0220 or troth@leojroth.com

As The Leo J Roth Corp. continues to grow, the expansion process creates new positions. The following two positions are now available at LJR:

Mechanical Estimator

Leo J Roth Corp. is in search of a Mechanical Estimator. Experience preferred, will train if necessary. Proficient computer skills. Full Time.

Controls Engineer

Roth Controls www.rothcontrols.com a division of the Leo J Roth Corp. is in search of a Temperature Controls Engineer. Experience preferred, will train if necessary. Knowledge of HVAC equipment and direct digital controls required. Must be proficient in the use of Microsoft Word, Excel, VISIO and autoCAD. High Tech, full time position.

Job Openings: Bausch & Lomb Engineering

www.Bausch.com, select Careers, and then Apply

Manager, Tool Engineering, Manufacturing (Req #3858BR)

Senior Product Design Engineer (Req. 3898BR)

Director, Global Packaging Engineering (Req. #3897BR)

Where Women Are Headed

Reprinted with permission from PRISM Magazine, October 2007

The percentage of engineering bachelor's degrees awarded to women declined for the fourth consecutive year in **2005-06**. The **19.3%** of engineering degrees awarded is far below women's general representation in the undergraduate ranks. However, this trend is not uniform for all engineering disciplines. The 10 fields listed here continually draw a higher percentage of women to engineering than the larger fields of mechanical, electrical, and computer engineering. Additionally, biomedical engineering is the fastest-growing engineering field, having increased **187%** since **1999**. According to the American Society for Engineering Education, the University of Rochester awarded the **18th** highest percentage of biomedical engineering bachelor's degrees to women in 2005-06 (47.1%) out of 77 schools that award at least 20 B.S. degrees.

Engineering Disciplines with the Highest Percentage of Female Graduates

1. (Data source : American Society for Engineering Education)
2. Biomedical = 40.7%
3. Chemical = 36.0%
4. Agricultural = 35.6%
5. Industrial & Manufacturing = 33.0%
6. Engineering Management = 28.6%
7. Metallurgical & Materials = 28.3%
8. Mining = 27.5%
9. Architectural = 25.4%
10. Engineering Science & Engineering Physics = 24.8%
11. Civil & Environmental = 23.1%