



AICHE Orange County

NEWSLETTER OF THE ORANGE COUNTY SECTION, AMERICAN INSTITUTE OF CHEMICAL ENGINEERS

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February 2004

Orange County Meeting FEBRUARY DINNER MEETING

What They Didn't Teach You in School –

How to Cope with Stress

Dr. Greg Cherney, D.C

Tuesday, February 24, 2004
5:30 PM

Dr. Greg Cherney will teach us how to deal with stress. Given the slow rebound of the economy and the migration of engineering jobs to "off-shore" companies, everyday stress is mounting as never before. To help us cope, Dr. Cherney, who has a degree in Chemical Engineering from Cal Poly, is going to present one of his favorite workshops, titled "Everything I Needed to Know About Healing, I learned from Star Trek." Dr. Cherney is going to ask us: Are you functioning at warp speed, or are you chugging along on impulse power? This entertaining workshop uses principles and examples from the popular television series Star Trek to explore the fundamentals of healing and staying well. You'll boldly go where you have never gone before in understanding how your body works, how it is affected by the stresses in your life, and how the body's healing process is just like the systems on a Starship. This is going to be a very interesting night for everyone.

Dr. Cherney's unique approach to health and wellness becomes evident when you learn more about his background. After graduating

from California State Polytechnic University, Pomona in Chemical Engineering, he worked as an engineer for seven years in the food industry for companies such as Haagen-Dazs Ice Cream, Snack Pack Pudding, and Swiss-Miss Cocoa. After deciding to focus on his passion for healthcare, Dr. Cherney returned to school and graduated from Los Angeles College of Chiropractic with a Doctorate in Chiropractic. Dr. Cherney is also certified in the utilization of both Network Spinal Analysis and Applied Kinesiology. Dr. Cherney combines his knowledge of engineering and healthcare to each case. This helps Dr. Cherney quickly get to the root of health problems and develop longer lasting solutions with minimal intervention.

Meeting Schedule:

5:30 p.m.	Social Hour
6:30 p.m.	Dinner
7:20 p.m.	Break
7:30 p.m.	After-Dinner Program

Place: Wyndham Garden Hotel, Costa Mesa

Directions: From Interstate 405, go north on Bristol Ave., right on Anton, left on Avenue of the Arts. The Wyndham is on the right at 3350 Avenue of the Arts, Costa Mesa.

Reservations: *Please make a reservation at (949) 261-2622 by voice by Friday, February 20, 2004. Or, you may email your reservation to west@research.ge.com.*

Cost: Members, \$20 with a reservation, \$25 at the door; Non-Members, \$25 with reservation, \$30 at the door; Students Free with reservation, \$5 at the door, Unemployed/Retired, \$5 with reservation, and \$10 at the door.

**Starting with the month of January 2004,
every third meeting a member attends is
FREE with reservation**



Society of Women Engineers (SWE) Orange County Section - Upcoming Events

New Member Involvement Dinner.

Thursday, 2/19/04, 6:30 p.m.

Location: TBA later this week

RSVP: Sonalee Myneni at sonalee.myneni@altair.com

Celebrate E-Week with SWE-OC!

February 22 - 28, 2004

Contact: Vicki Gaston at vjgaston@earthlink.net

Orange County Engineering Council (OCEC) Awards Night

Saturday, 2/21/04

Contact: Vicki Gaston at vjgaston@earthlink.net

Cost: \$65 per person

February Dinner Meeting -- Need Help with your Taxes?

Monday, 2/23/04, 6:30 p.m.

Location: TBA

Cost: \$15-20

RSVP: Vicki Gaston at vjgaston@earthlink.net or (562)

761-2393 by 2/20/04

National Engineer Week

February 22-28, 2004 is the National Engineer Week (E-week). Please visit www.eweek.org for more information!

Volunteers Needed for National Engineers Week Celebration at the Discovery Science Center

Engineer/volunteers are needed for a one-day event during National Engineers Week at the Discovery Science Center in Santa Ana (<http://www.discoverycube.org>) on Saturday, Feb 28, 2004. Volunteers will help children build toothpick towers, investigate the bounce-ability of different types of balls, play with slinky toys and solve an assortment of logic puzzles and games--in other words, lots of playing around (an engineer specialty!). Volunteers are needed to work 2 1/2 hour shifts (either 11-1:30 or 1:30-4:00pm). Please contact Janice West if you'd like to sign up! west@research.ge.com or 949 859-8851 x151 (work) or 949 261-2622 (home).

Volunteers will receive free parking and free admission for themselves and a guest or family

members (the DSC is open from 10-5pm). Come check out the DSC and help promote engineering as a profession (and have fun, too!)

Changing Attitudes towards Women Engineers

THE REAL BENEFIT OF INTRODUCING GIRLS TO ENGINEERING, PROFESSIONALS SAY, IS TO ENGINEERING ITSELF

Donald Lehr - The Nolan/Lehr Group

Source: National Engineers Week www.eweek.org

Teresa Helmlinger, the 68th president of the National Society of Professional Engineers, remembers well her early days as an industrial engineer.

"I was a distinct minority," says Helmlinger. "I can still see the look on some men's faces when I claimed to be an engineer. I'd go to construction sites and have to walk a mile to find the women's bathroom, which they called the 'kitty litter.' "

But, as Helmlinger and other leaders in engineering will tell you, there has been a sea change in attitudes toward women in the profession, thanks in large measure to increased access and an ever-expanding network of support, encouragement and mentoring.

For Helmlinger, an accomplished, 50-year-old engineer, however, there's still much work to be done, so now she's focused on the future: "My goal is that I leave a legacy so the next person doesn't have to go through what I went through."

For her and thousands of other women engineers -- with a good deal of support from their male counterparts -- establishing that legacy means an all-out mentoring effort on **Introduce a Girl to Engineering Day**, a centerpiece of National Engineers Week's annual outreach to encourage underrepresented groups to consider a career in engineering.

Now in its fourth year, Introduce a Girl to Engineering Day 2004 -- Thursday, February 26 -- will feature more than 125 organizations mobilizing 11,000 women engineers to actively reach out to an



estimated one million girls that day and throughout the year. The program, often dubbed "Girl Day" in engineering circles, is led by 2004 National Engineers Week co-chair, The Institute of Electrical and Electronics Engineers (IEEE/IEEE-USA), with major sponsors Agilent Technologies, Inc., and the Elizabeth and Stephen Bechtel, Jr. Foundation.

In order to get as many people as possible to participate, Girl Day organizers have posted information, along with resources for volunteers, at the National Engineers Week web site at www.eweek.org. At the site, organizations and engineers can list their activities on the 2004 Pledge Roster, which will help make educational and career opportunities and mentoring programs available for girls and prospective women engineers nationwide.

"The heart and soul of Introduce a Girl to Engineering Day are the young women we inspire," says Joey Duvall, an electrical engineer at Lockheed Martin, IEEE member, and chair of this year's campaign. "I've had a great deal of support from key role models throughout my journey. I never doubted I could become an engineer, and that's the message I hope to give to my younger, future colleagues."

Duvall and others involved in the program stress that Girl Day is much more than an attempt to diversify the profession, which is about 90 percent male. Instead, it's considered a critical linchpin in a nationwide effort to broaden and increase the ranks of engineers in America. Nor is it simply a need to fill numbers. The very essence of engineering, they say, is at stake.

"What do engineers do, really?" asks Sherra Kerns, slated to become president of the 12,000-member American Society for Engineering Education in June 2004. "We design. Design is a fundamental, a creative endeavor. Engineering is creation and implementation. If you have the best social mix and the most perspectives, then more likely you'll have the best design."

Speaking to what she considers the core of engineering, Kerns, who also serves as vice president for Innovation & Research at Franklin W. Olin College of Engineering in Needham, Mass., says, "There's more to it than a single solution."

In a similar message, Sherry Woods, director of special projects at the College of Engineering at the University of Texas at Austin and president of

WEPAN, Women in Engineering Programs & Advocates Network, agrees. "If it's coming from one perspective, it's limiting," says Woods. "We're committed to ensuring that every girl has an opportunity to pursue whatever career path she wants with no blatant or covert barriers. We don't need those barriers."

Carol Muller, president of MentorNet, points out, "If you have differences of experiences, products are designed better." Muller's nationwide mentoring program headquartered at San Jose State University matches professional women and men engineers with engineering students, mostly women, via email. MentorNet has successfully paired more than 20,000 students and professionals since it began in 1997.

"Women are half the population, half the talent. They should be half the results," she says. "You want more women in engineering and as much talent as possible for the very best designs."

For Nancy Berg, executive director and general manager of the 40,000-member Society of Manufacturing Engineers (SME), diversifying engineering not only brings better design, but is essential to the future of America. "We need to look at all our communities," she says. "If we don't strengthen our competitive talent, our leadership in engineering is going to go to other countries."

That means exposing more people early on to the opportunities of engineering. "We seek gender parity to engage as many young people as possible until we have enough brains to make this country successful. Some 500 SME chapters are involved in mentoring programs and summer camps," she says. "We have student chapters, we go to shopping malls. We go where kids go."

And like many of her colleagues, Berg insists it's everyone's responsibility to pitch in as mentors. "We have more role models than we realize," she says.

Editors and Reporters Please Note: In Brief:

- The fourth annual **Introduce a Girl to Engineering Day** is Thursday, February 26, 2004. More than 125 organizations will mobilize 11,000 women engineers -- along with strong support from their male colleagues -- to reach an estimated one million girls that day and throughout the year with direct, hands-on mentoring activities. "Girl Day," as it's known by most



engineers, is the centerpiece of National Engineers Week's annual outreach to encourage underrepresented groups to consider a career in engineering. The campaign is led by 2004 National Engineers Week co-chair, The Institute of Electrical and Electronics Engineers (IEEE/IEEE-USA), with major sponsors Agilent Technologies, Inc., and the Elizabeth and Stephen Bechtel, Jr. Foundation. More information, resources for volunteers, and a roster of Girl Day activities nationwide, are available at www.eweek.org.

- Introduce a Girl to Engineering Day was founded in 2001 by the National Society of Professional Engineers (NSPE), IBM, the Society of Women Engineers, WEPAN, and MentorNet. National Engineers Week, founded in 1951 by NSPE, is dedicated to increasing public awareness and appreciation of technology and the engineering profession and is celebrated by thousands of engineers, engineering students, teachers and leaders in government and business. Co-chairs for 2004 are The Institute of Electrical and Electronics Engineers (IEEE / IEEE-USA) and the Fluor Corporation.

Editors & Reporters Please Note: At-A-Glance U.S. Engineering Statistics

- Women are 46 percent of the U.S. workforce, and 48.6 percent of the total college-degreed workforce, but are only 24.7 percent of the Science and Engineering workforce.
- Fewer than one in ten engineers -- 9.48 percent -- are women. That's up slightly from 1993 when it was 7.85 percent.
- Of the 25-30 percent of entering U.S. college students who intend to major in science and engineering fields, fewer than half complete a degree in those fields within five years.

Newsletter Contributors Wanted

The newsletter editor would like to hear from you if you have one or more brief articles to contribute, especially a review or brief discussion of a good website, technical book, etc.

Professional Engineering Employment Update

Job Seeking Members can receive a list of web sites of area companies that sometimes hire ChEs. Contact the Senior Member Everett Knell at EWKneil@aol.com to receive this list by e-mail. Put "OCAICHE Company List" in the subject line of your email request.

Job Opportunities

Professional Outlook is a recruiting firm, established in 1991, that specializes in the placement of professionals for industrial clients seeking Chemical, Mechanical, Electrical Engineers, Environmental, Health, Safety and Human Resource Professionals. The following [EHS positions](#) and [Environmental Air Compliance Supervisor position](#) are currently available with our client companies at various locations. If you are interested in one of the following opportunities and meet all the requirements, please contact Bethany Brevard-Harned at 616.396.9600 or email a confidential resume and salary history to: bethany@professionaloutlook.com

Please visit our web site every Friday for updates:
www.professionaloutlook.com

Title: Manager, Industrial Hygiene

Years: 5-10

Location:

Iowa

Education: BS/MS IH or Safety with CIH/CSP

Job Code: BB-17063

Excellent opportunity to join a Corporate EHS Department as the Manager, Industrial Hygiene, responsible for developing, implementing and overseeing the IH & Medical Surveillance Programs on a Corporate-wide basis for multiple processing facilities. This position also manages safety training & assists with the Workers Compensation-Case Management process for North American Facilities. Prior experience in the following are required:

- Management of IH program to ensure regulatory compliance & minimize associated liabilities for multiple facilities
- Oversight of safety training process, ensuring quality of training materials, regulatory compliance, & effectiveness of training conducted.
- Management of Medical Surveillance Program to ensure regulatory compliance & minimize associated liabilities

Effective medical case management to minimize potential claim costs & associated liabilities

Title: Environmental, Health & Safety Engineer

Years: 3+

Location: NC

Education: BS Safety, Environmental, Engineering

Job Code: KC-16951

Must have technical degree in Safety, Environmental, Engineering with a minimum of 3 years Environmental, Health, and Safety experience developing and administering safety and environmental programs in a manufacturing plant. Experience should include training, process safety management, coordinating EHS audits, risk management,



permitting, and managing waste streams.

Title: Manager, Product Stewardship

Years: 10+

Location: NJ – Livingston, NJ area

Education: BS Chemistry, ChE, Biochemistry

Job Code: BB-17055

Will lead & implement the company product safety program to include, product hazard communication and product & process related regulatory compliance issues with an emphasis on TSCA, OSHA Hazard Communication Standard, Canadian WHMIS regulations, DOT hazardous materials regulations, DEA and FDA regulations. *Requirements:* BS Chem, ChE, or Biochemistry with a minimum of ten years chemical industry experience including seven years in product hazard communication, regulatory compliance including TSCA and DOT hazardous materials as well as, previous EHS plant responsibility. Must have experience in product safety including responsibility for program management. Working knowledge of ANSI labeling and MSDS standards as necessary. 15-35% domestic and international travel required.

Title: Health & Safety Manager

Years: 3+

Location: PA – Harrisburg area

Education: BS/BS Safety or related. CSP is a plus

Job Code: CD-17051

Ideal incumbent must have 3+ years of professional experience responsible for managing health and safety programs. Multiple site experience is highly desired. Candidate must be able to travel 60-80% throughout the region (company car provided). Candidate must have strength in areas of identifying areas needing improvement, DOT/Fleet, performing risk assessments, developing and implementing effective programs.

Environmental Air Compliance Supervisor

Required Degree: BS Chemical or Environmental Engineering only

Years Experience: 5+ of CAA / Title V permitting & compliance in chemical process industry required

Salary: \$75,000-\$85,000 plus bonus eligibility

Location: Minneapolis/St. Paul, Minnesota (excellent relocation package provided)

This is a leadership opportunity in a growing organization, as a Supervisor in the Air Compliance Group. This position will champion the Air Compliance Programs and work closely with the leadership team to drive performance! This is a stable company with extensive resources and steady growth with future promotion opportunities for top performers.

Requirements: BS in Chemical or Environmental Engineering required. Successful candidates must have a minimum of 5 years of managing air compliance/permitting process in the chemical process industry with prior experience in developing and implementing air compliance systems for reporting and emissions tracking.

- ① If you have an employment opportunity in Southern California for a chemical engineer, the newsletter will advertise it for free.

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