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Let's build a Smarter Planet.

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Over the last few months, SWE has produced a number of webinars that cater to our diverse membership. Presented by experts, these programs span the topics of innovation, work/life balance, and management. Following are descriptions of just a few of the recently developed webinars. Although the dates have passed for these events, you can still view them by visiting swe.org/Professional Development/2010 Webinars.

▲ **Communication Style: Power or Pitfall?**
Held April 8, 2010
Presenter: Anne Miller, consultant

▲ **Managing Global Teams**
Held April 29, 2010
Presenter: Sandy Lieske, Hewlett-Packard Company

▲ **Workforce Reentry**
Held June 8, 2010
Presenter: Renee Weisman, retired engineer; consultant

▲ **Managing Up**
Held June 17, 2010
Presenter: Aileen Bayard, leadership coach
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“Launching Innovation. Defining Success.”

The WE10 theme, “Launching Innovation. Defining Success,” refers to the professional and the personal benefits that are key to the conference experience — professional development opportunities, technical knowledge, networking, advice, and the essence of SWE — a recharging of batteries in a supportive, multigenerational setting.

Whether physically at the conference, participating in the virtual sessions, or reading about it from afar, the notions and avenues of self-development explored at WE10 are relevant across the spectrum from collegiates, to early or mid-career women, senior staff or executive; from those launching or contemplating a second career to retirees.

As the conference issue, this magazine is largely about the specifics of the conference, covering the special highlights, abbreviated daily schedule, plenaries, profiles of the distinguished award recipients, and detailed descriptions of the sessions according to track. However, aside from the specific details of the conference, this issue is also a regular magazine, complete with the typical coverage readers expect. With the conference theme as a backdrop, standard features and columns dovetail on some of those concepts.

Capturing the notion of innovation, Sandra Guy’s article, “Greater Possibilities for Small Businesses,” beginning on page 24, looks at one way for small technology companies to leverage their capabilities. How do new and innovative technologies make the leap from a small organization’s breakthrough to commercial viability? For the women engineers interviewed here, founders and CEOs of their own firms, the Small Business Innovation Research (SBIR) program helped take their businesses to the next level. As one of these CEOs noted, through the SBIR program, small businesses have the opportunity to do what they do best: leverage their quick-footedness, ethnic and gender diversity, and unique ways of thinking to offer the kinds of innovations that a large bureaucracy needs.

Charlotte Thomas’ article, “A Healthy Collaboration: Doctors and Engineers,” offers a view of the intriguing and innovative collaborations that occur between these two fields, and the benefits that result. These benefits have a direct impact on patient well-being, as improvements in methodologies, equipment, and organization also bring both professions to a closer realization of a common goal: to help people. Turn to page 30 to learn how women engineers are contributing to advancements in the health care system.

The news section in the front of the issue includes coverage of technical women taking senior roles in nuclear arms negotiations, something that was unheard of just two short decades ago. In addition, we offer a peek at the upcoming International Conference of Women Engineers and Scientists, scheduled for July 2011 in Australia, as well as efforts in Washington to advance STEM education.

Further on, our media review discussion of the book, The Male Factor, may make you reflect and perhaps rethink some of your assumptions about behaviors on the job. Could you actually be sabotaging yourself despite all efforts to do your best? Read this review and digest the “food for thought.” Also, peruse the books and websites suggested for innovation.

In keeping with our commitment to greener, more environmentally friendly practices, there is a substantial change this year. Conference attendees and readers of the electronic issue will have access to detailed descriptions of conference sessions, making for a substantially larger magazine. Copies received via the U.S. postal service do not contain these details, but they are available online in the electronic issue, available on the SWE website. We are pleased to continue reducing our carbon footprint in this manner.

The robust offerings and sense of community found at SWE conferences are most readily and strongly experienced by being there, in the face-to-face gatherings. Realizing that one can’t always come, the virtual gatherings. Realizing that one can’t always come, the virtual sessions and plenaries provide another option, along with magazine and Web materials, to capture and document some of the event. And don’t forget that after the holiday season, the winter issue will contain a conference summary complete with the text of the Achievement Award recipient’s speech, highlights, and best practices.

Enjoy the conference, and the spirit of the conference that is in this issue, by whichever method and combination of delivery systems you experience it.

Anne M. Perusek
Director of Editorial & Publishing
anne.perusek@swe.org

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CONFERENCE 2010 • SWE 7
A love of programming sparked a passion in engineering for Jane Krueger. When she joined Rockwell Collins she had the opportunity to focus that passion in the development of revolutionary flight deck technologies for air transport and business jets. Today, Jane is leading engineers to the next evolution in state-of-the-art military communication and navigation technologies that enhance the safety and effectiveness of soldiers in the field. To join a company where you can fuel your passion to make a difference, visit our website, www.rockwellcollins.com/careers.
Feedback

I love the new SWE Magazine. The content has always been great; however, now with the new design, layout, and eco-friendly paper, the magazine looks, reads, and feels AWESOME! It’s great to be green and innovative. Keep up the great work.

Thank you,
Sonja Domazet, Los Angeles Section

I liked it all. For the first time in many months, I found myself going back to the issue and reading the articles — rather than just glancing at the topics, as has been my wont.

And, despite what someone may have told you, I have only been a SWE member for 59 years. [regarding the photo caption on page 57, fall issue.] I tried to join in 1950, but the treasurer didn’t process my check before I moved my bank account and I had to issue a new check!

Patricia L. Brown, F.SWE,
Past President, 1961-63
Las Vegas Valley Section

Note: Brown was the Society’s seventh president.

Awards

I just wanted to send you a note congratulating you and your team on the well-deserved awards received for SWE Magazine. This past issue is one of THE best you have produced.

I always read the magazine cover-to-cover, and I always mention the benefits of reading the magazine when I give my “Making the Most of Your SWE Membership” presentation to SWE sections. I even share the issues with my parents. In fact, my dad, who graduated from Lehigh University in the ‘50s, mentioned that Lehigh currently has a female president who is an engineer — perhaps a future article idea for you. Keep up the good work.

Sincerely,
Susan Thomas Schlett
SWE Charlotte-Metrolina Section
Membership Chair FY11

Work for a company as diverse as your ideas. We started with motorcycles. Now we’ve harnessed advanced technology to provide people with everything from cars to jets to robots.
Women Lead Nuclear Negotiations

Whether at the negotiating table or behind the scenes, more technical women are playing visible and integral roles in nuclear negotiations.

Nuclear weapons negotiations — long a man’s domain — have quietly become the province of women, with the American nuclear arms team directed by a female lead negotiator, her deputy, and the top two scientists, as well as women in senior posts in the Pentagon and White House.

Indeed, the nuclear negotiating chain of command extends from senior verification official Karin Look, who played a key role in dismantling Libya’s nuclear weapons program, all the way up to Secretary of State Hillary Rodham Clinton, according to a story published Aug. 22 in The Washington Post.

Mona Dreicer, deputy program director for nonproliferation in the Global Security Principal Directorate, and part of a team that develops nonproliferation and arms control programs at Lawrence Livermore National Laboratory, said women with engineering, scientific, and technical backgrounds play integral roles in arms-control talks, even when they are not at the negotiating table.

Dreicer served as director of the Office of Nuclear Affairs at the State Department from February 2000 through July 2003, and played a key role in developing the U.S. government’s arms control verification guidance and negotiation strategy for the Comprehensive Test Ban Treaty (CTBT). She held varying levels of responsibility in the test-ban treaty process, starting as a technical advisor as a part-time consultant, and ending up the chair of the committee that coordinated the technical verification policy for CTBT.

Communicating the technical aspects of policy

“I can remember standing in front of a meeting of mostly lawyers and economists, and presenting our results with 16 significant figures to illustrate how small certain impacts of nuclear energy were. The audience didn’t know what to do with my table, and had to ask again and again about what it really meant,” said Dreicer, recalling an incident from her work with a French research project on the social costs of energy production. “To me, the answer was obvious.”

She found the same communication disconnect during her tenure as manager of a team that reported on the results of the Chernobyl nuclear plant meltdown for the International Atomic Energy Agency.

“I had to be able to communicate to a broad audience, including the people affected by the (disaster),” she said.

Dreicer learned to bridge the political and diplomatic divides as she advanced in her career, and added to her bachelor’s of science degree in biology from McGill University by earning a master’s of science in health physics and radioecology from Colorado State University and a Doctorate in Energy from Ecole Nationale Superiere des Mines de Paris/Centre d’Energetique, in Paris.

Dreicer said she would advise young women pursuing a science, technology, engineering, or mathematics degree to be aware that they must listen and strive to relate to audiences with no such background.

Rose Gottemoeller, Assistant Secretary of the State Department’s Bureau of Verification, Compliance, and Implementation and chief negotiator to the Strategic Arms Reduction Treaty, or New START, had, in addition to a significant career in international affairs and national security, a long history of Russian-language history and culture, Dreicer said.

“(Gottemoeller) understands not just the foreign policy implications but how to deal one-on-one with her Russian counterpart,” Dreicer said, pointing to a variety of programs and fields of study that can help young women exploring STEM careers to
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Studying foreign languages, keeping current on international news, and participating in Expanding Your Horizons conferences, the Foreign Policy Initiative’s Future Leaders program, or other career and summer internships, would help establish the necessary credentials. “You have to educate yourself, though a technical background certainly helps you know the questions to ask,” she said. “The learning never stops.”

Experience and education open up a technical role

Whitney Raas, a physical scientist in the State Department’s Bureau of Verification, Compliance, and Implementation, personifies the ability of women today to set their sights on being a technical expert in a policy field.

Raas realized that she was keenly interested in nuclear-energy public policy when she took an American foreign policy class during her senior year at UCLA, where she earned a bachelor’s with high honors in physics.

“I found that nuclear physics was the most exciting science,” she said, noting that nuclear physics, particle physics, and quantum mechanics have major implications across an array of policy issues.

Raas started her career as a research analyst at the Center for Naval Analyses Corp., a federally funded think tank, in Alexandria, Va. While employed by the center, she spent five months in Afghanistan working with reconstruction and counter-insurgency teams. The experience strengthened her resolve to return to the nuclear-policy arena with a new realization of the importance of being able to translate technical information to colleagues with differing backgrounds.

“In defense areas like nuclear weapons and non-proliferation, you have to be able to understand policy and military issues, and talk about their concerns without offending anyone,” Raas said.

Raas’ realization prompted her to return to

Mona Dreicer has become adept at bridging technical, political, and diplomatic divides.

Whitney Raas served as an advisor and member of the U.S. delegation to the eighth Nuclear Nonproliferation Treaty Review Conference.
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school to simultaneously earn a master’s in political science and a Ph.D. in nuclear engineering from the Massachusetts Institute of Technology. She joined the State Department in August 2008 as a physical scientist, providing policy support on technical issues related to arms control, nonproliferation, and nuclear policy.

She has been excited to serve as a member of and advisor to the U.S. delegation to the eighth Nuclear Nonproliferation Treaty Review Conference, and to see her suggestions translated into policy as part of the Obama administration’s April 6 release of its new Nuclear Posture Review, the policies that govern nuclear strategy. Obama used the review to accelerate the administration’s efforts to reduce nuclear arms and ultimately make nuclear weapons obsolete.

Raas appreciates the many female role models so prominent in today’s State Department, and believes that their presence facilitates team building and a positive work environment.

As a young woman, she takes for granted that women play such key roles. “It has never been an anomaly to me to be a woman,” she said, noting that her undergraduate physics class comprised 60 percent women students, and that her first lab at MIT consisted of four women and one man.

Pathways to senior positions

The Washington Post article also cited a survey by Women in International Security showing that women account for 21 to 29 percent of the senior positions at the State Department, the United States Agency for International Development (USAID), the Pentagon, and other national security and foreign policy agencies.

“If you show yourself to be capable and hard-working, you gain respect for being good at what you do, regardless of gender,” Raas said. Echoing Dreicer, Raas advises others looking to follow a similar career path to pursue academic avenues with broad applications, to study humanities in addition to science, and learn a foreign language.

Eileen Vergino, deputy director for the Center for Global Security Research at the Lawrence Livermore National Laboratory, had the opposite experience from Raas.

Vergino, who is in her fifties, vividly remembers her sixth-grade teacher in Los Angeles telling her that it would be impossible for her to become a scientist.

Vergino ignored the advice and earned a bachelor’s degree in geophysics at the Massachusetts Institute of Technology. Her 1973 incoming class comprised 20 percent women, a new high for female participation at that time, and her graduat-
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Jane Wales is passionate about the need for STEM-educated women to serve in policy positions.

**SWE and ICWES**

A long-standing collaboration connects women engineers and scientists around the globe.

Through the 15th International Conference for Women Engineers and Scientists (ICWES) takes place in Adelaide, Australia, July 19-22, 2011, its ties to SWE are close. SWE sponsored the first ICWES, held in New York, in 1964. Since then, this international conference has been held every three years in locations around the world. This continued collaboration speaks to SWE's ongoing interest in supporting the advancement of women engineers outside the United States. In addition, as more SWE members travel and work in different countries, ICWES gives us the opportunity to meet women around the globe and expand our networks,” said Gail Mattson, 2001 SWE national president and current International Network of Women and Scientists (INWES) board member, the governing organization that supports ICWES.

Co-chair for the ICWES15 and National Vice President Marlene Kanga, Ph.D., FIEAust, CPEng, added her enthusiasm about the potential ICWES15 has for SWE members. “ICWES provides a great opportunity to meet like-minded women engineers and scientists around the globe and expand our networks,” said Gail Mattson, 2001 SWE national president and current International Network of Women and Scientists (INWES) board member, the governing organization that supports ICWES.

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minded, smart women and to share experiences and solutions for supporting women to remain in science and engineering and to encourage them into leadership roles. We look forward to welcoming women from the U.S.A. as speakers and delegates. We are sure we will inspire each other, and together show that women have the ability to make a significant contribution to a technological world.”

ICWES15 speakers highlight the conference’s themes of leadership, innovation, and sustainability. Dame Professor Jocelyn Bell Burnell, DBE, FRS, FRAS, is a distinguished astrophysicist based in the U.K. She is the current president of the Institute of Physics, United Kingdom, and the first woman in this role. Telecommunications engineer Maria Jesús Prieto-Laffargue, Ph.D., is the first woman president of the World Federation of Engineering Organisations. Professor Elizabeth Taylor, AO, is a leading academic and has been the executive dean of the Faculty of Sciences, Engineering and Health at Central Queensland University.

In addition to attending ICWES15, SWE members are encouraged to submit papers and posters. As SWE members are already deeply involved in outreach, sharing best practices, technical innovation, and using their skills to solve current problems, Mattson suggests that any of the four topics in the call for papers is an excellent fit:

1. Attracting, developing, and retaining women engineers and scientists
2. Outstanding practice models of industry commitment to diversity and equality in the workplace
3. Achievements, innovation, and research in various fields of engineering, science, and technology
4. New ideas and solutions to contemporary problems including climate change, water, energy, and sustainability

Abstracts are due for first review Dec. 1, 2010.

Mattson noted that women engineers and scientists outside the U.S. are eager to get information and ideas on reaching young girls. ICWES15 will include a FutureMinds session for high school students to meet and be inspired by leading women engineers and scientists from around the world. “We’d like to have as many SWE members as possible submit papers. Women in other countries can modify what we do for their events for girls,” she added, noting that INWES will have a booth at the WE10 conference, where more information about ICWES15 and the call for papers will be available. To access ICWES15 online go to www.icwes15.org.

Charlotte Thomas, SWE Contributor

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Changing the Equation

STEM-focused events in Washington shine the spotlight on education.

By Sandra Guy, SWE Contributor

President Obama announced on Sept. 16 the launch of “Change the Equation,” a CEO-led initiative to improve education in science, technology, engineering, and math (STEM). Set up as a nonprofit organization, Change the Equation was founded by astronaut Sally Ride, former Intel chairman Craig Barrett, Xerox CEO Ursula Burns, Time Warner Cable CEO Glenn Britt, and Eastman Kodak CEO Antonio Perez.

With $5 million for its first year of operations and 100 CEOs signed up as members, Change the Equation aims to meet three goals:

• Improve STEM teaching at all grade levels
• Inspire student appreciation and excitement for STEM, especially among women and underrepresented minorities
• Achieve a sustained commitment to improving STEM education

The initiative aims to supplement President Obama’s $4 billion Race to the Top competition, in which states are encouraged to develop strategies to improve achievement in STEM subjects, partner with institutions, and broaden participation of women and underrepresented minorities.

Change the Equation announced eight new public-private partnerships that will identify the most promising STEM education programs; provide 2 million hours of science enrichment to at least 25,000 young people in all 50 states; provide $4 million in commitments in planning grants to set up youth-centered digital libraries; offer video-game challenges giving children in high-poverty schools the chance to design STEM games; expand access to advanced placement classes in STEM subjects to public high schools that serve a large number of military families; design programs to more closely connect students, parents, and scientists; expand employee volunteering to develop more effective learning experiences for students; and expand STEM programs with a track record of success. Companies committing money to these efforts include Advanced Micro Devices, ExxonMobil, Hewlett-Packard, Lockheed Martin, Microsoft, and Raytheon.

A day earlier, the National Science Board (NSB) issued its recommendations for identifying and developing the next generation of STEM innovators. These include:

• Improving students’ ability to continue STEM education as they move from place to place and through the school system, including encouraging states and/or local education agencies to adopt consistent and appropriate policies on enrichment, differentiated instruction, and curriculum acceleration to recognize students’ achievement levels as they move to different schools
• Casting a wide net to identify all types of talents and to nurture potential in all demographics of students
• Fostering a supportive system that nurtures and celebrates excellence and innovative thinking

The NSB said it “believes that a coherent, proactive, and sustained effort to identify and develop our Nation’s STEM innovators will help drive future economic prosperity and improve the quality of life for all.”

Prepare and Inspire

Also on Sept. 16, the President’s Council of Advisors on Science and Technology released its long-awaited STEM study entitled, “Prepare and Inspire: K-12 Education in Science, Technology, Engineering, and Mathematics (STEM) for America’s Future.”

Some of the report’s recommendations include:

• “Recruit and train 100,000 great STEM teachers over the next decade who are able to prepare and inspire students
• Recognize and reward the top 5 percent of the nation’s STEM teachers, by creating a STEM master teacher corps
• Create 1,000 new STEM-focused schools over the next decade
• Support the current state-led movement for shared standards in math and science”

While existing federal funding of current programs can be used to carry out many of the report’s recommendations, the report does not provide a detailed budgetary analysis.

For more information about the report, including a copy of its executive summary, please visit: http://www.whitehouse.gov/administration/eop/ostp/pcast/docsreports.
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Petticoats and Slide Rules: Old Name, New Exhibit

After eight years, 20 rentals, and thousands of miles of travel, an updated Petticoats and Slide Rules exhibit will debut at the WE10 conference in Orlando.

In 2002, SWE and the Reuther Library at Wayne State University unveiled a traveling exhibit to highlight the history of the Society and women engineers in the United States. In the years since, Petticoats and Slide Rules: SWE, A History of Women Engineers has hung on the walls of the Museum of Flight in Seattle, appeared at several Medtronic offices, and has been presented at college campuses around the country.

Named after SWE member Margaret Ingels’ 1952 speech honoring early women engineers, Petticoats and Slide Rules celebrates SWE and the women engineering pioneers who made the Society possible. The exhibit uses photographs, letters, clippings, and other artifacts from SWE’s archives to document the struggles and progress of women engineers in a male-dominated world.

Exhibit attendees will be introduced to early women engineers, whether degreed or educated through apprenticeship, such as Emily Roebling, who played an instrumental role in the building of the Brooklyn Bridge in the 1870s. They will learn about women engineers’ attempts to organize in the early 20th century and the importance of the Second World War in advancing women in engineer-
The exhibit will explore how the engineering community and American society viewed women engineers in the 1950s and ’60s, and how SWE and women engineers worked to expand beyond those views in the 1970s and ’80s. Viewers will learn about SWE’s efforts over the past 20 years to advocate for women engineers on Capitol Hill and to reach younger audiences with exciting new outreach programs.

The exhibit also includes a 1-hour DVD with interview clips from the Profiles of SWE Pioneers Oral History Project, so that exhibit attendees can hear the experiences of women engineers in their own words. Crossword puzzles and word searches create a fun and easy way for attendees to interact with the exhibit and retain what they’ve learned. The exhibit information guide also suggests numerous ways to incorporate the exhibit into outreach, professional development, and community relations activities, such as lectures, panel discussions, movie and television screenings, and essay contests.

Petticoats and Slide Rules is available for SWE sections, companies, and other institutions to rent. Spanning 140 years of women’s engineering history, the 18-panel exhibit offers a wonderful visual opportunity to celebrate a SWE section anniversary, Women’s History Month, National Engineers Week, the beginning of an academic year, or diversity and inclusion events. For more information, see the exhibit at WE10 or contact Troy Eller at swearchives@wayne.edu or 313-577-2864.

Exhibit includes:
- 18 framed exhibit panels
- 1-hour DVD with interview clips from the Profiles of SWE Pioneers Oral History Project
- Sample publicity packet, including customizable postcards and posters
- Word searches and crossword puzzles
- Activity suggestions

Exhibit rental fee:
$500 for a 12-week exhibition period, plus shipping costs. Minimum rental period of 3 months (12 weeks) is required.
Mackey credits the federal government’s Small Business Innovation Research (SBIR) Program with saving her software company when the 2000-2001 recession hit companies like hers particularly hard. “We were the small guy who had beaten the big guys as a way of life, but in the year 2000, the big guys started swimming downstream into our business opportunities. Everything collapsed on us,” she said.

Mackey, an electrical engineer who co-founded Beacon Interactive Systems with her husband, Mike MacEwen, on April 1, 1994, learned about the SBIR’s program hosted by the U.S. Department of Defense (DoD). “One day, we got a call from a former employee who had been reading through an SBIR application, and thought some of the topics sounded very much like Beacon’s core expertise,” Mackey said. “Up to that point, we had never heard of the SBIR Program, let alone thought of becoming a federal contractor.”

The result? The Navy is deploying Beacon’s TurboWork™ software to every ship in U.S.
Fleet Forces Command. TurboWork does for Navy maintenance crews much what TurboTax® does for taxpayers: It takes the user — the sailor — step-by-step through the maintenance procedures needed to complete the job, without the user’s having to memorize a manual or, as in the case of TurboTax, the tax code. The software keeps sailors updated in real time about the ship’s equipment, schedule, mission, important contacts, resources at hand, and other critical information.

“Not only can we help (the 460,000 sailors who will work with the software) get their work done more quickly, but we also can give the Department of Defense visibility into the length of time it takes to get the work done and a strategic look at the work process,” Mackey said. In its first year of full implementation, the software program is expected to realize a 300-percent return on the initial SBIR investment.

Indeed, projects initiated through the SBIR program account for most of Beacon’s revenues, a reversal of its earliest days when the company relied solely on private-sector work.
GREATER POSSIBILITIES FOR SMALL BUSINESSES

Mackey and MacEwen named their company after Beacon Street in Boston, the location of their rent-controlled apartment where they started out. Beacon Interactive Systems is one of 18 vendors involved in ensuring that the integrated maintenance software program sets sail smoothly. Said Mackey of the SBIR opportunity, “SBIR encourages small companies to develop their capabilities as well as their products.” Even more, SBIR offers small businesses the opportunity to do what they do best, Mackey said: leverage their quick-footedness, ethnic and gender diversity, and unique ways of thinking to offer the kinds of innovations that a large bureaucracy needs.

How the process works

The federal government sets aside 2.5 percent of its research-and-development spending for the SBIR program. The amount totaled $2.5 billion in fiscal 2009, a 39 percent increase from $1.8 billion in 2005. “The total has been increasing as federal research dollars have increased,” said Sean Greene, associate administrator for investment and a special advisor for innovation for the program.

Eleven government agencies participate in doling out SBIR funds based upon each agency’s mission. Participants include the DoD, the Department of Energy, the National Science Foundation, and the National Institutes of Health. Companies respond to each agency’s request for ideas for pressing research-and-development needs, such as developing alternative energy, uncovering the causes of specific diseases, or inventing new kinds of robotics used in unmanned military vehicles.

Each agency chooses the ideas with the greatest potential, and awards Phase I grants or contracts up to $150,000. (The maximum $150,000 is a recent increase from the previous $100,000 maximum.) The agencies evaluate the proposals based on technical merit, the firm’s qualifications, and the commercial potential and/or societal benefit of the proposal.

According to a June 2009 SBIR report, the latest data showed the share of women-owned firms receiving Phase I grants grew to 11 percent in 2004-2005, up from 6.5 percent in 1998.

Essentially, under this program the federal government acts as a seed-stage investor, except that it takes no equity from the company in which it is investing. The company retains rights to its own patents.

About half of the grant and contract recipients go on to receive Phase II funding, which can reach $1 million per winning company. (The $1 million is a recent increase from $750,000.) About half of the recipients succeed in getting their products to market, and 25 percent of R&D Magazine’s awards for the top 100 innovations come from SBIR-funded small businesses, according to the SBIR study.

Only Phase I recipients may be considered for Phase II grants. Phase I supports the design of a solution while Phase II allows for prototype development. SBIR provides no funding for Phase III — commercialization — leaving companies to find their own funding to move their technologies into the private marketplace.

The process between offering initial proposals and winning Phase I and Phase II funding can be excruciating, conceded Mackey, who earned her B.S. in electrical engineering from Lehigh University in Bethlehem, Pa. Yet, she said the federal government desperately needs the kinds of cost-savings and commercial-sector expertise that small businesses, and particularly women-owned businesses, can offer.

Furthermore, the SBIR Program provides a structured and funded insertion point by which small businesses can engage in new industry sectors, Mackey said. By participating in the Navy SBIR Program, Beacon was not only able to navigate into the DoD marketplace, but it also was able to maintain and subsequently increase its workforce and strategic intellectual property. “By participating in the SBIR Program, the company is better poised today to support both its public and private-sector clients,” Mackey said.

Scrutiny and need for renewal

Alison Brown, Ph.D., founder, president, and CEO of NAVSYS Corp., credits her company’s SBIR projects over the past 20 years with helping NAVSYS develop outstanding products in its Global Positioning System (GPS) technology niche, and with helping provide a solid revenue stream. “The good news is that you can do some extremely creative things,” said Dr. Brown. A native of Edinburgh, Scotland, she received an engineering scholarship from the Massachusetts Institute of Technology (MIT), which brought her to the United States.

Dr. Brown pursued her engineering career despite her father’s objections. An electrical engineer who worked with inertial navigation systems, he was convinced that his daughter would experience a tough time in engineering, given the prejudice against women that he had witnessed. Fortunately, Dr. Brown’s decision proved to be fortuitous. Her resume glows with the type of engineering and technical background that any business or government agency would covet. She holds a Ph.D. in
mechanics, aerospace, and nuclear engineering from UCLA; an M.S. in aeronautics and astronautics from MIT; and an M.A. and a bachelor’s degree in engineering from Cambridge University. She is an Honorary Fellow of Sidney Sussex College, an Institute of Navigation Fellow, and has served twice on the Air Force Scientific Advisory Board.

Her business success with SBIR is equally impressive. NAVSYS developed the TIDGET™, a tracking widget that solved the problem of GPS receivers being slow to power up. The TIDGET did so instantaneously and used extremely low power in order to capture a picture of raw satellite signals, much like a tape recorder capturing a voice.

A 40-employee company based in Colorado Springs, Colo., NAVSYS commercialized the technology to enable cell phones to signal the user’s location to 911 responders, a capability that is now a national mandate. NAVSYS also developed key technology components of the Wide Area Augmentation System, which enabled the Federal Aviation Administration to use geostationary satellites to augment GPS. The technology turns a geostationary satellite into a “lookalike” GPS satellite and is used to provide better accuracy and high-integrity GPS services for civil navigation applications.

About half of NAVSYS’ $7 million annual revenues come from SBIR contracts. Yet Dr. Brown has become disheartened that small businesses don’t have adequate protection to ensure that they hold on to their intellectual property, especially in the DoD and Air Force Space Command programs. She pointed to previous experiences where large, prime government contractors have taken over the most promising intellectual property from SBIR award winners, without further involving the small businesses. Dr. Brown’s concerns have prompted the Senate Armed Services Committee’s Subcommittee on Strategic Forces to initiate an investigation by the Government Accountability Office into barriers to new entrants in the Air Force Space Command program.

Despite these concerns, Dr. Brown continues to encourage women-owned businesses to seek SBIR awards because she believes the competitive process is fair and a good opportunity. “Recognize that winning an SBIR is only the first challenge,” she said. “Transitioning SBIR into a product and a sustaining business model is very difficult.”

A GAO spokesman said the report on possible small-business barriers, scheduled for an Oct. 18 release, analyzes SBIR contract data and examples of successful SBIR efforts to transition technologies. In addition, the GAO will interview DoD and other agency officials, as well as representatives of small businesses, to talk about examples of other initiatives that could engage small businesses in space-systems acquisitions.

Critics also point to research by the Innovation Development Institute, a Swampscott, Mass.-based research firm, indicating that out of the 5,800 businesses that received SBIR awards in 2009, only 560 were less than 4 years old. This is a significant decline from 952 out of 3,306, the data from 2003. The Institute keeps the most comprehensive database available of the 19,000 companies granted SBIR funding — an amount totaling $30 billion — since the initial program started in 1982. The database includes the SBIR-funded companies’ patents, citations, employment, venture funding, mergers and acquisitions, licensing agreements, and awards and recognitions.

Ann Eskesen, founding president of the Institute, said the SBIR application process has become so complicated that fewer start-up companies are able to obtain the funding “to open the door for the first time.” Eskesen was a technology transfer specialist instrumental in creating the SBIR program. She is a nationally known consultant who advises businesses about the program.

Yet Eskesen said that beyond the application process, the real problem is that the SBIR isn’t connecting its small-business award winners with large companies and institutions that desperately need the small-business innovations. “We (the SBIR) are not doing anything on a systematic basis to draw down the value of what we have created,” Eskesen said.

The issue reflects the changing nature of the U.S. economy, she said, because major corporations that jettisoned their research-and-development divisions as too costly in the 1990s are now seeking to buy innovation by acquiring small companies with emerging
and disruptive technologies. “Nearly 8 percent of SBIR companies have been bought, mostly by large corporations,” Eskesen said.

Furthermore, she added, three times more engineers and scientists with graduate degrees work for SBIR-funded companies than for academic institutions. “The SBIR is the single largest concentration of research-and-development endeavor anywhere,” Eskesen said. “Now, we’ve got a serious situation when every SBIR-funded company is individually responsible for planning and then raising the dollars to move their technologies from Phase II to Phase III.” The stakes are so high that SBIR’s congressional reauthorization became bogged down in a debate about whether to include it in any upcoming small-business job creation legislation that may be considered. As of Sept. 22, Congress had extended the SBIR Program “as is” through Sept. 30.

Reaching out in new ways
So how should small companies that create new technologies protect their intellectual property while providing the greater economy with jobs and critically needed expertise? The Innovation Development Institute runs an ASSET system: Access SBIR-STTR (Small Business Technology Transfer Research, often paired with SBIR) Scientific and Engineering Talent system. The system helps large- and mid-size companies to start working relationships with SBIR-STTR awardees.

A handful of universities nationwide also are actively seeking investors and businesses that could develop and commercialize professors’ promising technologies, according to a June 25 article in The New York Times. Unlike business incubators, these “proof-of-concept centers” are commercializing university research in much faster time than traditional technology transfer offices can, according to the Times article.

Separately, the government is trying to expand SBIR’s visibility by awarding competitive grants to regional and state-level organizations dedicated to helping entrepreneurs. The program, called FAST, for Federal and State Technology Partnership Program, calls for the U.S. Small Business Administration to accept funding requests from state governors. The program will award a total of $2 million (up to $100,000 per applicant), with an emphasis on helping socially and economically disadvantaged firms compete in the SBIR process. Applicants for FAST funding are encouraged to show how they help support small business research and development, technology transfer from universities to small businesses, and proposal development and mentoring for the small businesses that apply for SBIR grants.

Mentors, role models, and advice
Indeed, mentoring plays a major role in developing influential women who can lead small businesses specializing in science, technology, math, and engineering. Mackey encourages girls to understand that their skills hold potential for terrific creativity, great leadership, and business smarts. “I often look back and say, ‘How would I know that I would be a good engineer based on what I did as a kid?’” Mackey said.

She realized that her passions for sewing and cooking mirrored an engineer’s skills: seeking a solution to a problem, considering a number of ways to reach the goal, assembling the necessary materials, following instructions, and realizing a solution. Yet Mackey seized upon the fact that, due to social mores, she was explicitly encouraged to pursue her passion for ballet but not her interests in mathematics and science. Motivated by a strong desire to be financially independent, she pursued electrical engineering anyway and, upon her college graduation, landed the highest-paying job of her entire class. That was despite her mediocre grades due to working her way through school in fast-food joints, retail stores, and work-study programs.

Mackey credits her mentor, Ruth Allen, a valued technology executive, with helping her develop her professional skills and abilities. While running a national technical user group for IBM Corp., Allen hired Beacon to develop an interactive website for her group.

The professional chemistry between the two women was such that when that engagement ended, Mackey and Allen continued working together. “If you can find a mentor who is truly vested in your development and interested in sharing what they’ve learned, you have something invaluable,” Mackey said.

Mackey advises potential entrepreneurs that it is critical to understand how to succeed in a competitive marketplace. “Make sure you stay true to what you like to do and what you’re good at, because it will be a lot of hard work,” she said. “Learn how to sell. If you can’t communicate with your customers, you have nothing. And you must keep in mind the specific tactical steps needed to develop a business while finding successful solutions for customers.”
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Beginning the laparoscopic procedure, the surgeon raised both arms to shoulder height, bent both elbows down, and crossed his wrists. He had to maintain this extremely uncomfortable position to keep a steady grip on the surgical tool he was manipulating through the tiny incision in his patient’s abdomen. Though laparoscopic surgery has become common in the last 15 years, so have the pain and resulting injuries to surgeons’ wrists and hands.

Watching the operation, Susan Hallbeck, Ph.D., P.E., C.P.E., and professor of industrial and management systems engineering at the University of Nebraska, described the tool as “a child’s scissors stuck on the end of a long shaft that surgeons use to get to the organ they want to fix or remove. It’s damaging doctors.” Indeed, a recent University of Maryland School of Medicine survey found that 87 percent of laparoscopic surgeons experience physical symptoms or discomfort.

“This is where engineers come in,” said Dr. Hallbeck, noting that when surgeons first realized the benefits of laparoscopic surgery, they often adapted the surgical tools they already had on the shelf to this new procedure. Thus, they made improvements by “little add-ons,” explained Caroline Clarke Hayes, Ph.D., professor of mechanical engineering at the University of Minnesota. Because medical processes and tools evolved incrementally, physicians resigned themselves to the pain some caused. Consulting an engineer to address a problem was rare.
Collaboration brings mutual benefit

Fortunately, collaboration between doctors and engineers is becoming more common and sought after. Increasingly, people in the medical field realize what engineers can offer. Conversely, engineers see the potential advantages of using their skills to help medical teams. Whether it’s inventing or redesigning medical devices, improving patient safety, reorganizing the chaotic processes inherent in intensive care units (ICUs), or managing the massive amounts of health care data, there is plenty to do.

Pascale Carayon, Ph.D., Procter & Gamble Bascom Professor in Total Quality in the department of industrial and systems engineering, director of the Center for Quality and Productivity Improvement, and head of the Systems Engineering Initiative for Patient Safety at the University of Wisconsin-Madison, tells students who are considering a career in health care, “It’s like being in a candy store of problems.” Much of that “candy store” is filled with preventable medical errors that cause deaths and raise health care costs. A 1999 report from the Institute of Medicine estimates that annually between 44,000 and 98,000 people die from preventable medical mistakes, which is tantamount to the sixth leading cause of death in the U.S. “It’s a big time for fundamental change,” stated Dr. Hayes.

Change is imperative

For 14 years, Thomas Fogarty, M.D., was a professor of surgery and practiced cardiovascular surgery at Stanford University Medical Center. During his 40-year medical career, he has acquired more than 120 medical patents, including the Fogarty balloon embolectomy catheter that is widely used in abdominal surgery. Three years ago, he founded the Fogarty Institute for Innovation to train "Physicians understand that engineers can make the technology come to life from concept to actual patient use.”

Thomas Fogarty, M.D.

Surgeons must cross over their hands when performing laparoscopic surgery, which can cause them pain and discomfort. Engineers have solved the problem with specially designed tools.
and mentor medical innovators. Because of the complexity of health care and technology, the obstacles doctors face when developing tools by themselves can be daunting. “They recognize they need innovative ideas, and that requires multiple disciplines. Physicians understand that engineers can make the technology come to life from concept to actual patient use,” Dr. Fogarty remarked.

Another physician, Gale M. Etherton, M.D., an internist at Nebraska-Western Iowa VA Medical Center and The Nebraska Medical Center, made a similar observation. She is currently working with Dr. Hallbeck and has a great appreciation for the fresh ideas engineers bring to medicine. She explained, “Engineers have a different perspective on health care. Engineers look to automation and standardization of processes while physicians look to individual treatment plans.”

**The medical field: A candy store of engineering problems**

Aside from the “candy store” of problems, the medical field appeals to engineers because it offers the opportunity to “take technology and make someone’s life better,” as mechanical engineer Kate Youmans explained. She recently worked at Accellent Inc., a medical device manufacturing company. “When you see the clinical impact that a new material, or motor, or processor can make in someone’s life, it’s an amazing experience,” she said. The human body also fascinates her because it still is not completely understood. She sees many opportunities for engineers to use their skills in the medical field. In the seven years she was involved with medical devices, she has gained experience as a design engineer, manufacturing engineer, in research and development, and as a program manager.

As head of the Systems Engineering Initiative for Patient Safety (SEIPS), Dr. Carayon is deeply involved in researching human factors and systems engineering in health care and patient safety. From her technical viewpoint, she said, “Engineers are interested in improving the well-being of people, and when they hear what we do (in patient safety), they quickly understand the impact we can have.”

As a doctor of internal medicine, Dr. Etherton uses only a stethoscope, but she is very appreciative of the skills that human factors and systems engineers bring to health care. She reasons that many medical errors are avoidable, just as they are in industry. To correct that, the medical community must look at how industry improves safety and productivity, which involves systems engineering and human factors. “Hospitals
and medical providers do not often look to problems in the system to see where things went wrong in the process and determine the root cause. We need to use engineering tools to get at the problems,” she stated.

This kind of thinking resonates with Dr. Hallbeck, who talked about the need to apply industrial design tools to health care using Six Sigma and lean engineering. "Medicine isn't just an art. It can be more like a production line," she commented. She participated in a study of resident physicians working at Veteran’s Administration hospitals, who detailed their daily tasks, how they did them, and what they accomplished. The study found that most interns were constantly interrupted and never got to finish their rounds. In another observation, she cited operating rooms filled with people who could easily trip over the numerous cables and wires. She suggested looking at the system to get the equipment and cables under control. “It isn’t this or that machine,” she noted. “It’s the system’s view of the whole operating room, not just the surgery. The same kind of problem is repeated in ICUs and in any number of places in hospitals,” she explained.

Collaboration brings challenges

However much promise the collaboration between the two fields holds, engineers and doctors must overcome the differences between their cultures in order to work together. Ann Polich, M.D., associate chief of staff for patient safety at the Nebraska-Western Iowa VA Medical Center, encounters this two-culture hurdle in her daily work. Medical personnel have not traditionally worked with engineers and do not immediately see how engineers “fit” into health care. She completed the SEIPS Human Factors and Patient Safety course and is striving to implement collaboration with engineers into her work as a general internist at the VA. When residents ask her why she wants to involve engineers in health care, she tells them that human factors and systems engineers help her “shape procedures and improve care.”

Having worked with engineers to design and implement his patents, Dr. Fogarty pointed out that engineers think multi-dimensionally. Doctors, on the other hand, are trained to narrow their focus — and must do so to get through medical school. Many differences can be attributed to the culture in which doctors learn and practice their craft. For example, Dr. Etherton mentioned that historically the thought process and way doctors work is quite different from an engineer’s. Traditionally, doctors have had autonomous control in what and how medical practices were conducted because little objective evidence existed to guide treatment decisions. Only with the advent of evidence-based medicine have clinicians been able to determine whether one treatment was better than another.

Standardizing a complex system

With the availability of evidence-based medicine, clinical guidelines and algorithms allow more standardization of treatment. Despite the availability of these guidelines, however, some physicians are reluctant to apply them uniformly to individual patients, in part because of a loss of autonomy and in part due to concerns about treating all individuals in the same way. From another perspective, Dr. Polich noted that patient care is so complex these days that standardized processes will help ensure that the
right thing is done at the right time. She cited that some medical practices, such as drawing blood, are highly standardized and regulated, while processes that are inherently complicated (such as those in hospital ICUs) are not. From a human factors and systems engineering perspective, the chances for mistakes are high in a system involving a large number of variables including different treatment plans, medical delivery systems, and providers of health care.

Continuing with another example to illustrate the problem, Dr. Polich said, “In the past, when doctors wrote orders for medication on paper, it was a simple communication stream. Now doctors interface with a computer, assuming that the computer accurately communicates their requests. That is not always the case.” The hundreds of orders for treatments and lab tests require an “integrity of processes and people who understand that process,” she said. To her, a crucial challenge for engineers is organizing and prioritizing the extensive medical data that flow between doctors, labs, nurses, and other personnel so that they can extract what is truly useful and alert those who need that information.

**From engineer’s concept to doctor’s use**

Another complication that doctors and engineers encounter is the amount of time it takes to get medical devices and processes from concept to use. “It’s not just coming up with an idea,” said Dr. Hallbeck. “There is pilot testing with users, adapting the idea, and then patenting it. I submitted a patent in 2004 and didn’t hear about it again until 2008, and it’s still in the process of testing.” Adding to the time span are the Food and Drug Administration trials and requirements necessary for patient safety, such as the regulation that all materials must be biocompatible. “Yes, there are barriers, but we’re a stubborn bunch. What we do saves lives,” Dr. Hallbeck optimistically countered.

Mechanical engineer Wendy Kerr, a research and design engineer at Ethicon Endo-Surgery Inc., also has firsthand knowledge about the long process to bring medical devices from concept to reality. She explained that indeed it takes time as doctors use these tools on the human body. Any medical device must mimic its use in every foreseeable condition of a patient. “We have to come up with all the scenarios as we’re dealing with blood, liquids, and slippery organs,” she said. “Tools can’t be tested on the human body or in an operating room.” Youmans added that it is difficult to replicate the human body, which adds to the many levels of necessary scrutiny.

**Asking questions solves problems**

With the differences in culture, the enormity of health care, and the long procedure to get a medical device or process approved and in use, how do engineers learn what is needed and how to provide it? They do so through observation, by asking questions, and tapping the engineer’s innate proclivity to solve problems. “A lot of the research we do is in the ICU. We spend hours watching to understand their environment. We talk with doctors and nurses to collaborate on better solutions,” said Dr. Carayon. Dr. Fogarty advises engineers to become part of the whole process from the diagnosis to preoperative care, the actual surgery to post-procedural care. “Engineers are typically trained to focus on the design of physical things, but there are many additional issues that must be considered in the process of design,” stated Dr. Hayes. “You quickly realize that what you’ve got is a large, tangled blob of intricate design problems, including equipment, processes, the physical environment, and organizational policies. You can’t solve all the problems at once, so you must choose a few to start with that you believe will have the greatest impact.”

To obtain information when designing a surgical stapler, Kerr interviews doctors around the globe.
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with open-ended questions such as, What do you like or not like? What are the trade-offs? What is your dream device? Then she categorizes their requirements. One doctor commented that he had to use too much force with a medical stapler, which was hard on his hands. To solve that problem, Kerr factored in the ergonomic data to make it fit different people. “We cascade the requirements,” she said, “then we concept a number of ideas of the mechanism and build a prototype, which we bring back to surgeons. Once we have the design set, we finish testing. The process can take two to six years, depending on the product.”

Kerr made a point to learn medical terminology and the titles of medical procedures so she could understand the doctors’ language. Laypersons talk about the stomach or throat; human anatomy is far more precise when doctors describe it. Likewise, Youmans recalled a physician telling her he wanted a tool that cut smoothly. She had to find out exactly what “smoothly” meant to him and then translate that into a tool design that met the technical requirements prior to clinical trials.

An additional incentive
As doctors and engineers work together to solve the problems in health care, they are getting some support from government. According to Dr. Hallbeck, the impetus to do so is the necessity of doing more with less as the medical field becomes even more complicated and costly. Because health care is an issue most can identify with, there is more legislative concern. In addition, the biomedical field is expected to grow much faster than average, according to the U.S. Department of Labor Occupational Handbook 2010-2011, with 72 percent growth during the next decade.

Assessing all the issues affecting the future of health care, Dr. Hallbeck concluded, “The collaboration between engineers and physicians has a bright future, but it’s not just about one tool. It’s a whole system.”

“\textit{We have to understand where surgeons struggle during procedures and how to make their jobs easier. It’s one thing to pick up a medical device on a desk. It’s another to watch a surgeon using it in a three-hour procedure.}”
\textit{Wendy Kerr, R&D Engineer, Ethicon Endo-Surgery Inc.}
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How to Negotiate a Career Fair
By Walter D. McFall, SWE Editorial Board

Editor’s note: A variation of this popular workshop has been presented at SWE conferences for more than a decade by the author and his colleague, Tina M. Kilmer, P.E. New this year, as a mother/daughter team, Kilmer and her early-career engineer daughter will conduct the workshop. This toolbox is based on an article originally appearing in the Fall 2002 issue of SWE.

With more than 200 corporations, institutions, and universities participating, negotiating the career fair at the 2009 Society of Women Engineers national conference posed a formidable task. There were, however, a number of individuals who appeared better prepared than most. Many of these individuals attended a workshop developed over the years and presented by Tina M. Kilmer, P.E., and myself, entitled “How to Work a Career Fair.”

We would like to share with you the essence of our workshop. We hope this will help you to negotiate any career fairs in your future with greater confidence and purpose. Our recommendations and suggestions cover five topical areas:

- The purpose of a career fair
- Developing a personal strategy
- Personal preparedness
- Booth strategy
- Booth visit

For those who have been affected by the slowing of the economy and for students on university campuses, this information may be invaluable. Most campuses, schools of engineering, and many SWE collegiate sections, on Industry Day, will host a large gathering of corporate and graduate school recruiters providing you the opportunity to search for and identify resources. These include: cooperative work/education internships for next summer; continuing your education in graduate school; or aiding you in entering the work force.

The purpose
The purpose of attending a career fair is to seek career opportunities. Whether your goal is to identify a cooperative work/education program, pursue a summer internship, identify another institution for the purpose of continued education, or to find the ultimate professional job, this gathering of recruiters is why you attend a career fair. This forum also serves the purpose of exploring other facets in your field of interest of which you may not yet be aware. As you speak with the representatives in each booth, you

Suggested Questions for a Booth Visit
If you’ve done your homework by researching companies online, then before you even approach the booth, you know what the firm does, its product line or service, its relative size in the industry, and whether it is profitable. Knowing the location of the company’s headquarters is also helpful, but keep in mind that if you are hired, you could be based in a number of other locations. Once you have greeted the recruiter with a firm handshake, eye contact, resume in hand, and a short statement about yourself, here are some additional questions you might ask:

- What is the typical career path in my field?
- What is the organizational structure?
- Where might I fit in?
- What is the number of plants, offices, and size of staff?
- What is the work force diversity?
- What is the potential for new markets, products, and services?
- Does the company have structured or unstructured training?
- What is the formal vs. on-the-job training?
- What is the average time in non-management assignments?
- What is the name of the recruiter?
- What is the interview process?
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should also seek guidance and take advantage of any mentoring they might extend. Acquire the names of other people you may need to contact within a given corporation. Go to as many booths as possible to compare how each industry or institution utilizes an individual with your skill set. Above all, take advantage of the opportunity to network, not only with the booth representatives, but also with your peers, on information they may have acquired from similar resources in the same environment.

Developing a personal strategy

In developing a personal strategy, one first needs to define one’s self and/or one’s skill set in a logical, concise manner. The tool generally used for this purpose is the resume. We usually recommend a model for self-assessment developed some years ago by a New York City management consultant by the name of Tom Jackson, who titled his technique, “Defining your Magnificence.” This technique is laid out in his hands-on workbook, The Perfect Resume.1

The beauty of his technique is that it is applicable to both the novice and professional. If one enumerates one’s personal interests, skills, and abilities, this technique tends to identify a set of overlapping attributes defined as one’s strengths. These strengths should be incorporated into your resume no matter which format you use (e.g., chronological or functional, etc.). The development of a good resume is prime.

Prior to a career fair, you should have some knowledge of the types and the names of corporations or institutions that will be represented. You should also have a list of ideal companies in your mind for which, if given the opportunity, you would like to work. Compare this fantasy list to the career fair realities and you will have the foundation for a personal strategy of those companies that are a must for you to visit.

The best situation, of course, is one in which you have a few days to do research on some of these companies prior to the career fair. Surfing the Internet is the most expedient manner to research corporations and institutions both pre- and post-event. The public library, your campus career placement office, newspapers, magazines, and websites of some of the entities listed in the sidebar can add to your knowledge base.

Personal preparedness

Neat, conservative dress is recommended for career-fair wear. Remember, appearance and carriage are crucial first impressions. Please be aware that booth representatives tend to wear corporate-casual “uniforms.” The philosophy here is to demonstrate corporate teamwork and identify booth representatives.

As you enter the career fair, we recommend that you be prepared with the following items: a paper pad on which to take notes, pens and/or pencils with which to write, a great number of copies of your personal resume, and an inquisitive mind filled with questions as to how you and your skill set might fit into any given company’s work force. Let us suggest that you also prepare and have with you personal business cards. Using the proper paper stock, computer template, and personal ingenuity, you can create business cards on most personal computers. The purpose here is to indicate personal contact information such as name, mailing address, e-mail address, telephone number, and some affiliation. For both students and professionals, the affiliation can be as simple as your institution or even SWE.

Booth strategy

In order to optimize your time, we recommend that your first round of booth visits be with those companies or institutions that you envisioned as being the ideal entities with which you wish to be associated. The second round of visits should comprise as many of the remaining booths as your schedule and the length of the career fair permit. You should set aside enough time for your third round of visits, which should consist of those booths in which you felt you were warmly received and given some optimism in line with your expectations. For large time constraints, any combination of two of the three

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Addition Sources of Information

An Internet search is a starting point to research companies you might be interested in working for. Along with the company’s website, you will find links to articles about the company and its position in the marketplace, information on the company’s civic involvement, employee policies, and more. Here are a few additional resources:

• Dun and Bradstreet
• Standard & Poor’s Register
• U.S. Department of Labor, Area Trends in Employment
• Dictionary of Occupational Titles
• Consultants & Consulting Organizations Directory
• Directory of Directories
• Civic Clubs and Professional Associations
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*Fortune Magazine, 2010
suggested rounds of visits should form your backup strategy.

**Booth visit**

As you enter a booth and are met by a booth representative, introduce yourself with a good, firm handshake, direct eye contact, and an appropriate verbal greeting. If you have your resume in hand and a number of questions in your mind to ask about the company, you are prepared to market yourself and your skill set. Allow the representative to scan your credentials before you query with, "What does your organization have to offer for someone with my skill set?" Your job at this moment is to take notes and gather information. The time spent preparing for the career fair will serve you well, so that at this point your mind won't go blank. Ask for something: a business card from the representative, the ways and means of contacting the person who is going to make the hiring decision, a copy of the corporation's annual report or brochure, etc. Be aware that if there is a long line, you have only about five to 10 minutes to introduce yourself, market yourself, and ask for appropriate information. A little more time is offered if your credentials are aligning with the needs of the organization. Usually an invitation to further discuss your credentials outside of the career booth is an optimistic sign.

On closing your visit, you leave after another firm handshake with good eye contact and an indication that, at your earliest convenience, you will follow up any request made by the representative as it relates to your credentials.

If you leave the booth feeling optimistic, you should return later and convey to whoever is available in the booth your continued interest and willingness to follow up as recommended. A handwritten thank you note, e-mail message, or telephone message a day or two after the event is an appropriate follow-up gesture.

**In closing**

Remember to be honest, have fun, be yourself, and NETWORK, NETWORK, NETWORK.


Acknowledgment: Thanks to Tina M. Kilmer, P.E., co-presenter of "How to Work a Career Fair," for her valuable assistance in preparing and editing this article.

Walter McFall is a member of the SWE Magazine editorial board. He is a chemical engineer by training, with career accomplishments in applied engineering and solid-state science. Formerly the recruiting coordinator at Argonne National Laboratory, he has more than 21 years of experience in the recruitment of scientists and engineers on a national and international basis. He is a 1998 recipient of SWE's Rodney D. Chipp Award.

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Why is it that busy people, especially women meeting the demands of work and personal lives, will forgo one of the most basic ingredients of health in order to meet a pressing schedule or deadline?

The Importance of Sleep

By Anne M. Perusek, SWE Director of Editorial and Publications

Such an important and seemingly simple life function — sleep — is often elusive, at least according to recent news reports and anecdotes. From the beginning of this year, when a well-known Web-based female journalist and a consumer magazine for women teamed up to address women's shortage of sleep, it seems that news concerning sleep — or our lack of it — has received much more attention. And, perhaps with good reason. Experts say that more people are sleeping less than six hours per night, and that 75 percent of the adult population has sleep difficulties a few nights each week.

When life gets busy, sleep is typically among the first items to eliminate, frequently followed by exercise and a healthy diet — or some variation of these. Once this happens, it's easy to begin a cycle where lack of sleep becomes chronic, habitual. Occasional sleep deprivation is not the concern here, but rather the ongoing lack of sleep that seems to have become a norm for many people.

The irony, of course, is that when fortified with enough sleep, we do better. So when faced with a complicated project or pressing deadline, sleep (like exercise and nutrition) will improve our performance. We can meet the demand better by taking ourselves away from it to get some rest. It may seem counterintuitive, but it is true.

According to the Division of Sleep Medicine at Harvard Medical School and the WGBH Educational Foundation, it is important to understand sleep, which constitutes one-third of our life, and which most of us take for granted. The two organizations have created a website, Healthy Sleep, with extensive materials covering why sleep matters, the science of sleep, and most importantly, getting the sleep you need. (see http://healthysleep.med.harvard.edu/healthy/)

Yet another site, the National Sleep Foundation (www.sleepfoundation.org), offers information, advice, and an online community for support regarding sleep. Their tag line is: “Waking America to the Importance of Sleep.”

Considerations

So why is it so difficult for some of us to get enough sleep? At certain times in life it is a given that sleep will be in short supply. Having babies and small children, or an ill family member, are common causes for sleeplessness, but clearly don’t cover all the other times when the amount of sleep is inadequate. Perhaps it is time to re-evaluate all the activities and demands that make us either too busy for sleep, or too wound up to fall asleep.

Addressing the specific needs of women, the Harvard Women’s Health Watch, a publication of Harvard’s medical school, offers six reasons not to shortchange sleep. Many of us, still healthy and operating at what we believe is peak capacity, may not have given much consideration to any of the following:

• Learning and memory: Sleep helps the brain commit new information to memory through a process called memory consolidation. In studies, people who’ve slept after learning a task did better on tests later.

• Metabolism and weight: Chronic sleep deprivation may cause weight gain by affecting the way our bodies process and store carbohydrates, and by altering levels of hormones that affect our appetites.

• Safety: Sleep debt contributes to a greater tendency to fall asleep during the daytime. These lapses may cause falls and mistakes such as medical errors, air traffic mishaps, and road accidents.

• Mood: Sleep loss may result in irritability, impatience, inability to concentrate, and moodiness. Too little sleep can also leave you too tired to do the things you like to do.

• Cardiovascular health: Serious sleep disorders have been linked to hypertension, increased stress hormone levels, and irregular heartbeat.

• Disease: Sleep deprivation alters immune function, including the activity of the body’s killer cells. Keeping up with sleep may also help fight cancer.

Getting back to the question posed at the opening: Why, when the evidence is clear that performance is improved with adequate rest, do so many continue to do without it? Is sleep undervalued because its importance is simply not understood?
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American Society of Engineering Education Honors Two Women

The American Society of Engineering Education honored two women, Kauser Jahan, Ph.D., P.E., professor and chair of the civil and environmental engineering department at Rowan University, and Marilyn Dyrud, Ph.D., professor in the communication department at the Oregon Institute of Technology.

Dr. Jahan was awarded the Sharon A. Keillor Award for Women in Engineering Education, which recognizes and honors outstanding women engineering educators. Dr. Jahan earned the award through her distinguished contributions to engineering education, her passion for teaching and research, and her outreach to women and underrepresented groups in engineering. She is one of the cornerstones of the College of Engineering at Rowan University and is a leader and innovator in the area of curriculum development. She has mentored students at all levels (undergraduate and graduate) in funded research activities that have led to numerous awards in professional competitions. She has promoted the participation of students in state and national conferences to help them develop as professionals and expose them to the practice of engineering.

Dr. Dyrud is recognized for her exemplary contributions toward educating engineers and technologists with the James H. McGraw Award. She has been a force for creating the body of knowledge of engineering technology through 23 years of publishing the ET Bibliography, service to the Journal of Engineering Technology, and the history of Engineering Technology. She has taught all facets of communications and played a pioneering role in the introduction of ethics and Holocaust studies into the engineering curriculum. She particularly enjoys courses that are interdisciplinary in nature, such as the civil engineering senior project, where she is responsible for technical writing, oral communication, and group dynamics.

American Society of Mechanical Engineers Honors Engineering Management

The American Society of Mechanical Engineers honors distinguished work in the field of engineering management. This year, Denise J. Elston, P.E., at Shell

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International Exploration and Production Inc., and Delores Etter, Ph.D., the director of the Caruth Institute for Engineering Education at Southern Methodist University, were honored.

Elston, general manager for upstream major projects at Shell, received the Frederick W. Taylor Award recognizing outstanding practitioners of engineering management. She has worked for Shell for 25 years and held a variety of management positions in engineering, operations, and projects. Her current work at the global oil company focuses on surface facilities for arctic, deepwater, and unconventional projects.

Dr. Etter received the Henry Robinson Towne Lecture Award recognizing an outstanding leader in the field of engineering management, economics, or business. A member of the electrical engineering faculty at Southern Methodist University, Dr. Etter is involved in research for digital signal processing, biometric signal processing, and related subjects. She has authored several textbooks on software engineering and computer language. Prior to joining the faculty of SMU in 2008, she held positions in the U.S. Department of Defense, U.S. Marine Corps, and U.S. Naval Academy, where she became the first Office of Naval Research Distinguished Chair in Science and Technology.

Creative Young Women Engineers

Eighty-six of the nation’s brightest young engineers were selected to take part in the National Academy of Engineering’s (NAE) 16th annual U.S. Frontiers of Engineering symposium. Of the 86, 14 are women. Engineers ages 30 to 45 who are performing exceptional engineering research and technical work in a variety of disciplines will come together for the two-and-a-half-day event. The participants, who are from industry, academia, and government, were nominated by fellow engineers or organizations and chosen from approximately 265 applicants.

“As we face the challenges the next century brings, we will rely more than ever on innovative engineers,” said NAE President Charles M. Vest, Ph.D. “The U.S. Frontiers of Engineering program is an opportunity for a diverse group of this country’s most promising young engineers to gather

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Jing Wan, Ph.D., ExxonMobil
Sharon Weiss, Ph.D., Vanderbilt University

Materials and Science Professor Next Dean of MIT Graduate Education

Christine Ortiz, Ph.D., MIT professor of materials science and engineering, is the new dean for Graduate Education at the Institute. Writing in MIT News, Morgan Bettex noted that Dr. Ortiz’s research in MIT’s department of materials science and engineering focuses on the structure and mechanics of biological materials. “In her new role, Dr. Ortiz will collaborate with students, faculty, and staff across the Institute on issues related to graduate education and research and will focus on increasing graduate-student opportunities for academic, professional, and personal development. She will also facilitate the advancement and information exchange of graduate curricula, formulate new ways to grow the graduate-student community, and strive to provide a better understanding and enhancement of the climate and level of diversity in the graduate student population.”

“Her leadership achievements at MIT and in her profession have been recognized by her peers and in awards, including the National Science Foundation Presidential Early Career Award for Scientists and Engineers, which was presented to her by former President George W. Bush. In 2008, she won the National Security Science and Engineering Faculty Fellow Award from the Department of Defense.”

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Women don’t need to become men to be successful, but they do need to be aware of and prevent situations that can feed misleading notions.

The Male Factor: The Unwritten Rules, Misperceptions, and Secret Beliefs of Men in the Workplace

by Shaunti Feldhahn
Hardcover: 320 pages
Publisher: Crown Business
(December 29, 2009)
ISBN-10: 0385528116

Review by Bianca McCartt, SWE Editorial Board

The fact that engineering remains a male-dominated domain makes the support of male co-workers and leaders critical to the long-term success of women engineers. In this environment, the proposition posed by this book — that women are inadvertently self-sabotaging their reputations — is counterintuitive and worrisome. Most women feel that they are working hard to fit in to technical environments and would be surprised to learn that their own actions or behaviors could be holding them back.

While much business advice for women focuses on the subtle differences in communication styles that make women seem less confident, there is clearly a lot more to success than being more assertive and direct. The Male Factor is an insightful discussion of the ways competent and accomplished women can get in their own way in the eyes of their male co-workers.

Feldhahn’s prior books delve into the minds of men in the context of personal relationships, and this book builds upon that experience and research with a specific focus on the workplace. Through interviews and extensive surveys, the author delves into specific pitfalls for women to be aware of. The first chapter is devoted to this background data and methodology. Although some may find this a slow start, this background builds credibility for the fascinating data that follow, and distinguishes Feldhahn’s thoughtful and serious exploration.

For those who wonder why men seem to have no trouble brushing off criticism and forgetting about past conflicts, The Male Factor shares this window into the male psyche.

All are familiar with the phrase “It’s not personal, its just business,” which many women find disingenuous. This typically male ability to mentally compartmentalize is the foundation for many of the pitfalls that women face. Just about every woman knows that “being emotional” is taboo in the workplace, but understanding what may be perceived as emotional behavior and why from the male perspective is very enlightening.

The quoted comments from male interviewees provide a lot of candid, if sometimes overly generalized, feedback. However, the author’s analysis of the survey data makes clear what women can do to be more conscious of actions that lead to negative perceptions.

Feldhahn is careful to point out that she is not endorsing the male perspective as the correct world view. The goal is not to teach women to be “more like men” by putting on a false mask of stoicism or aggressiveness. The book...
Launching Innovation, Defining Success

As the dual themes for WE10, the Society’s professional development conference, “launching innovation and defining success,” are acknowledged in our look at various media, from the in-depth review of The Male Factor, to the broad-brush grouping below.

In the spirit of innovation, here are some websites and books to get you started:

**www.InnovationTools.com**

This website offers tools, strategies, and techniques you can use to be more creative and innovative in your business. Check out their innovation book reviews and list of their top 10 books.

**www.InventorSpot.com**

Dedicated to the creative, out-of-box thinker, inventor, and entrepreneur, this is a place to get advice, keep current, and see the latest inventions, innovations, and interesting ideas — everything from the wacky to the wonderful — as innovators showcase their inventions here.

**www.IdeaFinder.com**

A website created to promote the progress of science and useful arts by providing a platform for innovation. Their mission is to provide inspiration to the “inventor” in all of us.

**The Medici Effect**


Regarded as an intriguing new look at how disparate interests, fields, and ways of being can intersect with creative, innovative results, this book has received a great deal of attention. While the title alludes to the wealthy Florentine family, the Medicis, whose patronage of art, science, literature, and philosophy during the 15th century captured and promoted the spirit of the Renaissance, the book contains only a brief, cursory mention of them.

**Girls Think of Everything: Stories of Ingenious Inventions by Women**


The stories behind the women and girl innovators who have changed the world with their inventions like windshield wipers, snugli®, computer compilers, Kevlar®, Scotchgard®, chocolate chip cookies, and much, much more makes for compelling reading.

**Creativity: Flow and the Psychology of Discovery and Invention**


This acclaimed work outlines the mysterious process by which we come up with new ideas, the characteristics that make creative innovators stand out, and ways to enhance both organizational and one’s own personal creativity.

— Compiled by Debra Kimberling, SWE Magazine editorial board.

## STANFORD UNIVERSITY Department of Computer Science Faculty Opening

The Department of Computer Science at Stanford University invites applications for a tenure-track faculty position at the junior level (Assistant or untenured Associate Professor). We give higher priority to the overall originality and promise of the candidate’s work than to the candidate’s sub-area of specialization within Computer Science.

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Applications should include a curriculum vita, brief statements of research and teaching interests, and the names of at least four references. Candidates are requested to ask references to send their letters directly to the search committee. Applications and letters should be sent to: Search Committee Chair, c/o Laura Kenny-Carlson, via electronic mail to search@cs.stanford.edu.

The review of applications will begin on Dec. 1, 2010, and applicants are strongly encouraged to submit applications by that date; however, applications will continue to be accepted at least until March 1, 2011.

Stanford University is an equal opportunity employer and is committed to increasing the diversity of its faculty. It welcomes nominations of and applications from women and members of minority groups, as well as others who would bring additional dimensions to the university’s research and teaching missions.

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— Compiled by Debra Kimberling, SWE Magazine editorial board.

Bianca McCartt is a digital engine owner at GE Aviation for five major product lines where she manages 3D CAD assemblies including GE, supplier, and customer models for design collaboration. She graduated with a B.S.M.E. in 2003 from the University of Kentucky. A member of the SWE Magazine editorial board, she served as the South Ohio Section’s president in FY08.
Welcome to WE10

Welcome to Orlando, Fla., and WE10, the largest and most comprehensive gathering of forward-thinking women engineers and technologists! The Society of Women Engineers’ annual conference is the place to be for advancing your career; networking with fellow engineers, technologists, and collegians; and finding inspiration through the words of our exemplary keynote speakers and SWE award recipients.

I truly am inspired by the enthusiasm surrounding the commemoration of SWE’s 60th anniversary. I look forward to the SWE60 activities at WE10, which will also serve as the finale for the year-long anniversary celebrations. During the past year, these celebrations allowed us to share our stories, our history, and our legacy. Six decades ago, a dozen or so members came together to found our Society. Their stories and those of our featured “engineering pioneers” on our SWE60 website show us how much these trailblazing women have contributed. They were forward-thinking, and shaped the lives of many who were impacted not only by their innovations, products, and services, but also by the example they set for defining success on their own terms.

I am sure our founding members would have a very strong sense of SWE pride for our amazing growth and achievements within the past 60 years. Thanks to them, and the successive generations of members up to the present, we are continuing to build history in SWE. As you fast-forward five, 10, or 60 years from now, where do you see our Society? What is the legacy we want to leave behind?

As you fast-forward five, 10, or 60 years from now, where do you see our Society? What is the legacy we want to leave behind?

• At the Society level, we granted more than $450K in scholarships.
• At the end of last fiscal year, our membership was more than 18,000, and our goal is to exceed 20,900 this fiscal year.
• Seven years ago, we were not recognized in public policy. Now, in public policy that impacts engineering studies and careers, we are sought after as a leader of discussion and source of information. We lead the planning committee for the U.S. House of Representatives’ Diversity and Innovation Caucus and are invited to testify before Congress.

SWE has a strong history of shaping lives and empowering its members to succeed on their own terms, and I can share many more firsts and achievements. I invite you to join us at the SWE 60th Anniversary Gallery on Nov. 6 at WE10. This inspirational gallery concludes the celebration of the Society’s 60th anniversary. It captures the past, and brings SWE into its future through memories, artifacts, oral history interviews, and much more.

There is something for everyone at the SWE annual conference! As we together deepen our knowledge and experiences through workshops, seminars, technical tours, and presentations by industry experts at WE10, I also encourage you to make connections and build your network. This year, for the first time, we are offering virtual participation for our keynote and plenary events at the conference. The WE10 Career Fair featuring industry-leading corporations, government agencies, and graduate schools will amaze you with opportunities. Many of these Career Fair exhibitors will be conducting job interviews on-site. As someone who got her first job out of graduate school through a SWE friend, I encourage you to take advantage of the Career Fair.

I wish you a very successful and awe-inspiring conference, and I look forward to hearing from you about how WE10 helped to shape your life!

Siddika Demir
FY10 SWE President
Ann Fletcher, F.SWE

Pioneering Detroit member, accomplished “firsts.”

Ann Fletcher chose engineering as a second career after nearly a decade of teaching piano and violin. Prompted by the labor shortages of WWII, Fletcher’s experience illustrates how opportunities opened up for some women because of the unique educational programs designed to train women to fill that shortage. Fletcher was married and the mother of one child, a young boy, when she answered an ad in a Detroit newspaper, calling for women to take aptitude tests at Wayne State University. Upon taking the test, she was placed in the university’s college of engineering. She attended classes from 1942-44, joining Bendix Aviation Corporation Research Labs in 1943 as a patent draftsman.

Fletcher continued to work after the war. In 1947, she became an industrial illustrator and patent draftsman at Ford Motor Company where she worked for the next 21 years. As the only industrial illustrator at Ford, she worked closely with inventors to produce illustrations for product, design, chemical, and metallurgical inventions, among others. Her last position before retiring in 1978 was as technical assistant to chief engineer at the Shatterproof Glass Corporation. Her assignment entailed duties from various technical analyses to reports and surveys for the Environmental Protection Agency.

Interviewed as part of the Society’s oral history project, Fletcher described the fascination her work held, and summed up her experiences from the classes at Wayne State to retirement:

“And I never regretted that [taking the classes], because I always found it to be very interesting and very intriguing. I started working in 1942, and I didn’t quit until 1980. I retired at around 1970, but all those years between Bendix, Ford, and Shatterproof Glass Company. At the Shatterproof Glass Company, I did not do any drawings. I was the technical assistant to the chief engineer. That was another new experience, very interesting, very different.”

Ann O. Fletcher is sworn in by Judge Walter P. Cynar as the first woman on the Michigan State Board of Registration for Professional Community Planners, 1975.

As an early member of SWE, Fletcher experienced several “firsts” in her profession. It was during her position at Shatterproof that she became one of two women in the Society of Engineering Illustrators, serving two terms as president. She also became the first woman elected as Fellow of the Engineering Society of Detroit and later to its board of directors. Fletcher received statewide recognition when in 1975 she was appointed to the Michigan State Registration Board of Professional Community Planners.

Born to Polish immigrant parents, Fletcher was proud of her heritage and was a founding member of the Polish American Engineering Society of Detroit, established during the celebration of Copernicus’s 500th birthday in 1978.

A memorial mass was held at Holy Cross Polish National Church in Hamtramck, Mich. on Thursday, September 9. Memorials in her name may be made to Holy Cross Polish National Church.
Welcome to Orlando! We are excited to have you here. There are many local features of Central Florida integrated into the conference programming. As you plan your schedule, please take time to enrich your conference experience through some, if not all, of the following:

TOURS: This is the area where you will find the most local flavor. We are pleased to offer a variety of unique tours this year, including technical tours at Walt Disney World, SeaWorld, and Universal Studios, among others. Orlando is a top tourist destination, and these tours will show some of the impressive technologies that make these industries efficient. Because Florida is typically sunny and hot, and as engineers we are looking for renewable energy sources, we are proud to present a tour of the Florida Solar Energy Center.

We also decided to offer a cooking class that will remind everyone just how fun cooking can be. For all the NASCAR fans, there is a tour of the Daytona International Speedway.

And how can you visit Florida without seeing alligators!? For a memorable experience, Gatorland is offering an educational nighttime tour for participants to learn about alligators. We believe the variety of tours resembles the diversity of Central Florida — from wildlife, to entertainment, and the technology and we hope you enjoy it.

OUTREACH: Many SWE members love to share their experiences with youth. We have an exceptional opportunity to reach 250 girls from schools and Girl Scout troops in the Orlando area through “Invent It, Build It.” This hands-on engineering experience for high school girls will be led by Judy Lee, WGBH television’s host of “Design Squad.” See the Outreach highlights on page 72 for details.

DON’T MISS: The ice cream social, career fair, hospitality suites, and the daily offerings at the conference are all opportunities to network with peers and potential employers. Hospitality suites are a special occasion to mingle with prospective employers and get to know the opportunities in their companies as well as meet probable co-workers at the same time.

CELEBRATE SWE! is a favorite event. It’s an evening to let loose and just have fun. It’s a big party and serves as the Saturday night conference finale. Wrap up your conference experience by enjoying both the silliness and spirit of the event, and the recognition given to the sections, who have worked so hard throughout the year.

Harmony Myers is the Launch Vehicle Processing Safety Engineering and Assurance Branch chief for NASA and has worked at the Kennedy Space Center for 10 years. She joined the Society 13 years ago and is a life member. She has served in various leadership roles at the section, region, and national level. Myers cherishes her family, especially her husband and two young daughters.

Cynthia Gray is the manager of Training and Labor Initiatives for Engineering Services at Walt Disney World. She has been part of the Disney magic for 15 years. As a member of SWE for the last five years, she has participated locally in professional development and outreach activities.
Is There an Engineer in the House?

By Pam Dingman, P.E., SWE Editorial Board

"Check this out," I said to my teenage son, pointing out my latest project. His immediate response was, "OMG, mom, really, really." I had just completed my latest household project, and I seemed to be the only one who was impressed. This project consisted of the installation of a remote-controlled mini-split heat pump system in the third floor attic of our 1881 property.

The condensation for this system is pumped via a three-pump system into the gutters of the house. From there, it proceeds under the newly constructed porch and into the renovated lily pond complete with fish, successfully reclaiming 5-8 gallons a day of Nebraska humidity and removing the need to top off the pond weekly. As an added bonus, this system captures the rainwater from about 25 percent of the roof. This highly engineered system enabled me to eliminate the need to top off the pond with city water and reclaimed condensation and rainwater. I could not wait to show it off to my friends! After all, this surely made the ranks of their household projects. Consider Sarah Wilson's corn burner system, which she installed complete with a chute from the garage to the basement for ease of transport; or Connie King and her husband's solar-powered racecar winch complete with remote-control start.

I'm sure other women engineers have similar stories and equally intriguing home projects — it's part of who we are and what we do.

Pam Dingman, P.E., is owner and CEO of Engineering Design Consultants and a member of the SWE Magazine editorial board.
Reflections on a Year of Celebration

As SWE’s executive director I have had the opportunity to share in – either in person or through recordings and stories – the numerous and varied commemorations of SWE’s 60th anniversary. It has been a rich and rewarding time. As we wrap up the yearlong celebration at WE10, I offer some observations.

“Success on Your Own Terms,” the anniversary theme, acknowledged all SWE members throughout our 60 years. We recognize that the founders and early members of SWE could not readily take advantage of career and personal options that we consider commonplace today. Their stories highlight how much they contributed to changing the norms for women in general, and especially in engineering. A poignant example can be found in a popular ’50s TV comedy being shown at the WE10 60th Anniversary Gallery on Saturday. Take a break to watch the story of a “wise man” as he demolishes his “foolish” daughter’s dream to pursue a degree in engineering, because “father knows best.” Thanks to SWE’s pioneers, our profession and an increasing number of educators and influencers seek to encourage women to become engineers rather than subject them to ridicule.

While emphasizing the differences across the decades, the anniversary also highlighted how much today’s newest members have in common with our early members. Certainly this is the case when it comes to mentors. Their importance and value is keenly felt, and appreciated across generations. One of my most touching moments came when I opened a note with a “$60 for 60th Anniversary” donation. The donor, a member since 1952, made the donation in honor of the woman who was her mentor. How wonderful to be remembered more than 60 years later for your influence on someone’s life.

And how fitting it is to be acknowledged in a manner that continues your legacy of supporting women engineers.

Since the beginning, SWE has been an organization with an active and vibrant local structure. Up until now, much of SWE’s history has been focused on activities at a Society level. The 60th anniversary is the first major anniversary to occur at a time when accessible technology allows us to capture and distribute high-quality images, voice recordings, and video recordings at a relatively low cost — thus bringing a strong grass-roots component to our celebration.

I believe a large part of the 60th anniversary legacy, and our collective contribution to the history of women in engineering, comes from the wealth of artifacts you have created and found. Individuals, sections, and regions have gathered artifacts and documented stories, ranging from the oral histories of section founders to the perspectives of collegiate members. Thank you to the sections who shared with our archives (and me!) their scrapbooks, recordings of oral histories, section meetings with early members, and historical documents. Experiencing these made me very proud of our history and contributions. And, please remember that it is never too late to add material.

The yearlong SWE 60 celebration has provided insight into our history, inspiration to make a difference, and the evidence that together we can do so much more than as individuals.

Let’s go make some history!

Betty Shanahan, CAE, F. SWE
SWE Executive Director & CEO

The yearlong SWE 60 celebration has provided insight into our history, inspiration to make a difference, and the evidence that together we can do so much more than as individuals.
Recognizing members’ extraordinary investments in SWE

“Society only advances through the efforts of people who give more of themselves than they ever expect to receive in return,” SWE Vice President Naomi McAfee acknowledged when presenting SWE’s first Certificate of Recognition to Ruth Shafer in 1971. “The Society of Women Engineers has been extremely fortunate in having a great number of people who have given unremittingly of themselves.”

Particularly during SWE’s early years, volunteers performed almost every task that kept the Society running. Some members’ contributions to the Society, however, went above and beyond the typical expectation, such as Shafer’s campaign to raise the funds for SWE’s headquarters in the United Engineering Center in New York City.

Between 1971 and 1983, four certificates were awarded to such committed volunteers, and several Certificates of Appreciation were offered between 1987 and 1991. Since 2000, SWE has presented the Distinguished Service Award to those members whose extraordinary efforts have helped the Society to achieve its mission at the local, regional, and national levels.

-Troy Eller, SWE archivist
Welcome to We10
The Annual Conference for Women Engineers

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Defining Success.

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### 20K plus
- **Cummins Inc.**
  - Career & Life Transitions Track, Collegiate Leadership Housing
- **Dell, Inc.**
  - Technology Plenary, Hospitality Suite, Water Bottles, Careers in Academia
- **The Dow Chemical Company**
  - Badges/Lanyards, Diversity Society Center, Awards Banquet
- **Exxon Mobil Corporation**
  - Career Fair Opening Reception, Collegiate Leadership Housing, K-12 Outreach Track, SME Bowl
- **Genentech**
  - Keynote Breakfast, Hospitality Suite
- **General Motors Foundation**
  - Tote Bags
- **Google**
  - Tote Bags
- **IBM Corporation**
  - Collegiate Poster Competition, Hotel Key Cards, Innovation in Technology and Business Track, Tote Bags
- **Intel Corporation**
  - Career Fair Opening & Reception, SWE Senate Mtg, Membership Mtg, Innovation in Technology & Business Plenary
- **Kellogg’s**
  - Welcome Ice Cream and Collegiate Leadership Housing
- **Kimberly-Clark Corporation**
  - Welcome Ice Cream Social, Water Bottle
- **Lockheed Martin Corporation**
  - SWE Awards Banquet
- **Northrop Grumman Corporation**
  - Women Defining the Future Lunch
- **Raytheon**
  - Collegiate Welcome Luncheon
- **Stryker**
  - Keynote Breakfast
- **U.S. Navy Recruiting Command**
  - Collegiate Welcome Break Luncheon

### 15,000 - 19,999
- **Exelon Corporation**
  - Hospitality Suite, Mgmt & Strategy along with Leadership Development Track
- **HP**
  - Career Resources Center, Hospitality Suite, Registration Area

### 10,000 - 14,999
- **Alcoa Foundation**
  - Career Fair Lunch
- **Bechtel Corporation**
  - Welcome Ice Cream Social
- **The Boeing Company**
  - Hospitality Suite, Team Tech National Collegiate Competition
- **Booz Allen Hamilton**
  - Hospitality Suite, Award Reception
- **Central Intelligence Agency**
  - Hospitality Suite, Pocket Guide
- **Chevron Corporation**
  - Water Bottles
- **Halliburton**
  - Collegiate Leadership Housing
- **Illinois Tool Works**
  - Pocket Guide, Hospitality Suite
- **ITT Corporation**
  - Career Fair Lunch, SWE Boutique
- **Marathon Oil Company**
  - Career Fair Opening Reception
- **Marathon Oil Company**
  - Career Resources Center
- **Pitney Bowes**
  - Award Reception
- **Rockwell Automation**
  - Hospitality Suite, Pocket Guide
- **Team SPAWAR**
  - Career & Life Transitions Plenary, SWE Boutique, Speaker Ready Room
- **Shell Oil Company**
  - Welcome Ice Cream Social, Hospitality Suite
- **Southern Company**
  - Career Fair Guide, Collegiate Poster Competition
- **State Farm Insurance Companies**
  - Welcome Ice Cream Social, SWE Committee Dinner
- **U.S. Army RDECOM**
  - Saturday Plenary

### 5,000 - 9,999
- **Barclays Capital**
  - Hospitality Suite, Hotel Key Cards
- **FM Global**
  - Pocket Guide
- **Merck**
  - Collegiate Poster Competition, SWE Boutique
- **MWV MeadWestvaco**
  - Diversity Society Center
- **Procter & Gamble**
  - Hospitality Suite
- **Schlumberger Technology Corporation**
  - Hospitality Suite
- **Stryker**
  - Keynote Breakfast
- **Takeda Pharmaceuticals**
  - Hospitality Suite
- **Team SPAWAR**
  - Welcome Ice Cream Social, SWE Boutique, Speaker Ready Room
- **Team SPAWAR**
  - Career & Life Transitions Plenary, SWE Boutique, Speaker Ready Room
- **Team SPAWAR**
  - Welcome Ice Cream Social, Hospitality Suite
- **Shell Oil Company**
  - Welcome Ice Cream Social, Hospitality Suite
- **Southern Company**
  - Career Fair Guide, Collegiate Poster Competition
- **State Farm Insurance Companies**
  - Welcome Ice Cream Social, SWE Committee Dinner
- **U.S. Army RDECOM**
  - Saturday Plenary

### 1,000 - 4,999
- **BAE SYSTEMS**
  - Hospitality Suite
- **Boston Scientific**
  - Hospitality Suite
- **BP Corporation**
  - Hospitality Suite
- **Cargill**
  - Hospitality Suite
- **Chrysler LLC**
  - Hospitality Suite
- **ERIN Engineering and Research, Inc.**
  - Hotel Key Cards
- **GE**
  - Hospitality Suite
- **Goldman, Sachs & Co.**
  - Hospitality Suite
- **HNTB Corporation**
  - Hospitality Suite
- **Navistar, Inc.**
  - Tour Buses
- **Procter & Gamble**
  - Hospitality Suite
- **Schlumberger Technology Corporation**
  - Hospitality Suite
- **Toyota**
  - Hospitality Suite
- **Turner Construction Company**
  - Hospitality Suite
- **United Technologies Corporation**
  - Hospitality Suite
SWE Executive Summit: Leading and Mentoring Women Globally

By invitation only

Wednesday, November 3, 2010
11:30 a.m. - 5:00 p.m.
Networking luncheon -Orchid,
Peabody Hotel
Followed by lecture/workshop -
Winter Park 54, Peabody Hotel

With more and more women working in engineering and technology across the globe, there is great need for effective mentoring by senior women leaders. There are certainly unique challenges when mentoring women who may be working and living in a different culture. The challenges may be compounded when the mentoring relationship is being done virtually.

At this year’s SWE Executive Summit, the focus will be on what it takes for women leaders to effectively mentor women across the globe. Mabel Miguel, Ph.D., the workshop speaker and facilitator, will draw on research and her work with executives in leading an interactive and engaging discussion.

The presentation will include some lecture as well as structured discussion and interaction amongst summit participants. At the end of the workshop, everyone will have an increased knowledge base about how to more successfully mentor women across different cultures. The workshop promises to be targeted, practical, and engaging for executives, providing material for consideration and implementation later.

Objectives:
• Discuss general challenges when mentoring women around the globe.
• Identify the key components of leadership effectiveness and mentoring within multi-cultural context.
• Assess your understanding of the role that culture plays in organizational and individual performance.
• Assess your approach and ability to mentor women from diverse cultures.
• Identify diverse styles of mentoring.

Mabel Miguel, Ph.D., is the core professor of leadership and management for the Kenan-Flagler Business School’s (UNC-Chapel Hill) Executive MBA programs. She has also developed and taught leadership skill courses for such organizations as BD, BAE Systems, Caterpillar, CEMEX, Eastman Chemical, ExxonMobil, Sony Ericsson, the U.S. Environmental Protection Agency, Department of Defense, U.S. Air Force, U.S. Navy, and U.S. Air Force.

Dr. Miguel has taught extensively at universities and organizations around the world. She was a visiting professor at Koç University in Istanbul. A citizen of the world, Dr. Miguel is uniquely qualified to lead UNC Kenan-Flagler students on global courses to China and South America. Born in Argentina, she has lived in Venezuela, Barbados, France, Turkey, and the U.S. She speaks Spanish and English fluently and conversational French. She received her Ph.D. from the University of North Carolina at Chapel Hill, and her M.B.A. and B.S. from New York University.

Corporate Partnership Council (CPC) Meeting
Open to all CPC Members

Wednesday November 3
4:00 – 6:00 p.m.
Orange County Convention Center, W231 A-C
Please refer to the detailed agenda provided.

Corporate Members Meeting
Open to all Corporate Members

Thursday November 4
1:00 – 3:00 p.m.
Orange County Convention Center W224C

In an increasingly diverse and global work force, creating an inclusive environment is essential to drive innovation and productivity. Making diversity a priority and looking for best practices to create an inclusive organization – one that values all perspectives – has been proven to increase employee retention, productivity, and innovation.

Join SWE in learning more about best practices and different strategies for moving beyond diversity awareness as we welcome Jean Mavrelis, CEO of Kochman Mavrelis and Associates, to look at how cultural awareness and integrated diversity training strategies are moving organizations forward and positively impacting their bottom lines.

Mavrelis will identify some of the important steps to build a case for a comprehensive approach to diversity within your organization. She will highlight some of the cultural models that she uses to create and sustain effective practices in a variety of corporations, higher education organizations, and nonprofit agencies. Exploring the importance of moving beyond diversity awareness, Mavrelis will address the value of understanding cultural differences that are critical to employee engagement, supplier relationships, and customer satisfaction. In addition, you will hear updates on SWE’s professional development programs for women at all career stages.

SWE’s Annual Corporate Member’s Meeting is a great opportunity to network with other corporate members, learn more about SWE’s newest programs that assist with the retention and advancement of women within your organization, and obtain valuable resources to bring back to your company.

Light refreshments will be served.
ENGINEER YOUR FUTURE

If you're an engineer who wants to make a difference on more than a company's bottom line, we know just the place. As a Bioengineer, Civil Engineer, or Nuclear Propulsion Officer in America's Navy, you'll be putting your expertise to work commanding, managing and operating some of the most advanced ships, submarines, hospitals, and construction projects on earth.

To learn more, call 1-800-USA-NAVY or visit navy.com.
Keynote Breakfast
“Run, Puff, Run”
Thursday 8:00 – 10:00 a.m.
Orange County Convention Center, Valencia CD

Tana Utley, chief technology officer at Caterpillar Inc., has a story to tell about her journey through a male-dominated industry to become the top technical leader at a Fortune 50 company. Through a series of very deliberate choices, Utley has charted a path for her life that balances her personal passions – family, long distance running, and the diesel engine – with her drive to make her mark on her industry. The lessons she’s learned along the way are relevant to any woman seeking to fulfill her promise in a world of often conflicting expectations. Utley’s keynote address will explore some of these lessons, including:

• Cultivate your brand
• Make and use connections
• Probe motives – your own and those of others
• Protect and savour creativity
• Mind your business

Whether running a business division with thousands of employees, a ground-breaking engine technology project, a marathon, or a home, the measure of success for Tana Utley is not what she has achieved but how she has achieved it; and the path she’s created for others to follow. The intent of her story is to engage and inspire listeners — to help them recognize that their unique history and day-to-day challenges hold the keys to deep personal knowledge and professional development. “Run, Puff, Run” is a call-to-action for women engineers and anyone working their way through life’s marathons.
Everyone’s talking about the potential of cloud computing. Will you be the rainmaker?

Inspiration comes from everywhere.
Working at HP is an opportunity to develop solutions that change the lives of people everywhere. With cloud computing, it’s an optimized Internet that goes beyond the computer screen. HP’s technology also drives mission-critical financial systems and powers special effects for blockbuster movies. If you’re as passionate as we are about creating great technology, this is the ideal fit for your career. Join us and together we can win.


To view a comprehensive list of HP job openings, visit us online at www.hp.com/us/go/people. When creating your profile, please select the following Source Code: SWE.

HP is interested in YOU! Please stop by our Career Fair Booth (#1401) and talk with one of our recruiters!

HP is a proud sponsor of the Society of Women Engineers.
60th Anniversary Gallery
Saturday November 6
10:00 a.m. – 5:00 p.m.
Orange County Convention Center, W330C
Join us at the 60th anniversary gallery for a series of activities to wrap up our diamond anniversary year. Browse through a collection of artifacts, memorabilia, images, and video, including clips from oral history interviews, and recent section activities to commemorate Founders’ Day. See how the characters in a popular television show from the 1950s discouraged a young female character from becoming an engineer, and how one SWE section responded in a resourceful and daring (for the time) manner. Listen to a panel of scholars share their research and insights, based upon materials in the Society’s archives.

Be part of this SWE retrospective whether you are a pioneer or brand new member.

60th Anniversary Research Project
Saturday November 6
panel presentation
10:30 a.m. – 12:00 p.m.
Orange County Convention Center, W330C
To close the anniversary year, a special peer-reviewed volume will be published in spring 2011, titled *Proceedings from the Society of Women Engineers’ 60th Anniversary*. Contributors are an interdisciplinary group of scholars, whose papers are based upon research conducted at Wayne State University’s Reuther Library, the official repository of the Society’s archives. This volume will advance knowledge and improve insight on the participation of women in engineering.

Meet the scholars contributing to this project and hear about their research in progress in a panel presentation.
Be part of something bigger.

At GE we don’t just support diversity, we rely on it to drive innovation and change. We offer limitless opportunities for growth in an environment that encourages people to reach their maximum potential. We are looking for individuals like you, people who look beyond the ordinary and imagine the possibilities.

We invite you to explore opportunities at GE in engineering, finance, manufacturing, sales and marketing, human resources, or information technology. Explore your next career move at ge.com/careers.
2010 Boeing Team Tech National Student Competition

Practice Session: Thursday, November 4
9:00 a.m. – 11:30 p.m.
Orange County Convention Center W330G

Competition: Friday, November 5
9:00 a.m. – 11:30 a.m.
Orange County Convention Center W330G

The Team Tech National Student Competition was established in 1992 as a SWE national competition with sponsorship by The Boeing Company to emphasize the key role of teamwork and interface with industry in the engineering educational process. Team presenters receive free airfare to the conference, where they compete for prizes of $5,000 for first place; $2,500 for second place; and $1,250 for third place.

Competing teams ranging from four to 12 students and representing a minimum of three engineering disciplines were formed in the fall. They submitted an initial, interim, and final report on a project of their choosing. In addition, each team has been working with an industrial advisor, who has also been responsible for ongoing evaluation of the team’s progress.

The teams and their projects will be evaluated in the following areas:
• The ability of the team to work together
• The use of engineering processes
• Product
• The quality of the results
• The ability of the team to work with industry

These presentations are challenging and represent the work that can be accomplished when we strive together.

Sponsored by The Boeing Company

Competition Schedule:

9:00 a.m.  Introductions

Region B
California Polytechnic State University, San Luis Obispo working with Mazzetti Nash Lipsey Burch (M+NLB)
Team Tech M+NLB – Electrocardiogram Alert System
Team Leaders: Aaron Rivera and Brian Danque

UCLA working with Project: Possibility
UCLA Team Tech – Interactive Ball for the Blind
Team Leader: Carolyn Chuang

Region H
University of Michigan working with Williams International
Energy Efficient Spit Pit with Regenerative Braking
Team Leader: Elizabeth Paris

10:10 a.m.  Break

University of Wisconsin-Madison working with Mortenson Construction
UW-Madison Boeing Team Tech – Construction Site Heating System
Team Leader: Elise Larson

Region A
University of the Pacific working with Cisco Systems
Developing an Educational Collaboration Center
Team leader: Kristina Hammarstrom

11:10 a.m.  Conclude Presentations – Judges’ Deliberation
CREATING A MORE SUSTAINABLE WORLD

Our new Cat D7E track-type tractor with electric drive maximizes efficiency and productivity while conserving our natural resources – all part of our company’s commitment to making sustainable progress possible.

www.JoinTeamCaterpillar.com
Collegiate Competitions

SME Bowl
Saturday, November 6 2:00 – 5:00 p.m.
Orange County Convention Center W240A/B

To claim the “Subject Matter Expert” title and win cash prizes, collegiate teams representing each of the 10 SWE regions answer engineering-and SWE-related questions. Team sign up will take place during the collegiate region meetings. Individuals on winning teams receive $100, $75, and $50, respectively, for first-, second-, and third-place prizes, and prizes of $2,000, $1,500, and $1,000 for their respective regions.

Sponsored by Exxon Mobil Corporation.

Collegiate Poster Competition/Poster Session
See page 230 for list of participants.

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- Chemistry
- Physics
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Lockheed Martin is a proud sponsor of the Society of Women Engineers 2010 Annual Conference!

Best wishes on a successful event!
Additional Highlights

Mid-Career Track
Within the Career and Life Transitions program tracks we have highlighted those sessions that are part of the Mid-Career learning track. The target audience of this program track includes women in technology and engineering with more than 10 years of experience in the work force. The Mid-Career learning track was created to cater to experienced and seasoned professionals where they can learn more about a variety of topics that may impact them, enabling them to add value to their organization while simultaneously enhancing their career opportunities.

Virtual Conference
A new way to experience WE10 has arrived! During this year’s annual conference, major conference highlights will stream live to your computer, including the highly anticipated WE10 keynote and three plenary sessions.

In addition to streaming live via video during the conference, keynote and plenary sessions will also be recorded for future replay. Free to full-conference registrants of WE10, virtual participation is also being offered as a separate registration option to those not able to attend the entire conference, or for those not able to make it to Orlando.

Virtual participation is a WE10 conference enhancement, designed for attendees to experience WE10 in a new way and to allow more participants to get a taste of the largest conference for women in engineering and technology. Four sessions will stream live from the conference while 12 of the most popular professional development sessions will be recorded for replay. Virtual participation registrants will receive full instructions on how to participate and access the live environment a week prior to the conference.

The sessions that are part of the virtual conference have been highlighted throughout the conference program book.

Outreach Expo
WE10 Conference Special Event
Friday 1:00 – 4:00 p.m.
Orange County Convention Center, W224 ABEF
The SWE Outreach Expo will feature exceptional outreach programs with a focus on engineering from a variety of national youth-serving organizations. The organizations participating at the Expo will showcase their resources and provide opportunities for you to get involved in their programs. SWE sections will also be in attendance to network, share best practices, and discuss SWE’s ongoing role in K-12 outreach.

Invent It, Build It
WE10 Conference Special Event
Saturday 10:30 a.m. – 4:00 p.m.
Orange County Convention Center, W224
Invent It, Build It is a Society of Women Engineers, Girl Scouts, and Design Squad collaborative event. It will combine the strengths of all three organizations to create a hands-on engineering experience for hundreds of high school Girl Scouts.

Lava Lounge
Orange County Convention Center, West E/FLobby
Throughout the conference, visit this popular spot to meet old friends, make new friends, and relax before heading off to your next session or event. Make a unique button to celebrate SWE’s 60th anniversary, and share your story in our “Shaping Lives” contest.

Winners will be announced at the WE10 Lava Lounge but need not be present to win.

Career Fair Opening
Thursday 5:00 – 6:00 p.m.
Orange County Convention Center, Valencia CD
Before the ribbon cutting that opens the career fair, entertainment will be provided by COBU, a New York-based rhythm performing arts group. Founded by Yako Miyamoto in 2000, performers combine elements of the Japanese traditional Taiko drumming with rhythmic tap dancing. Their performance has received outstanding reviews from the New York Times and the Chicago Sun Times, and in 2001, COBU received the “Choreography Award” from Mann & Entertainment.

Internationally known and recognized, COBU travels and performs throughout much of Asia and Europe, while maintaining a strong presence in Japan and The United States.
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Acquisition • Engineering • Maintenance • Financial Management

Extraordinary Careers, Unique Possibilities

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Plenary Session

Career and Life Transitions

**Negotiating for Yourself**

**Moderated Panel**

**Thursday 10:00 – 11:30 a.m.**

**Orange County Convention Center, W330D**

**Sponsored by Team SPAWAR**

Recent research suggests that women do not have the same propensity to negotiate for themselves as men do. This is not due to a lack of negotiating skills. Women often negotiate better deals for their companies than their male counterparts. The critical difference is that women do not negotiate for themselves; they tend not to ask for pay increases, promotions, resources, staffing, and opportunities. Panelists share what they have learned along the way during their careers, and will discuss how women can successfully negotiate for themselves without damaging the relationship with their organization.

**Moderator:**

**Erica Messinger** is a business development manager at Agilent Technologies, where she’s worked now for more than 10 years. She holds an executive M.B.A. from the University of Colorado and a B.S. in electrical engineering from the University of Illinois at Urbana-Champaign.

**Panelists:**

**Connie Hoover** is a senior learning consultant for Symantec, providing organization development, training webinars, programs, and coaching to leaders at all levels of the organization. She taught English in public schools for 10 years, and has 15 years’ experience as an adjunct college instructor. In addition, Hoover spent 15 years as a single, female, small-business owner of an international organizational development company. She received a B.S. in education from Bowling Green State University and a master’s degree in communication from Norfolk State University.

**Monica Lockard** is a global right environment director for Cummins Inc. She has spent a majority of her career working as a human resources professional in the engine manufacturing industry. Her HR functional experience includes staffing, HR information systems, corporate recruiting, and Line HR. Lockard received her undergraduate degree from Purdue University’s Krannert School of Management and her master’s in management from Indiana Wesleyan University. In addition, she is in the process of attaining her Six Sigma green belt certification.

**Carol Williams** is a group senior vice president and the president of the Chemicals and Energy Division at Dow Chemical. The businesses included in the division are ethylene oxide/ethylene glycol, chlor-vinyl, chlor-alkali, chlorinated organics, and energy. She is a member of the company’s executive leadership committee and the strategy board. Williams earned a bachelor’s degree in chemical engineering from Carnegie Mellon University and an executive M.B.A. from Indiana University.

**Jennifer Stentz** is vice president of sales and marketing at Johnson Controls. She is responsible for driving the sustainable, profitable growth of the North American Building Efficiency Service business. This includes leading the strategic planning process for a $2 billion service business, as well as managing the service marketing organization and a distributed sales force of more than 500 sales professionals across the U.S. and Canada. Stentz holds a B.S. in electrical engineering from Louisiana State University and an M.B.A. from Tulane University. She is a 2009 graduate of the Johnson Controls eXtreme Learning Program.

**Kathy Chou** is vice president of strategy and operations for Hewlett-Packard’s Personal Systems Group Americas, where she is responsible for driving the sales strategy to reach HP’s aggressive growth goals. She manages HP’s Americas Global Business support, volume sales in Latin America, growing the OEM business, sales analytics, and operations. Chou holds a B.S. in mechanical engineering and an M.S. in manufacturing systems engineering from Stanford University, and an M.B.A. from the Harvard Graduate School of Business.

**Christina Sistrunk** is vice president of producing assets, deepwater-GOM at Shell. She joined Shell in 1998 after working for the Amoco Production Company, where she had worked in a variety of engineering and operations management roles, all focused on Gulf of Mexico production and development. Since joining Shell, Sistrunk has worked in the deepwater engineering projects organization, as operations manager, operations skill pool manager, HSSE manager – Americas Region, and Gulf of Mexico east asset manager. Prior to becoming vice president, she was in the Netherlands as the asset integrity program manager, which she began at the start of 2008. Sistrunk is a graduate of Ohio State University with a B.S. in chemical engineering.
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Innovation in Technology and Business

Designing Women: Looking into the Future of Engineering

Moderated Panel

Friday 8:30 – 10:00 a.m.

Orange County Convention Center, W330D

Sponsored by Dell Inc. and Intel Corporation

Do women have distinct approaches to human-focused design? “Design thinking” is a hot topic in the corporate world, and women in engineering are utilizing its methods to drive change in everything from business practices to product development. Our panelists are women who use the design thinking process to foster innovative solutions for clients and customers. Panelists will discuss how women bring a distinct viewpoint to innovation and design processes as well as how design thinking will influence future engineering and business opportunities for their industry.

Moderator:
As the dealer administration process manager for Caterpillar Inc., Jada Hoerr establishes common processes for the Caterpillar/dealer relationship. She is entrusted as the champion of the Caterpillar/dealer partnership throughout the enterprise. Hoerr also recruits and interviews for Caterpillar’s marketing talent pipeline. She dedicates much of her free time to serving the community, especially women empowerment, support for underprivileged children, and faith-based service. Striving to support other women who wish to obtain the same opportunities she had, Hoerr is a strong supporter of the Women in Engineering program at her alma mater, Purdue University. She is a member of the Society of Women Engineers Central Illinois Section, serving on the outreach committee and leading a program in District 150 schools so young girls can learn about the profession. She was recognized by SWE as the 2008 Emerging Leader in Sales and Marketing.

Panelists:

Wendy March is a senior designer and research manager in Intel Labs. Her research interests include teenage girls and technology, future mobile experiences, and how the design of money can reflect social values such as sustainability. She has a particular interest in new methods for the design and presentation of future technologies and has an M.A. in computer-related design from the Royal College of Art. March has explored a range of research methodologies and uses her background in interaction design to find ways of using research as a basis for new concepts and future scenarios. Before joining Intel, March was with IDEO, IBM, and the BBC.

Diane Gulyas is president of DuPont Performance Polymers. She joined DuPont in 1978 and spent her first 10 years in a variety of sales, marketing, technical, and systems development positions, primarily in the DuPont Polymers business. She was born in Chicago, has a B.S. in chemical engineering from the University of Notre Dame, and completed the Advanced Management Program at The University of Pennsylvania’s Wharton Business School.

As vice president of Systems Management, Laurie Tolson leads a global engineering team fulfilling Dell’s vision of developing the easiest method to manage systems in the industry as well as systems management solutions for delivering the best-in-class end-to-end solutions. Tolson is responsible for developing Open Manage, which includes Dell’s instrumented clients, servers, storage, printers, and network platforms, ensuring they interface seamlessly with most standards-based management tools and consoles.

Denise Garner is the vice president of research and development, global cleaning, for The Clorox Company. She manages a diverse portfolio of products and some familiar consumer brands. Garner also leads innovation cross-functionally for the domestic and international businesses, leading technology and consumer discovery to develop and drive the growth pipeline. She has been with The Clorox Company for 20 years, working in numerous categories. Garner began her career in product development at Kraft Foods after graduating from the University of California, Davis with an M.S. in food science. She also holds a B.S. in agribusiness from Arizona State University.

Captain Heidi Stefanyshyn-Piper is currently the chief technology officer of Naval Sea Systems Command. She is a veteran of two space flights, STS-115 in 2006, and STS-126 in 2008. She has logged more than 27 days and 15 hours in space, including 33 hours and 42 minutes of extra-vehicular activity in five space walks. Piper attended Massachusetts Institute of Technology on a Navy ROTC scholarship, where she received a B.S. and an M.S. in mechanical engineering.
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Innovations In Engineering
Outreach

Messages That Work: Talking to Girls and Adults about Engineering Careers
Moderated Panel
Friday 10:00 – 11:30 a.m.
Orange County Convention Center, W330D

A 2002 National Academies’ report, Raising Public Awareness, estimated that engineering organizations had spent $400 million on outreach, communications, and educational activities. Despite these efforts, teachers and students have a poor understanding of what engineers do (Cunningham et al., 2005; Cunningham and Knight, 2004). In 2008, the National Academy of Engineering (NAE) released the final report of the NAE Committee on Public Understanding of Engineering Messages: Changing the Conversation: Messages for Improving Public Understanding of Engineering. The panel, which comprises educators and outreach experts, will share the key findings from the study, ways in which the panelists have integrated impactful messages into their outreach efforts, and offer guidance on how others can improve public understanding of engineering.

Moderator:
As manager of outreach for the Society of Women Engineers, Randy Freedman is responsible for the success of the organization’s national K-12 outreach programs and partnerships. Prior to joining SWE, he was director of Upromise at Sallie Mae Inc. Upromise is a fundraiser program that helps parents save for their children’s education. Freedman began his career as an elementary school teacher, teaching all subjects to culturally, racially, and linguistically diverse students. He holds an M.A. in education from John Carroll University and a B.A. from the University of Arizona.

Panelists:
Brenda Britsch, Ph.D., serves as a principal investigator on the National Girls Collaborative Project, a National Science Foundation-funded initiative to increase gender equity in science, technology, engineering, and math. She leads the research-based strategies component of the project, focusing on making research accessible to practitioners and building capacity of programs to effectively serve girls in STEM. Her prior work focuses on research, evaluation, and program development for community-based organizations and educational institutions, with particular focus on informal learning and gender equity. Dr. Britsch received a Ph.D. from the University of California, Santa Barbara, with an emphasis in human development, focusing on gender issues.

Linda Kekelis, Ph.D., is director of Techbridge at Chabot Space and Science Center. She has a master’s degree in linguistics from the University of Southern California and a doctorate in special education from the University of California, Berkeley. With more than 15 years’ experience designing and leading girls programs and in program evaluation, Dr. Kekelis participates on advisory boards, collaborates with girl-serving organizations, and works with professional groups and corporate partners to promote the participation of females in science, technology, and engineering. She conducts research, participates in national conferences, and writes extensively, translating research into practical applications for educators, professionals, and parents.

Jennie Mathur is the program and training manager for Operation SMART programming at Girls Incorporated. Operation SMART is a Girls Inc. approach to providing STEM-related programming to girls ages 6-18. Mathur has a master’s in media arts and sciences, and her interests lie in using technology in innovative ways as a means of providing educational experiences for adult learners.

Kate L. Pickle, national program manager, science, technology, engineering, and mathematics (STEM) at Girl Scouts of the USA in New York, N.Y., is responsible for advancing the organization’s efforts in STEM through collaborations, resource development, training, and grant management. Pickle earned her B.S. in marine science from Maine Maritime Academy in Castine, Maine.

Margot Sigur is an outreach coordinator for the WGBH Educational Foundation. She builds awareness for, provides training around, and encourages use of WGBH series’ resources. Sigur has facilitated workshops around engineering and media literacy.
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Cultural Awareness and Inclusion

Men at Work: Networking in a Male-Centric Workplace

Moderated Panel

Friday 1:30 – 3:00 p.m.
Orange County Convention Center, W330D

Women who work in male-dominated industries, like engineering, must sometimes navigate unfamiliar conversational territory when socializing with mostly-male clients and colleagues. The panel, consisting of men and women, will share humorous and insightful stories about the social dynamics of a male-centric workplace. Panelists will discuss how women have been successful in taking ownership over networking and social situations in order to strengthen connections with male clients and colleagues.

Moderator:
Ellen Kerr is currently vice president and Western Division engineering manager for FM Global based in Plano, Texas. In this role, she oversees the engineering processes, procedures, and people in five offices, including those in São Paulo and Stockholm. Kerr graduated from Purdue University with a B.S. in industrial engineering.

Panelists:
Lee Tschanz is vice president of the sales organization in North America at Rockwell Automation. With more than 27 years’ experience and a diverse background in the automation and control industry, he provides leadership and strategic direction for the North America sales force. Tschanz holds a B.S. in mechanical engineering from the University of Wisconsin-Platteville and an M.B.A. from the University of Wisconsin-Milwaukee.

Jon Reed is vice president of Global Engineering-Americas for Genentech. In this role, he is responsible for leading the development, planning, and execution of Roche and Genentech’s large portfolio of engineering projects to ensure the continued development of compliant and robust systems, equipment, and facilities. Reed holds a bachelor’s degree in finance from Pepperdine University and an M.B.A. from the University of California, Irvine.

Carla Boragno is senior director, head strategic initiatives for the Contract Manufacturing Operational Unit at Genentech. She is responsible for developing the change management strategy and implementation plan for the Contract Manufacturing Operational Unit, and for executing key strategic initiatives to enable strategy realization. Boragno holds a B.S. in chemical engineering from the University of California, Berkeley.

Beverly J. Seay is senior vice president and general manager of the Analysis, Simulations, Systems, Engineering, and Training Business Unit with Science Applications International Corporation. She manages the development and delivery of services, systems, products, and operations support for modeling, simulation and training, operational C2, and global threat reduction and nuclear deterrence. Seay received a bachelor’s degree in mathematics and a master’s degree in information and control engineering from the University of Michigan.

Bob Klein is vice president of engineering for the Battle Management and Engagement Systems division of Northrop Grumman’s Aerospace Systems sector and as deputy for engineering for the company’s Aerospace Systems sector. As BM&ES engineering vice president, he manages more than 2,500 engineers and technologists working on programs, including the E-2D Advanced Hawkeye, the E-8C Joint STARS, the EA-18G Growler, the Broad Area Maritime Surveillance Unmanned Aircraft System, airborne mine countermeasures systems, and Mission Package Integration for Littoral Combat Ships. In his role as deputy for engineering for the Aerospace Systems sector, Klein supports management of more than 7,000 engineers for the Fire Scout, Global Hawk, F-35, B-2, and F/A-18 programs. He earned a B.S. in aerospace engineering from Princeton University and an M.S. in aeronautics and astronautics from the Massachusetts Institute of Technology. He also attended executive development programs at Stanford University.

Jim Heilbron is plant manager of Georgia Power’s Plant Wansley. In this position, he oversees the operations of 1,940 megawatts of fossil generation dedicated to serving approximately 1.5 million customers in the state of Georgia. A native of Florida, Heilbron is a graduate of Auburn University, where he received a B.S. in civil/environmental engineering and an M.S. in environmental engineering. He also holds an M.B.A. from Emory University.
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I’ll Be Back: Re-launching Your Career

Moderated Panel
Friday 3:30 – 5:00 p.m.
Orange County Convention Center, W330D

Re-launching your career after a leave of absence can pose challenges and may make for a daunting personal and professional transition. Our panelists, consisting of seasoned women leaders, will share their own experiences and discuss how organizations are evolving to be more intentional about re-orienting women to the workplace after leaves of absence. Panelists will share their strategies and lessons learned when re-launching your career.

Moderator:
Olabisi (Bisi) Boyle is “model responsible” chief engineer for Chrysler Town and Country and Dodge Grand Caravan minivans. She is responsible for all engineering activities related to the Chrysler LLC minivans. Boyle earned a B.S. in physics from Fordham University, a B.S. in industrial engineering from Columbia University in New York City, and an M.S. in mechanical engineering, also from Columbia University. Boyle, her husband, and son live in Ann Arbor, Mich.

Panelists:
Teresa Cushing is a strategy manager and Six Sigma deployment champion for the Core Components Division of Caterpillar Inc. After graduating from Michigan State University with a degree in chemical engineering, she joined Caterpillar in 1993, and has held various positions in product design, process manufacturing, research engineering, and commercial product management. A strong promoter in the development of people, Cushing actively mentors engineers and acts as a work/life balance role model for working mothers.

Stacy Kalisz Johnson is an Americas market development manager for Agilent Technologies, where her technical background has allowed her to work on marketing for a wide breadth of Agilent’s electronic instruments and test systems. She is currently specializing in eMarketing and reaching educators. As a full-time working mother of three children under the age of 5, Johnson is a self-proclaimed expert in transition planning.

Ellen Prust is a product verification and validation engineer with John Deere Intelligent Vehicle Systems, having joined the company in 2006. In her current position, she is responsible for the production quality of GPS-based agricultural software. Prior to joining John Deere, Prust was a full-time parent for several years. She began her professional career as an aerospace engineer, performing orbital trajectory design and launch window definition. Prust earned a B.S. degree from Iowa State University. She lives with her husband and two sons in Urbandale, Iowa.

Nicole Waters is senior manager of Powertrain Quality and Reliability Engineering at Chrysler Group LLC. She holds a B.S. and M.S. in mechanical engineering from Oakland University, as well as a Certificate of Automotive Engineering from the Chrysler Institute of Engineering.

Arianna Kalian is vice president, engineering and manufacturing, at UTC Power. She is responsible for overseeing all engineering activity, including technology and product development, plus manufacturing activity for the company’s stationary and transportation fuel cell systems. Kalian holds a B.S. in mechanical engineering from The Cooper Union for the Advancement of Science and Art, as well as an M.S. in mechanical engineering from Columbia University and an M.S. in engineering science (management of technology) from Rensselaer Polytechnic Institute. A registered professional engineer, she holds two patents in the application of aluminum technologies.

Lisa Kohl is sector vice president, Global Supply Chain, for Northrop Grumman Aerospace Systems, a premier provider of manned and unmanned aircraft, space systems, missile systems and advanced technologies critical to our nation’s security. Kohl is responsible for developing and maintaining a strong supply base for the broad set of products produced for Aerospace Systems’ customers. The Global Supply Chain organization encompasses subcontracts, procurement, supplier assessment and quality, pricing and estimating, transportation, kitting, production support, and the business system architecture design and implementation. Kohl earned a bachelor’s degree from Indiana State University and a master’s degree from Purdue University. She is a graduate of the Northrop Grumman Business Leadership Program.
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Innovation. Driven by Diversity.
Management and Strategy

Launching Innovation: Insights from Women Leaders and Entrepreneurs

Moderated Panel

Saturday 8:30 – 10:00 a.m.
Orange County Convention Center, W330D
Sponsored by U.S. Army RDECOM

Starting a business, or launching a large-scale organizational initiative, is a way to develop a career path, on your own terms. However, this is a career path that requires great savvy and perseverance. Our panelists, consisting of women leaders and innovators, will share their stories and discuss the trials and ultimately the successes of launching new business and organizational initiatives.

Moderator: Rachel Hutter, P.E., is the director of engineering services for Disney’s Animal Kingdom® region. She leads the teams responsible for maintaining the attractions, vehicles, facilities, and systems for the Animal Kingdom Theme Park, and the rooms, buildings, and grounds of the Animal Kingdom Lodge, Coronado Springs Resort and Convention Center, and the All-Star Resort. Hutter is a licensed professional engineer and a Michigan State University graduate, with a B.S. in electrical engineering and a minor in theater, the perfect background for a Disney engineer.

Panelists:

Florence Hudson is the IBM energy and environment executive and a cloud computing strategist in IBM corporate strategy, responsible for strategies and execution plans for “green” solutions to benefit clients in their goals to improve their impact on energy and the environment worldwide. These “green” solutions include smarter buildings, green data centers, cloud computing, water management, intelligent transportation, smart grids, cap and trade systems, and alternative energy research. Hudson graduated from Princeton University with a B.S. in mechanical and aerospace engineering, and has attended and presented at executive education at Harvard Business School and Columbia University.

Sherita Ceasar is vice president of product engineering, planning, and strategy for Comcast Communications. In this role, she oversees product engineering planning, evaluation, and analysis of new products and services for Comcast markets. Ceasar received her B.S. and M.S. in mechanical engineering from the Illinois Institute of Technology.

Kristin Morico is the leader of GE’s Global Water as well as EPCRA and PRTR chemical management programs. She works in the corporate environmental program department headquartered in Fairfield, Conn. She is responsible for the development and implementation of associated programs across all of GE, and works closely with GE’s business segments to advance environmental policies and objectives to proactively attain and sustain compliance. Additionally, Morico leads the team responsible for the strategic development and implementation of GE’s fourth ecomagination water-reduction goal commitment of 25 percent by 2015. She holds a B.S. in biology from Fairfield University, an M.S. in civil engineering from the University of Connecticut, a Master of Environmental Management from Yale University, and an executive M.B.A. from the University of Connecticut.

Lei Zhang Schlitz, Ph.D., is vice president of research and development of Illinois Tool Works Inc., a Fortune 200 diversified manufacturer of highly engineered components and industrial systems and consumables. Dr. Schlitz holds a Ph.D. in mechanical engineering from the University of Wisconsin-Milwaukee. As a native Chinese, Dr. Schlitz earned her B.S. in engineering mechanics from Tsinghua University in Beijing.

TBD, U.S. Army RDECOM
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### Daily Events Schedule

**Wednesday November 3, 2010**

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<tr>
<th>TIME</th>
<th>TRACK</th>
<th>PRESENTATION TITLE</th>
<th>FACILITY</th>
<th>ROOM</th>
</tr>
</thead>
<tbody>
<tr>
<td>5:30 - 7:45am</td>
<td>Technical Tours</td>
<td>Disney’s Haunted Mansion Tour</td>
<td>Offsite</td>
<td></td>
</tr>
<tr>
<td>7:00am - 6:00pm</td>
<td>Member Services</td>
<td>Career Resources Center</td>
<td>OCCC</td>
<td>W230B</td>
</tr>
<tr>
<td>7:00am - 6:00pm</td>
<td>Member Services</td>
<td>Registration and SWE Boutique</td>
<td>OCCC</td>
<td>West E/F Lobby</td>
</tr>
<tr>
<td>7:00am - 6:00pm</td>
<td>Member Services</td>
<td>Speaker Ready Room</td>
<td>OCCC</td>
<td>W230C</td>
</tr>
<tr>
<td>8:00am - 12:00pm</td>
<td>SWE Leadership</td>
<td>Collegiate Interests Committee Meeting</td>
<td>OCCC</td>
<td>W224B</td>
</tr>
<tr>
<td>8:00am - 12:00pm</td>
<td>Career Enhancement Series</td>
<td>Critical Success Factors for New Managers</td>
<td>OCCC</td>
<td>W240C</td>
</tr>
<tr>
<td>8:00am - 12:00pm</td>
<td>Career Enhancement Series</td>
<td>My Career Needs a GPS!</td>
<td>OCCC</td>
<td>W240B</td>
</tr>
<tr>
<td>8:00am - 5:00pm</td>
<td>SWE Leadership</td>
<td>Editorial Board Meeting</td>
<td>Peabody Hotel</td>
<td>Silver Spring I</td>
</tr>
<tr>
<td>8:00am - 5:00pm</td>
<td>SWE Leadership</td>
<td>MAL Summit</td>
<td>OCCC</td>
<td>W225</td>
</tr>
<tr>
<td>8:00am - 5:00pm</td>
<td>SWE Leadership</td>
<td>Board of Trustees Wednesday Meeting</td>
<td>Peabody Hotel</td>
<td>Silver Spring II</td>
</tr>
<tr>
<td>9:00am - 12:00pm</td>
<td>Technical Tours</td>
<td>Sea World: Behind the Scenes</td>
<td>Offsite</td>
<td></td>
</tr>
<tr>
<td>9:00am - 12:00pm</td>
<td>Technical Tours</td>
<td>Southern Company Combined Cycle</td>
<td>Offsite</td>
<td></td>
</tr>
<tr>
<td>10:00am - 5:00pm</td>
<td>SWE Leadership</td>
<td>Region Governors Meeting (Invitation only)</td>
<td>OCCC</td>
<td>W224H</td>
</tr>
<tr>
<td>11:30am - 5:00pm</td>
<td>SWE Leadership</td>
<td>Executive Summit (Invitation Only)</td>
<td>Peabody Hotel</td>
<td>Orchid Rm. &amp; Winter Park 54</td>
</tr>
<tr>
<td>12:15 - 3:30pm</td>
<td>Technical Tours</td>
<td>Army Research Laboratory (RDECOM)</td>
<td>Offsite</td>
<td></td>
</tr>
<tr>
<td>12:30 - 3:30pm</td>
<td>Technical Tours</td>
<td>Disney’s Manufacturing the Magic</td>
<td>Offsite</td>
<td></td>
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<tr>
<td>12:30 - 3:30pm</td>
<td>Technical Tours</td>
<td>Universal Studios: Behind the Scenes</td>
<td>Offsite</td>
<td></td>
</tr>
<tr>
<td>1:00 - 3:00pm</td>
<td>SWE Leadership</td>
<td>Audit Committee Meeting</td>
<td>OCCC</td>
<td>W224B</td>
</tr>
<tr>
<td>1:00 - 3:00pm</td>
<td>SWE Leadership</td>
<td>Awards &amp; Recognition Committee Meeting</td>
<td>OCCC</td>
<td>W232A</td>
</tr>
<tr>
<td>1:00 - 3:00pm</td>
<td>SWE Leadership</td>
<td>Government Relations and Public Policy Meeting</td>
<td>OCCC</td>
<td>W224F</td>
</tr>
<tr>
<td>1:00 - 3:00pm</td>
<td>SWE Leadership</td>
<td>Leadership Coaching Task Force</td>
<td>OCCC</td>
<td>W224C</td>
</tr>
<tr>
<td>1:00 - 3:00pm</td>
<td>SWE Leadership</td>
<td>Membership Committee Meeting</td>
<td>OCCC</td>
<td>W224D</td>
</tr>
<tr>
<td>1:00 - 3:00pm</td>
<td>SWE Leadership</td>
<td>Program Development Grants Meeting</td>
<td>OCCC</td>
<td>W224A</td>
</tr>
<tr>
<td>1:00 - 4:00pm</td>
<td>SWE Leadership</td>
<td>Multicultural Committee Meeting</td>
<td>Offsite (location to be TBA)</td>
<td></td>
</tr>
<tr>
<td>1:00 - 4:00pm</td>
<td>SWE Leadership</td>
<td>Nominating Committee Meeting</td>
<td>OCCC</td>
<td>W232B</td>
</tr>
<tr>
<td>1:00 - 5:00pm</td>
<td>Career Enhancement Series</td>
<td>Managing Others: With or Without Direct Authority</td>
<td>OCCC</td>
<td>W240B</td>
</tr>
<tr>
<td>1:00 - 5:00pm</td>
<td>SWE Leadership</td>
<td>Strategic Planning Committee Meeting</td>
<td>OCCC</td>
<td>W224G</td>
</tr>
<tr>
<td>1:00 - 5:00pm</td>
<td>Career Enhancement Series</td>
<td>Yes, I am the Only One</td>
<td>OCCC</td>
<td>W240C</td>
</tr>
<tr>
<td>3:00 - 5:00pm</td>
<td>SWE Leadership</td>
<td>INWES Meeting</td>
<td>OCCC</td>
<td>W224D</td>
</tr>
<tr>
<td>3:00 - 5:00pm</td>
<td>SWE Leadership</td>
<td>Leadership Coaching Committee Meeting</td>
<td>OCCC</td>
<td>W224C</td>
</tr>
<tr>
<td>3:00 - 5:00pm</td>
<td>SWE Leadership</td>
<td>PD Advisory Board Meeting</td>
<td>OCCC</td>
<td>W224B</td>
</tr>
<tr>
<td>3:00 - 5:00pm</td>
<td>SWE Leadership</td>
<td>Scholarship Committee Meeting</td>
<td>OCCC</td>
<td>W224F</td>
</tr>
<tr>
<td>3:00 - 5:00pm</td>
<td>SWE Leadership</td>
<td>Outreach Committee Meeting</td>
<td>OCCC</td>
<td>W224A</td>
</tr>
<tr>
<td>3:00 - 5:00pm</td>
<td>SWE Leadership</td>
<td>Women in Government Community</td>
<td>OCCC</td>
<td>W232A</td>
</tr>
<tr>
<td>4:00 - 6:00pm</td>
<td>SWE Leadership</td>
<td>Corporate Partnership Council</td>
<td>OCCC</td>
<td>W231ABC</td>
</tr>
<tr>
<td>5:00 - 9:00pm</td>
<td>Sightseeing Tours</td>
<td>La Nouba: Cirque du Soliel</td>
<td>Offsite</td>
<td></td>
</tr>
<tr>
<td>6:00 - 7:30pm</td>
<td>SWE Leadership</td>
<td>SWE Committee Meeting Dinner</td>
<td>Rosen Centre</td>
<td>Grand Ballroom D</td>
</tr>
</tbody>
</table>
Exciting Overseas Opportunities in Vienna, Austria with the International Atomic Energy Agency

Visit www.bnl.gov/ispo

Be part of the NEXT GENERATION SAFEGUARDS INITIATIVE

Cost Free Experts
The U.S. Support Program to IAEA Safeguards funds supplemental technical positions, called Cost Free Experts, to assist the IAEA with short-term, technical projects for which the IAEA lacks expertise or manpower. Available CFE positions are advertised at http://www.bnl.gov/ISPO/CFE/cfe.asp. Send applications or requests for information to tcollins@bnl.gov.

Regular Staff
The IAEA Department of Safeguards seeks outstanding, mid-career engineers and scientists for three to seven year appointments. Vacancies are posted at www.iaea.org. Interested parties should apply directly to the IAEA, but can also contact the International Safeguards Project Office (ISPO) for information and assistance with application status.

Junior Professional Officers
Safeguards positions are available for recent graduates in the area of software development, engineering, technical writing, information collection and analysis, information security and instrumentation support. Positions provide valuable professional experience and can lead to future opportunities in the national laboratories and U.S. government. Visit www.bnl.gov/ispo/jpo/jpo.asp for additional information and application materials.
### Daily Events Schedule

**Thursday November 4, 2010**

<table>
<thead>
<tr>
<th>TIME</th>
<th>TRACK</th>
<th>PRESENTATION TITLE</th>
<th>FACILITY</th>
<th>ROOM</th>
</tr>
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<tbody>
<tr>
<td>8:00 - 10:00pm</td>
<td>Special Events</td>
<td>Ice Cream Social</td>
<td>Peabody Hotel</td>
<td>Grand Ballroom R-V</td>
</tr>
<tr>
<td>7:00 - 11:45am</td>
<td>Technical Tours</td>
<td>PepsiCo and Frito-Lay Company</td>
<td>OCCC</td>
<td>W230B</td>
</tr>
<tr>
<td>7:00am - 6:00pm</td>
<td>Member Services</td>
<td>Career Resources Center</td>
<td>OCCC</td>
<td>W230C</td>
</tr>
<tr>
<td>7:00am - 6:00pm</td>
<td>Member Services</td>
<td>Speaker Ready Room</td>
<td>OCCC</td>
<td>W230A</td>
</tr>
<tr>
<td>7:00am - 6:00pm</td>
<td>Member Services</td>
<td>Volunteer Central</td>
<td>OCCC</td>
<td>W230A</td>
</tr>
<tr>
<td>7:00am - 7:00pm</td>
<td>Member Services</td>
<td>Registration and SWE Boutique</td>
<td>OCCC</td>
<td>West E/F Lobby</td>
</tr>
<tr>
<td>8:00 - 10:00am</td>
<td>Special Event</td>
<td>Keynote Breakfast and Presentation</td>
<td>OCCC</td>
<td>Valencia CD</td>
</tr>
<tr>
<td>8:00am - 12:00pm</td>
<td>Career Enhancement</td>
<td>Beating the Odds in Successful Strategic Planning</td>
<td>OCCC</td>
<td>W240C</td>
</tr>
<tr>
<td>8:00am - 5:00pm</td>
<td>Member Services</td>
<td>Childcare</td>
<td>Peabody Hotel</td>
<td></td>
</tr>
<tr>
<td>8:45am - 12:00pm</td>
<td>Technical Tours</td>
<td>EA Sports</td>
<td>Offsite</td>
<td></td>
</tr>
<tr>
<td>8:45am - 1:15pm</td>
<td>Technical Tours</td>
<td>Florida Solar Energy Center</td>
<td>Offsite</td>
<td></td>
</tr>
<tr>
<td>8:45am - 2:00pm</td>
<td>Technical Tours</td>
<td>Northrop Grumman Laser Systems</td>
<td>Offsite</td>
<td></td>
</tr>
<tr>
<td>9:00 - 11:30am</td>
<td>Special Event</td>
<td>Team Tech National Collegiate Competition Practice</td>
<td>OCCC</td>
<td>W330G</td>
</tr>
</tbody>
</table>

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**Many backgrounds. Many cultures. Many perspectives. One World. One Merck.**

At **Merck** we embrace the individual differences each of us bring to the world. We believe that with the collective backgrounds, experiences and talents of our employees, anything can be conquered. It is those unique qualities that give us perspective to spark innovation and address unmet medical needs of people throughout the world.

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- Delivering service support for armored combat vehicles, artillery systems, and intelligent munitions.
- Redefining everything from the smallest nano-technologies to the farthest reaching spaced-based systems.

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- Engineering • Operations
- Finance • Information Technology
- Other technical and non-technical areas

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<th>FACILITY</th>
<th>ROOM</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00am - 12:00pm</td>
<td>Outreach</td>
<td>FIRST LEGO League Robotics Workshop/FIRST Outreach</td>
<td>OCCC</td>
<td>W340A</td>
</tr>
<tr>
<td>9:30am - 3:30pm</td>
<td>Technical Tours</td>
<td>SAIC</td>
<td>Offsite</td>
<td></td>
</tr>
<tr>
<td>9:30am - 5:00pm</td>
<td>Member Services</td>
<td>Lava Lounge</td>
<td>OCCC</td>
<td>West E/F Lobby</td>
</tr>
<tr>
<td>10:00 - 11:00am</td>
<td>Outreach</td>
<td>How to Apply for a SWE Program Development Grant</td>
<td>OCCC</td>
<td>W224C</td>
</tr>
<tr>
<td>10:00 - 11:00am</td>
<td>Career and Life Transitions</td>
<td>Marketing Yourself and Making Yourself Employable</td>
<td>OCCC</td>
<td>W224F</td>
</tr>
<tr>
<td>10:00 - 11:00am</td>
<td>SWE Leadership</td>
<td>Recording Women Engineers and the SWE Grassroots Oral History Project</td>
<td>OCCC</td>
<td>W232B</td>
</tr>
<tr>
<td>10:00 - 11:30am</td>
<td>Careers in Government and Military</td>
<td>3D Modeling and Simulation</td>
<td>OCCC</td>
<td>W240D</td>
</tr>
<tr>
<td>10:00 - 11:30am</td>
<td>Outreach</td>
<td>Effective Leadership: Accomplishing the Impossible</td>
<td>OCCC</td>
<td>W232A</td>
</tr>
<tr>
<td>10:00 - 11:30am</td>
<td>Special Event</td>
<td>Negotiating for Yourself</td>
<td>OCCC</td>
<td>W330D</td>
</tr>
<tr>
<td>10:00 - 11:30am</td>
<td>SWE Leadership</td>
<td>Regional Collegiate Representatives and Region Governors Meeting</td>
<td>OCCC</td>
<td>W330E</td>
</tr>
<tr>
<td>10:00 - 11:30am</td>
<td>Management and Strategy</td>
<td>What You Need to Hear But No One Will Tell You</td>
<td>OCCC</td>
<td>W240A</td>
</tr>
<tr>
<td>10:00 - 11:00am</td>
<td>Innovation in Technology and Business</td>
<td>Algae Biofuels: An Outlook</td>
<td>OCCC</td>
<td>W231C</td>
</tr>
<tr>
<td>10:00 - 11:30am</td>
<td>Management and Strategy</td>
<td>Advocating For Yourself in the Workplace: How to Talk to Your Boss/Co-workers About What You Need</td>
<td>OCCC</td>
<td>W224H</td>
</tr>
<tr>
<td>10:00 - 11:30am</td>
<td>Career and Life Transitions</td>
<td>Career and Life Transitions for Women in Engineering</td>
<td>OCCC</td>
<td>W231B</td>
</tr>
<tr>
<td>10:00 - 11:30am</td>
<td>Career and Life Transitions</td>
<td>Career Fair Savvy</td>
<td>OCCC</td>
<td>W225</td>
</tr>
</tbody>
</table>

The Air Force Summer Faculty Fellowship Program (SFFP) promotes communication between research faculty and United States Air Force research scientists and engineers. The SFFP provides an opportunity for hands-on exposure to Air Force research challenges through eight to twelve week research residencies at participating facilities for full-time science and engineering faculty at U.S. colleges and universities. The SFFP offers a competitive stipend and relocation allowances are available to those who qualify. U.S. citizens and permanent residents are eligible to apply.

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Visit [www.asee.org/sffp](http://www.asee.org/sffp) to apply online.

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<table>
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<tr>
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<th>FACILITY</th>
<th>ROOM</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00 - 11:30am</td>
<td>Management and Strategy</td>
<td>Defining Success through Effective Brainstorming</td>
<td>OCCC</td>
<td>W330A</td>
</tr>
<tr>
<td>10:00 - 11:30am</td>
<td>Inclusion and Cultural Awareness</td>
<td>Employee Resource Groups: A Journey of Employee Engagement and Inclusion</td>
<td>OCCC</td>
<td>W224E</td>
</tr>
<tr>
<td>10:00 - 11:30am</td>
<td>Outreach</td>
<td>Exploring Engineering with Parents and Children</td>
<td>OCCC</td>
<td>W232C</td>
</tr>
<tr>
<td>10:00 - 11:30am</td>
<td>Careers in Academia</td>
<td>Global Opportunities for Graduate and Post-Graduate Students</td>
<td>OCCC</td>
<td>W231A</td>
</tr>
<tr>
<td>10:00 - 11:30am</td>
<td>Innovation in Technology and Business</td>
<td>Growth Through Global Innovation</td>
<td>OCCC</td>
<td>W224D</td>
</tr>
<tr>
<td>10:00 - 11:30am</td>
<td>Career and Life Transitions</td>
<td>Interviewing the Company: What You Need to Know About Your Future Employer</td>
<td>OCCC</td>
<td>W330C</td>
</tr>
<tr>
<td>10:00 - 11:30am</td>
<td>Career and Life Transitions</td>
<td>Mapping a Successful Career in Research and Development</td>
<td>OCCC</td>
<td>W330B</td>
</tr>
<tr>
<td>10:00 - 11:30am</td>
<td>Career and Life Transitions</td>
<td>Rapid Résumé Review</td>
<td>OCCC</td>
<td>W340CD</td>
</tr>
<tr>
<td>10:00 - 11:30am</td>
<td>Career and Life Transitions</td>
<td>Risk Management: Keys to Success</td>
<td>OCCC</td>
<td>W224G</td>
</tr>
<tr>
<td>10:00 - 11:30am</td>
<td>Career and Life Transitions</td>
<td>Rotate Your Way to Success!</td>
<td>OCCC</td>
<td>W224A</td>
</tr>
<tr>
<td>10:00 - 11:30am</td>
<td>Inclusion and Cultural Awareness</td>
<td>The Imposter Panel</td>
<td>OCCC</td>
<td>W240B</td>
</tr>
<tr>
<td>10:00 - 11:30am</td>
<td>Career and Life Transitions</td>
<td>They're Just Not That Into You: Insights from Recruiters and Hiring Managers</td>
<td>OCCC</td>
<td>W224B</td>
</tr>
<tr>
<td>10:00am - 12:00pm</td>
<td>SWE Leadership</td>
<td>Members At Large Meeting</td>
<td>OCCC</td>
<td>W340B</td>
</tr>
<tr>
<td>10:30 - 2:30pm</td>
<td>Technical Tours</td>
<td>Regal Marine</td>
<td>Offsite</td>
<td></td>
</tr>
</tbody>
</table>

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We’re accelerating change in our business, and this is one of the most exciting and competitive times in our history. Whether it’s battery powered, hydrogen fuel cells or the latest hybrid vehicles, we’re committed to putting cars on the road that meet the needs of the world. At GM, you’ll work alongside inspired and ambitious professionals who share a vision to design, build and sell the world’s best vehicles.

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<tr>
<th>TIME</th>
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<th>PRESENTATION TITLE</th>
<th>FACILITY</th>
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<tr>
<td>11:00am - 12:30pm</td>
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<td>Finance Committee Meeting</td>
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<tr>
<td>1:30 - 2:30pm</td>
<td>Management and Strategy</td>
<td>Role of Leadership in Business Strategy to Execution Success</td>
<td>OCCC</td>
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<tr>
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<td>Career and Life Transitions</td>
<td>Surviving and Prospering When Faced with Middle Manager Issues</td>
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<td>Inclusion and Cultural Awareness</td>
<td>Definition of Elite: Young, Female, Minority and Professional</td>
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<td>Outreach</td>
<td>Working with Girls, Inc.: Introducing the TEEMS Program</td>
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<td>Management and Strategy</td>
<td>Feedback: How to Give It, Get It and Benefit from It</td>
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<tr>
<td>1:30 - 2:30pm</td>
<td>Career and Life Transitions</td>
<td>Interview for Success</td>
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<td>W224F</td>
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<td>1:30 - 2:30pm</td>
<td>Management and Strategy</td>
<td>Managing Suppliers: What You Need To Know</td>
<td>OCCC</td>
<td>W224H</td>
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<td>Career and Life Transitions</td>
<td>Preparing and Succeeding in College Internships</td>
<td>OCCC</td>
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<tr>
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<td>Career and Life Transitions</td>
<td>Trendy Stress?</td>
<td>OCCC</td>
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<td>Outreach</td>
<td>Utilizing Skills-Based Volunteering to Launch Successful, Innovative Outreach Programs</td>
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<td>Inclusion and Cultural Awareness</td>
<td>Women in Technology: An Understanding of India’s Culture as it Relates to Women in the Workplace</td>
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<td>Management and Strategy</td>
<td>Working Effectively Across the Globe</td>
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<td>Outreach</td>
<td>You Can Inspire Engineering Girls and Best Practices: Sharing Successful Programs</td>
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<td>1:30 - 3:00pm</td>
<td>Career and Life Transitions</td>
<td>Engineering Majors in the Financial Services Industry</td>
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<td>1:30 - 3:00pm</td>
<td>Careers in Academia</td>
<td>How to be Successful in a Faculty Interview</td>
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<td>W231A</td>
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<tr>
<td>1:30 - 3:00pm</td>
<td>Career and Life Transitions</td>
<td>How to Work a Career Fair</td>
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<td>1:30 - 3:00pm</td>
<td>Innovation in Technology and Business</td>
<td>Innovations in Tackling an Environmental Legacy</td>
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<td>Career and Life Transitions</td>
<td>The Experienced Engineer: Career Search Tips from the Human Resources Manager Who Hire Them</td>
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<td>1:30 - 4:00pm</td>
<td>Technical Tours</td>
<td>Automation Fair® 2010 Show Floor Tour</td>
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<td>2:45 - 3:45pm</td>
<td>Career and Life Transitions</td>
<td>Build Your Success Team</td>
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<td>2:45 - 3:45pm</td>
<td>Career and Life Transitions</td>
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<td>Career and Life Transitions</td>
<td>Finding a Job: What I Wish I Would Have Known</td>
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<td>2:45 - 3:45pm</td>
<td>Outreach</td>
<td>For Inspiration and Recognition of Science and Technology (FIRST)</td>
<td>OCCC</td>
<td>W330A</td>
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</table>
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Fellow
Linda Reed
Senior Engineer, Program Planning
Aerospace Systems Sector

Emerging Leader in Manufacturing
and Construction
Helen Phillips
Fellow Engineer
Electronic Systems Sector

Fellow
Wendy Schauer Landwehr
Embedded Software Engineer T4
Electronic Systems Sector

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<table>
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<tr>
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<tr>
<td>2:45 - 3:45pm</td>
<td>Inclusion and Cultural Awareness</td>
<td>Impacts of Generational Differences</td>
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<td>Outreach</td>
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<td>2:45 - 3:45pm</td>
<td>Innovation in Technology and Business</td>
<td>Service Oriented / Cloud Architecture: From Vision to Reality</td>
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<td>Career and Life Transitions</td>
<td>Her Story: The Power of Women</td>
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<td>2:45 - 3:45pm</td>
<td>Career and Life Transitions</td>
<td>Job Hunting When You're Over 40</td>
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<td>Management and Strategy</td>
<td>Organizational Storytelling: A Powerful Communication Tool</td>
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<td>3:30 - 5:00pm</td>
<td>Careers in Government and Military</td>
<td>Choosing the Right Intelligence Agency for You</td>
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<td>3:30 - 5:00pm</td>
<td>Innovation in Technology and Business</td>
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<td>3:30 - 5:00pm</td>
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<td>Women Leaders Leading Change</td>
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<td>Diversity is Key to a World-Class Organization</td>
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<td>4:00 - 5:00pm</td>
<td>Career and Life Transitions</td>
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<td>Management and Strategy</td>
<td>Business Skills for Engineers In this Globally Competitive Environment</td>
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<td>Outreach</td>
<td>Diamonds are a Girl's Best Bet</td>
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<td>Outreach</td>
<td>Engineer Your Life: Effectively Communicating Engineering Careers to High School Girls</td>
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<td>W330A</td>
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<td>4:00 - 5:00pm</td>
<td>Management and Strategy</td>
<td>Intrapreneuring: What Is It and Is It for You?</td>
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<td>4:00 - 5:00pm</td>
<td>Innovation in Technology and Business</td>
<td>Launching Innovation: Building New Businesses</td>
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<td>Career and Life Transitions</td>
<td>Leadership is a Choice, Not a Position</td>
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<td>Special Event</td>
<td>Presidents Reception (Invitation Only)</td>
<td>Peabody Hotel Peabody Ballroom R</td>
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<td>Outreach</td>
<td>The Do’s, Don’ts and How To’s of Outreach</td>
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<td>Inclusion and Cultural Awareness</td>
<td>Towards an Inclusive Profession: The Experience in Australia</td>
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<td>Career Fair Opening Reception</td>
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<td>6:00 - 8:00pm</td>
<td>Special Event</td>
<td>Collegiate Poster Competition</td>
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<tr>
<td>6:00 - 8:00pm</td>
<td>Special Event</td>
<td>Poster Session</td>
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<td>West Hall F</td>
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<tr>
<td>7:00 - 9:00pm</td>
<td>Special Event</td>
<td>Past-President’s Reception (Invitation Only)</td>
<td>Peabody Hotel Presidential Suite</td>
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<td>BAE SYSTEMS Hospitality Suite</td>
<td>Rosen Centre Salon 18</td>
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<td>Special Event</td>
<td>Barclays Capital Hospitality Suite</td>
<td>Rosen Centre Salon 16</td>
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</table>
It’s time you knew about Air Force STEM.

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### Daily Events Schedule

**Thursday**

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<tr>
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<td>Special Event</td>
<td>Booz Allen Hamilton Hospitality Suite</td>
<td>Rosen Centre</td>
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<td>Boston Scientific Hospitality Suite</td>
<td>Rosen Centre</td>
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<td>BP Hospitality Suite</td>
<td>Rosen Centre</td>
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<td>Cargill Hospitality Suite</td>
<td>Rosen Centre</td>
<td>Grand Ballroom A</td>
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<tr>
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<td>Central Intelligence Agency Hospitality Suite</td>
<td>Rosen Centre</td>
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<td>Special Event</td>
<td>Chrysler Hospitality Suite</td>
<td>Rosen Centre</td>
<td>Junior Ballroom F</td>
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<td>Special Event</td>
<td>Dell Hospitality Suite</td>
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<td>Eaton Hospitality Suite</td>
<td>Rosen Centre</td>
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<td>Exelon Corporation Hospitality Suite</td>
<td>Rosen Centre</td>
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<td>GE Hospitality Suite</td>
<td>Rosen Centre</td>
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<td>Genentech Hospitality Suite</td>
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<td>Special Event</td>
<td>Goldman Sachs Hospitality Suite</td>
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<td>Rosen Centre</td>
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<td>HP Hospitality Suite</td>
<td>Rosen Centre</td>
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<td>8:00 - 10:00pm</td>
<td>Special Event</td>
<td>Illinois Tool Works Hospitality Suite</td>
<td>Rosen Centre</td>
<td>Grand Staircase</td>
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<tr>
<td>8:00 - 10:00pm</td>
<td>SWE Leadership</td>
<td>Life Members Hospitality Suite</td>
<td>Rosen Centre</td>
<td>Hospitality Suite 261</td>
</tr>
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- **Cyber Security Engineering**: Biometrics, Cloud, Enterprise Architecture, Identity Management (IdAM), PKI
- **Information Assurance**: Certification & Accreditation (C&A), COOP, Forensics, Pen Testing, Privacy, Risk Management
- **Network/Infrastructure Engineering**: Active Directory, OPNET, SAN, Secure Networks, Telecom, Wireless
- **Software Engineering**: Embedded/Reverse Engineering, Java/.NET/SharePoint, SOA
- **Systems Engineering**: Aerospace, Modeling & Simulation, Program Management, Systems Integration, Test

If you’re ready for what’s next in your career, visit boozallen.com/careers and create a profile. Then submit it to Society of Women Engineers Conference, reference number 01096129.

Learn more about our work and career opportunities with Booz Allen during the SWE Conference:

- **Thursday, November 4**: 8:00 to 10:00 pm
  Hospitality Suite, Rosen Centre, Salon 20
  Networking reception
- **Friday, November 5**: 4:00 to 5:30 pm
  Panel Discussion: The Cyber Initiative—Battleground of the Future: What It Means for You
  Panelists include Booz Allen Vice President Sharon Muzik and Senior Associates Sue Albert, Tamara Cleveland, and Keith Grimes.

For more information, visit Booz Allen at Booths #619 and 621 or e-mail diversityrecruiting@bah.com.
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<tr>
<th>TIME</th>
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<th>PRESENTATION TITLE</th>
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</thead>
<tbody>
<tr>
<td>8:00 - 10:00pm</td>
<td>Special Event</td>
<td>Procter &amp; Gamble Hospitality Suite</td>
<td>Rosen Centre</td>
<td>Salon 6</td>
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<td>Special Event</td>
<td>Rockwell Automation Hospitality Suite</td>
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<td>8:00 - 10:00pm</td>
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<td>Schlumberger Hospitality Suite</td>
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<tr>
<td>8:00 - 10:00pm</td>
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<td>Shell Oil Company</td>
<td>Rosen Centre</td>
<td>Salon 17</td>
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<tr>
<td>8:00 - 10:00pm</td>
<td>Special Event</td>
<td>The Boeing Company Hospitality Suite</td>
<td>Rosen Centre</td>
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<tr>
<td>8:00 - 10:00pm</td>
<td>Special Event</td>
<td>Toyota Hospitality Suite</td>
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<td>8:00 - 10:00pm</td>
<td>Special Event</td>
<td>Turner Hospitality Suite</td>
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<tr>
<td>8:00 - 10:00pm</td>
<td>Special Event</td>
<td>U.S. Navy/Raytheon Hospitality Suite</td>
<td>Rosen Centre</td>
<td>Junior Ballroom G</td>
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<tr>
<td>8:00 - 10:00pm</td>
<td>Special Event</td>
<td>United Technologies Corporation Hospitality Suite</td>
<td>Rosen Centre</td>
<td>Salon 15</td>
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**Friday November 5, 2010**

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<thead>
<tr>
<th>TIME</th>
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<th>PRESENTATION TITLE</th>
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<tr>
<td>7:00am - 6:00pm</td>
<td>Member Services</td>
<td>Career Resources Center</td>
<td>OCCC</td>
<td>W230B</td>
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<tr>
<td>7:00am - 6:00pm</td>
<td>Member Services</td>
<td>Registration and SWE Boutique</td>
<td>OCCC</td>
<td>West E/F Lobby</td>
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<tr>
<td>7:00am - 6:00pm</td>
<td>Member Services</td>
<td>Speaker Ready Room</td>
<td>OCCC</td>
<td>W230C</td>
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<tr>
<td>7:00am - 6:00pm</td>
<td>Member Services</td>
<td>Volunteer Central</td>
<td>OCCC</td>
<td>W230A</td>
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<tr>
<td>7:30 - 9:45am</td>
<td>SWE Leadership</td>
<td>Collegiate Leaders Meeting</td>
<td>OCCC</td>
<td>W340CD</td>
</tr>
</tbody>
</table>

**Launch Your Future**

Explore 2011 Summer Internship Opportunities in Engineering (Primarily Mechanical, Electrical or Aerospace) and Business (Finance, Accounting, and Information Technology)

We are seeking 20 to 30 interns to work in the launch vehicle design, production, and launch business.

Our primary intern opportunities are in Denver, CO, with some openings at our launch sites and production facilities including: Cape Canaveral Air Force Station, FL; Decatur, AL; Harlingen, TX; and Vandenberg Air Force Base, CA.

ULA is an Equal Employment Opportunity / Affirmative Action.

Find out more at [www.ulalaunch.com](http://www.ulalaunch.com)
There’s a lot more here than you think.

Nurturing individuality. At Pitney Bowes, we create space for you to grow, engage, and flourish. If you thrive best in a culture of inclusion, we welcome your contribution to deliver solutions, innovation and value to our business customers worldwide. Whether you are a seasoned professional — or a seed yet to be planted, Pitney Bowes welcomes all garden varieties at pb.com/careers.
<table>
<thead>
<tr>
<th>TIME</th>
<th>TRACK</th>
<th>PRESENTATION TITLE</th>
<th>FACILITY</th>
<th>ROOM</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00am - 12:00pm</td>
<td>Career Enhancement Series</td>
<td>Breakthrough to Abundant Career Success: How to Shift Your Career to Do More of What You Love with People You Love</td>
<td>OCCC</td>
<td>W240D</td>
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<tr>
<td>8:00am - 12:00pm</td>
<td>SWE Leadership</td>
<td>Collegiate Leadership Coaching Committee Meeting</td>
<td>OCCC</td>
<td>W330F</td>
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<tr>
<td>8:00am - 12:00pm</td>
<td>Career Enhancement Series</td>
<td>Communication Success For Women Engineers</td>
<td>OCCC</td>
<td>W240C</td>
</tr>
<tr>
<td>8:00am - 12:00pm</td>
<td>Career Enhancement Series</td>
<td>Outrageous Thinking &amp; Other Acts of Creative Wizardry for Solving Problems</td>
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<td>W240B</td>
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<tr>
<td>8:00am - 5:00pm</td>
<td>Member Services</td>
<td>Childcare</td>
<td>Peabody Hotel</td>
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<tr>
<td>8:30 - 10:00am</td>
<td>Special Event</td>
<td>(Plenary Session) Designing Women: Looking into the Future of Engineering</td>
<td>OCCC</td>
<td>W330D</td>
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<tr>
<td>9:00 - 11:30am</td>
<td>Collegiate Competition</td>
<td>Team Tech National Collegiate Competition</td>
<td>OCCC</td>
<td>W330G</td>
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<tr>
<td>9:30 - 11:00am</td>
<td>SWE Leadership</td>
<td>Senate Mega Issues</td>
<td>OCCC</td>
<td>W224GH</td>
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<td>9:30 - 11:00am</td>
<td>SWE Leadership</td>
<td>Women in Academia Committee Meeting</td>
<td>OCCC</td>
<td>W330B</td>
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<tr>
<td>10:00 - 11:30am</td>
<td>Career and Life Transitions</td>
<td>Climbing the Corporate Ladder</td>
<td>OCCC</td>
<td>W240A</td>
</tr>
<tr>
<td>10:00 - 11:00am</td>
<td>Career and Life Transitions</td>
<td>An Organized Woman is a Successful Woman: Managing the Ever Growing to Do List</td>
<td>OCCC</td>
<td>W231A</td>
</tr>
<tr>
<td>10:00 - 11:00am</td>
<td>Innovation in Technology and Business</td>
<td>Back to Basics: Using Lean to Achieve More</td>
<td>OCCC</td>
<td>W232C</td>
</tr>
</tbody>
</table>

**Are you ready?**

Our career opportunities span more than 22 engineering and science disciplines. From drinking water supply and wastewater treatment to environmental management systems, transportation, and industrial facilities design, we help improve communities worldwide through award-winning projects.

www.cdm.com/careers

In support of sustainability, candidates must apply online.

CDM is ranked a Top 50 Employer by *Minority Engineer* magazine and a Top 100 Employer by *The Black Collegian* magazine.
Committed to the Power of Diversity

SWE corporate members are corporations, educational institutions and government entities that support the mission and objectives of the Society. In return for their valued support, SWE corporate members receive access to resources and guidance to enhance their community outreach efforts, satisfy their recruitment and retention goals, and recognize the accomplishments of their women engineers.

If you would like additional information about SWE Corporate Membership, please visit swe.org or call SWE headquarters at 312.596.5223.
<table>
<thead>
<tr>
<th>TIME</th>
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<th>PRESENTATION TITLE</th>
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<tr>
<td>10:00 - 11:00am</td>
<td>Innovation in Technology and Business</td>
<td>Sliced Based Testing</td>
<td>OCCC</td>
<td>W232A</td>
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<tr>
<td>10:00 - 11:30am</td>
<td>Innovation in Technology and Business</td>
<td>“Top 20” Tips and Trouble Spots Facing Protecting Your Innovation</td>
<td>OCCC</td>
<td>W340B</td>
</tr>
<tr>
<td>10:00 - 11:30am</td>
<td>Career and Life Transitions</td>
<td>Getting to Executive Level While Having Work/Life Balance</td>
<td>OCCC</td>
<td>W224C</td>
</tr>
<tr>
<td>10:00 - 11:30am</td>
<td>Management and Strategy</td>
<td>Growth and Innovation Strategy</td>
<td>OCCC</td>
<td>W330A</td>
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<tr>
<td>10:00 - 11:30am</td>
<td>Innovation in Technology and Business</td>
<td>Launching Innovation Through Search Engine Technology</td>
<td>OCCC</td>
<td>W340A</td>
</tr>
<tr>
<td>10:00 - 11:30am</td>
<td>Outreach</td>
<td>(Plenary Session, Outreach Education) Messages that Work: Talking to Girls and Adults About Engineering Careers</td>
<td>OCCC</td>
<td>W330D</td>
</tr>
<tr>
<td>10:00 - 11:30am</td>
<td>Career and Life Transitions</td>
<td>Successful Mentoring Relationships: Being Proactive as a Mentee</td>
<td>OCCC</td>
<td>W232B</td>
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<tr>
<td>10:00 - 11:30am</td>
<td>Careers in Academia</td>
<td>The Academic Career Pathway</td>
<td>OCCC</td>
<td>W231C</td>
</tr>
<tr>
<td>10:00 - 11:30am</td>
<td>Careers in Academia</td>
<td>To Postdoc or Not to Post Doc?</td>
<td>OCCC</td>
<td>W231B</td>
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<tr>
<td>10:00 - 11:30am</td>
<td>Career and Life Transitions</td>
<td>Women’s Networks: Enhancing Your Career</td>
<td>OCCC</td>
<td>W224D</td>
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<tr>
<td>10:00 - 11:30am</td>
<td>Career and Life Transitions</td>
<td>Working with Children: Women Talk About Their Experiences with Balancing Children and Being an Engineer in the 21st Century</td>
<td>OCCC</td>
<td>W225</td>
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<tr>
<td>10:00am - 12:00pm</td>
<td>SWE Leadership</td>
<td>International Members Meeting</td>
<td>OCCC</td>
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<tr>
<td>10:00am - 4:00pm</td>
<td>Special Event</td>
<td>Career Fair with Lunch</td>
<td>OCCC</td>
<td>West Hall E</td>
</tr>
</tbody>
</table>

### Exclusive Savings.
Without the firewall.

SWE members could get an additional discount on car insurance.

Get a free quote today.

Discount amount varies in some states. Discount is not available in all states or in all GEICO companies. One group discount applicable per policy. Coverage is individual. In New York a premium reduction is available. Some discounts, coverages, payment plans and features are not available in all states or companies. Government Employees Insurance Co. • GEICO General Insurance Co. • GEICO Indemnity Co. • GEICO Casualty Co. These companies are subsidiaries of Berkshire Hathaway Inc. GEICO: Washington, DC 20076. GEICO Gecko image © 1999-2010. © 2010 GEICO
## Friday Daily Events Schedule

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<tr>
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<th>FACILITY</th>
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</tr>
</thead>
<tbody>
<tr>
<td>10:00am - 4:00pm</td>
<td>Special Event</td>
<td>Collegiate Poster Competition/Poster Session</td>
<td>OCCC</td>
<td>West Hall F</td>
</tr>
<tr>
<td>10:00am - 4:00pm</td>
<td>Special Event</td>
<td>Poster Session</td>
<td>OCCC</td>
<td>West Hall F</td>
</tr>
<tr>
<td>10:30am - 12:00pm</td>
<td>SWE Leadership</td>
<td>Graduate School Community</td>
<td>OCCC</td>
<td>W340CD</td>
</tr>
<tr>
<td>11:00am - 12:00pm</td>
<td>Outreach</td>
<td>Outreach Programs, Practical Advice for Promoting STEM to Elementary, Middle and High Schools</td>
<td>OCCC</td>
<td>W330C</td>
</tr>
<tr>
<td>1:00 - 4:00pm</td>
<td>Outreach</td>
<td>Outreach Expo</td>
<td>OCCC</td>
<td>W224ABEF</td>
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<tr>
<td>1:00 - 5:00pm</td>
<td>Career Enhancement Series</td>
<td>High Impact Leadership Skills for Mid-Career Women</td>
<td>OCCC</td>
<td>W240D</td>
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<tr>
<td>1:00 - 5:00pm</td>
<td>Career Enhancement Series</td>
<td>How to Create, Market and Role Model a Powerful Personal Brand</td>
<td>OCCC</td>
<td>W240B</td>
</tr>
<tr>
<td>1:00 - 5:00pm</td>
<td>Career Enhancement Series</td>
<td>Negotiating Success for Women Engineers</td>
<td>OCCC</td>
<td>W240C</td>
</tr>
<tr>
<td>1:30 - 2:30pm</td>
<td>Inclusion and Cultural Awareness</td>
<td>Managing in Today’s Diverse Workforce</td>
<td>OCCC</td>
<td>W330B</td>
</tr>
<tr>
<td>1:30 - 2:30pm</td>
<td>Career and Life Transitions</td>
<td>Communication Etiquette for the Modern Workplace</td>
<td>OCCC</td>
<td>W231A</td>
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<tr>
<td>1:30 - 2:30pm</td>
<td>Career and Life Transitions</td>
<td>Diversify Your Education: How to Get More Out of College Than an Engineering Degree</td>
<td>OCCC</td>
<td>W330F</td>
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<tr>
<td>1:30 - 2:30pm</td>
<td>Innovation in Technology and Business</td>
<td>Enabling Decisions with Modeling and Simulation</td>
<td>OCCC</td>
<td>W232A</td>
</tr>
<tr>
<td>1:30 - 2:30pm</td>
<td>Innovation in Technology and Business</td>
<td>Going Green: Defining Sustainability Priorities an Organization</td>
<td>OCCC</td>
<td>W232C</td>
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</table>

**Positions include:**

- Civil Engineers
- Contract Specialists
- Electrical Engineers
- Engineering Technicians
- Lock & Dam Operators
- Mechanical Engineers
- Park Rangers
- Realty Specialists

...and many more!

The U.S. Army Corps of Engineers is one of the world’s premier public engineering, design and construction management agencies. We have a broad range of missions in support of the Department of Defense and the nation to include the design and construction of military facilities, engineering research and development, water and natural resource management, and support to other government agencies. We provide the opportunity to work in major cities, small communities and at offices throughout the world.

For more information on civilian employment opportunities, please visit [www.usace.army.mil/employment](http://www.usace.army.mil/employment)

USACE locations can be found at [www.usace.army.mil/about/Pages/Locations.aspx](http://www.usace.army.mil/about/Pages/Locations.aspx).

USACE is an Equal Employment Opportunity Employer.
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</tr>
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<tbody>
<tr>
<td>1:30 - 2:30pm</td>
<td>Career and Life Transitions</td>
<td>Going Up? Understand and Define Your Elevator Pitch</td>
<td>OCCC</td>
<td>W340A</td>
</tr>
<tr>
<td>1:30 - 2:30pm</td>
<td>Careers in Academia</td>
<td>Making the Choice to Attend Graduate School: What You Need to Know!</td>
<td>OCCC</td>
<td>W231C</td>
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<tr>
<td>1:30 - 2:30pm</td>
<td>Careers in Government and Military</td>
<td>NASA: Then, Now and in the Future</td>
<td>OCCC</td>
<td>W232B</td>
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<tr>
<td>1:30 - 2:30pm</td>
<td>Innovation in Technology and Business</td>
<td>Power Your Hair Dryer: Plugging into the Sun</td>
<td>OCCC</td>
<td>W240A</td>
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<tr>
<td>1:30 - 2:30pm</td>
<td>Management and Strategy</td>
<td>Self Leader</td>
<td>OCCC</td>
<td>W224D</td>
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<tr>
<td>1:30 - 2:30pm</td>
<td>Careers in Academia</td>
<td>Succeeding in an Academic Environment</td>
<td>OCCC</td>
<td>W231B</td>
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<tr>
<td>1:30 - 2:30pm</td>
<td>Inclusion and Cultural Awareness</td>
<td>Using Influence in a Virtual Work Environment</td>
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<td>W330G</td>
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<tr>
<td>1:30 - 3:00pm</td>
<td>Career and Life Transitions</td>
<td>Engineering and the MBA: A Perfect Match</td>
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<td>W225</td>
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<tr>
<td>1:30 - 3:00pm</td>
<td>Career and Life Transitions</td>
<td>Engineering Careers Panel</td>
<td>OCCC</td>
<td>W224C</td>
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<tr>
<td>1:30 - 3:00pm</td>
<td>Inclusion and Cultural Awareness</td>
<td>Expectations of Successful Latinas in Engineering and Science</td>
<td>OCCC</td>
<td>W330A</td>
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<tr>
<td>1:30 - 3:00pm</td>
<td>Career and Life Transitions</td>
<td>Getting the Interview You Deserve: Play the Field and Get What You Want</td>
<td>OCCC</td>
<td>W340B</td>
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<tr>
<td>1:30 - 3:00pm</td>
<td>Innovation in Technology and Business</td>
<td>Green &amp; Clean Energy: How the Electric Utility Industry is doing its part</td>
<td>OCCC</td>
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<tr>
<td>1:30 - 3:00pm</td>
<td>Special Event</td>
<td>(Plenary Session) Men at Work: Networking in a Male Centric Workplace</td>
<td>OCCC</td>
<td>W330D</td>
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<tr>
<td>1:30 - 3:00pm</td>
<td>Career and Life Transitions</td>
<td>Switching Ladders: Remapping Your Career in the Middle of Your Journey</td>
<td>OCCC</td>
<td>W330C</td>
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<tr>
<td>2:45 - 3:45pm</td>
<td>Innovation in Technology and Business</td>
<td>ACTive Pursuit of Excellence in Coil Tubing Operations</td>
<td>OCCC</td>
<td>W232C</td>
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<tr>
<td>2:45 - 3:45pm</td>
<td>Careers in Academia</td>
<td>Applying to Graduate School</td>
<td>OCCC</td>
<td>W231B</td>
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<tr>
<td>2:45 - 3:45pm</td>
<td>Careers in Academia</td>
<td>Best Practices from NSF ADVANCE Programs</td>
<td>OCCC</td>
<td>W231C</td>
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<tr>
<td>2:45 - 3:45pm</td>
<td>Innovation in Technology and Business</td>
<td>Biofuels for Aviation: Fuel properties, technologies and future challenges to carbon neutral aviation growth</td>
<td>OCCC</td>
<td>W232A</td>
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<tr>
<td>2:45 - 3:45pm</td>
<td>Innovation in Technology and Business</td>
<td>Competing in a Creative World</td>
<td>OCCC</td>
<td>W330D</td>
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<tr>
<td>2:45 - 3:45pm</td>
<td>Inclusion and Cultural Awareness</td>
<td>Global Business: Working in a Multinational Company</td>
<td>OCCC</td>
<td>W330G</td>
</tr>
<tr>
<td>2:45 - 3:45pm</td>
<td>Management and Strategy</td>
<td>Mastering Crucial Conversations</td>
<td>OCCC</td>
<td>W330F</td>
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<tr>
<td>2:45 - 3:45pm</td>
<td>Career and Life Transitions</td>
<td>Negotiating Your Flexible Work Arrangement</td>
<td>OCCC</td>
<td>W330B</td>
</tr>
<tr>
<td>2:45 - 3:45pm</td>
<td>Careers in Government and Military</td>
<td>New and Advanced Reactor Design Reviews and Engineering Issues</td>
<td>OCCC</td>
<td>W232B</td>
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<tr>
<td>2:45 - 3:45pm</td>
<td>Career and Life Transitions</td>
<td>The Laws of Networking</td>
<td>OCCC</td>
<td>W231A</td>
</tr>
<tr>
<td>2:45 - 3:45pm</td>
<td>Management and Strategy</td>
<td>Who am I in This Company? Employee Retention Efforts on a Global Level</td>
<td>OCCC</td>
<td>W224D</td>
</tr>
<tr>
<td>2:45 - 3:45pm</td>
<td>Outreach</td>
<td>Become a Tornado! Generate Winds of Change Within Your Organization for Outreach!</td>
<td>OCCC</td>
<td>W240A</td>
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<tr>
<td>2:45 - 3:45pm</td>
<td>SWE Leadership</td>
<td>SWE’s Government Relations and Public Policy Program</td>
<td>OCCC</td>
<td>W340A</td>
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<tr>
<td>3:00 - 5:00pm</td>
<td>Career and Life Transitions</td>
<td>NAVSEA Presentation</td>
<td>OCCC</td>
<td>W225</td>
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<tr>
<td>3:30 - 4:30pm</td>
<td>Receptions</td>
<td>Fellows Tea (Invitation Only)</td>
<td>Peabody Hotel</td>
<td>Orchid</td>
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<tr>
<td>3:30 - 5:00pm</td>
<td>Career and Life Transitions</td>
<td>Designing Your Career to the Next Level</td>
<td>OCCC</td>
<td>W340B</td>
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<tr>
<td>3:30 - 5:00pm</td>
<td>Career and Life Transitions</td>
<td>Is a Rotational Program Right for Me?</td>
<td>OCCC</td>
<td>W330C</td>
</tr>
<tr>
<td>3:30 - 5:00pm</td>
<td>Inclusion and Cultural Awareness</td>
<td>LGBT Panel</td>
<td>OCCC</td>
<td>W330A</td>
</tr>
<tr>
<td>TIME</td>
<td>TRACK</td>
<td>PRESENTATION TITLE</td>
<td>FACILITY</td>
<td>ROOM</td>
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</tr>
<tr>
<td>3:30 - 5:00pm</td>
<td>Special Event</td>
<td>(Plenary Session) I’ll Be Back: Re-Launching Your Career</td>
<td>OCCC</td>
<td>W330D</td>
</tr>
<tr>
<td>4:00 - 5:00pm</td>
<td>Career and Life Transitions</td>
<td>Hit the Road Running</td>
<td>OCCC</td>
<td>W224C</td>
</tr>
<tr>
<td>4:00 - 5:00pm</td>
<td>Innovation in Technology and Business</td>
<td>200+ Years of Patent Shoes and Patented Inventions</td>
<td>OCCC</td>
<td>W340C</td>
</tr>
<tr>
<td>4:00 - 5:00pm</td>
<td>Innovation in Technology and Business</td>
<td>Adaptive Leadership: A Key to Innovation</td>
<td>OCCC</td>
<td>W232C</td>
</tr>
<tr>
<td>4:00 - 5:00pm</td>
<td>Career and Life Transitions</td>
<td>Building Brand YOU: A Personal Path to Career Success</td>
<td>OCCC</td>
<td>W231A</td>
</tr>
<tr>
<td>4:00 - 5:00pm</td>
<td>Careers in Academia</td>
<td>Career Opportunities for Women of Color in Academia at HBCUs</td>
<td>OCCC</td>
<td>W231C</td>
</tr>
<tr>
<td>4:00 - 5:00pm</td>
<td>Career and Life Transitions</td>
<td>Entering Industry with a Graduate Degree</td>
<td>OCCC</td>
<td>W330F</td>
</tr>
<tr>
<td>4:00 - 5:00pm</td>
<td>Outreach</td>
<td>Free Outreach Resources from WGBH: Design Squad</td>
<td>OCCC</td>
<td>W330B</td>
</tr>
<tr>
<td>4:00 - 5:00pm</td>
<td>Innovation in Technology and Business</td>
<td>Innovating Technology in a Fast Changing Environment</td>
<td>OCCC</td>
<td>W340A</td>
</tr>
<tr>
<td>4:00 - 5:00pm</td>
<td>Outreach</td>
<td>Reaching Out</td>
<td>OCCC</td>
<td>W330E</td>
</tr>
<tr>
<td>4:00 - 5:00pm</td>
<td>Management and Strategy</td>
<td>Responsibility Without Authority: Managing Managers in Matrix Organizations</td>
<td>OCCC</td>
<td>W224D</td>
</tr>
<tr>
<td>4:00 - 5:00pm</td>
<td>Management and Strategy</td>
<td>Rising to the Top: A Path Towards Management</td>
<td>OCCC</td>
<td>W240A</td>
</tr>
<tr>
<td>4:00 - 5:00pm</td>
<td>Careers in Academia</td>
<td>Women Engineering Deans: Defining Success On Their Own Terms</td>
<td>OCCC</td>
<td>W231B</td>
</tr>
<tr>
<td>4:00 - 5:00pm</td>
<td>Career and Life Transitions</td>
<td>Work Life Balance for the Recent College Grad</td>
<td>OCCC</td>
<td>W330G</td>
</tr>
</tbody>
</table>

Redefining Energy

The entire energy industry is undergoing unprecedented change, and Duke Energy is leading the charge. We’re redefining energy and how we use it – from innovative energy efficiency programs to revolutionary smart grid technology. These challenges don’t call for a job – they define a career. So, if you are a Mechanical, Civil, Nuclear or Electrical Engineer, come check us out. We’re looking for the best and the brightest to help us redefine energy.

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Daily Events Schedule  

<table>
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<tr>
<th>TIME</th>
<th>TRACK</th>
<th>PRESENTATION TITLE</th>
<th>FACILITY</th>
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</thead>
<tbody>
<tr>
<td>4:00 - 5:30pm</td>
<td>Special Event</td>
<td>Exhibitors/Sponsors Reception (Invitation only)</td>
<td>OCCC</td>
<td>W224GH</td>
</tr>
<tr>
<td>4:00 - 5:30pm</td>
<td>Innovation in Technology and Business</td>
<td>The Cyber Initiative: Battleground of the Future: What It Means for You</td>
<td>OCCC</td>
<td>W232A</td>
</tr>
<tr>
<td>4:00 - 5:30pm</td>
<td>Careers in Government and Military</td>
<td>The Role of Government Research and Development</td>
<td>OCCC</td>
<td>W232B</td>
</tr>
<tr>
<td>5:45 - 8:30pm</td>
<td>Sightseeing Tours</td>
<td>Gatorland’s Gator Night Time Shine</td>
<td>Offsite</td>
<td></td>
</tr>
<tr>
<td>6:00 - 7:00pm</td>
<td>Special Event</td>
<td>Collegiate Leaders Reception</td>
<td>Rosen Centre</td>
<td>Signature 1</td>
</tr>
<tr>
<td>6:00 - 10:00pm</td>
<td>Special Event</td>
<td>SWE Achievement Award Reception and SWE Awards Banquet</td>
<td>Peabody Hotel</td>
<td>Grand Ballroom and Grand Ballroom R-V</td>
</tr>
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</table>

Saturday November 6, 2010

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<thead>
<tr>
<th>TIME</th>
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<th>PRESENTATION TITLE</th>
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<tbody>
<tr>
<td>7:00am - 12:00pm</td>
<td>Member Services</td>
<td>Career Resources Center</td>
<td>OCCC</td>
<td>W230B</td>
</tr>
<tr>
<td>7:30am - 12:00pm</td>
<td>Member Services</td>
<td>Registration and SWE Boutique</td>
<td>OCCC</td>
<td>West E/F Lobby</td>
</tr>
<tr>
<td>7:00am - 6:00pm</td>
<td>Member Services</td>
<td>Speaker Ready Room</td>
<td>OCCC</td>
<td>W230C</td>
</tr>
<tr>
<td>7:00am - 6:00pm</td>
<td>Member Services</td>
<td>Volunteer Central</td>
<td>OCCC</td>
<td>W230A</td>
</tr>
<tr>
<td>8:00 - 9:30am</td>
<td>SWE Leadership</td>
<td>Region Collegiate Representatives and Region Communication Editors Meeting</td>
<td>OCCC</td>
<td>W231A</td>
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</table>

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</thead>
<tbody>
<tr>
<td>10:00 - 11:30am</td>
<td>SWE Leadership</td>
<td>International Members Panel</td>
<td>OCCC</td>
<td>W232A</td>
</tr>
<tr>
<td>10:00 - 11:30am</td>
<td>Innovation in Technology and Business</td>
<td>Keeping ’em Flying: Control, Condition Monitoring and Diagnostics on Modern Aircraft</td>
<td>OCCC</td>
<td>W340A</td>
</tr>
<tr>
<td>10:00 - 11:30am</td>
<td>SWE Leadership</td>
<td>Meet the SWE Editorial Board</td>
<td>OCCC</td>
<td>W231C</td>
</tr>
<tr>
<td>10:00 - 11:30am</td>
<td>Management and Strategy</td>
<td>PRIMeD for Professional Development: Integrating the Emerging and the Experienced for the Future</td>
<td>OCCC</td>
<td>W225</td>
</tr>
<tr>
<td>10:00 - 11:30am</td>
<td>Innovation in Technology and Business</td>
<td>Sustainability Through Energy Reduction and Creation</td>
<td>OCCC</td>
<td>W340B</td>
</tr>
<tr>
<td>10:00am - 5:00pm</td>
<td>Special Event</td>
<td>SWE 60th Anniversary Gallery</td>
<td>OCCC</td>
<td>W330ABC</td>
</tr>
<tr>
<td>10:30am - 12:00pm</td>
<td>Special Event</td>
<td>SWE 60th Anniversary Research Project Panel</td>
<td>OCCC</td>
<td>W330ABC</td>
</tr>
<tr>
<td>10:30am - 3:30pm</td>
<td>Sightseeing Tours</td>
<td>Coach Safari</td>
<td>Offsite</td>
<td></td>
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<tr>
<td>10:30am - 4:00pm</td>
<td>Outreach</td>
<td>Invent It. Build It.</td>
<td>OCCC</td>
<td>W224</td>
</tr>
<tr>
<td>10:45am - 2:00pm</td>
<td>Sightseeing Tours</td>
<td>Truffles and Trifles Cooking Class</td>
<td>Offsite</td>
<td></td>
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<tr>
<td>11:00am - 12:00pm</td>
<td>SWE Leadership</td>
<td>Town Hall Meeting</td>
<td>OCCC</td>
<td>W330EFG</td>
</tr>
<tr>
<td>11:30am - 1:30pm</td>
<td>Highlights</td>
<td>Women Defining the Future Luncheon</td>
<td>Rosen Centre Hotel</td>
<td>Grand Ballroom</td>
</tr>
<tr>
<td>1:00 - 5:00pm</td>
<td>SWE Leadership</td>
<td>Senate Meeting</td>
<td>OCCC</td>
<td>W330EFG</td>
</tr>
<tr>
<td>1:30 - 2:30pm</td>
<td>Careers in Academia</td>
<td>Is Graduate School an Option for You?</td>
<td>OCCC</td>
<td>W225</td>
</tr>
<tr>
<td>1:30 - 2:30pm</td>
<td>Careers in Government and Military</td>
<td>Navy Women in Nuclear Engineering</td>
<td>OCCC</td>
<td>W340B</td>
</tr>
<tr>
<td>1:30 - 2:30pm</td>
<td>Career and Life Transitions</td>
<td>Back to School</td>
<td>OCCC</td>
<td>W232B</td>
</tr>
</tbody>
</table>

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<tbody>
<tr>
<td>1:30 - 2:30pm</td>
<td>Innovation in Technology and Business</td>
<td>Effective Presentations: Tips and Guidelines for Presenting Technical Information and Quantitative Data</td>
<td>OCCC</td>
<td>W340D</td>
</tr>
<tr>
<td>1:30 - 2:30pm</td>
<td>SWE Leadership</td>
<td>Effects of Leadership Training and Networking Opportunities on Professional Advancement: A Quantitative Study</td>
<td>OCCC</td>
<td>W231B</td>
</tr>
<tr>
<td>1:30 - 2:30pm</td>
<td>Outreach</td>
<td>High School Extracurricular Engineering Programs: Are They Working? Opportunities to Explore, Assess and Experience</td>
<td>OCCC</td>
<td>W240D</td>
</tr>
<tr>
<td>1:30 - 2:30pm</td>
<td>Innovation in Technology and Business</td>
<td>Innovative Engineering Solutions for Loss Prevention</td>
<td>OCCC</td>
<td>W340A</td>
</tr>
<tr>
<td>1:30 - 2:30pm</td>
<td>Career and Life Transitions</td>
<td>Managing Your Manager</td>
<td>OCCC</td>
<td>W231A</td>
</tr>
<tr>
<td>1:30 - 2:30pm</td>
<td>Management and Strategy</td>
<td>Technical to Management: A Synopsis of Two Managers’ Experiences</td>
<td>OCCC</td>
<td>W340C</td>
</tr>
<tr>
<td>1:30 - 2:30pm</td>
<td>Management and Strategy</td>
<td>Why They Stay: Career Longevity of Women Engineers</td>
<td>OCCC</td>
<td>W330D</td>
</tr>
<tr>
<td>1:30 - 2:30pm</td>
<td>Career and Life Transitions</td>
<td>You Did What?! Avoiding Career Suicide</td>
<td>OCCC</td>
<td>W231C</td>
</tr>
<tr>
<td>1:30 - 3:00pm</td>
<td>Careers in Government and Military</td>
<td>Bridging the Gap from Job to Career</td>
<td>OCCC</td>
<td>W240C</td>
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<tr>
<td>2:00 - 5:00pm</td>
<td>Collegiate Competition</td>
<td>SME Bowl</td>
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<td>W240A/W240B</td>
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<tr>
<td>2:45 - 3:45pm</td>
<td>Innovation in Technology and Business</td>
<td>Arsenic Removal for Municipal Drinking Water Treatment</td>
<td>OCCC</td>
<td>W340D</td>
</tr>
<tr>
<td>2:45 - 3:45pm</td>
<td>Careers in Academia</td>
<td>Graduate Student Involvement in SWE Collegiate Sections</td>
<td>OCCC</td>
<td>W225</td>
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</tbody>
</table>
The Department of Mechanical Engineering at Vanderbilt University invites applications for a tenure-track Assistant Professor position to begin Fall 2011. Applicants must possess a Ph.D. in Mechanical Engineering or closely related discipline and have expertise and research interests that are synergistic with existing research areas in the department including energy conversion, portable power, combustion, microfluidics, bioMEMS, metamaterials, nanotechnology, mechatronics, dynamic systems and control, medical device design, rehabilitative/assistive devices, and robotics.

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Saturday Daily Events Schedule

OCCC = Orange County Convention Center

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<tbody>
<tr>
<td>4:00 - 5:00pm</td>
<td>Innovation in Technology and Business</td>
<td>Impacting Today’s Health Care with Total Solutions</td>
<td>OCCC</td>
<td>W232B</td>
</tr>
<tr>
<td>4:00 - 5:00pm</td>
<td>Career and Life Transitions</td>
<td>Managing Different Generations</td>
<td>OCCC</td>
<td>W340C</td>
</tr>
<tr>
<td>4:00 - 5:00pm</td>
<td>Innovation in Technology and Business</td>
<td>Nanotechnology: Education, Research and Career Opportunities</td>
<td>OCCC</td>
<td>W340A</td>
</tr>
<tr>
<td>4:00 - 5:00pm</td>
<td>Career and Life Transitions</td>
<td>Pros and Cons of Telecommuting</td>
<td>OCCC</td>
<td>W231C</td>
</tr>
<tr>
<td>4:00 - 5:00pm</td>
<td>Innovation in Technology and Business</td>
<td>The Evolving Role of Engineers in Healthcare</td>
<td>OCCC</td>
<td>W340D</td>
</tr>
<tr>
<td>4:00 - 5:00pm</td>
<td>Inclusion and Cultural Awareness</td>
<td>Managing Global Diversity in a Global Environment</td>
<td>OCCC</td>
<td>W232A</td>
</tr>
<tr>
<td>4:00 - 5:15pm</td>
<td>Careers in Academia</td>
<td>Women in Academia and Graduate Students: Working Together</td>
<td>OCCC</td>
<td>W225</td>
</tr>
<tr>
<td>5:15 - 6:00pm</td>
<td>Receptions</td>
<td>Academic Faculty and Graduate Student Reception</td>
<td>OCCC</td>
<td>W225</td>
</tr>
<tr>
<td>6:30 - 10:00pm</td>
<td>Special Event</td>
<td>Celebrate SWE!</td>
<td>Peabody</td>
<td>Grand Ballroom R-V</td>
</tr>
<tr>
<td>6:30 - 10:30pm</td>
<td>Sightseeing Tours</td>
<td>Arabian Nights</td>
<td>Offsite</td>
<td></td>
</tr>
<tr>
<td>10:00 - 11:30pm</td>
<td>Special Event</td>
<td>Celebrate SWE! Dance Party</td>
<td>Peabody</td>
<td>Grand Ballroom Foyer</td>
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4:00 - 5:00pm Innovation in Technology and Business: Impacting Today’s Health Care with Total Solutions

4:00 - 5:00pm Career and Life Transitions: Managing Different Generations

4:00 - 5:00pm Innovation in Technology and Business: Nanotechnology: Education, Research and Career Opportunities

4:00 - 5:00pm Career and Life Transitions: Pros and Cons of Telecommuting

4:00 - 5:00pm Innovation in Technology and Business: The Evolving Role of Engineers in Healthcare

4:00 - 5:00pm Inclusion and Cultural Awareness: Managing Global Diversity in a Global Environment

4:00 - 5:15pm Careers in Academia: Women in Academia and Graduate Students: Working Together

4:00 - 5:00pm Career and Life Transitions: Pros and Cons of Telecommuting

4:00 - 5:00pm Innovation in Technology and Business: The Evolving Role of Engineers in Healthcare

4:00 - 5:00pm Inclusion and Cultural Awareness: Managing Global Diversity in a Global Environment

4:00 - 5:15pm Careers in Academia: Women in Academia and Graduate Students: Working Together

5:15 - 6:00pm Receptions: Academic Faculty and Graduate Student Reception

6:30 - 10:00pm Special Event: Celebrate SWE!

6:30 - 10:30pm Sightseeing Tours: Arabian Nights

10:00 - 11:30pm Special Event: Celebrate SWE! Dance Party

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Goldman, Sachs & Co.
Google
Halliburton
HP
Honeywell International Inc.
IBM Corporation
Illinois Tool Works Inc.
Intel Corporation
ITT Corporation
John Deere
Johnson Controls
The Kellogg Company
Kimberly-Clark Corporation
Lockheed Martin
Medtronic
Merck
NAVSEA
Northrop Grumman Corporation
PG&E
Raytheon
Rockwell Automation
Rockwell Collins
SAIC
Schlumberger
Shell Oil Company
Southern Company
Symantec
Texas Instruments
The Timken Company
US Army RDECOM
US Navy
United States Steel
United Technologies Corporation
Congratulations to the 2010 SWE Award Recipients

Achievement Award:  Chieko Asakawa, Ph.D.
IBM Fellow
IBM Research

Upward Mobility Award:  Gayle Roberts, P.E.
Stanley Consultants

Rodney D. Chipp Memorial:  William R. Goodin, Ph.D.
UCLA Extension

Captain Mordechai Levin
Masterflight Foundation Inc.

Resnik Challenger Medal:  Elizabeth Sholes
Ball Aerospace and Technologies Corp.

Entrepreneur Award:  Sandra C. Scanlon, P.E., LEED®AP
Scanlon Szynskie Group Inc.

Work/Life Balance:  Debbie Edwards Veihdeffer
Northrop Grumman Corporation

Emerging Leaders:  Manufacturing and Construction
Helen M. Phillips
Northrop Grumman Corporation

Procurement and Logistics
Karla Tankersley
The Kroger Company

Product Research Design and Engineering
Tamaira Ross
The Boeing Company

Quality
Claire Jung, Ph.D.
Texas Instruments

Safety, Health, and Environment
Anisha Ladha
Intel Corporation

Sales and Marketing
Jill Sciarappo
Intel Corporation

Systems Engineering
Michele Van Dyke-Lewis, Ph.D.
Lockheed Martin

Distinguished New Engineer Award:  Missy M. Brost
The Boeing Company

Kelly Griswold Schable
The Boeing Company

Fellow Award:  Alma Kupping Forman, P.E.
Retired

Jane Knoche, P.E.
Federal Aviation Administration

Wendy Schauer Landwehr
Northrop Grumman Corporation, Electronic Systems

April Renee Lauper, D.B.A., P.E.
KBR

Terri Fraser Morse
The Boeing Company

Mary D. Petrysyn
Raytheon Company

Linda Reed
Northrop Grumman Corporation

Distinguished Service Award:  Yvonne Brill
Consultant

Marjorie Inden
Morgan Stanley Smith Barney, LLC

Marilee Wheaton
The Aerospace Corporation

Outstanding Faculty Advisor:  Louise Stark, Ph.D.
University of the Pacific

SWE Outstanding Counselor:  Karen J. Horton, P.E.
University of Maine

Outstanding Collegiate Member – Graduate:  Theresa LaFollette, Ph.D.
Carnegie Mellon University

Michelle Oswald
University of Delaware

Anne Silverman, Ph.D.
The University of Texas at Austin

Outstanding Collegiate Member – Undergraduate:  Katherine Gage
California Polytechnic State University, San Luis Obispo

Lesley Telford
California Polytechnic State University, San Luis Obispo

Katie Tepper
University of Missouri

Jenny Tsao
University of Illinois at Urbana-Champaign

Amanda Wachtel
University of Alabama
Chieko Asakawa, Ph.D., is an international thought leader in the field of information technology (IT) accessibility for persons with disabilities, the elderly, and others with special needs. She is the chief technical officer of accessibility research and technology at IBM Research. In this capacity, she guides the technical direction of the accessibility research team worldwide. In June 2009, Dr. Asakawa was named an IBM Fellow, the company’s highest technical honor and one conferred on only 218 employees in IBM’s history. Dr. Asakawa is the first Japanese woman to be honored as an IBM Fellow.

Having lost her sight at age 14, Dr. Asakawa has a deep understanding of people with special needs. Her technological innovations have expanded the way people with visual impairment communicate and interact. As Internet content becomes increasingly visually rich, Dr. Asakawa keeps pace, advocating for improved access and creating technologies that make this possible.

Dr. Asakawa joined IBM in 1985 as a researcher, and her entire 25-year career there has been focused on accessibility research. In the 1980s, she drove development of the first Braille editing system, significantly improving efficiency of Braille libraries and Braille transcribers, and benefited the blind community in Japan by enabling them to access books. In 1997, she developed the innovative voice browser, IBM Home Page Reader, which reads aloud the words that appear on a Web page, and its interface technology has been widely adopted by other voice browsers.

Dr. Asakawa also drove development of a Web accessibility evaluation tool, aDesigner, aiBrowser, a tool that helps visually impaired users access multimedia content; and the Accessibility Tools Framework, which allows developers to create accessibility tools and applications easily and cost effectively. These technologies and the framework were contributed to the open source community Eclipse Foundation, to stimulate assistive software innovation and to advance Web 2.0 content accessibility. Dr. Asakawa led a team at IBM Research – Tokyo to develop a transcoding technology that allows users to enlarge text and characters to help improve Web page readability for people with low vision and an aging population. In 2007, she was named IBM Distinguished Engineer and, in 2009, she and her team launched the Social Accessibility Project, a research experiment in using a social computing approach to solve real-world accessibility problems.

In 2010 Dr. Asakawa was named IPSJ Fellow by the Information Processing Society of Japan, one of countless awards and honors she has received. She is a strong advocate for women engineers within and outside of IBM and a sought-after speaker at universities and research centers worldwide. She is general chair for the international conference for Web Accessibility (W4A) 2009, leader of the IBM Japan women in technology organization COSMOS, and was inducted into the Women in Technology International (WITI) Hall of Fame in 2003. She has been granted 20 patents and has other patents pending. Dr. Asakawa earned a B.A. in English literature from Otemon Gakuin University, Osaka, Japan; and a Ph.D. in engineering from the University of Tokyo.
In 1981, Gayle Roberts, P.E., had just graduated from Iowa State University with a bachelor’s degree in chemical engineering. Although she had job offers from major chemical companies on both coasts, she chose to join Stanley Consultants, an international engineering services company headquartered in Muscatine, Iowa. She steadily worked her way up, rising from process engineer to senior vice president in 20 years. With each promotion, she managed more people and took on greater fiscal responsibility. In 2007, with a track record of extraordinary effectiveness, Roberts was elected by the company’s board of directors to be president and chief operating officer. As the fifth president in the firm’s 94-year history, Roberts has full authority to manage day-to-day operations and responsibility for strategic planning; annual business planning and preparation of the company’s operating budget; involvement in major project presentations to prospective clients; and leadership succession planning.

With 1,600 employees worldwide, the company has 18 offices in the United States and its territories, and international operations in Jamaica, United Arab Emirates, Libya, Qatar, and India, as well as numerous international project team locations.

In addition to holding key management positions, Roberts has been involved with many other aspects of Stanley’s operations. From 1996 to 1998, she served on the marketing committee, helping to coordinate overall marketing and business development efforts. Since 2000, Roberts has served on Stanley Consultants’ board of directors and on the management committee handling policy issues, compensation, strategic direction, and cash flow.

As project principal, Roberts built relationships with new industrial clients and brought back former clients. Each year she increased her volume of sales, and after five years she was annually selling more than eight times her initial sales goal. In 1997, she was promoted to industrial market leader, and just two years later became central regional manager in the industry, utility, and institutional business unit, where her group achieved annual sales of nearly $20 million. In 2003, Roberts was named the education, health care, and industry business leader. Under her direction, this unit grew to 200 members in six offices, had an annual growth rate of 20 percent, and saw a 32 percent profit margin increase.

Roberts is active in the engineering profession, and has always championed women engineers. She has served as a mentor in the Leadership Stanley program, routinely speaking to M.B.A. students, and sharing her experiences with women in a Quad City program called “Growing Women CEOs.” Roberts tutors high school girls in math and science and serves on many engineering-related boards. She is a member of the board of trustees for St. Ambrose University — where she earned an M.B.A. in 1991 — and an advisory council member for the Iowa State University chemical and biological engineering department. She is on the board of directors for Iowa American Council of Engineering Companies (ACEC) and serves on the national ACEC Engineering Excellence Awards Committee. She is also a member of the National Society of Professional Engineers.

Roberts and her husband, Stan, together have five children. They enjoy hiking in Colorado, cooking gourmet dinners, running half marathons, and practicing hot yoga.
William R. Goodin, Ph.D., is director of Short Course and Technical Management Programs at the University of California, Los Angeles (UCLA) Extension, a position he has held for 27 years. He manages more than 150 engineering and technical management courses on campus and at company sites around the world. He makes sure that a cross-section of industries is represented and that there is significant participation by women engineers. In 2004, Dr. Goodin worked with the Boeing Women in Leadership group to develop a “Leadership Program for Women.” The following year, he expanded the program to Northrop Grumman in collaboration with the Women in Northrop Grumman group. Dr. Goodin’s initiative, perseverance, and convictions about inclusion of women have been key to the success of this program, which has won the support of many company executives.

Dr. Goodin’s belief in inclusion also embraces students. UCLA Extension employs students from the Henry Samueli School of Engineering and Applied Science to help run the program. Dr. Goodin recruits SWE UCLA Collegiate Section officers and other women engineering students to apply for these positions. Participation enables women engineering students to develop technical management skills and to network with professionals. As a result of Dr. Goodin’s efforts, half the students employed in the program in the past 10 years have been women. In addition to helping with the program, the students take courses with the professional participants.

In 1999, as president of UCLA’s Engineering Alumni Association, Dr. Goodin formed an advisory committee of former SWE UCLA officers. He continues to support this bridge between engineering alumni and students, advising the governing board. He also works to increase the number of women on UCLA alumni advisory boards for UCLA’s computer science, electrical engineering, and mechanical and aerospace engineering departments. In 2004, he was honored with the UCLA Henry Samueli School of Engineering and Applied Science Service Award for his volunteer activities.

As advisor to the SWE UCLA Section since 1999 and counselor since 2007, Dr. Goodin provides outstanding advice and leverages his many industry contacts to benefit the section. He gives career advice, writes letters of recommendation for students, and regularly nominates women engineering students for awards. For 12 years, he has attended every end-of-the-year banquet, officer election meeting, new officer welcome meeting, and Evening with Industry event. In 2006, the Los Angeles Section awarded Dr. Goodin the Spirit Award.

Dr. Goodin holds a B.A. in mathematics from San José State University. His M.S. in computer science, Ph.D. in mechanical engineering, and a second master’s in engineering management are all from UCLA. In his leisure time, Dr. Goodin is an avid runner and enjoys traveling with his wife.
Captain Mordechai Levin
Masterflight Foundation Inc.

For directing his aerospace education expertise to inform and inspire young and underrepresented minority women about careers in engineering.

Captain Mordechai Levin is a nationally recognized aerospace educator and advocate for science, technology, engineering, and math (STEM) professions. He is currently executive director of Masterflight Foundation Inc., which he founded in 2006, along with a team of experts in youth, STEM education, and community-based social change. The goal of the Masterflight Foundation is to increase opportunities for young women and men — especially people of color — in all STEM fields.

The Masterflight Foundation launched three major initiatives: first is the Masterflight Aerospace Career Exploration ACE Academy, a weeklong residential summer program. Students fly airplanes and learn about aerodynamics, air traffic control communications, and navigation. They meet with astronauts, visit air traffic control towers, and build and launch rockets. Second is the Masterflight Aerospace Education, STEM Operations Program, a yearlong course of aerospace education that covers orbital mechanics, flight training, physical fitness, and community service. Finally, the Masterflight Foundation Campaign for Proportional Representation to Increase STEM Career Access for Women and People of Color targets the U.S. military, the top 100 American universities, and the top 50 aerospace companies, challenging them to dismantle structural racism and sexism.

Exceptionally active in diversity, aerospace education, and aviation safety, Levin is a member of the United States Air Force Auxiliary – Civil Air Patrol, where he chairs the Civil Air Patrol Diversity Committee. He is a member of the National Commander’s Advisory Committee on Public Trust and the National Commander’s Advisory Committee on Aerospace Education. Levin has worked with the Northeastern Illinois Public Safety Training Academy/Center for Domestic Preparedness/Federal Emergency Management Agency as an advanced incident command system instructor; with the Federal Aviation Administration (FAA) as a safety team lead representative; and with the American Institute of Aeronautics and Astronautics (AIAA) as session chair for Inside Aerospace, an International Forum for Aviation and Space Leaders. He is a member of the AIAA Public Policy Committee, AIAA Aerospace Traffic Management Program Committee, and BEYA Stars and Stripes Committee, and chairs the BEYA Alumni K-20 Committee.

Levin is the recipient of numerous awards. Recently, he was recognized for his work in aerospace and STEM education — especially for his efforts on behalf of women and minorities — by the FAA. He was also named GLR Flight Instructor of the Year and received the BEYA Modern Day Technology Leader Award, the HENAAC – Luminary Award, and the Civil Air Patrol’s Brewer Award for Aerospace Education. Levin received the AIAA Barry M. Goldwater Educator of the Year Award for his lifelong commitment to improving access to aerospace education and careers for women and minorities.

In addition, Levin serves as a search and rescue/disaster relief air operations branch director, operations section chief, planning section chief, FAA Gold Seal flight instructor, aerospace education officer, G1000 Check Pilot Examiner, and cadet orientation pilot.

Levin’s favorite day is Tuesday, when he exchanges his flight suit for civilian clothes and volunteers as a reading and math mentor to third and fourth graders in a local public school.
Elizabeth Sholes, a principal systems engineer with Ball Aerospace & Technologies in Boulder, Colo., is an expert at developing propulsion systems for spacecraft. Whether determining the ideal propellant, conducting analysis, producing innovative designs, or troubleshooting unexpected problems, she has demonstrated her ability to enable complex technology and expand the mission capabilities of propulsion in the space industry. In just one decade, Sholes has worked at the center of two trailblazing NASA space missions: the Kepler space telescope and CloudSat.

The Kepler space telescope, launched on March 6, 2009, finds Earth-like planets around other stars in our galaxy by detecting transits. When a planet passes in front of its star, some of the star’s light is blocked, causing an extremely small dip in brightness. The Kepler photometer, with 95 million pixels, is the largest ever flown in space. Through performance of a complex plume contamination analysis, Sholes was able to show that a hydrazine propulsion system would not contaminate Kepler’s sensitive optics, enabling the proposed cold-gas system to be replaced with a space-saving, higher-reliability hydrazine system. In its first 43 days of observation, Kepler has discovered seven new planets, including the least dense planet ever discovered and the first multi-planet system discovered using the transit technique. More than 700 additional planet candidates have been identified and are currently being analyzed to eliminate the possibility of false detections. For her contributions to the Kepler mission, Sholes received the NASA Ames Honor Award and the Ball Aerospace Engineering Excellence Award.

CloudSat, which orbits 438 miles above Earth, relies on an exceptionally efficient precision propulsion system designed, built, tested, and monitored by Sholes. CloudSat demonstrated for the first time the capability of a small, extremely agile satellite to carry a single instrument and fly so close to another satellite with its own instrument that the data appear to come from a single spacecraft. In April 2006, for contributions to the CloudSat mission, Sholes received the NASA Group Achievement Award.

Sholes has made significant contributions to many other missions, including Deep Impact. The spacecraft, which had just one chance to slam into a comet and reveal the comet nucleus, benefited from Sholes’ extremely efficient fuel-burn plan. Nearly 50 percent of the fuel remained after the mission, leading NASA to undertake a second comet mission, Extrasolar Planet Observation and Characterization and Deep Impact eXtended Investigation (EPOXI). Scientists are still analyzing mission data, and they anticipate EPOXI’s November 2010 encounter with comet Hartley 2 will provide additional valuable data.

Sholes earned a B.S. in chemical engineering from Lehigh University in 1987. She has authored and presented several publications on spacecraft propulsion systems. She inspires girls to pursue science and technology careers by volunteering at public science events at venues such as the Denver Museum of Nature and Science. Sholes spends her free time rock climbing, and teaching rock climbing for a nonprofit organization.
Sandra Scanlon, P.E., LEED AP, founded Scanlon Consulting Services in 1997, later merging her company with The Szynskie Group to form Scanlon Szynskie Group Inc. She is principal and majority owner of the firm, which has a broad array of capabilities, including mechanical, electrical, plumbing, lighting, fire alarm, and low-voltage system designs.

Searching for a way to work and stay at home with her newborn son, Scanlon set up a sole proprietorship in an office in her home and began procuring contracts for small electrical design projects. As her son grew older and projects became bigger and more complex, Scanlon incorporated as Scanlon Consulting Services Inc. and moved out of her home office. The business continued to expand rapidly, and in 2008, Scanlon bought another firm and completed a merger of the two businesses and moved into larger quarters in Aurora, Colo.

Building on the success of her electrical and lighting design services, Scanlon added fire alarm and low-voltage systems design. Newly added is a mechanical and plumbing engineering department. Scanlon Szynskie Group Inc. thrives by creating energy-efficient designs and considering life-cycle costs and end-user input. Scanlon is also committed to being an excellent employer and has worked hard to hire and retain people who fit the company culture and to create an environment of mutual respect, where personal and professional development is encouraged.

Scanlon began her engineering career in 1989 with Amoco Oil Co. in Chicago, doing project scope, design cost, and quality work for Amoco’s refineries. From 1995 to 1997, she was an electrical specialist at Amoco’s Worldwide Engineering and Construction in Houston. Her experience there, which included technical consulting, vendor evaluation, and taking the lead on several major projects, proved valuable when she started her own business. From 1992 to 1995 Scanlon was a project engineer and electrical engineer for Ecova Corp. in Golden, Colo., where she was responsible for the technical execution of projects, handling design, permitting, and installation of equipment for environmental remediation.

Scanlon is a gubernatorial appointee to the Colorado State Board of Licensure for Architects, Professional Engineers, and Professional Land Surveyors. She also is a senior member of the IEEE. She has been active in SWE since college, when she helped form the student section at Valparaiso University, and as vice president, led the section to earn the Best New Student Section Award. She made a successful bid to host the 2001 national conference in Denver, which at that time had the highest attendance and number of exhibiting companies.

As a founding member of the board of directors, Scanlon has been instrumental in the results of the Denver School of Science and Technology — a charter high school in the Denver Public Schools to serve underrepresented populations with a focus on math, science, and technology. Scanlon became a SWE Fellow in 2007, based on her extraordinary accomplishments as an advocate for women in science, technology, engineering, and mathematics careers. Scanlon is especially proud of one very successful mentoring relationship: Rebecca, a young woman Scanlon began mentoring when Rebecca was a junior in high school, is now an electrical engineer. Scanlon earned her B.S. in electrical engineering from Valparaiso University.

For leaving her entrepreneurial mark on industry and the community through her leadership in business, education, philanthropy, science, and technology.
As director of work life integration for Northrop Grumman’s Electronic Systems sector, Debbie Edwards Veihdeffer is responsible for the development, implementation, and assessment of a broad portfolio of work/life programs that directly support the company’s efforts to increase the engagement of employees and enhance its reputation as a preferred employer, which is essential to the company’s goal of attracting, retaining, and engaging talented employees.

Over the past four years, Veihdeffer’s leadership has been instrumental in the design and implementation of such well-received programs, including flexible work arrangements; emergency back-up care for child and elder care; educational planning and counseling for parents of college students; a homeowner’s discount program that provides discounted mortgages and closing costs to employees; wellness programs, including on-site fitness centers, on-site Weight Watchers programs, and voluntary health risk assessments, all intended to improve employee health and well-being; as well as disabilities resources that provide mentoring and support to employees with disabilities and family members who have disabilities.

She has applied her 23 years of Northrop Grumman experience and her M.S. in applied behavioral science and human resources development from Johns Hopkins University and B.S. in journalism from West Virginia University to help employees maximize their contributions and value to the business.

She serves as a corporate representative for the Boston College Work and Family Roundtable and the Work and Family Corporate Leadership Circle.

For sustained and visionary leadership on a comprehensive set of work/life balance programs that have benefited thousands of employees.

Her enthusiasm for promoting engineering as a career option is demonstrated by her commitment to creating and co-leading two successful science, technology, engineering, and math (STEM) educational outreach programs for teachers that have positively impacted thousands of students through the years in Maryland.

Veihdeffer stays active in her community by volunteering in the classroom at her children’s schools to promote engineering careers, volunteering with the Girl Scouts, teaching religious education, and mentoring special needs parents and breast cancer survivors. Veihdeffer strives for effective work/life integration through a strong commitment to family that includes her husband, Walter; children, John and twins Amy and Julie; and parents, Connie and Don.
After earning an undergraduate degree in English, Helen Phillips held a variety of jobs, from sales to stained glass art. Knowing that she enjoyed and excelled at problem solving, she decided to pursue a career in engineering. She earned both a bachelor’s and master’s degree in mechanical engineering and is now fellow engineer, Advanced Microelectronics Center, Northrop Grumman Corp., in Baltimore. She advises on the design and manufacturability of the next-generation transmit/receive (T/R) modules. In this role, she drives yield, cycle time, and cost improvements. She has the ability to conceptualize, process, and manage the complex technical aspects of radar technology, as well as interpersonal team dynamics required to produce active electronically scanned array radar systems.

Since joining Northrop Grumman in 2000, Phillips has taken the lead on several important projects. She guided an interdisciplinary team of engineers through the conception, design build, and test of a highly integrated 16-channel X-Ku frequency band control module. As a specialist in high thermal conductivity heat spreader research and development, she was the integrated program team lead for thermal management in microelectronics packaging. Her work has resulted in 17 invention disclosures and many awards. She received the Sector Level Presidential Leadership Award for Technical Excellence, a Trade Secret Award, and was project lead for Air Force ManTech-sponsored initiatives for cost, yield, and electrical performance improvements on next generation T/R modules. Most recently she received the 2009 Presidential Leadership Award in the Innovation and Technology category for Cancun X Ku Band Array.

Phillips has a strong commitment to both her own and the wider, world community. As an undergraduate, she worked on Habitat for Humanity projects in Syracuse, N.Y. On school breaks, she traveled to South Carolina to help in areas destroyed by Hurricane Hugo and to Florida, to build houses for farm workers. Since moving to Baltimore, she has tutored for a literacy program and planted trees and helped with park cleanups to promote sustainable neighborhoods.

At Northrop Grumman, Phillips has many opportunities to share her expertise in ASEA antenna technology and microelectronics manufacturing with the next generation of engineers, as well as seasoned colleagues. Since 2004 she has been giving tours of the plant to groups such as Enhancing Science and Technology Education and Exploration Mentoring, Young Engineers and Scientists Seminars, and the Society of Hispanic Professional Engineers. Phillips also is a reviewer for the Electronics Systems Symposium within Northrop Grumman, a forum in which engineers discuss sensitive technology developments.

Phillips earned a B.A. in English from Syracuse University, a B.S. in mechanical engineering from the University of Maryland, and an M.S. in mechanical engineering from the University of Maryland in 2000. She enjoys mountain biking and does trail maintenance in local state parks.
Immediately after high school, Karla Tankersley accepted a job as assistant to the manager of metal fabrication engineering at Hill-Rom, a manufacturer of hospital beds. Realizing Tankersley had the abilities of an engineer and a flair for logistics, her boss encouraged her to pursue an engineering degree. Tankersley went on to earn a B.S. and an M.S. in industrial engineering, both from the University of Cincinnati. She is currently an industrial engineer for The Kroger Company in Cincinnati, responsible for a variety of supply chain initiatives. She recently completed her Six Sigma training and is a certified green belt.

After college, Tankersley landed a job in the industrial engineering department of the General Motors, Moraine facility. She supported ISO 9000 requirements for line operations in the paint house and deployed lean techniques throughout the trim department. In 2000, she took a job as an industrial engineer with Gap Inc. She was promoted to inventory control manager, worked in operations, and became engineering manager for three distribution centers. Tankersley was the first woman director of engineering at Gap. She managed engineering teams from the United States, United Kingdom, and Canada, and led operational benchmarking and productivity improvements and supported continuous improvement of distribution center operations. Tankersley’s novel “put-to-store” order processing and distribution system doubled productivity and saved the company millions of dollars.

At Kroger’s, Tankersley has focused on retail operations and logistics engineering. Emphasizing engineering in the retail stores, she initiated a thorough review of front-end work measurement that saved the company millions of dollars annually. She then joined a newly created department, End to End (E2E), the first cross-functional team in the company’s history, to tackle tough supply chain problems. End to End’s projects save the company millions of dollars annually.

In 2002, Tankersley joined the Society of Women Engineers’ South Ohio Section. She served as vice president and outreach chair, and in 2009, she was elected president. Under Tankersley’s leadership, the section has launched a corporate sponsorship program, with participation by Kroger, General Electric, MillerCoors, and Booz Allen, that has generated $5,000 for engineering educational outreach and professional programming. The South Ohio Section received the National Best Practice award for SWE and the Region G Award for Membership Retention and Growth.

Tankersley was a Sally Ride Science Festival volunteer for six years and a contributing editor to the PBS “Design Squad” workshop materials. As South Ohio outreach chair, she arranged for guest speakers at local schools for National Engineers Week and launched “Introduce a Girl to Engineering” at a high school. The section’s 2008 outreach efforts introduced engineering to 260 students and grew to 800 students in 2009. Tankersley also volunteers for her alma mater, the Girl Scouts, and her daughter’s volleyball team. She lives in Cincinnati with her husband, four children, and a golden retriever named Woody.
Tamaira Ross is an associate technical fellow and aeronautical engineer in Boeing Defense, Space and Security, where she performs conceptual vehicle design and rapid prototyping for advanced technology programs. She also leads wireless power transmission development efforts in Boeing Research and Technology. Previously, Ross worked in product development for Boeing Commercial Airplanes (BCA) and Commercial Space. At BCA, she developed new commercial aircraft designs for the 767 and 777.

Ross has led teams to solve difficult technical problems that address critical defense needs. The technical challenges include communications, electrical power systems, space environmental effects, structures, propulsion systems, and thermal control. Her program work represents an important growth area for Boeing. Ross is personally involved in both the manufacturing and testing processes and has earned the trust of management, enabling her to test valuable hardware in a variety of situations and environments.

Ross is a co-inventor on two granted and three pending patents for Boeing Research and Technology projects, including GPS signal delay in the atmosphere as a method to measure humidity, measurement of atmospheric humidity via use of turbine engine inlet sensors, and inflatable, spherical robots for exploration. She has also worked on wind and solar energy studies and is involved with the problem of providing power to remote locations, including lunar robots and outposts.

An affiliate instructor in the industrial and systems engineering department at the University of Washington, Ross teaches a graduate class in technical leadership. She holds a B.S. and an M.S. in aeronautical engineering from Purdue University, an M.S. in mechanical engineering, and a technology management M.B.A. from the University of Washington.

Ross has been involved with the Society of Women Engineers on many levels since 2004. She was president of the Pacific Northwest Section from 2007 to 2009. She initiated an ongoing mentoring program that has paired professionals in the section with students in the University of Washington and Seattle University sections. This program has attracted new professional members and forged a strong link between the professional and collegiate sections. Ross currently serves on the leadership coaching committee, government relations and public policy committee, and the national nomination committee.

Encouraging the next generation of engineers is a high priority for Ross. She teaches aeronautics classes to students of all ages, and for nine years has run engineering workshops for Expanding Your Horizons, an AAUW program for middle-school girls interested in science. A creative instructor, Ross has shown students how a Venturi tube works, conducted experiments with balsa gliders, and demonstrated beamed power. Ross’ community education and mentoring work was featured on the cover of Boeing Frontiers in February 2008. She was also included in the Purdue Alumni Association’s magazine article “40 Under 40 for 2010,” recognizing alumni under 40 making significant contributions in their fields.
Claire Jung, Ph.D., joined Texas Instruments (TI) in 1996 as a process engineer. She is now high-volume analog and logic (HVAL) quality director and a top-ranked technical leader within Texas Instruments. In 2002, Dr. Jung was elected to senior member of the technical staff, a significant accomplishment, as only 5.3 percent of TI’s entire technical population holds this title. Before being promoted to quality director, Dr. Jung was TI’s mobile integrated solutions customer quality engineer manager. She owns — with TI — four U.S. patents and has written eight technical papers about magnetic recording media.

Dr. Jung’s responsibilities in her current position are wide-ranging, global in scope, and demand both her deep technical expertise and leadership skills. She leads HVAL’s six worldwide business quality teams, the quality reliability group, and the Sherman failure analysis lab, which consists of 28 team members.

She also is the quality champion for key TI customers. Working closely with senior management from each of these corporations to increase quality scores and customer confidence, Dr. Jung and her HVAL’s quality teams achieved benchmark performance in returned parts per million and customer return cycle time, and a significant customer return reduction in 2009. In addition, Dr. Jung led five cross-functional teams to qualify for the TI Clark QFN package two weeks ahead of schedule, which resulted in a $2.8 million increase in HVAL net revenue in 2009.

A dedicated community volunteer, Dr. Jung is chair of the 2010 Asian American Citizens Council Youth Symposium, a group of 11 people, including youth volunteers, who provide North Texas Asian American high school students and parents an opportunity to explore different professions and learn how to be successful in college and in a career. Dr. Jung is also a member of the 2010 board of directors of the Dallas Chinese Community Center and an active United Way campaign leader at TI.

Dr. Jung earned her Ph.D. in materials science and engineering and electrical computer engineering from the University of Arizona, Tucson. Her dissertation focused on the dispersions of magnetic particles in nonaqueous media. She also received her M.S. in materials science and engineering from the University of Arizona. Her graduate-level research was funded by IBM. In her leisure time, Dr. Jung enjoys being with her husband and two daughters. She also likes to travel, experiencing nature and learning about different cultures.
Anisha Ladha is a senior environmental engineer in Intel’s Global Environmental Group, which sets strategic direction for the company’s product ecology and environmental sustainability activities. Within the corporate team, Ladha has two roles. The first of these roles is the e-waste program manager responsible for Intel’s global programs for obsolete electronic equipment, where she establishes compliance programs and voluntary e-waste initiatives for Intel’s products and assets. In her second role, as the marketing and communications liaison, Ladha is the technical environmental communications expert for Intel’s Environmental, Health, and Safety Group, initiating programs that increase EHS visibility and build Intel’s environmental culture.

During her nine years with Intel, Ladha’s accomplishments include design and management of chemical waste systems, facilitating e-waste collection events, developing EHS policies, and contributing to building EHS culture. She began her career at Intel’s largest research and development facility in Oregon, where she managed federal and state regulatory compliance for current and future waste streams, including management of more than 100 different chemical wastes. Ladha’s leadership shaped Intel’s Environmental Management Systems, and she led the environmental design of three research and development factories.

Ladha was the first to evaluate the “greenness” of Intel buildings. She led a cross-organizational team of senior engineers to evaluate the green attributes of office space and data center against the Leadership in Energy and Environmental Design (LEED) criteria. Her efforts provided initial baseline data and contributed to the development of Intel’s green building policy.

In 2006, Ladha joined the Corporate Environmental Group. In this role, above and beyond compliance, she facilitated e-waste collection events, recycling more than 3.5 million pounds of e-waste over the last three years. Ladha drafts the environmental section of the Corporate Social Responsibility Report, each year increasing Intel’s reporting transparency. She has initiated programs to grow a green culture and help employees find their “green” voices.

Ladha earned a Bachelor of Science in environmental studies and a Bachelor of Arts in religious and liberal studies, graduating summa cum laude in both, from Florida International University in 1997. She earned a Master of Science in environmental change and management from the University of Oxford, England in 1998.

With a multicultural background, basic to excellent knowledge in Spanish and three South Asian languages, and work and travel experience in North America, Europe, Australia, East Africa, Egypt, and China, Ladha is a world citizen. Her interests include reading, rowing, and South Asian folk dance choreography. Ladha also volunteers her time to support the community.
Jill Sciarappo is the director of strategic marketing in the Embedded and Communications Group at Intel in Chandler, Ariz. The Embedded and Communications Group is involved with non-PC applications of Intel products, such as retail cash registers, home energy devices, wireless routers, media phones, and aerospace applications. Sciarappo leads an international, cross-organizational team of 30 marketing engineers, charged with delivering the sales, marketing, and engineering tools customers need to develop their embedded products on Intel architecture. Sciarappo’s primary responsibility is the design, development, and deployment of projects valued annually at more than $100 million. She also manages the group’s strategic planning process that outlines opportunities for Intel to increase revenue by building Intel architecture into more embedded applications.

Sciarappo has seen a lot of the world since she joined Intel in 1995 as a manufacturing supervisor at Intel’s newest manufacturing plant in Chandler, Arizona. She spent a year in Toronto as a field sales engineer and was appointed a voting member of the Standards Council of Canada. From 2000 to 2001, she worked in Munich, helping the newly created European sales and marketing team. In 2007, after holding other management positions in Chandler, Sciarappo returned to the embedded group.

When she was 8 years old, Sciarappo watched both of her parents graduate — her father with a doctorate in electrical engineering, her mother with a doctorate in education. The experience made a deep impression about the importance of higher education, thus it’s not surprising that even as an undergraduate, Sciarappo encouraged women to join and stay in the engineering profession. She helped establish a chapter of a professional co-ed engineering fraternity, Theta Tau, at Arizona State University. She continues to visit local schools talking about careers in engineering, stressing that all engineering jobs aren’t like those depicted in the cartoon Dilbert®. At Intel, Sciarappo mentors several women and men, and is commonly asked about career changes and international experiences at Intel. Her human-resources background and her engineering, manufacturing, sales, and marketing experience enable her to help mentees network and understand the career paths open to them at the company.

An energetic community volunteer and a seamstress, Sciarappo sews quilts for fundraisers and costumes for her children’s school plays. She is also the head seamstress for the Arizona Cardinal Cheerleaders, an NFL cheerleading team. She helps the Poor Clares of Perpetual Adoration, a group of cloistered nuns, by doing fundraising, marketing, and branding for them. Sciarappo graduated from Arizona State University in 1995 with a bachelor’s degree in electrical engineering. She lives in Chandler, Ariz., with her husband, Steve, and their three daughters, Shea, Sloan, and Stella.
Michele Van Dyke-Lewis, Ph.D., is a systems engineering senior manager at Lockheed Martin Missiles and Fire Control in Orlando, Fla. She directs and created the blueprint for the early career systems engineering department, which focuses on the recruitment, retention, and professional development of engineers early in their careers. In this capacity, she recruits talent and forms relationships that provide insight into the needs of newly hired systems engineers. She serves as mentor, coach, and collaborator, exposing them to a variety of opportunities, including networking and volunteering; student intern and new hire services; user groups; and health and financial support.

She began her career with Lockheed Martin in 1996 on the architecture team working on the company’s sixth generation of parallel processing technology. Her disciplined technical approach and interpersonal skills contributed to the success of this group. After just two years, the team received the company’s highest honor: the Team Performance Excellence Award. The architectural design of Lockheed Martin’s sixth-generation parallel processing technology (Parallel Arithmetic Logic) generated six U.S. patents. Dr. Van Dyke-Lewis was inducted into the Lockheed Martin Inventor’s Hall of Fame — the only woman to date to receive this honor.

This technology eventually became the cornerstone of Teranex, a company created by Lockheed Martin. The primary mission of Teranex was to provide broadcast video and post-production solutions to the industry. She did algorithm and filter design, simulation, and development at Teranex. Largely due to the team’s efforts, the company received a technical Emmy for paradigm-changing designs that deliver images of the highest quality.

Since 2004, Dr. Van Dyke-Lewis has held several other leadership positions of increasing responsibility with Lockheed Martin, including the aided target recognition algorithm lead for the Future Combat Systems program and the system algorithm division lead of the MEADS program. She received the 2008 Excellence Award from Lockheed Martin as a member of the MEADS technical leadership team, and the Engineer of the 2007 First Quarter.

Dr. Van Dyke-Lewis is co-chair of the Lockheed Martin Women’s Success Network (WSNet) Leadership Committee. She established the “Develop the Leader Within” lunch-and-learn series, an opportunity for discussions between the audience and Lockheed Martin leaders about real events requiring leadership decisions.

She received both her B.S. and M.S. in applied mathematics and computer engineering from the University of Central Florida. She earned a Ph.D. in electrical engineering, specializing in digital signal processing, from New Mexico State University. Dr. Van Dyke-Lewis holds seven U.S. patents.

Quite active in her community, Dr. Van Dyke-Lewis has logged more than 500 hours of community service annually and received the President’s Volunteer Service Award for the last five years. She speaks about careers in engineering and develops reading, math, science, and leadership programs in the local public schools.
Missy Brost was inspired to be an engineer by the movie “Apollo 13.” She wanted to solve problems like the NASA engineers who fixed the Apollo spacecraft. By the time she was a junior in college, Brost had landed a co-op assignment at NASA’s Dryden Flight Research Center in the Dynamics Systems Control division. She continues to seek challenges, not only in her career, but also as an active SWE member and a mentor.

Brost graduated from Arizona State University with a B.S. in mechanical engineering in 2001. In 2004, she earned an M.S. in mechanical engineering from the University of Washington in Seattle, and in 2009, she completed both an M.B.A. from MIT Sloan School of Management and a master’s in engineering systems from the College of Engineering. Brost received a full scholarship to MIT from The Boeing Company, an honor given to only one person annually.

In 2001, Brost joined Boeing as a structural analysis engineer. Currently the program manager for design for ergonomics and workplace safety for Boeing, she is responsible for planning and implementing ergonomics and workplace safety in Boeing engineering processes and culture. Before going to MIT, she was a fuselage structures engineering manager at Boeing Commercial Airplanes for the 747 airplane program. She managed a budget of $3.1 million and 40 engineers in Seattle and Moscow. Her work was used as a benchmark within the division, and she was asked to lead design engineering staffing for design engineering of the 767 and 747 fuselage. In 2005, Brost became the first female engineer assigned to manufacturing manager on the 777 in final body join.

Brost has been active in SWE since 1997, when she enrolled as a collegiate member. Immediately upon graduation, she became a member of the Pacific Northwest Section. Since then she has served the section as president, vice president of career guidance, member of the national student transition taskforce, scholarship chair, newsletter editor, and Certificate of Merit chair. Last year, when she joined the Los Angeles Section, she became chair of the section’s Professional Development Conference, and was recently elected vice president of the section. As president of the Pacific Northwest Section, Brost focused on inclusion, publishing a diversity article in each newsletter, kicking off a targeted membership campaign, and hosting joint professional development meetings with the Association for Women in Science and the Association for Women in Computing and ColorsNWcareers.com.

Outside of work, Brost volunteers with the National Girls Collaborative Coalition and wrote grants for SPLASH, a summer camp for middle-school-age girls interested in math and science. Brost enjoys leisure time with her husband, Josh, and dog, Coal.
Kerrie Greenfelder is a registered professional chemical engineer with CDM in Albuquerque, N.M. An expert in potable water treatment system design and construction, her technical, communication, and organizational skills have proved to be great assets in complex, fast-track projects. Greenfelder is also an EPA-certified lead inspector and lead-based paint risk assessor for New Mexico and Arizona. Among CDM’s 4,000-plus employees, she alone has this certification.

As one of CDM’s top design engineers for arsenic removal treatment systems, Greenfelder is recognized throughout the Southwest for her expertise in this type of remediation and for her understanding of U.S. Environmental Protection Agency regulations. She was project engineer for the Arsenic Removal Demonstration Facility project for the City of Albuquerque, one of the largest coagulation/microfiltration facilities for arsenic removal in the U.S.

Greenfelder is currently project/design engineer for construction of five, separate drinking water treatment facilities for Doña Ana County and the city of Socorro, N.M. These facilities will be the first of their kind (chemical coagulation with granular media filtration) for arsenic removal from groundwater in New Mexico. Greenfelder has been on the forefront of developments in sustainability as project engineer on two municipal water reclamation projects in Rio Rancho, N.M. These are the first major treatment facilities in the state to use membrane bioreactor technology, which can reduce wastewater volume and delay infrastructure investment.

Active in the community, Greenfelder has served as team leader for CDM for the Making Strides Against Breast Cancer Walk in Albuquerque since 2002 and the SWE team leader since 2003. She has personally raised more than $15,000 for the cause and has been a top-five fundraiser in New Mexico since she started. She also enjoys participating in her book club and supper club. She and her husband have opened their home for several SWE activities, including the annual holiday party. Greenfelder earned a B.S. in chemical engineering with an environmental emphasis from the University of Kansas in 2000.

For excellence in environmental engineering, particularly in the area of arsenic removal from groundwater, and for SWE leadership.
Since 2007, Tina Haley has been a senior electrical engineer in the quality engineering department for the Walt Disney Company Parks and Resorts. She drives local and worldwide consistency with global counterparts with regard to safety, performance, efficiency, and reliability of regulatory inspections and ride maintenance procedures. She develops and maintains the technical content of the Manufacturer’s Requirements and Ride Law job plans for electrical and automation controls. Her responsibilities cover all Walt Disney World® theme parks and attractions — Magic Kingdom®, EPCOT®, Disney’s Hollywood Studios™, Disney’s Animal Kingdom®, and Disney Quest®.

Focusing on both new attractions and major modifications, Haley participates in the development of project scope, theory of operation, and design specifications as well as providing critical analysis of engineering designs and processes for safety and compliance. She partners with mechanical engineering at each attraction to ensure compliance with Florida state laws, Reedy Creek Improvement District and EPCOT building codes, and Disney/industry standards. Haley leads global teams in identifying ride- and safety-critical components, determining appropriate testing requirements and frequency, and creating and verifying appropriate maintenance job plans. In 2008, Haley received a Disney Excellence Award from the company’s chief safety officer, Greg Hale.

Prior to joining Walt Disney World, Haley was a research and development engineer (VLSI process integration) for Lucent Technologies in Orlando, Fla., where she supported Advanced Memory Development in Bell Laboratories. She used experimentation and analysis to develop next-generation semiconductor processes and maintained shared responsibility for improvement and optimization of all research technologies.

Haley has a long history of involvement with the Society of Women Engineers. As a collegiate member at the University of Central Florida, she was a highly effective outreach committee chair, using time-management tools, motivating members, and reaching goals. She went on to become the Central Florida Section’s vice president in 2007 and oversaw professional development and membership activities. She is currently on the national outreach committee as member and region representative, Region D outreach chair, and 2010 national conference local planning board outreach chair. Past roles include vice president, outreach chair, and Girl Scout chair for the Central Florida Section.

Active in several professional, technical, and community organizations, Haley has been a member of IEEE since 1998. She serves as a FIRST® Robotics judge and volunteers as a docent at the Central Florida Zoo. She is a recipient of the Girl Scouts of Citrus Council’s 2005 Women of Distinction and of Central Florida’s Engineer’s Week 2008 Young Engineer of the Year awards.

Haley earned her B.S. in electrical engineering and M.S. in electrical engineering from the University of Central Florida. Her thesis focused on electrical characterization of thin nitrous oxide for flash memory and anti-fuse applications.
Erin McGinnis is a lead of advanced technology and business development in Advanced Space and Intelligence Systems at The Boeing Company in El Segundo, Calif. She is responsible for business management, technology demonstrations, marketing, and customer meetings for relevant business areas ranging from space superiority and special missions to missile warning.

McGinnis joined Boeing in 2007 as chief of staff for Commercial and Civil Satellite programs. Her responsibilities included management of all commercial and civil operation rhythm activities and logistics; facilitation of executive-level meetings, reviews, and high-level customer meetings; and management of the overhead budget. In this role, she also sat on the chief engineer review board, which prioritized technical issues and resource management.

She earned a B.S. in industrial engineering from Purdue University, where she volunteered as a team leader for the freshman engineering program, co-leading a seminar to help students adjust to the demands of the curriculum. She was also an active volunteer in the Women in Engineering Program, mentoring freshmen and sophomores. McGinnis holds certifications in systems engineering, lean, six sigma, technical management, and project management. She is an M.B.A. candidate and an M.S. candidate in systems engineering at Loyola Marymount University.

In 2002, immediately after graduating from Purdue, McGinnis joined Northrop Grumman Integrated Systems Sector. She was the first industrial engineer college-hire in the El Segundo program team on the Joint Strike Fighter (JSF), the U.S. Department of Defense’s next-generation strike aircraft weapons program. Although McGinnis was the youngest and the newest member of the department, she was deemed a key team member, and her contributions reduced cycle time and cost for the composite fabrication development and production planning of the JSF.

A life member of SWE, McGinnis has held many leadership positions in the Society, including president of the Los Angeles Section, representative to the council, collegiate section counselor, collegiate interests committee chair, and Purdue Section president. She also served on the board of directors as director of membership initiatives. She has worked with the awards and recognition committee, two task-force groups, the membership committee, the collegiate interests committee, the multicultural committee, and the international member team. McGinnis helped plan the Los Angeles Section’s 50th anniversary celebration, coordinating with the office of former astronaut Bonnie Dunbar, Ph.D.

Also an active workplace advocate for women engineers, McGinnis helped establish WiNGs (Women in Northrop Grumman), a networking group. At Boeing, she was elected vice president of the El Segundo BWIL (Boeing Women in Leadership), an organization that provides professional development opportunities for employees. In 2004, McGinnis received the New Faces in Engineering award from the National Engineers Week Foundation.

Erin McGinnis
The Boeing Company

For demonstrated strength in the aerospace industry and in business leadership, and for accomplishments in SWE and her community.
Kelly Griswold Schable
The Boeing Company

For excellence in aerospace engineering and tireless support of women engineers.

Kelly Griswold Schable is an account manager in 737 customer engineering at The Boeing Company. She works with airlines to understand, develop, and manage their airplane configurations, new options, and technologies. She leads development of complete and certifiable airplane configurations and is responsible for managing the technical interaction between Boeing and the customer from sale through delivery. Prior to her assignment in customer engineering, Schable spent four years on the military side of Boeing, working on unmanned air vehicles, military derivative airplanes, air traffic management, and technology development projects.

Schable was part of a two-year rotation program in Boeing’s Systems Engineering organization, open to only six engineers each year. First, she supported configuration control, risk management, and requirements development for the Joint Unmanned Combat Air System program. In Phantom Works, Boeing’s research and development arm, she made significant contributions to the development and testing of an operational concept to help pilots fly airplanes more efficiently, save fuel, decrease noise, and increase the capacity of the national airspace. Her work on this procedure led to Boeing’s filing for a U.S. patent. Her final assignment in the rotation program was in Boeing Commercial Airplanes on the 737 program, working on piloting a new technology onto the aircraft platform. In addition to her daily work assignments, Schable also developed and led the early-career engineering development program at Boeing — Opportunities for New Engineers — which provides technical hands-on experience to engineers.

Active in SWE since her days as a collegiate member, Schable was on the Younger Membership Committee, which brought high school seniors to campus for a weekend in the spring to experience college engineering classes. As a member of the Pacific Northwest Section, Schable served as the vice president of professional development, section representative, and the University of Washington professional counselor. In addition, she served for six years as the SWE representative to the Puget Sound Engineering Council, a regional group of engineering and scientific societies. At the national level, Schable currently is the chair for the collegiate interests committee, counselor coordinator, a member of the membership committee, and past member of the work/life balance committee.

A tireless volunteer, Schable has logged more than 135 hours in two years for various community service organizations. She is also the co-founder of REACH, which provides professional development, community service, and networking opportunities to new employees at Boeing, Puget Sound.

She has a B.S. in aerospace engineering from the University of Illinois at Urbana-Champaign and an M.S. in systems architecture and engineering, with a specialization in engineering management, from the University of Southern California. She enjoys traveling, running, cycling, skiing, good wine, and playing with her yellow Labrador Retriever. She is working on her FAR Part 61 private pilot’s license. Schable and her husband live in Kirkland, Wash.
I

In 1949, Alma Kuppinger Forman, P.E., became the first woman to receive a degree in civil engineering from the Drexel Institute of Technology (now Drexel University). A registered professional engineer in Pennsylvania since 1959, she has worked in government, industry, and academia. She made significant technical contributions to applications for engineering graphics in industry and medicine, most notably in footwear manufacturing and in detecting heart stress. Forman also pioneered the use of 3-D modeling in the classroom.

As part of the small group of engineering students and professionals who met in the 1940s and organized the national society, which was chartered in 1950, Forman is one of the founders of SWE. Forman approached Dr. James Creese, president of Drexel, for funds to organize the first Society of Women Engineers student engineering conference. The conference, which Forman chaired, was held in April 1949 at Drexel and led to the founding of SWE as a national organization, the following year.

Forman held many national, regional, and local leadership positions during the Society’s formative years. She served several terms on the national board of directors and the nominating committee. She chaired the First Regional Eastern Seaboard Meeting held in March 1955 and the Sixth Annual Regional Conference held in November 1960. During the 1950s, Forman also served as Philadelphia Section chair and editor of the section newsletter, SWE Outlook. She is a charter member of the Philadelphia Section and was named to the Philadelphia Section Hall of Fame in 1990.

Forman encouraged students at Temple University to form a SWE student section and served as faculty advisor until her retirement in 1995. She has played an active part in her section’s SWE history project, providing invaluable oral and written accounts and searching her personal archives for newsletters, conference programs, and other memorabilia from SWE’s early years.

Early in her career, Forman was a cartographer, creating maps from aerial photographs. In the 1960s, she started a consulting firm so she could work from home and care for her children and her mother. In the mid-1970s, she took over a thermodynamics course taught by Doris McNulty, P.E., another SWE founding member. Finding the flexible schedule to her liking, Forman went on to teach at Spring Garden Institute, Drexel, and Temple University. At Drexel, she taught graphical communications and oversaw the Keller Program, a self-study program that enabled any engineering student to complete certain engineering courses at their own pace within the limits of a semester. In 1980, Forman was recruited to Temple’s mechanical engineering department, where she transformed Theory of Graphics from a manual drafting course to a computer graphics course with solid modeling and design, orthographic drawings, isometrics, and dimensioning.

In 1951, Forman was featured in the article, “Won’t Anybody Let a Girl Design Just One Tiny Bridge?” in The Philadelphia Evening Bulletin. She and her husband, Ross, have been volunteers for the MathCounts Competition for seventh- and eighth-grade students since 1986.
Jane Knoche, P.E.
Federal Aviation Administration

Jane Knoche, P.E., is a general engineer with the Federal Aviation Administration, where she has worked in a variety of engineering and engineering management positions for 28 years. She coordinates the work of electronic and environmental engineers to support the FAA’s largest contracted services provider, Lockheed Martin. She heads a team that relocated radio communications services, telecommunications, and power equipment from 41 closed facilities to three flight service hubs.

Before becoming general engineer, Knoche was facility manager for the FAA for three years. And, from 1995 to 2000, as acting sector manager and assistant systems management office manager, she supervised 173 employees during a major realignment and a turbulent period in FAA history. Knoche was acting sector manager in Des Moines, Iowa, during the Great Flood of 1993, when Mississippi and Missouri floodwaters caused one of the nation’s worst natural disasters. She took decisive action to keep the Des Moines Airway Facilities Sector and Air Traffic Control Tower operating.

Prior to joining the FAA, Knoche held engineering positions with the U.S. Army Corps of Engineers and Procter & Gamble Manufacturing Company. She received a bachelor’s degree in mechanical engineering from Kansas State University and is a licensed professional engineer in the state of Kansas.

As committed to the Society of Women Engineers as she is to her career in public service, Knoche has championed SWE since she was a member of the collegiate section at Kansas State University. After graduation, she served on the 1980 national admissions committee, working on atypical student admissions and raising scholarship funds for Kansas City high school seniors. She was president of the Kansas City Section and held various member-at-large (MAL) positions, including council section representative, alternate, and MAL newsletter editor. A SWE life member, Knoche received the Distinguished New Engineer Award and is a charter member of the Kansas City and Heart of Iowa sections.

She also has served as counselor to the University of Missouri-Kansas City Collegiate Section, national membership committee member, and Region i director. During her tenure as director in 1997, Knoche increased each section’s technical visibility by giving them a Web presence. She was an important part of planning the 1987 national convention and 2006 national conference in Kansas City. Recently, Knoche has been involved in professional development efforts, organizing networking events and seminars with other local engineering societies.

Knoche is an ordained deacon at her church and teaches in the Sunday school. She is an avid square dancer and participates in charity walks for multiple sclerosis and hunger.
Engineering is a second career for Wendy Schauer Landwehr. She received a B.S. in family and consumer sciences from Eastern Illinois University and worked for several years in restaurant management. She returned to school to study computer science and joined Northrop Grumman in 1985. She is now a software technical advisor for the Electronic Systems Sector at the Rolling Meadows, Ill., campus. During her 25-year career, Landwehr has adapted to significant changes in the field, but her advocacy for women engineers, through the Society of Women Engineers and Northrop Grumman, hasn’t changed.

When she joined Northrop Grumman, Landwehr was one of just a few women in the software engineering department. Assigned to the configuration management group, and tasked with setting up a configuration management system for the department, Landwehr developed the software tools, administered the process, and trained the engineers. This system became the cornerstone of the configuration management process still used for the entire Rolling Meadows facility. Landwehr is an expert in a widely used software product and serves as technical advisor for this product line. She has a role in most projects requiring this type of software, and is one of the leaders in the effort to standardize this product.

Landwehr joined SWE in 1996 as part of a Society membership drive at Northrop Grumman and promptly received the Chicago Regional Section Newcomer Award. She has held a variety of SWE leadership positions. During her term as Chicago Regional Section president, the section membership increased to more than 300. She also injected new life into the student liaison committee, targeting the seven collegiate sections within the section’s territory. Under Landwehr’s leadership, the section endowed a $1,500 scholarship with the SWE board of trustees. Her national-level focus has largely been awards and procedures. She became the Region H governor in July, and is honored to have the opportunity to lead the activities of the Society’s largest region.

Landwehr participates in many of Northrop Grumman’s science and technology outreach efforts, including “Discover Engineering,” for students at local schools; math tutoring for seventh- and eighth-grade girls; and “Connecting Educators to Engineering.” Landwehr has worked to increase company awareness of women in engineering through the Northrop Grumman Women Engineers organization. A founding member of the organization, she has contributed in many ways, including serving as chair of this Employee Resource Group within Electronic Systems. She is an active member of the Arlington Heights Garden Club, where she writes articles and teaches workshops. Landwehr also teams with her husband on Rotary International projects, such as literacy and immunizations.

She earned an A.A.S. in computer science, with honors, from Harper College, and an M.S. in computer science from the Illinois Institute of Technology.
April Renee Lauper, D.B.A., P.E.
KBR

April Lauper, D.B.A., P.E., is a mechanical engineer with KBR in Houston. She has worked for 36 years in the petrochemical industry, designing pressure vessels, storage tanks, heat exchangers, storage bins, and pipe stress equipment. She has participated as a nuclear engineer auditor and a value analysis team member, analyzing a culvert pipe shop. She owns and runs a small software business, which develops programs for the pressure-vessel engineering market. Prior to joining KBR in 1988, Dr. Lauper worked at Fluor Engineering Inc./Fluor-Daniel Inc., Fluor Ocean Services, and Wyatt Industries Inc.

When she joined SWE in 1992, Dr. Lauper immediately volunteered to be section secretary and soon became deeply involved with the organization, its members, and its goals. She has been a senior life member of SWE since 1998 and has served as president and vice president of the Houston Area Section, and section representative for Houston Area for seven consecutive years. Other positions she has held include Region C governor, Region C director, and director at large on the SWE board of directors. Currently, she is professional senator for Region C. In addition, Dr. Lauper has served on national committees, including the multicultural committee, electronic communications committee, and section vitality. She also tenured a two-year stint as SWE national gatekeeper/webmaster.

Dr. Lauper’s dissertation, “Effects of Leadership Training and Networking Opportunities on Professional Advancement: A Quantitative Study,” examined perceptions of the membership (both professional and collegiate) about the effectiveness of the Society’s leadership-training programs and networking opportunities. The study, requested by Betty Shanahan, CAE, F.SWE, executive director and CEO, confirmed that the programs yield positive benefits.

Active in her profession both on the job and in the community, Dr. Lauper dedicates much of her time and energy to encouraging students and helping women engineers. She mentors young engineers at KBR, mentors students at Jeff Davis High School in Houston, works with MentorNet, and the WIE-UH mentoring program, which includes being a proctor for a student at North Carolina State University. She has judged many high school science fairs, including the I-SWEEEP International Science Fair, and the Science and Engineering Fair of Houston.

Dr. Lauper is a member of ASME International, The Federation of Houston Professional Women, and the AAUW. She was a mediator for the Dispute Resolution Center in Conroe, Texas, and was active in Toastmasters, as president of the local club, area governor, and division governor of Toastmasters International. She is a long-standing presenter and educator for the AIDS Foundation Houston Inc.

A licensed professional engineer in the state of Texas, Dr. Lauper earned a B.S. in mechanical engineering from Texas A&M University and an M.B.A. in finance from Our Lady of the Lake University. She also holds a Doctor of Business Administration from the University of Phoenix.
Terri Fraser Morse is program director for Engineering, Operations, and Technology, Enterprise Technology Strategy, External Technical Affiliations, at The Boeing Company, in Everett, Wash. She is responsible for defining and managing strategy and investment levels for company-wide external industry technical affiliations. This includes providing clear strategy, guidance, and processes connecting diverse Boeing activities and people to internal and external technical opportunities (domestic and international).

Morse began her career with Boeing 30 years ago in aerodynamics. She has held engineering and management positions developing flight controls, autopilot/auto throttle, flight management systems, flight deck systems, mechanical/hydraulic, environmental control, and electrical wiring systems. She was on the design team for the 757/767, 737-300, 747-400, 777, and 787 airplanes. In addition, she has been leader of the Define aspect of the Phantom Works Lean and Efficient Thrust, created to develop next-generation processes and design tools for the entire company.

In 1983, Morse was invited to speak at the SWE national student conference in Seattle. She joined the local Pacific Northwest Section in 1985, and has since served the Society in many leadership positions at the section, region, and national levels. She became a SWE senior life member in 1997 and received the SWE Distinguished Service Award in 2008. Another outstanding accomplishment and an enduring contribution to SWE is Morse’s creation of Team Tech, a Boeing-sponsored national student competition. She won the Hewlett-Packard Innovation Award and ASEE Excellence in Engineering Education Collaboration Award for this project, and continues to participate, serving as national award coordinator. More than 50 industry partners, over 100 university teams, and more than 1,000 students have participated in the competition in its 18-year history.

Morse currently serves as SWE national leadership coach, supporting Region J. She served as SWE national section vitality coach, Region J, from 2002 to 2003, and as Region H coach from 2003 to 2005. She has chaired many regional and national committees, including the 1996 national convention and student conference, the Pacific Northwest Section program committee, and the national bylaws committee.

Morse is an Associate Fellow of the American Institute of Aeronautics and Astronautics. She has been a loaned executive for Leadership Snohomish County, King County’s Leadership Tomorrow Program, Corporate Council for the Arts, and United Way. She currently serves on the National Engineers Week Foundation strategic planning committee, Industrial Research Institute External Technical Director’s Network and Research-on-Research Committee, and the American Society of Civil Engineers Engineering Women Advisory Committee. She also is chair-elect for the American Society for Engineering Education Corporate Member Council.

A graduate of Central Washington State University, Morse has been recognized in Cambridge Who’s Who®, Who’s Who in the World®, Who’s Who in America®, Who’s Who of American Women®, and Who’s Who in Science and Engineering®. She lives in a residential airpark and is building a four-seat composite airplane.
Mary D. Petryszyn is vice president of mergers and acquisitions for Raytheon Integrated Defense Systems (IDS). She is also the mission center executive for their Joint Battlespace Integration Center in Colorado Springs, Colo. Integrated Defense Systems is Raytheon’s leader in Global Capabilities Integration, providing affordable, integrated solutions to a broad international and domestic customer base, including the U.S. Missile Defense Agency, the U.S. Armed Forces, and the Department of Homeland Security and numerous technology customers.

Since joining Raytheon in 1986 as a systems engineer, Petryszyn has taken on many challenging assignments. Prior to her current assignment, she was vice president of the Civil Security and Response Programs business area; vice president of Joint Battlespace Integration; and strategy executive for Raytheon IDS, in charge of strategy development, competitive intelligence, and congressional and community relations.

Petryszyn is a graduate of the Raytheon Business Leadership Program and Executive Marketing Program, and she is a certified Raytheon Six Sigma™ Expert. Since 2004, she has been a Raytheon corporate representative on SWE’s Corporate Partnership Council (CPC) and is currently serving as co-chair of the CPC. As a founding member of the CPC, Raytheon selected Petryszyn to represent the company because of her commitment to SWE, and because of her reputation as a role model to other women engineers at Raytheon. She participates in the Raytheon mentor/protégé program and, as a senior executive, has considerable impact.

Just a year after she joined the Rocky Mountain Section, Petryszyn became a life member of SWE. She was a core member of the 2001 national conference planning committee and the chair of the Explore Engineering outreach event held during the conference in Denver. Sponsored by Raytheon, this event has become a staple at SWE national conferences and helped launch the Rocky Mountain Section’s Girls Exploring Science, Engineering, and Technology event. In 2002, Petryszyn served on the SWE executive director selection committee. She has mentored and coached countless SWE members at all levels of the organization; written articles for SWE Magazine; spoken at SWE events; and judged awards, essays, and scholarships. In 2005, she received SWE’s Upward Mobility Award.

Generous with her time and expertise, Petryszyn is a life member of Girl Scouts and a senior member of the IEEE. She has served on the Colorado Governor’s Commission on Higher Education Science and Technology Committee and on the Corporate Advisory Council for the Women in Engineering program at the University of Colorado at Boulder. She received the 2000 Woman of Distinction Award from Mile Hi Girl Scout Council.

Petryszyn graduated from Clarkson University with a B.S. in electrical and computer engineering. She has a master’s degree in computer engineering from Syracuse University.
Linda Reed graduated from Michigan State University with a bachelor’s degree in advertising communication. Making a dramatic career change, she went on to earn a B.S. in electrical engineering in 1991 from California State University. She is now senior engineer, program planning and integration at Northrop Grumman Aerospace Systems in El Segundo, Calif. She has worked for Northrop Grumman in several leadership positions since joining the company in 1989. As a senior engineer, Reed is responsible for program planning and integration and is currently engaged in program planning and integration for a large satellite communications program.

Reed is a graduate of the Northrop Grumman black belt program, where she spent two years mentoring process improvement teams and helping functional managers define, document, and improve processes. She is now a certified master black belt, and her teams have saved the corporation millions of dollars. Immediately prior to her current position, she served as director of process assurance for the Navigation Systems Division, where she introduced a division-level executive corrective action board, cut delinquency for corrective action response from over more than 50 percent to less than 5 percent, and established an internal audit program. As director of infrastructure, Mission Excellence, Space Technology/Aerospace Systems, Reed reduced the number of processes from 95 to 14 and helped create and execute the new Mission Excellence vision and strategic plan.

A 21-year member of SWE, Reed has volunteered hundreds of hours on behalf of the Los Angeles Section and played many roles. In addition to serving as president, vice president, recording secretary, section representative, and newsletter editor, she participated in many projects, such as the Girl Scout Badge Day with local Girl Scouts and Student Leadership Training with Southern California SWE collegiate section officers. In 2002, Reed co-chaired the Los Angeles Section’s 50th anniversary celebration, held in May 2003 at the Peterson Automotive Museum in downtown Los Angeles. During the festivities, she received the prestigious Loring Nicholson Award Given to members who demonstrate outstanding dedication to the section, the award has been presented only seven times since the section was chartered. At the national and regional levels, Reed has served on the SWE Magazine editorial board and as the membership committee, Region B representative.

Reed is a member of the American Society for Quality; the American Institute of Aeronautics and Astronautics; and the NGST Women’s Network Group, which she served as vice chair/chair from 2006 to 2008. On the 100th anniversary of flight, she taught a third-grade class how planes fly and what engineers do. In 1995, she was inducted into the Institute for the Advancement of Engineering.

A resident of Redondo Beach, Calif., Reed has been a judge at the California State Science Fair for nine years. She is listed in Outstanding Young Women of America.
Yvonne Brill, a recipient of the Society of Women Engineers Achievement Award and the Resnik Challenger Medal, is a consultant specializing in satellite technology and space propulsion systems. In the early days of the space race, she participated in studies that defined rocket propellant performance and derived high-temperature thermodynamic properties for rocket exhaust gas species. Her patented electrothermal hydrazine thruster, developed while she was at RCA, is now an industry standard on communications satellites. Brill has served on many National Research Council committees evaluating space missions and is a member of its Space Studies Board. From 1994-2001, she was a member of the NASA Aerospace Safety Advisory Panel, an independent senior advisory panel reporting to NASA and the U.S. Congress on technical issues affecting NASA.

A native of Winnipeg, Canada, Brill received a B.Sc. in mathematics from the University of Manitoba and an M.S. in chemistry from the University of Southern California. Brill and her husband, a chemist, raised two boys and a girl in the 1950s and 1960s, before dual-career couples were common. All three of their children have at least one engineering degree.

For more than 30 years, Brill was SWE counselor for either the Princeton University or Rutgers, The State University of New Jersey Collegiate Section, mentoring students and linking the professional and collegiate sections. She co-chaired the 1980 national convention that initiated the Student Speaking Competition, which today is institutionalized as the Technical Presentation Competition. Brill has made an engineering education possible for many who otherwise might not have been able to afford it. Her participation on the 1980 convention committee lead to the endowment of the SWE New Jersey Scholarship for freshmen. Her legacy is assured through the endowment of the Brill Family Scholarship, which will provide funds in perpetuity for nontraditional students pursuing their engineering educations.

Brill’s expertise helped the New Jersey Section succeed and grow. She has chaired the section’s honors and awards committee for more than 15 years. She has served the section in many other capacities as well, including representative to the Council of Section Representatives, section president, chair of the scholarship committee, and SWE representative to the Central Jersey Engineering Council. Brill’s national SWE offices include two terms as executive committee director of student affairs (maintaining contact with 232 student sections representing 10,000 students); executive committee treasurer; member of the nominating committee; and member of the national archives committee.

Determined that women in technical fields be recognized for their accomplishments, Brill recommends women for board-level appointments and nominates women for several SWE awards, including the Achievement Award, Resnik Challenger Medal, Upward Mobility, Distinguished New Engineer, Entrepreneur, and Fellow. She also nominates women for admission to the National Academy of Engineering and participates in nominations for the National Medal of Science and National Medal of Technology and Innovation.
Marjorie Inden, a senior registered client service associate with Morgan Stanley Smith Barney in Annapolis, Md., has been dedicated to the mission of the Society of Women Engineers throughout her 30-plus years as a member. Her primary motivation has always been to contribute to the operations and management of SWE. She has effected positive change for the Society on all three levels — sectional/member-at-large, regional, and national — and mentored and encouraged countless women and girls.

Inden has brought to SWE not only her energy, commitment, and leadership, but also the benefit of her background in both engineering and financial management. She earned a B.S. in electrical engineering from Columbia University in 1980 and an M.B.A. in finance and management from New York University in 1986. She worked at IBM from 1980 to 1993, in a variety of engineering positions and as adjunct professor of business administration, on loan from IBM, at Xavier University of Louisiana. Between 1993 and 2008, as her career shifted from engineering to financial management, she was a financial consultant with Merrill Lynch, an engineering supervisor at Corning Incorporated, director of the Frederick County Humane Society, and a paraplanner at Williamson and Associates.

As an undergraduate, Inden served as secretary and vice president of the Columbia University Collegiate Section. She helped set up the New York Coalition of Student Sections, which created citywide events for SWE collegiate members and developed a resume book project to fund section activities. In 1991, Inden was the key organizer and founder of SWE’s Mid-Hudson Section. Working with several colleagues, she made contacts within IBM to recognize the section’s efforts to charter and to provide support. She served the section as founding president and section representative. Her ongoing advocacy of SWE within IBM helped make the Mid-Hudson Section a large one with substantial corporate support. IBM is now a SWE Corporate Partnership Council member, due in part to the success of the Mid-Hudson Section.

In 1996 Inden was elected to the SWE Board of Trustees (BOT), serving as secretary until 2003, when she became BOT treasurer following the death of Ada Pressman, P.E. She standardized the BOT’s records with commercial accounting software and played an important role in establishing the SWE Endowment Fund (SWE-EFI) and in getting recognition of the new SWE-EFI combined entity as a tax-exempt 501(c)(3) organization by the IRS. She helped set up many endowed scholarships and was always ready to help sections and regions looking for financial management assistance. Inden became chair of the BOT at a time of worldwide economic turmoil. Under her leadership, SWE’s portfolio of investments has performed well, enabling the organization to continue to thrive.

Inden was active in the Dutchess County SPCA, serving as chair of the finance and fundraising committees and as treasurer from 1998 to 2000. Using her financial expertise, she negotiated a 50 percent increase in government funding for the organization through a public hearing process.
Marilee Wheaton joined SWE as a collegiate member at California State University, Northridge, and her involvement in the Los Angeles Section has continued for 27 years. Her service to the Society has never been interrupted by life’s demands such as raising children, job responsibilities, and involvement in other professional organizations. Wheaton has taken on high-profile leadership positions and given important behind-the-scenes support, chairing many committees and mentoring future SWE officers and leaders.

Wheaton’s past service to the Los Angeles Section includes committee chair for publicity, programs, membership, student section liaison, corporate support, scholarship banquet, and anniversary banquet. She also has served the section as vice president, president, and section representative. Currently, she is a national membership committee member and life member coordinator, a position she has held for almost 15 years. Wheaton has been the awards committee chair for the Los Angeles Section for 10 years and is the SWE counselor for the University of Southern California Collegiate Section. She has been a life member for 20 years.

In 1986, Wheaton was elected president of the Los Angeles Section, which had more than 300 members and collaborated with 15 student sections. While she was president, the section made a spectacular “triple play,” garnering all three major national awards, one for career guidance of high school and college students, one for continuing development of professional members, and one for the monthly newsletter. Wheaton’s leadership vitalized the section and set in motion a decade of strong contributions for the section. Wheaton was recognized as a SWE Distinguished New Engineer in 1990 and a Fellow in 2000.

Wheaton is executive director and general manager of The Aerospace Institute at The Aerospace Corporation in El Segundo, Calif. The Institute coordinates all education, training, and staff development activities at the corporation, operates the Charles C. Lauritsen Library, and manages The Aerospace Press. She has held a variety of leadership positions at The Aerospace Corporation, including general manager of the Systems Engineering Division, general manager of the Computer Systems Division, principal engineer Ground Systems Program Office, systems director for AFSCN Engineering and Integration, and principal director of the Business and Operations Analysis Subdivision. From 1999 to 2002, Wheaton was a director with TRW Systems, Office of Cost Estimation.

She has a B.A. in mathematics and a B.A. in Spanish from California Lutheran University. She earned an M.S. in systems engineering from USC and is a graduate of the UCLA Executive Program in Management. The recipient of many engineering honors, Wheaton is a Fellow of the American Institute of Aeronautics and Astronautics, and serves as chair of the organization’s technical committee on economics. She won the 2007 USC Center for Systems and Software Engineering Lifetime Achievement Award. Married to Kevin, another Aerospace engineer, for 30 years, Wheaton has two grown children, twins Alanna and Travis.
Louise Stark, Ph.D., is associate dean and graduate director for the School of Engineering and Computer Science at the University of the Pacific in Stockton, Calif., and a full professor in the electrical and computer engineering department. She has served as the faculty advisor for the university’s SWE section since coming to Pacific in 1992. She is also an active member of the San Joaquin Valley Section.

Dr. Stark’s exceptional level of involvement has benefited the collegiate section leadership tremendously: recruiting members, developing leadership skills, mentoring officers, and ensuring smooth transitions of student leadership. She does not merely advise: she participates in all section activities. She helps students enough to accomplish their tasks and enables them to learn from their experiences. Dr. Stark attends the SWE section meetings and events and accompanies students to regional and national conferences. She was also instrumental in helping the section successfully host the Region A conferences in 2003 and 2010. Even though she was on sabbatical many miles away during the planning stages of the 2010 regional conference, Dr. Stark was available via webcam to help and advise the organizers.

She has been a guiding force for a number of other contributions, including the section’s participation in the Boeing Team Tech Competition. The section has competed in every competition since 2004, during which time it placed in the top three, five times with two first-place finishes. Dr. Stark’s willingness to advise the Boeing Team Tech group each year has increased participation in the section. The competition has provided an excellent opportunity to showcase projects to younger students, generating excitement about SWE and engineering in general. This involvement complemented Dr. Stark’s additional outreach efforts, such as Expanding Your Horizons, (EYH). This program exposes sixth- to 12th-grade girls to opportunities in math, science, and engineering. She served as the university representative for the San Joaquin EYH conference between 1992 and 2006.

Dr. Stark earned her undergraduate degree in 1986 in computer engineering from the University of South Florida. She continued there to earn her master’s in 1987, and her Ph.D. in 1990 in computer science and engineering. Her research interests include artificial intelligence, computer vision, and iris biometrics. She has received many awards and honors for her commitment to engineering and engineering education. These include: the SWE Region A Service Award, 2008; Professor of the Year, School of Engineering and Computer Science, University of the Pacific, 2007-2008; a listing in Who’s Who in Engineering Higher Education, 2007; a listing in Who’s Who Among America’s Teachers, 2005; and the 2005 Woman of Distinction Award from the University of the Pacific.
Karen Horton, P.E., began her involvement with the University of Maine Collegiate Section in 1997, when there were only two members. She has served as section counselor since 2003, and since 2006, she has also been faculty advisor. Her efforts have resulted in a larger, more active collegiate section with 54 members — 25 percent of all the women in the College of Engineering. Horton has also strengthened ties between the collegiate section and the Maine Section, Region F, and the national organization.

Thanks to Horton’s efforts to boost the vitality of the section, more University of Maine Collegiate Section graduates are now upgrading memberships upon graduation and becoming active in the Maine Section. She established fall and spring joint meetings of the collegiate and professional sections, at which working engineers describe the importance of SWE to their careers, sometimes driving 130 miles to meet with the students. Attendance has been enthusiastic, and the events have kicked off SWE-related work done over the summer and during the academic year.

Horton also coordinated a sponsorship program, in which members pay the dues of graduating collegiate section members who upgraded their memberships. At Horton’s urging, collegiate members have attended the last three Region F conferences, and for the first time, in 2009, the national conference. Horton regularly attends counselor and advisor training at regional and national conferences, putting into practice what she learns from them.

She has served SWE in a variety of leadership positions. She is currently chair-elect of the government relations and public policy (GRPP) committee. She delivered GRPP training at the Region F conference in April 2010. She has served the Maine Section as president, vice president, secretary, and section representative.

Horton is an associate professor of mechanical engineering technology in the College of Engineering at the University of Maine, and a licensed professional engineer in the state of Maine. She holds an M.S. degree in industrial mathematics and a B.S. in both mechanical engineering and elementary education. Prior to joining the university in 1997, she was employed as a mechanical engineer by Bath Iron Works in Maine, the Naval Coastal Systems Center in Florida, and as a high school math and electronics teacher by the Department of Defense Dependent Schools in Germany.

Since 2002, Horton has directed the annual University of Maine Creative Design at CAD Camp, and she has administered more than $62,000 in camp scholarships for campers from underrepresented groups. She resides in Old Town, Maine.
For the past two years, Theresa LaFollette, Ph.D., has served as president of the Society of Women Engineers’ Carnegie Mellon University (CMU) Section, but her service to SWE began early in her undergraduate studies at the University of Kansas (KU), where she was vice president and secretary. She also co-chaired an ambitious project to bring the Region i conference to the university. Her leadership has not been limited to her own sections; she was Region G collegiate representative from 2007 to 2008 and succeeded in transforming some struggling SWE collegiate sections to active ones.

Dr. LaFollette graduated with a B.S. in chemical engineering from KU in 2005. She has an M.S. in colloids, polymers, and surfaces from CMU and received her Ph.D. in chemical engineering from CMU in August 2010. Her Ph.D. research focused on templating nanoparticles into ordered block copolymer micelle gels to form nanocomposite materials. After graduation, she joined ExxonMobil Process Research Laboratories in Annandale, N.J.

She has been involved with SWE as a collegiate member for nine years and has attended the SWE national conference six times. As the leader of the CMU Collegiate Section, Dr. LaFollette played an active role in almost every SWE event, extended membership to graduate students, and developed a Graduate Greets Program that targeted the professional development and work/life balance needs of women engineering students. She has helped promote a strong leadership pipeline for the section by implementing leadership retreats, securing funding for more members to attend SWE regional and national conferences, and starting SWEet week to promote SWE national membership. She was crucial to the success of the section’s mentorship program and Girl Scout outreach day, both initiated during her presidency.

At the University of Kansas, Dr. LaFollette was named Outstanding Graduating Senior in the School of Engineering and Chemical Engineering Department and received awards for Outstanding Service to the Chemical Engineering Department in 2003 and 2005. She placed second in the national SWE Technical Paper Competition in 2004 and first in the national AIChE Student Research Paper Competition in 2005. At CMU, Dr. LaFollette received several fellowships, including the National Science Foundation Graduate Research Fellowship. She was honored for excellence in her Ph.D. research in 2009 by placing first in the PINO Poster Competition at Case Western Reserve University and first in the ChEGSA Chemical Engineering Research Symposium platform presentation competition at CMU.

Dr. LaFollette was president of the KU chapter of Tau Beta Pi for two years and vice president of the CMU chapter for two years. In high school, she received the Girl Scout Silver and Gold awards and has continued to support both the Boy Scouts and Girl Scouts. She enjoys spending leisure time with family and friends, as well as volunteering at her church, traveling, swimming, and attending cultural events.

**For graceful, compelling, and visionary leadership as both an undergraduate and graduate collegiate member.**
Michelle Oswald is a civil engineering doctoral student, specializing in transportation planning at the University of Delaware. She has been a member of the Society of Women Engineers since 2003, when she was a freshman civil engineering student at Lafayette College. In 2004, she took on the job of section treasurer, and in 2005 was elected president. She expanded her participation by attending events beyond the collegiate section level, such as the Region E Conference. She was awarded the position of national conference planning board collegiate representative in 2009 and is on the national collegiate interests committee. In 2010, she was awarded the position of regional collegiate senator for Region E.

During her last year at Lafayette College (2006–2007), she transitioned a younger member to take over her position as president. Planning and organizing fundraisers, social events, and community outreach activities developed Oswald’s leadership skills. Introducing Girl Scout Brownie troops to engineering and showing them how to build towers out of marshmallows and dried pasta inspired her to become an engineering professor and SWE faculty advisor.

Oswald is certified as an engineer-in-training (EIT) and a leadership in energy and environmental design accredited professional (LEED AP). At the University of Delaware, she serves as the civil engineering representative and the chair of the Women in Engineering Graduate Advisory Board, as well as the vice president of the Institute of Transportation Engineers. She is also a member of the American Society of Civil Engineers, Transportation Research Board, American Planning Association, and the Urban Affairs Association.

Since August 2007, Oswald has been working at the University of Delaware University Transportation Center as a research and teaching assistant. Her master’s thesis focuses on sustainable transportation corridors and applying green design criteria to transportation planning. Oswald’s doctoral research focuses on adapting transportation practices to climate change. In addition to her dissertation research, she is involved in “Let’s Rebuild America,” a research project supported by the U.S. Chamber of Commerce that aims to develop a national infrastructure index, based on a methodology established in Oswald’s master’s thesis.

Oswald has been awarded the 2009 Dwight D. Eisenhower Transportation Fellowship, the 2008 Women Transportation Seminar’s Sylvia Alston Graduate Scholarship, and the 2008 American Council of Engineering Companies of Maryland Scholarship. She presented at the Annual Inter-University Symposium on Infrastructure Management and won the Best Paper Award, which qualified her to present at the 2009 and 2010 Transportation Research Board annual meeting. In 2008 she was awarded the Council of University Transportation Centers Student of the Year Award.

An athletic, as well as an academic achiever, Oswald was on the varsity swimming team all four years at Lafayette and was captain in her senior year. She was also a member of the Synchronmotion Dance Company and performed on campus and in the local community.
Anne Silverman received her Ph.D. in mechanical engineering from The University of Texas at Austin this past August and her M.S.E. in mechanical engineering from The University of Texas at Austin in 2007. She graduated summa cum laude with a B.S.E. in mechanical engineering from Arizona State University in 2005. Dr. Silverman’s graduate research is in biomechanics. She is working to identify compensatory muscular strategies in amputee walking, with the ultimate goal of improving overall mobility for amputees.

A member of the Society of Women Engineers since 2002, Dr. Silverman has held many leadership positions in SWE. As an undergraduate, she served as university relations officer, secretary, and president of her collegiate section, as well as a member of the Region B Conference Council in 2003. During her term as president, the Arizona State Collegiate Section organized the first “Lunch with the Professors” event and started a graduate student interest group, which increased SWE’s profile and visibility with the administration of Arizona State’s Ira A. Fulton School of Engineering. The section’s popular two-day Girl Scout event at the Arizona Science Center was the best attended to date, with 120 girls, ranging from ages 5 to 14, participating.

As a graduate student, Dr. Silverman has been an active member of the SWE graduate student community. She also has participated in many national conference panels, including “Surviving Your First Year of Graduate School” and “Graduate Student Involvement in SWE Collegiate Sections.” In 2008, Dr. Silverman co-founded and co-chaired The University of Texas at Austin (UT-Austin) Section graduate student committee, which provides support and professional development opportunities for graduate women in engineering and computer science and a community of mentors for undergraduate SWE members. This committee has grown considerably over the past two years and was recognized by SWE with the Professional Development Award at WE09 for graduate student programming events, such as “Entering Industry with a Graduate Degree” and “Meet and Greet with Young Faculty Members.”

Dr. Silverman was vice-chair of the mechanical engineering graduate student board at UT-Austin, as well as a member of ASME and Tau Beta Pi Engineering Honor Society. She is also a member of the American Society of Biomechanics, which consists of mechanical engineers, biomedical engineers, and health scientists. A recipient of a National Science Foundation Graduate Research Fellowship, she has presented her research findings at national conferences and written peer-reviewed journal articles.

Dr. Silverman volunteered, conducting biomechanics demonstrations, at many UT-Austin engineering outreach events, including Women in Engineering Program activities and Equal Opportunity in Engineering Program pre-college programs. She was honored with the 2009 WEP Champion Award for her volunteer efforts and for increasing graduate student professional development opportunities.

A resident of Austin, Texas, Dr. Silverman involves herself with the community by volunteering at the Austin Children’s Museum.
Katherine Gage graduated from California Polytechnic State University, San Luis Obispo in March with a B.S. in mechanical engineering. She is currently working as a mechanical engineer for the U.S. Navy. She was a member of the SWE California Polytechnic Collegiate Section and served as the Region B collegiate representative.

Gage has been an active SWE member since her freshman year of college. In her sophomore year, she took on the position of internal marketing director and was responsible for publicizing SWE events. In addition, she became a member and subgroup leader of Team Tech. The team designed a weld point inspection device for Walt Disney Imagineering, placing first at the SWE national conference in 2008.

The following year, she co-directed a new Team Tech project, finding an industry sponsor, interviewing and selecting team members, and managing the project. The team completed a prototype for an endoscopic surgery tool for Stryker Endoscopy on schedule. Less than two weeks before the conference, however, her co-director became ill, and responsibility for project completion fell to Gage. Determined that the team’s work be recognized, she put together a 15-minute oral presentation, which placed second in the national competition. In 2010, Gage was publications director for her SWE section, and took on the role of interim vice president of public relations when the incumbent had to leave unexpectedly.

As a freshman, Gage joined the American Society of Mechanical Engineers (ASME) and became its outreach director during 2009. Having participated in both SWE and ASME, she wanted the organizations to have a working relationship. To that end, she coordinated outreach events involving both ASME and SWE, including a successful joint barbeque, one of the first combined club events in several years.

As Region B collegiate representative, Gage made it a priority to ensure that every SWE section in Region B was in good standing with SWE headquarters. She helped collegiate sections with their tax information and, on a regional level, developed a survey to measure SWE member interest and use of each region’s SWE website blog.

Throughout college, Gage received many honors and awards for her work with SWE. This year she was nominated for the Region B Emerging Leader Award. She has received five scholarships through the Cal Poly Section. In addition, Gage received the Outstanding Service to the Community award by the mechanical engineering department of Cal Poly, SLO in spring 2010.

In addition to participating in SWE, as a freshman Gage competed on the university’s NCAA Division I swim team. This year, she began competing in triathlons. In her spare time, Gage enjoys traveling and would like to visit Europe someday.
Lesley Telford is a senior in the biomedical engineering program at California Polytechnic State University, San Luis Obispo (Cal Poly). She plans to work in research and development in cardiovascular technology when she graduates in June 2011 with both a bachelor’s and a master’s degree.

She has been a member of the Society of Women Engineers’ Cal Poly Collegiate Section since 2006. But SWE got her attention before that, when, as an admitted student, she shadowed an engineering student and spent a night in the dorms. That experience inspired her to do outreach work with SWE as a freshman. Her sophomore year, she became the SWE outreach director. The youngest officer ever to hold this position, she was in charge of planning events involving more than 150 students and 40 volunteers.

In her junior year, Telford was elected vice president of community outreach, in charge of six officers in the community outreach core. She secured $9,000 to fund four outreach events, the largest amount ever secured by one person in the Cal Poly Section. She also oversaw “Building an Engineer Day” and ran a portion of the event entitled “How to Help Your Child to College.” Through Telford’s efforts, the Cal Poly Section reached 1,300 students that year. At the 2009 national conference in Long Beach, Calif., SWE recognized the section’s outreach successes with the Outstanding Outreach Event/Series Award for a large section.

In 2009 Telford was elected president of the section, and since then has been responsible for all operations, including meeting with companies and managing leadership training for 48 officers. She devotes an average of 20 hours a week to her SWE duties. Telford arranged for 17 of her section officers to attend the 2009 national conference, where they took advantage of leadership training seminars and informational sessions. Telford also now serves on the Region B collegiate leadership coaching committee.

Telford is also an officer in the Cal Poly chapter of the Biomedical Engineering Society and has worked with the school’s engineering student council to give a presentation at the national ESC conference on how to secure funding for outreach events. In October 2009, she was nominated as an Outstanding Woman in Engineering through the Women’s Engineering Program at Cal Poly. In January 2009, SWE Region B awarded Telford the Collegiate Emerging Leader Award in recognition of her leadership, technical achievements, and dedication to K-12 outreach.

Telford spent two years on the Cal Poly women’s water polo team, which won national first place when she was a sophomore. She is now on the university’s master’s swim team and enjoys wakeboarding and snowboarding. An avid traveler, her favorite place is Paris, where she studied in 2008. In quiet moments, away from engineering, she likes to read and crochet.
Katie Tepper will graduate from the University of Missouri in May 2011 with both an industrial engineering degree and an M.B.A. She has had two engineering internships with the operations department for Hallmark Cards, and one internship with Honeywell FM&T as a production supervisor. She has a 4.00 GPA in engineering and received the Outstanding Junior Student award at the 2009 Missouri Engineering Honor Awards banquet, and the Gold Leadership Shield as part of the Chancellor’s Excellence Awards. Tepper earned scholarships from Alpha Pi Mu, the Society of Manufacturing Engineers, Tau Beta Pi, the Emerald Circle (Girl Scouts), and the Material Handling Education Foundation.

Tepper joined the Society of Women Engineers when she was a freshman. As a sophomore, she was elected Girl Scout Engineering Day coordinator. She worked with the local Girl Scout council to plan five engineering activities. She focused on finding unique and interesting activities, such as “asphalt cookies,” that would appeal to younger girls and teach them basic engineering concepts. As a lifetime member of Girl Scouts and a Gold Award recipient herself, Tepper was an excellent role model, as she encouraged the girls to stay involved in Girl Scouts and consider engineering as a future career.

Elected section president in her junior year, Tepper’s first project was to increase membership. She handed out “welcome-to-college” gifts and sent individual e-mails to first-year students. She worked to keep people interested in SWE by organizing social events, running meetings efficiently, and sending weekly e-mails about upcoming SWE events. She initiated an informal mentoring program and worked to improve professional development opportunities for her section. She did this by encouraging members to attend SWE conferences, increasing contact with the SWE professional section, bringing in speakers, and hosting networking activities. Under Tepper’s leadership, section membership doubled to 51 members; the section won the Outstanding Membership Recruitment Award; and it won the bid to host the 2010 Region i conference.

Reelected president in her senior year, Tepper continues her efforts to sustain membership growth among undergraduates, graduate students, and faculty. She helped plan the Region i conference by organizing speakers and leading a speed-mentoring session. Her leadership style fosters engagement and teamwork, ensuring the vitality of the section after she graduates.

Outside of SWE, Tepper is involved in Engineering Ambassadors, the M.B.A. Association, Mizzou Engineering Student Council, Tau Beta Pi, Alpha Pi Mu, and the Engineers Week Planning Board. She also plays the violin weekly as part of the Newman Center music ministry.
Jenny Tsao graduated from the University of Illinois at Urbana-Champaign (UIUC) in May with a B.S. in general engineering with a concentration in global manufacturing, and an international minor in engineering, concentrating in Latin America. After graduation, she joined the U.S. Postal Service in Washington, D.C., as a management associate in networking operations. In two years, she will outplace from the program to become an operations industrial engineer. She received an Industrial and Enterprise Systems Engineering Service Award for outstanding contributions to the department and the Caryn Terese Casaz Award for an outstanding female in general engineering. In addition, she has had internships with Baxter Healthcare and Boston Scientific where she has made significant contributions.

Tsao learned about the Society of Women Engineers when she was a senior in high school and visited UIUC for Little Sister Weekend. She joined SWE her first semester on campus and was recognized as a “Super SWEstEr” for her contributions to the section. She ran for office the next year and served as fundraising director for three semesters. She started several fundraising programs, including T-shirt sales and community day coupon booklet sales.

Elected president the next year, Tsao became even more involved and contributed to all aspects of the section. She promoted and helped to revamp the Night with Industry program to Night of Networking, encouraging collaboration with the Society of Hispanic Professional Engineers and the National Society of Black Engineers, increasing participation. To recruit volunteers for fundraising, Tsao initiated a successful collaboration between SWE and Alpha Omega Epsilon, a professional and social engineering sorority. This dovetailed with her goal to increase SWE’s interaction with other societies. The section won the Outstanding Collegiate Section Silver Award in recognition of its accomplishments.

While much of Tsao’s involvement with SWE was at the local level, she has had an impact on the regional level through her work with the Region H conference in 2010. She began working on the conference during her freshman year in 2006, gathering logistical information, working with sponsors, and helping piece together the bid. She was part of both bid presentations, and after winning the bid, she served as registration co-chair.

She was also actively involved in Alpha Omega Epsilon, in which she has held numerous offices. She was chosen to be the College of Engineering representative for a campus-wide diversity initiative. She worked in the College for recruitment and retention of underrepresented students in engineering. She was teaching assistant for the women’s mentoring course for female engineers, and coordinated events such as CASE Vision Day to introduce elementary school students with visual impairments to science and engineering.

Tsao enjoys giving back to the community. She helped at a Head Start program, volunteered at the Chicago Children’s Museum, and supervised children at the Center for Women in Transition.
Amanda Wachtel's interests and accomplishments are wide-ranging. In May, she graduated from The University of Alabama in Tuscaloosa with a B.S. in mathematics with an emphasis in statistics, minors in English and Italian, and a certificate in Global Studies. Earning a 4.0 GPA in both her major and overall, she graduated summa cum laude with honors. Beginning her studies in engineering and later changing to mathematics, Wachtel was actively involved in her SWE section during her four years at The University of Alabama (UA).

Demonstrating leadership abilities early in her college career, Wachtel made significant contributions of time, energy, and expertise to the UA SWE section. Soon after joining SWE in her freshman year, Wachtel was put in charge of registration for the 2007 Region D conference. She served as secretary in 2007-08, vice president of membership in 2008-09, and president in 2009-10. She won UA SWE’s Outstanding Sophomore, Junior, and Senior awards and was named a Distinguished Member every semester for her participation in a large number of Society activities. Wachtel was also active on the regional and national levels. She attended annual conferences in 2007, 2008, and 2009, and Region D conferences in 2007, 2008, 2009, and 2010. Wachtel was also a SWE Future Leader in the summer of 2007 and, as a result, is a graduate of the Lockheed Martin STARS Institute on Leadership.

Active in other engineering societies as she explored various facets of the profession, Wachtel was a member of ASME, the Society of Automotive Engineers, and the American Society of Civil Engineers. She participated in the 2007 ASME Student Design Competition. As a member of the ASME all-freshman student design team, she worked on designing and building a prototype of a human-powered water distiller. She has a strong interest in international relations, which spurred her to pursue UA’s Certificate in Global Studies. She spent the spring break of her senior year in Taiwan at WorldMUN, an international Model United Nations conference hosted by Harvard University.

Wachtel participated in two undergraduate internships — one in engineering and one in statistics. She was a 2007 summer intern in mechanical systems at Miltec in Huntsville, Ala., designing components using 3-D modeling software and designing mass property charts for analysis. During the summer of 2009, she was a biostatistics research intern at the University of North Carolina at Chapel Hill as part of the BSURE Program.

Originally from Las Cruces, N.M., Wachtel has accepted a position with Sandia National Laboratories in Albuquerque. Sandia will be supporting her pursuit of a master’s degree.
LOCATION
ASEE Headquarters, 1818 N. Street, NW, Suite 600, Washington DC 20036

SUMMARY
The Executive Director must be a compelling, articulate leader who effectively contributes to fulfilling ASEE’s vision of serving as the premier multidisciplinary society for individuals and organizations committed to advancing excellence in all aspects of engineering and engineering technology education. He or she will combine the ability to think and act strategically with substantial operational and fiscal skills. In concert with the Executive Committee of the ASEE Board of Directors, the Executive Director will help set the goals for the organization, commit to their achievement, and direct the activities necessary to ensure success. The position requires proactive management, sound fiscal judgment, and a commitment to inclusivity and diversity. The Executive Director must be able to inspire and guide a strong, experienced staff team and work collaboratively with the Board of Directors.

ESSENTIAL DUTIES AND RESPONSIBILITIES
The Executive Director shall
- provide visionary and exemplary leadership for ASEE
- adhere to the highest ethical standards and in all instances represent ASEE in a manner that reflects positively on the organization
- be responsible to and report directly to the Executive Committee and ultimately to the Board of Directors of ASEE
- collaborate with the Board and its leaders to provide strategic direction for ASEE and translate it into actionable goals
- establish and maintain policies and guidelines to ensure the fiscal viability of the society
- establish and maintain positive and constructive relationships with ASEE’s members and constituencies
- effectively lead and manage the staff and maintain positive staff morale
- interact collaboratively with the volunteers, members, and other persons or organizations benefiting ASEE’s mission
- work together with the volunteer leadership to ensure ASEE goals are met
- be responsible for ASEE business operations including staff performance and financial and controls
- foster a climate of inclusivity, continuous improvement, and member focus
- be actively committed to diversity throughout the total ASEE organization
- manage ASEE’s activities in accordance with ASEE’s governance documents and policies
- organize the staff, including position assignments and appropriate delegation of authority, to best enable ASEE to fulfill its objectives
- oversee and direct each of the organization’s functional areas, currently established as Membership, Finance, Human Resources, Administrative Services, International Programs, Projects, Information Technology, Conferences, Public Affairs, and Publications
- mentor staff members and provide opportunities and feedback to enable them to excel at their work
- evaluate the performance of employees and establish their compensation in accordance with mandates of the Executive Committee
- perform those executive duties necessary to present information and reports to the Board and its committees
- attend all Board meetings and, as warranted, meetings of any duly constituted entity of ASEE including Committees, Councils and other such groups as may be established
- perform additional executive duties consistent with the foregoing as designated from time to time by the Board

QUALIFICATIONS
To be successful in this position, an individual must be able to perform each essential duty with a high level of competence. The requirements listed below are representative of the necessary knowledge, skills, and abilities.
- **Personal Characteristics –**
  - A successful Executive Director must be
    - able to inspire others through words and deeds
    - ethical and must demonstrate high personal integrity
    - confident with a positive demeanor that engenders respect
    - accomplished in strategic thinking; capable of synthesizing emerging events and trends into a perspective relevant to the organization
    - committed to teamwork, recognizing the power of diverse skills and viewpoints
    - adept at collaboration; able to bring disparate groups together to forge a consensus
    - skillful in writing and speaking English; second language competence a plus
    - knowledgeable of higher education issues
    - familiar with international developments and comfortable dealing with global issues
    - devoted to lifelong learning
    - proficient in an electronic work environment and able to use available tools for communications, information management, and analysis
    - experienced in working with university-industry collaborations
- **Education**
  - an advanced degree, preferably an earned doctorate, in a field within ASEE’s sphere of interest
- **Experience**
  - minimum of ten years of progression in full-time leadership and management responsibility in complex organizations
- **Additional qualifications not required, but potentially beneficial**
  - knowledgeable of Engineering Education initiatives and Federal stakeholders in Engineering Education (e.g., NSF, NAE, DOD)
  - past or current employment at an institution of higher education
  - experience in professional society leadership positions
  - certifications such as registration as a Professional Engineer or other highly-regarded professional recognition

WORK ENVIRONMENT
The work environment is typical of an office setting and includes meetings at external locations. Domestic and international travel including overnight stays will be required. Other than for remote events, the job normally requires the presence of the Executive Director in the Washington DC, DuPont Circle area, Headquarters office, for ready interaction with the staff. ASEE is an equal opportunity affirmative action employer.

APPLICATION AND NOMINATION PROCESS
The Search Committee is soliciting nominations and applications. Please see the ASEE website at www.asee.org for additional information on this position. Interested candidates should send their resume (3-5 pages) and cover letter to:

**ASEE Executive Director Search Committee**
C/o Dr. Peggy Dolet
1818 N. St. NW, Suite 600
Washington, DC 20036

Or via email: humanresources@asee.org

Applications will be accepted through 11/15/2010. This position will be filled the 1st quarter 2011.
Spotlight on Students

SWE Freshman, Sophomore, Junior, Senior, and Graduate Scholarship Recipients

Ada I. Pressman Memorial Scholarship
Brittany Caldwell
Vanderbilt University
Ph.D. Program
Biomedical Engineering

Rachel Colbert
University of Florida
Master’s Program
Mechanical Engineering

Rachael Fischer
University of Missouri - Columbia
Master’s Program
Biological Engineering

Kimberly Homan
University of Texas at Austin
Ph.D. Program
Biomedical Engineering

Jennifer Johnson
Clemson University
Senior
Civil Engineering

Zaida Rico-Rolon
University of Puerto Rico-Mayagüez
Ph.D. Program
Civil Engineering

Admiral Grace Murray Hopper Memorial Scholarship
Michelle Chen
Massachusetts Institute of Technology
Freshman
Computer Science and Engineering

Harshini Jayaram
Massachusetts Institute of Technology
Freshman
Computer Science and Engineering

Jodi Loo
University of California, Berkeley
Freshman
Electrical and Computer Engineering

Anne Maureen Whitney Barrow Memorial Scholarship
Kathryn Geberth
University of Virginia
Junior
Mechanical Engineering

Baker Hughes Scholarship
Sha’La Fletcher
Wayne State University
Master’s Program
Mechanical Engineering

Katie Maass
University of Texas at Austin
Senior
Chemical Engineering

Urenna Onyewuchi
Georgia Institute of Technology
Ph.D. Program
Electrical Engineering

Bechtel Corporation Scholarship
Kathleen Lyons
Bradley University
Senior
Mechanical Engineering

Rachel Mok
Purdue University Calumet
Senior
Mechanical Engineering

Bertha Lamme Memorial Scholarship
Ruchika Gupta
University of California, Berkeley
Freshman
Electrical and Computer Engineering

B.J. Harrod Scholarship
Sarah Eade
Duke University
Freshman
Electrical Engineering

Katherine Warthen
Montana State University,
Bozeman
Freshman
Mechanical Engineering

BK Krenzer Memorial Reentry Scholarship
Karen Bustillo
University of California, Berkeley
Ph.D. Program
Materials Science and Engineering

Booz Allen Hamilton IT Scholarship
Elaine Wah
University of California, Los Angeles
Ph.D. Program
Computer Science

Booz Allen Hamilton Systems Engineering Scholarship
Christa Hixson
Virginia Polytechnic Institute and State University
Master’s Program
Industrial and Systems Engineering

Boston Scientific Scholarship
Emily Shao
Massachusetts Institute of Technology
Senior
Mechanical Engineering

Stephanie Smith
California Polytechnic State University, San Luis Obispo
Senior
Mechanical Engineering

Brill Family Scholarship
Ann Dietrich
University of Florida
Senior
Aerospace Engineering

Caterpillar Scholarship
Vanda Ametlli
Wayne State University
Master’s Program
Industrial Engineering

Charreau Bell
Clemson University
Master’s Program
Electrical Engineering

Calicia Johnson
Louisiana State University and A&M College
Master’s Program
Mechanical Engineering

Chevron Corporation Scholarship
Carolyn Pelnik
University of Virginia
Sophomore
Chemical Engineering

Chelsie Peterson
University of St. Thomas
Freshman
Mechanical Engineering

Marielis Suarez
University of Puerto Rico-Mayagüez
Freshman
Mechanical Engineering

Carly Wais
Stanford University
Freshman
Environmental Engineering

Claudia Wei
University of Texas at Austin
Sophomore
Chemical Engineering

Cummins Inc. Scholarship
Erica Nwankwo
Morgan State University
Senior
Electrical Engineering

Sheetal Pai
Carnegie Mellon University
Ph.D. Program
Chemical Engineering
Spotlight on Students

**Dell Inc. Scholarship**
Jennifer Catchpole
University of Wyoming
Senior
Computer Engineering

Sarah Selby
Kettering University
Senior
Mechanical Engineering

**Dorothy M. & Earl S. Hoffman Scholarship**
Santina Betti
Rensselaer Polytechnic Institute
Senior
Aeronautical Engineering

Hana Casalnova
Bucknell University
Freshman
Biomedical Engineering

Laura Even
Bucknell University
Freshman
Biomedical Engineering

Stefany FeKula
Rensselaer Polytechnic Institute
Freshman
Biomedical Engineering

Rachel Ferebee
Rensselaer Polytechnic Institute
Senior
Materials Engineering

Jennifer Forsyth
Rensselaer Polytechnic Institute
Junior
Electrical Engineering

Christina Garman
Bucknell University
Senior
Computer Science and Engineering

Rebecca Joseph
Bucknell University
Freshman
Civil Engineering

Brianna Kilberg
Rensselaer Polytechnic Institute
Freshman
Chemical Engineering

Michele Lynch
Rensselaer Polytechnic Institute
Sophomore
Chemical Engineering

Madeline Muench
Rensselaer Polytechnic Institute
Freshman
Materials Engineering

Jasmine Mullins
Rensselaer Polytechnic Institute
Freshman
Environmental Engineering

Meghan Olson
Rensselaer Polytechnic Institute
Freshman
Mechanical Engineering

Elizabeth Ramundo
Rensselaer Polytechnic Institute
Freshman
Mechanical Engineering

Nbyia Rasouly
Rensselaer Polytechnic Institute
Sophomore
Biomedical Engineering

Rosalie Shaw
Rensselaer Polytechnic Institute
Freshman
Mechanical Engineering

Jessica Stratton
Rensselaer Polytechnic Institute
Freshman
Civil Engineering

Lauren Tierno
Rensselaer Polytechnic Institute
Freshman
Industrial and Management Engineering

Rebecca Zell
Rensselaer Polytechnic Institute
Freshman
Mechanical Engineering

**Dorothy Lemke Howarth Scholarship**
Nikita Consul
Massachusetts Institute of Technology
Sophomore
Chemical Biological Engineering

Trystyn del Rosario
University of Virginia
Sophomore
Civil Engineering

Kaitlyn Clewer
Florida A&M/Florida State University
Sophomore
Civil Engineering

Ekaterina Paramonova
Massachusetts Institute of Technology
Sophomore
Nuclear Science and Engineering

Erin Strittmatter
University of Maryland, College Park
Sophomore
Civil Engineering

Courtney Young
Johns Hopkins University
Sophomore
Chemical and Biomolecular Engineering

Dorothy P. Morris Scholarship
Lauren Reinnoldt
Santa Clara University
Junior
Civil Engineering

DuPont Scholarship
Melissa McCoy
Georgia Institute of Technology
Junior
Chemical and Biomolecular Engineering

Caroline Morel
University of Michigan
Junior
Chemical Engineering

Electronics for Imaging Scholarship
Shruthi Baskaran
Stanford University
Junior
Electrical Engineering

Hanna Nilsson
Santa Clara University
Senior
Mechanical Engineering

Priya Shah
University of California, Berkeley
Ph.D. Program
Chemical Engineering

Jessica Vechakul
University of California, Berkeley
Ph.D. Program
Mechanical Engineering

Elizabeth McLean Memorial Scholarship
Joy Marsalla
Arizona State University
Senior
Civil Engineering

Exelon Corporation Scholarship
Emily Kolenbrander
University of Colorado at Boulder
Freshman
Mechanical Engineering

Colleen Rock
Massachusetts Institute of Technology
Freshman
Electrical Engineering and Computer Science

Jennifer Schmidt
Cornell University
Freshman
Mechanical Engineering

Anna Simpson
Princeton University
Freshman
Electrical Engineering

Nitya Timalsina
University of California, San Diego
Freshman
Mechanical Engineering

Ford Motor Company Scholarship
Karin Hanson
South Dakota State University
Junior
Mechanical Engineering

Rachel Lindsay
Purdue University
Freshman
Mechanical Engineering

Christine Orcutt
Western New England College
Junior
Industrial Engineering

Cynthia Sherman
University of Nevada, Reno
Junior
Electrical Engineering
## Spotlight on Students

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<tr>
<th>Scholarship</th>
<th>University</th>
<th>Major</th>
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<tr>
<td><strong>General Electric Women's Network Scholarship</strong></td>
<td>Alexis Avram</td>
<td>University of Texas at Austin, Aerospace Engineering</td>
</tr>
<tr>
<td>Rachel Barch</td>
<td>University of Michigan, Sophomore, Mechanical Engineering</td>
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</tr>
<tr>
<td>Kuan Cheng</td>
<td>Massachusetts Institute of Technology, Junior, Mechanical Engineering</td>
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</tr>
<tr>
<td>Aubrey Colter</td>
<td>Massachusetts Institute of Technology, Sophomore, Computer Science and Engineering</td>
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<tr>
<td>Miriam Efken</td>
<td>Rensselaer Polytechnic Institute, Sophomore, Aeronautical Engineering</td>
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<tr>
<td>Araz Garakanian</td>
<td>University of Texas at Austin, Junior, Mechanical Engineering</td>
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<tr>
<td>Rana Hanocka</td>
<td>Rensselaer Polytechnic Institute, Junior, Electrical Engineering</td>
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<tr>
<td>Nicole Legenski</td>
<td>Pennsylvania State University, Junior, Electrical Engineering</td>
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<tr>
<td>Julia Liston</td>
<td>Purdue University, Sophomore, Electrical Engineering</td>
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<tr>
<td>Jordan Loar</td>
<td>University of Florida, Junior, Mechanical Engineering</td>
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<tr>
<td>Danielle Perdue</td>
<td>Ohio State University, Sophomore, Mechanical Engineering</td>
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<tr>
<td>Bonnie Stern</td>
<td>Texas A&amp;M University, Junior, Mechanical Engineering</td>
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<tr>
<td>Majdouline Touil</td>
<td>University of Massachusetts, Junior, Industrial Engineering</td>
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<tr>
<td>Julie Wamsler</td>
<td>University of Notre Dame, Junior, Computer Science</td>
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<tr>
<td>Rosalie Wills</td>
<td>University of Maryland, College Park, Sophomore, Mechanical Engineering</td>
<td></td>
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<tr>
<td>General Electric Women's Network Querétaro, Mexico Scholarship</td>
<td>Sandra Fabela Moreno</td>
<td>Instituto Tecnológico de Estudios Superiores de Monterrey (ITESM) (Campus Querétaro), Sophomore, Industrial Engineering</td>
</tr>
<tr>
<td>General Motors Scholarship</td>
<td>Lisa Anne Hendricks</td>
<td>Rice University, Sophomore, Electrical Engineering</td>
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<tr>
<td>Whitney Hopple</td>
<td>Oregon State University, Sophomore, Mechanical Engineering</td>
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<tr>
<td>Lauren Newbert</td>
<td>Rowan University, Junior, Mechanical Engineering</td>
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</tr>
<tr>
<td>Goldman, Sachs &amp; Co. Scholarship</td>
<td>Karin Bodnar</td>
<td>University of Akron, Senior, Electrical Engineering</td>
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<tr>
<td>Courtney Gras</td>
<td>University of Akron, Senior, Electrical Engineering</td>
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<tr>
<td>Katherine Heinzen</td>
<td>University of Notre Dame, Senior, Electrical Engineering</td>
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<tr>
<td>Xiaoxiao Zhang</td>
<td>Texas A&amp;M University, Senior, Electrical Engineering</td>
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<tr>
<td>Honeywell International, Inc. Scholarship</td>
<td>Jocelyn Kishi</td>
<td>California Institute of Technology, Freshman, Electrical Engineering</td>
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<tr>
<td>Divya Nagarkar</td>
<td>Georgia Institute of Technology, Senior, Chemical and Biomolecular Engineering</td>
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<tr>
<td>IBM Corporation Scholarship</td>
<td>Elizabeth Cloos</td>
<td>Michigan Technological University, Junior, Electrical Engineering</td>
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<tr>
<td>Amber Higgins</td>
<td>University of New Haven, Junior, Electrical Engineering</td>
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<tr>
<td>Laura Marxkors</td>
<td>Saint Louis University, Junior, Electrical Engineering</td>
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<tr>
<td>Sarah McMahon</td>
<td>South Dakota State University, Junior, Mechanical Engineering</td>
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<tr>
<td>IIllinois Tool Works Scholarship</td>
<td>Andrea Fraga</td>
<td>Northwestern University, Senior, Mechanical Engineering</td>
</tr>
<tr>
<td>Bailey Lynch</td>
<td>Purdue University, Junior, Mechanical Engineering</td>
<td></td>
</tr>
<tr>
<td>ITT Scholarship</td>
<td>Whitney Lohmeyer</td>
<td>North Carolina State University, Senior, Aerospace Engineering</td>
</tr>
<tr>
<td>Kimberly Ohn</td>
<td>Purdue University, Senior, Chemical Engineering</td>
<td></td>
</tr>
<tr>
<td>Ivy M. Parker Memorial Scholarship</td>
<td>Erica Schuff</td>
<td>University of Nevada, Reno, Senior, Civil Engineering</td>
</tr>
<tr>
<td>Jill S. Tietjen, P.E. Scholarship</td>
<td>Ashley Golden</td>
<td>University of California, San Diego, Master's Program, Aerospace Engineering</td>
</tr>
<tr>
<td>Judith Resnik Memorial Scholarship</td>
<td>Danielle Grage</td>
<td>University of Cincinnati, Senior, Aerospace Engineering</td>
</tr>
<tr>
<td>Lillian Moller Gilbreth Memorial Scholarship</td>
<td>Lonna Gordon</td>
<td>Polytechnic Institute of New York University, Senior, Chemical and Biological Engineering</td>
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Spotlight on Students

Lockheed Martin Corporation Scholarship
Ann Hewitt
University of Pennsylvania
Freshman
Chemical and Biomolecular Engineering

Asya Hollins
University of California, Los Angeles
Freshman
Civil Engineering

Lydia I. Pickup Memorial Scholarship
Katharine Brumbaugh
University of Texas at Austin
Master’s Program
Aerospace Engineering

Mary V. Munger Memorial Scholarship
Elizabeth Cole
Carnegie Mellon University
Junior
Chemical Engineering

MASWE Memorial Scholarship
Olga Beltsar
University of Notre Dame
Senior
Civil Engineering

Mei Yi Cheung
Columbia University in the City of New York
Senior
Mechanical Engineering

Jacalyn Ouellette
George Washington University
Senior
Biomedical Engineering

Patricia Schuster
University of Michigan
Senior
Nuclear Engineering and Radiological Sciences

Meridith Thoms Memorial Scholarship
Ayesha Athar
University of Illinois at Urbana-Champaign
Senior
Nuclear Engineering

Laura Divel
University of Notre Dame
Senior
Civil Engineering

Lindsey Knake
University of Iowa
Senior
Biomedical Engineering

Beatris Rusu
Arizona State University
Senior
Computer Systems Engineering

Kelly Shelden
Northwestern University
Junior
Biomedical Engineering

Northrop Grumman Foundation Scholarship
Katherine Fisher
Ohio State University
Junior
Industrial and Systems Engineering

Hannah Henningsgaard
University of Maryland, College Park
Junior
Mechanical Engineering

Barbara Hubler
Ohio State University
Senior
Mechanical Engineering

Chantale Levert
Ohio State University
Senior
Mechanical Engineering

Kathryn Olesnavage
Massachusetts Institute of Technology
Sophomore
Mechanical Engineering

Olive Lynn Salembrer Memorial Reentry Scholarship
TBA

Rockwell Automation Scholarship
Gabrielle Hendrix
Milwaukee School of Engineering
Junior
Computer Engineering

Tina Setter
Ohio State University
Junior
Electrical Engineering

Rockwell Collins Scholarship
Ashanti Balouki
Illinois Institute of Technology
Junior
Computer Science

Magdalena Bielinski
Drexel University
Junior
Electrical Engineering

Hazel Yuksel
Duke University
Junior
Electrical and Computer Engineering

Solar Turbines Scholarship
Miranda Goelz
Purdue University
Freshman
Mechanical Engineering

Susan Miszkowicz Memorial Scholarship
Ellen Tworowski
Carnegie Mellon University
Senior
Materials Science and Engineering

SWE Boston Section Scholarship
Amy Sauger
Northeastern University
Junior
Mechanical Engineering

SWE Central New Mexico Section Scholarship
Breanne Dunaway
New Mexico Institute of Mining and Technology
Senior
Petroleum and Natural Gas Engineering

Jessica Overby
New Mexico State University
Ph.D. Program
Industrial Engineering

Symantec Corporation Scholarship
Heather Czajkowski
University of Dayton
Senior
Electrical Engineering

SWE Mid-Hudson Section Scholarship
Laura Bendernagel
Columbia University in the City of New York
Junior
Earth and Environmental Engineering

SWE New Jersey Section Scholarship
Sarah Masters
University of Delaware
Freshman
Mechanical Engineering

SWE Past Presidents Scholarship
Jean Parks
University of Colorado at Boulder
Ph.D. Program
Civil Engineering

Amanda Zimmerman
Georgia Institute of Technology
Ph.D. Program
Biomedical Engineering

SWE Phoenix Section Scholarship
Andrea Hall
Arizona State University
Junior
Mechanical Engineering

SWE Region H Scholarship
Kimberly Miller
University of Wisconsin-Madison
Junior
Chemical Engineering

Kathryn Schlichting
Iowa State University
Master’s Program
Materials Engineering

TBA
The Department of Aerospace Engineering and Mechanics seeks to fill two tenure-track positions at the assistant professor level. One position is in the area of aerospace systems and the second is in the area of fluid mechanics. Applications are invited in all areas of aerospace systems and fluids, particularly those that complement the current research activities in the department, and bridge current and emerging fields.

Current research activities in the aerospace systems area include robust control, optimization, navigation, guidance and advanced computer software methods as applied to the design and operation of aircraft, spacecraft and autonomous vehicles.

Current research activities in the fluid mechanics area include turbulent flows, multi-phase flows, micro-scale flows, computational fluid dynamics, rarefied flows, and high-temperature gas dynamics.

Successful candidates for both positions will participate in all aspects of the department's mission, including teaching at the undergraduate and graduate levels, supervision of undergraduate and graduate students, service responsibilities, and will be expected to develop an independent, externally-funded research program. In particular, the candidates will be expected to teach aerospace engineering courses including service courses in mechanics and undergraduate and graduate courses in fluid mechanics or aerospace systems.

Applicants must have an earned doctorate in a related field by the date of appointment. Experience beyond the doctorate degree is desirable. Although our focus will be at the rank of Assistant Professor, exceptional candidates will be considered at the rank of associate or full professor. It is anticipated that the appointment will begin fall 2011.

To apply for this position, candidates must go to http://www1.umn.edu/ohr/employment/index.html and search for requisition no. 168679. Please attach your letter of application, detailed resume, names and contact information of three references.

Application Deadline: The initial screening of applications will begin on December 1, 2010; applications will be accepted until the position is filled.

The University of Minnesota is an equal opportunity educator and employer.

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**Department of Electrical and Computer Engineering**

The Department of Electrical and Computer Engineering, University of Utah, Salt Lake City, seeks applications to fill one or more tenure-track positions at all levels. We are particularly interested in candidates with expertise in analog and mixed-signal electronic circuits; electric power system dynamics; focus on distribution system and micro-grid; and RF/microwave electromagnetics. Outstanding applicants in other areas will also be considered. Information on department research activities and curricula may be found on the web at www.ece.utah.edu.

Faculty responsibilities include developing and maintaining an internationally recognized research program, effective classroom teaching at the undergraduate and graduate levels, and professional service. Résumés with names and contact information for at least three references should be sent to Ms. Debbie Sparks, Faculty Search Committee, University of Utah, Electrical and Computer Engineering Department, at dsparks@ece.utah.edu.

Applications will be reviewed starting November 1, 2010, and will be accepted until the positions are filled. Applicants must hold a Ph.D. by the time of appointment. The University of Utah values candidates who have experience working in settings with students from diverse backgrounds and possess a strong commitment to improving access to higher education for historically underrepresented students.

The University is fully committed to affirmative action and to its policies of nondiscrimination and equal opportunity in all programs, activities, and employment. Employment decisions are made without regard to race, color, national origin, sex, age, status as a person with a disability, religion, sexual orientation, gender identity or expression, and status as a protected veteran. The University seeks to provide equal access for people with disabilities. Reasonable prior notice is needed to arrange accommodations. Evidence of practices not consistent with these policies should be reported to: Director, Office of Equal Opportunity and Affirmative Action, 801-581-8365 (V/TDD).

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**Spotlight on Students**

Rachael Harding  
Carnegie Mellon University  
Senior  
Electrical and Computer Engineering

Omobola Thomas  
Indiana University-Purdue University Fort Wayne  
Senior  
Electrical Engineering

The Betty Lou Bailey Region F Scholarship  
Mackenzie Osypian  
State University of New York  
Senior  
Forest Engineering

The Kellogg Company Scholarship  
Sarah Clark  
University of Michigan  
Sophomore  
Chemical Engineering

Natalie Spencer  
Embry-Riddle Aeronautical University  
Junior  
Mechanical Engineering

United States Steel Corporation Scholarship  
Taliah Buford  
Alabama A&M University  
Junior  
Electrical Engineering

Kelsey Dunn  
University of Alabama  
Junior  
Mechanical Engineering

Sarah Gilbertson  
University of Minnesota-Twin Cities  
Junior  
Mechanical Engineering

Jill Hoover  
University of Alabama  
Senior  
Mechanical Engineering

Chelsea Newgord  
Colorado School of Mines  
Junior  
Geophysical Engineering

Verizon Foundation Scholarship  
Yi Li  
University of Southern California  
Ph.D. Program  
Computer Science

Asmae Mhasni  
Cornell University  
Master’s Program  
Mechanical Engineering

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*Employers in bold are SWE Magazine Heritage Club Members*
Make every day extraordinary by helping improve millions of lives with new medical technologies.

At Boston Scientific, the collective contribution of each employee has a profound impact on the quality of medical care around the world. As a leading medical device organization located in over 45 countries, our cutting-edge medical device products help clinicians improve the quality of life for patients worldwide.

Boston Scientific is proud to serve on the Society of Women Engineers Corporate Partnership Council and sponsor the 2010 Conference and Career Fair in Orlando, Florida. Please be sure to visit the Boston Scientific Booth to learn more about the exciting career opportunities we have available for you. Please go to www.BostonScientific.com for more information.

To learn more about career opportunities, please visit our careers page at www.bostonscientific.com and click on the Job Search link.

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Call for Participation is Now Open

There will be more than 5,000 women engineers and technologists at WE11, at all career stages. Take the opportunity to get your message out.

Delivering a lecture presentation, workshop or panel discussion at WE11 will position you and your organization as an industry-leading expert with the power to strengthen the field of engineering. Gain visibility as a diversity advocate and demonstrate your company’s support of the advancement of women’s vital role in engineering.

Audiences:
- Collegians and recent graduates
- Emerging technical leaders
- Experienced technical professionals
- Seasoned technical leaders, managers and educators
- Executives and entrepreneurs
- Academics and thought leaders

Session Tracks:
- Outreach
- Careers in Academia
- Career and Life Transitions
- Management and Strategy
- Careers in Government and Military
- Inclusion and Cultural Awareness
- Innovation in Technology and Business

Local Tours
Is your organization located in Chicago? SWE is seeking companies willing to provide technical tours during WE11.

Visit swe.org/WE11participate for submission requirements and online submittal.
The Career Enhancement Series (CES) is a special professional track taught by professional subject matter experts, designed to help participants develop expertise and hone their skill sets in a variety of subject areas such as management strategy, leadership development, work/life balance, communication skills, and more! CES classes are accredited by the Society of Women Engineers through the International Association for Continuing Education and Training (IACET) and have additional registration fees. Certificates of completion will be awarded after a course is completed. Course fees include the transcription record and CEU credit. Below is a full list of the CES courses we are offering this year.

SWE has been approved as an Authorized Provider by the IACET: 1760 Old Meadow Road, Suite 500, McLean, Va. 22102, 703.506.3275. In obtaining this approval, SWE has demonstrated that it complies with the ANSI/IACET 1-2007 Standard, which is recognized internationally as a standard of good practice.

As a result of its Authorized Provider membership status, SWE is authorized to offer IACET CEUs for its programs that qualify under the ANSI/IACET 1-2007 Standard.

### Critical Success Factors for New Managers

**Speaker:** Aleen Bayard, MarketZing  
**Wednesday, November 3**  
**Cost:** $200  
**CEU Credit:** 0.4  
**Orange County Convention Center, W240C**

New and mid-level managers face unique challenges. How do you successfully transition from being an effective individual contributor to leading a project team? This workshop will provide practical, actionable tips on giving feedback, handling conflict, “managing up,” empowering teams and sharpening your political/organizational savvy. Note that attendees should read *What Got You Here, Won’t Get You There,* by Marshall Goldsmith, prior to the session. Attendees will walk away with a comprehensive understanding of the five key attributes to building strong teams, as well as a personal management action plan to ensure that training is transformed into results.

*Aleen Bayard* is founder and principal of MarketZing, a national business consulting practice focused on marketing strategy, communication, and leadership development. Bayard also serves on the faculty of Northwestern University, teaching a variety of leadership and OB courses, as well as Lake Forest Graduate School of Management, where she teaches executive success skills in the M.B.A. program. Bayard holds a B.A. in communication from Stanford University and an M.S. from Columbia University, N.Y.; an M.S. from Northwestern University in learning and organizational change; and is DISC certified. Prior to forming MarketZing, Bayard held executive positions with Ketchum, A.T. Kearney, and U.S. Equities Realty.

### My Career Needs a GPS!

**Speakers:** Danielle Forget Shield, P.E., C.E., president, 825 Basics LLC, and Tricia Berry, executive vice president, 825 Basics LLC  
**Wednesday 8:00 a.m. – 12:00 p.m.**  
**Cost:** $195  
**CEU Credit:** 0.4  
**Orange County Convention Center, W240B**

In this innovative workshop, engage in fun, interactive, and high-energy learning to help you find direction for your career. Examine the mindsets and life trends that frame your accomplishments, goals, and career pursuits. Gain an enhanced understanding of your interests, values, and goals and their ties to your personal career satisfaction, energy, and success. Create a personal action plan — your own GPS — and build a foundation for career and life decisions. Participants will: discover the power of personal action planning and the five steps for action planning success; understand CareerPE™ Toolbox techniques and tools to explore career directions; learn the four key pieces of information to include in an introduction; understand themselves better through role model identification and an interactive “fake job” exercise; engage in the eight steps to successful goal setting — and goal accomplishment; and learn the four basic storage areas for career information and how to use them to their advantage.

**Tricia Berry,** executive vice president, 825 Basics LLC, has 18 years of varied experience in career coaching, large volunteer program management, professional speaking, and workshop and training development and implementation. Berry received her B.S. in engineering from the University of Texas at Austin and her M.B.A. from the University of Houston-Clear Lake. She is the director of the Women in Engineering Program at UT Austin, where she leads recruitment and retention efforts of women. Prior roles include director of the engineering scholarship program and a process engineer and a product development engineer for The Dow Chemical Company.

**Danielle Forget Shield, P.E., C.E.,** is president of 825 Basics LLC. She has more than 10 years of experience in entertaining presentations, workshop development, career coaching, and organizational management. Her excitement comes from implementing the methods she teaches and seeing those she has mentored successfully navigate their careers.
Managing Others: With or Without Direct Authority  
Speaker: Jo Miller, Women’s Leadership Coaching™ Inc.  
Wednesday 1:00 – 5:00 p.m.  
Cost: $200  
CEU Credit: 0.4  
Orange County Convention Center, W240B  
It is every emerging leader’s quandary: You can’t get a higher-level job with leadership experience, but you can’t get the experience without the job. Have you ever wondered how to break out and demonstrate leadership potential, when you lack the leadership job title? A leader is someone who makes a greater difference than one person can make alone. In this workshop, add to your leadership toolkit with ways to engage the collaboration of others. You will learn ways to motivate and lead individuals and teams, regardless of whether they report directly to you. You will also learn: what leaders do that other employees do not; how to be an everyday visionary; how to win “buy-in”; how to manage your performing; and how to lead your leaders and manage upward.

Jo Miller is CEO of Women’s Leadership Coaching™ Inc. She has a passion for helping women develop their leadership skills, confidence, and presence, and specializes in helping women break into leadership in industries that have been traditionally considered “a man’s world,” such as technology, finance, and energy. Since 1998, Miller has developed and implemented coaching programs that have benefited women worldwide. She created the Women’s Leadership Coaching Inc. leadership coaching system, and has logged many thousands of hours coaching women who are in executive and management positions, or aspire to be. She has also traveled widely in Europe and the U.S. to facilitate leadership development programs for women’s initiatives in Fortune 1000 companies.

Yes, I Am the Only One  
Speaker: Debra Coleman, The Boeing Company  
Wednesday 1:00 – 5:00 p.m.  
Cost: $95  
CEU Credit: 0.4  
Orange County Convention Center, W240C  
While you may be the “only one” in the group, you are still part of the group with the same education, knowledge, and skills as everyone else, so get out there and perform! Take charge! And show your stuff! We all have more in common than any differences we may have. There is no “I” or “us versus them” in team. We all have to come together to get the job done.

Participants will: learn the importance of teamwork; understand why they were hired to gain results, not win a popularity contest; and understand that we all have more in common than differences. This session is appropriate for graduate students and technical professionals.

Debra Coleman has worked for The Boeing Company for the past 20 years as an electrical engineer, currently in electrical subsystems in the payloads organization. She has held increasingly responsible engineering positions with Boeing on both the commercial and defense business units in such organizations and programs as avionics, payloads, customer engineering, and derivative airplanes.

Thursday, November 4

Beating the Odds in Successful Strategic Planning  
Speaker: Beth Michaels, Primer, Michaels and Associates  
Thursday 8:00 a.m. – 12:00 p.m.  
Cost: $250  
Limit: 40  
CEU Credit: 0.4  
Orange County Convention Center, W240C  
While most professionals are well aware that strategic and goal planning are core leadership responsibilities, they may not realize the high risk of failure that characterizes this important endeavor. More than 80 percent of plans fail to be successfully executed. Most plans end up shelved, with bad memories of precious resources wasted. Most people have not experienced the real value that good planning and execution can bring. Even when lessons are learned, the next planning cycle is usually greeted with resistance and skepticism. The good news in this high-risk scenario is that strategic planning and execution successes have been thoroughly researched and documented. This session will demystify good strategic planning and equip leaders with the key concepts and tools they can use when they return to their teams. The core purpose of this session is to clarify the key distinctions between plans that work and those that don’t, based on solid research and practical approaches that have a successful track record across a number of industries.

Beth Michaels is principal and lead consultant for Primer, Michaels and Associates, a management consulting firm specializing in leadership, culture, and short-term strategic planning and implementation. She earned her bachelor’s degree from the University of Michigan and her master’s from the University of Illinois at Urbana-Champaign. In 2003, Wiley Publications released Michaels’ first book, Investment Leadership: Building a Winning Culture for Long-Term Success, which has resulted in worldwide interest and two translations. The book was the first on leadership for the financial industry.
Friday, November 5

Breakthrough to Your Abundant Career Success! How to Shift Your Career to Do More of What You Love with the People You Love
Speaker: Kathy Caprino, Ellia Communications Inc.
Friday 8:00 a.m. – 12:00 p.m.
Cost: $250
Limit: 40
CEU Credit: 0.4
Orange County Convention Center, W240D

An alarming number of women become dissatisfied mid-career, believing their professional identities are no longer positive, meaningful, or proactive. This sudden disempowerment can be devastating, disorienting, and paralyzing, and very little support currently exists. Career transition coach Kathy Caprino offers a new road map for overcoming this dissatisfaction or disempowerment and offers help in quickly reclaiming your personal strength, confidence, purpose, and self-efficacy. As a participant of this course, you will develop the knowledge and skills to navigate, evaluate, and walk away from any present or future crisis. Based on Caprino’s groundbreaking work and book for women, Breakdown, Breakthrough (included with course), and her new national research on Women Succeeding Abundantly, this powerful seminar draws on Caprino’s proven six-step model for creating abundant inner and outer career success and fulfillment.

Kathy Caprino is a nationally recognized women’s work/life expert, career coach, and author of Breakdown, Breakthrough: The Professional Woman’s Guide to Claiming a Life of Passion, Power, and Purpose. President of Ellia Communications Inc., a Connecticut-based career and work/life consulting company dedicated to helping women achieve breakthrough to abundant success, Caprino is a former corporate executive, a trained psychotherapist, seasoned career and life coach, and sought-after writer and speaker on women’s issues. She is a popular blogger on women in business, workplace, and career topics and trends, and, as a top media source, she has appeared in more than 100 leading newspapers and magazines and on national television.

Communication Success for Women Engineers
Speakers: Suzanne Guthrie and Jim Hornickel
Friday 8:00 a.m. – 12:00 p.m.
Cost: $250, or $395 when combined with Negotiating Success for Women Engineers
Limit: 40
CEU Credit: 0.4
Orange County Convention Center, W240C

This practical session will help participants move their communication to a higher level of ease and effectiveness. The Communication Success for Women Engineers™ program builds knowledge and skills about communication styles, organizing techniques, presentation prowess, and professional impact.

Suzanne Guthrie is an experienced facilitator of communication workshops. She is co-founder of Bold New Directions, a transformational learning organization that helps professionals grow through three pillars of success: leadership, communication, and resilience. Guthrie has delivered business communication training to thousands of professionals in corporate America, educational organizations, and nonprofits. Her educational background includes a master’s degree from the University of Toronto, a diploma in advanced communication, and post-graduate education from Harvard University.

Jim Hornickel brings more than 20 years of professional and personal experience in leadership, management, coaching, corporate training, and transformation to his service. His passion is to inspire people to take bold new directions in their lives for increased fulfillment and professional success. Hornickel is the author of the newly published management development book, Managing from the Inside Out, available in electronic and paper versions. Hornickel earned a B.A. in management and is a graduate of the innovative Coaches Training Institute in California. He has also studied mediation, leadership, training, and counseling and utilizes this knowledge base in his work. In his previous roles he has facilitated training on sales, negotiations, supervision, management, customer service, and more.

Outrageous Thinking and Other Acts of Creative Wizardry for Solving Problems
Speaker: Anne Miller
Friday 8:00 a.m. – 12:00 p.m.
Cost: $200
Limit: 40
CEU Credit: 0.4
Orange County Convention Center, W240B

“A plain iron bar is worth $5. If you make horseshoes from it, the value increases to $10. If you make needles, it is $3,285. If a watch springs, it is $250,000. The difference between $5 and $250,000 is creativity.” – Anonymous. On a professional basis, you are responsible for achieving specific results. Routine matters take care of themselves, but what happens when you need a fresh idea on how to solve a problem, improve a process, sell an idea, or resolve some dicey people or client issue? The key is to step back and strategize differently. This course offers training in techniques for constant renewal of your creative thinking and energies. Outrageous Thinking will refine and refresh your problem-solving powers and turn business-as-usual into business-as-unusual from now on. Attend this workshop with a current problem and leave with specific new ideas to solve it.

Over the course of 20 years, Anne Miller has earned a reputation for her original approaches to broadening the thinking and skill sets of even the most skeptical participants. She runs her programs with a deep understanding of learning theory and a passion for,
and knowledge of, the art and science of professional selling and presentations. Miller is the author of *Metaphorically Selling: How to Use the Magic of Metaphors to Sell, Persuade, and Explain Anything to Anyone, Presentation Jazz, 365 Sales Tips for Winning Business;* her own newsletters, “The Metaphor Minute” and “Make What You Say, Pay”; and numerous articles on the Internet and in business publications such as *Brandweek* and *Selling Power.* Both “NBC Today” in New York and “Bloomberg News Radio” have featured her on their shows.

**High Impact Leadership Skills for Mid-career Women**  
**Speaker:** Gail Golden, Ph.D., Gail Golden Consulting LLC  
**Friday 1:00 – 5:00 p.m.**  
**Cost:** $250  
**CEU Credit:** 0.4  
**Orange County Convention Center, W240D**  
Recent research has demonstrated that many women business leaders display a skill set that makes them especially capable of managing others. Abilities such as accurate decoding of nonverbal cues enable women leaders to communicate with and engage others effectively. At the same time, many women leaders continue to struggle against biases and perceptions that can limit their career progress and reduce their organizational impact. These stereotypes are especially apparent for mid-career women. In addition to the barriers that all women leaders face, mid-career women have the additional challenge of dealing with age biases. Too often, highly experienced and talented women leaders are stereotyped as “office moms;” passed over for high-visibility roles, or find they have difficulty getting their voices and their opinions heard. Women leaders frequently feel isolated when they confront these challenges. Recognizing the patterns and developing the skills to continue to be A-players is not only good for women leaders — it is also good for their companies, which will continue to derive the benefits from fully engaged senior female leadership talent.

**Gail Golden, Ph.D.**, is the principal of Gail Golden Consulting LLC. As a psychologist and consultant for more than 20 years, she has developed deep expertise in helping businesses to build better leaders. Her experience as an entrepreneur, business owner, and consultant to senior leaders of both Fortune 1000 and nonprofit organizations informs her approach to executive selection and development. She received her bachelor’s degree in psychology from the University of Chicago, her Ph.D. in clinical psychology from Indiana University, and her M.B.A. from the University of Western Ontario. Dr. Golden has extensive experience as a university teacher, public speaker, and media commentator. She teaches at the Booth School of Business at the University of Chicago, and has been quoted in *Forbes, The Wall Street Journal, Today’s Chicago Woman,* and numerous other publications.

**How to Create, Market, and Role Model a Powerful Personal Brand**  
**Speaker:** Sherri L. Thomas, Intel Corporation  
**Friday 1:00 – 5:00 p.m.**  
**Cost:** $95  
**CEU Credit:** 0.4  
**Orange County Convention Center, W240B**  
The key to a successful career in engineering is understanding which of your passions, strengths, and successes a company or industry values, and then creating career opportunities in which you are recognized and appreciated for your talents. This workshop provides the strategies and framework to teach engineering professionals and executives how to successfully build a powerful personal brand and put yourself in high demand with managers, clients, senior executives, industry experts, and potential employers. Workshop attendees will learn strategies for: managing perceptions – how to create and deliver consistent effective messages to senior managers, customers, and potential employers; networking strategically – strategies and scripts for building powerful professional relationships with four types of career influencers who could help you advance your career; and promoting yourself tactfully and graciously – 12 ways to strengthen your visibility and credibility with those who could help promote you, hire you, or introduce you to others who could potentially hire you.

**Sherri L. Thomas** has worked for three Fortune 500 companies, including Intel Corporation. Thomas specializes in marketing, branding, and management development as well as serving as one of Intel’s leaders in career development. Thomas is an international speaker and is interviewed regularly by the media for career strategies, including five interviews with *The Wall Street Journal.*

**Negotiating Success for Women Engineers**  
**Speakers:** Suzanne Guthrie and Jim Hornickel  
**Friday 1:00 – 5:00 p.m.**  
**Cost:** $250, or $395 when combined with Communication Success for Women Engineers  
**Limit:** 40  
**CEU Credit:** 0.4  
**Orange County Convention Center, W240C**  
Many engineers are not trained in the techniques and practices of successful negotiations. This program takes participants on a step-by-step overview of the phases and practical application of negotiation tools.

**Suzanne Guthrie** is an experienced facilitator of communication workshops. She is co-founder of Bold New Directions, a transformational learning organization that helps professionals grow through three pillars of success: leadership, communication, and resilience. Guthrie has delivered business communication training to thousands of professionals in corporate America, educational organizations, and nonprofits. Her educational
Career Enhancement Series (CES) Workshops

background includes a master’s degree from the University of Toronto, a diploma in advanced communication, and postgraduate education from Harvard University.

Jim Hornickel brings more than 20 years of professional and personal experience in leadership, management, coaching, corporate training, and transformation to his service. His passion is to inspire people to take bold new directions in their lives for increased fulfillment and professional success. Hornickel is the author of the newly published management development book, Managing from the Inside Out, available in electronic and paper versions. Hornickel earned a B.A. in management and is a graduate of the innovative Coaches Training Institute in California. He has also studied mediation, leadership, training, and counseling and utilizes this knowledge base in his work. In his previous roles he has facilitated training on sales, negotiations, supervision, management, customer service, and more.

Saturday, November 6

Breaking the Cycle of Stress: Martial Arts for the Mind
Speakers: David Gamow and Karen Gamow, Clarity Seminars
Saturday 8:00 a.m. – 12:00 p.m.
Cost: $175
CEU Credit: 0.4
Orange County Convention Center, W240C

Gain clarity of mind and an increased capacity to meet and overcome life’s challenges. This nationally recognized training, also used at NASA, is at the cutting edge of stress reduction. It provides a combination of cognitive training for getting at the root causes of stress, along with powerful breathing, relaxation, and meditation techniques. These methods have been clinically proven at Harvard and MIT to reduce blood pressure, and reduce or eliminate chronic pain and insomnia, reduce errors on the job, improve communication with others, and increase concentration. Participants will learn how to: understand and communicate more effectively with difficult co-workers; manage challenging work situations with greater calmness and clarity of mind; dramatically reduce stress with simple breathing and relaxation techniques that can be done in just a few moments; achieve significant relief from high blood pressure, chronic pain, and insomnia; enhance personal productivity; and focus the mind to achieve results more quickly and effectively.

David Gamow and Karen Gamow are two of America’s leading stress management and meditation trainers. As the founders of Clarity Seminars, they provide training for many Fortune 500 companies and government agencies, including: NASA, GE, Nokia, Marriott, Stanford School of Medicine, Yahoo! and the U.S. Army. They have personally trained more than 20,000 people since 1996.

Authors of Freedom from Stress, their work has been featured in Gannett News, Investor’s Business Daily, Chicago Sun-Times, San Jose Mercury News, Information Week, and on Fox TV. No stranger to high-stress careers, David was a high-performing stockbroker in his early 20s and one of Paine Webber’s youngest vice presidents. Since then, he has launched two new businesses, and has successfully navigated three small business turnarounds. Karen is a 30-year writing and marketing veteran, with extensive experience in advocacy and crisis management in the nonprofit sector, including numerous television and newspaper interviews.

So, You Want to Be an Executive: How to Build Your Career Board of Directors
Speaker: Pamela Malinzak, IBM Corporation
Saturday 8:00 a.m. – 12:00 p.m.
Cost: $95
CEU Credit: 0.4
Orange County Convention Center, W240D

Who besides you is committed to your career success? Participants of this workshop will explore the characteristics of an executive, what they are, how to develop them, and how you can leverage an entire team of mentors to enable your success. This career board of directors will really work for you! Designed for any career professional trying to advance his or her career, the workshop will provide you with an understanding of: leadership competencies – identifying your strengths and development needs; how to build and manage a board of directors; how to gain active participation on your board; how and when to change out the members of your board; and leaving your shoes behind.

Pamela Malinzak is vice president, Global Business Services for IBM Corporation, and has been responsible for providing global IT services to clients for more than 27 years. Malinzak leads a team of 2,000 professionals in four countries and manages an annual revenue stream of more than $300 million. Malinzak earned an engineering degree from the University of Minnesota and an M.S. in business from the University of Colorado. She has volunteered on several nonprofit boards, most recently as board vice president for The Bridge, an adolescent treatment and educational facility for disadvantaged youth in Atlanta. She is married and has two daughters, ages 11 and 12.
The Career and Life Transitions track addresses a variety of issues that women in science, technology, engineering, and mathematics (STEM) professions face on a personal and professional level. Participants will be able to develop techniques to better maintain work/life balance, and successfully manage and prepare for the various professional and life transitions ahead of them. Most importantly, the sessions within this track will help participants at all different stages of their lives create concrete plans for their futures as women and engineers.

By attending sessions within this track you will be able to:
- Develop techniques to better maintain work/life balance
- Better understand how to manage the various professional and life transitions
- Develop and refine plans for future transitions

Sponsored by Cummins Inc.

Thursday, November 4

Career and Transitions for Women in Engineering
Panel Discussion
Speakers: Sharon Mantor, Neelima Muralidharan, Mais Alnasser, Ph.D., and Vivian Evora
Thursday 10:00 – 11:30 a.m.
Orange County Convention Center, W231B
As future and present women engineers, we generally have questions when we transition from one phase of our lives to another. These questions could not only be related to transitions, but also to a particular discipline in engineering. The panel of AMD women engineers represents different areas of design engineering and carries a wide range of life experiences. The goal of this panel is to address the general concerns and questions that arise in the minds of career-oriented women who may have recently started or may be on their way.

Sharon Mantor has been a part of the verification team at Advanced Micro Devices (AMD) for five years. In this role she is a validation engineer for GPU hardware. She is also a mathematics adjunct professor at Valencia Community College. Mantor earned a B.S. in electrical engineering and master’s degrees from the University of Central Florida.

Neelima Muralidharan is a senior ASIC/layout design engineer at AMD in the GPU Silicon Engineering group. In this role she handles block level and chip level verification of functional blocks and is currently working on using newer SystemVerilog based transaction level methodologies for developing better testing mechanisms. She procured a bachelor’s degree in electronics engineering from the University of Mumbai, India and an M.S. degree in electrical engineering from Florida International University.

Mais Alnasser, Ph.D., received a B.S. in applied mathematics from Jordan University of Science and Technology. She holds an M.S. in computer science from the University of Michigan, specializing in software engineering/computer graphics. She has a second master’s degree in computer science from the University of Central Florida, specializing in computer graphics. Dr. Alnasser also earned a Ph.D. degree in computer science, specializing in computer graphics. She is currently a senior software engineer at AMD/ATI, Orlando, working as a member of the OpenGL development team.

Vivian Evora has 12 years of application-specific integrated circuit design experience and more than five years’ experience in the design and development of software with emphasis on real-time embedded systems. Currently, she is a chip integration lead for graphic chips at AMD, where she has worked for eight years. Evora earned a bachelor’s degree in computer engineering from the University of South Florida.

Career Fair Savvy
Workshop
Speaker: Bob Raybits
Thursday 10:00 – 11:30 a.m.
Orange County Convention Center, W225
Learn proven strategies to better increase the chances of getting the results you are seeking when attending a career fair. What are the recruiters thinking, and what are their expectations of the job seekers?

Bob Raybits has more than 25 years of experience as a human resources professional, earning degrees from the Pennsylvania State University and the University of Maryland. In addition, he is a certified compensation professional. Raybits has held positions in the areas of compensation, labor relations, HRIS, talent acquisition, and HR generalist. He has also been an instructor at the University of Maryland’s Robert H. Smith School of Business, and has presented educational workshops at numerous national and regional conferences, as well as at many universities across the country.

Interviewing the Company: What You Need to Know about Your Future Employer
Panel Discussion
Speakers: Kelly Canning, Susan Tarr, Linette Patterson, and April Privitt
Thursday 10:00 – 11:30 a.m.
Orange County Convention Center, W330C
You are in an interview with a company you’d really like to work for. As the interview draws to a close, the interviewer asks you, “What questions do you have for me?” Do you know what to ask? During an interview, you need to take the opportunity not just to
sell yourself, but also to interview the employer. Starting salary and location are certainly important, but there are many other factors to consider, such as medical insurance, flextime, tuition reimbursement, stock options, retirement benefits, and more. This panel will discuss all the things to consider when evaluating potential employers, and how to gather all the necessary information. We will also discuss how to evaluate companies based on the factors that matter most to you.

**Kelly Canning** is the global commercial recruiting coordinator for ExxonMobil’s Upstream organization. Her day-to-day job includes reviewing applicants, candidate interviewing, making job offers, and assimilating new hires. She works directly with recruits and has fielded nearly every question in the book. Canning has read countless resumes, and has seen a plethora of candidates use a variety of strategies to get noticed and to get the information they need to help make pivotal career decisions.

**Susan Tarr** is the Cottonelle® research and engineering manager at Kimberly-Clark. Her 23-year career spans from machine control engineer, project engineer, and project leadership to her current role. Throughout her career, Tarr has actively participated with the recruitment of co-op students, as well as entry-level and experienced scientists and engineers.

**Linette Patterson** is a senior quality manager who is Six Sigma Green Belt certified and trained as a lean change agent. Her areas of expertise include process quality measurement and improvement, voice of the customer, driving change across geographic and functional areas, and individual and team development. Since graduation, Patterson has changed roles frequently, some internal to a company and some across companies. As such, she has had to quickly learn what to ask and when.

**April Privitt** has a bachelor’s degree in civil and environmental engineering from the University of Iowa. She currently supervises a staff of design engineers on the specialty products hose development team at Caterpillar. While her post-collegiate career has been within the same company, Privitt has interviewed for nearly every question in the book. Privitt has read countless resumes, and has seen a plethora of candidates use a variety of strategies to get noticed and to get the information they need to help make pivotal career decisions.

**Mapping a Successful Career in Research and Development**

**Panel Discussion**

**Speakers:** Aimee D’Onofrio, Paula Ward, and Jenny Samra

**Thursday 10:00 – 11:30 a.m.**

**Orange County Convention Center, W330B**

Three successful women scientist/engineers working in R&D will address their respective “maps” for success at a top R&D laboratory. Each will bring her unique viewpoint to the discussion. One will address recent graduates working in the field, while another will discuss her route to leadership. Another panelist will talk about her route to becoming a principal investigator at the laboratory and helping start the Women’s Technical Network.

**Aimee D’Onofrio’s** background is in astrophysics. She received a B.S. from the University of Michigan and an M.S. from the University of Massachusetts. D’Onofrio currently works on radar systems (focusing on using radar data to discriminate between people and animals) at MIT Lincoln Laboratory.

**Paula Ward** received B.S. and M.S. degrees in electrical engineering from Northeastern University. She has worked in all aspects of R&D for the engineering division at MIT Lincoln Laboratory and currently is an assistant group leader for the control systems engineering group.

**Jenny Samra** works in sensor technology and system applications at MIT Lincoln Laboratory. She holds B.S. and M.S. degrees in electrical engineering from the Pennsylvania State University. Since 2008, Samra has worked in projects involving visible, infrared, and microwave sensors. Her current work includes developing algorithms to process data from satellite-based atmospheric sensing instruments.

**Marketing Yourself and Making Yourself More Employable**

**Workshop**

**Speaker:** Stacy Johnson

**Thursday 10:00 – 11:00 a.m.**

**Orange County Convention Center, W224F**

Where do you want to be? How do you get there? How do you get to be on top of your world? You need a self-marketing plan! This session is designed to outline some tactics and strategies you can use in today’s world to create an actionable marketing plan for yourself. Having a viable marketing plan can help keep you employed, find employment, or to maintain a network for when you want or need to change.

**Stacy Johnson** has more than 10 years of technical experience with Agilent, all preparing her for marketing a wider breadth of Agilent’s products. She holds a B.S. and M.S. in mechanical engineering from the Rochester Institute of Technology. Johnson is active in women’s causes as a volunteer for Zeta Tau Alpha and the local American Heart Association.

**Rapid Résumé Review**

**Panel Discussion**

**Speaker:** Karen Ramsey-Idem, Ph.D.

**Thursday 10:00 – 11:30 a.m.**

**Orange County Convention Center, W340CD**

The session will involve an interactive review of each participant’s resume by professionals from human resources and technical organizations. Each resume will be reviewed by up to three
small groups, with recommendations for improvement offered. Participants will have the opportunity to update and print their resumes.

Karen Ramsey-Idem, Ph.D., has worked for Cummins Inc. for the past 12 years in a number of technical roles. She holds a bachelor’s, a master’s, and a doctorate in mechanical engineering, all from Tennessee Technological University. Her responsibilities have included the recruitment and supervision of a number of technical employees in the U.S. and in other countries. She has partnered successfully with human resources in the recruitment and retention of technical employees throughout her career with Cummins.

Rotate Your Way through Success!
Panel Discussion
Speakers: Barbara Buergelin, Christiane Glanzmann, Carissa Bongiorno, Ingrid Ladstaetter, and Caryle Vann
Thursday 10:00 – 11:30 a.m.
Orange County Convention Center, W224A
Are you new to the work world or venturing into a new industry? Are you unsure of exactly where you want your career to go? Try a rotational program! In this session, panelists from various rotational programs at Genentech (and other SWE CPC companies) will speak about their experiences, insights, and skills gained. Rotational programs allow you to get a broad view of your company and give you a chance to “test drive” career options.

Barbara Buergelin is a project controls engineer at Roche. Christiane Glanzmann is a senior architect at Roche. Carissa Bongiorno works in operations support for biopharmaceutical manufacturing at Genentech. Ingrid Ladstaetter is a qualification engineer at Roche. Caryle Vann is senior engineer of quality assurance services at Genentech.

They’re Just Not That into You: Insights from Recruiters and Hiring Managers
Workshop
Speakers: Lori Wilson, C. Timothy Branner, and Jason Cerrato
Thursday 10:00 – 11:00 a.m.
Orange County Convention Center, W224B
Have you ever left your resume with a recruiter or hiring manager and you were sure they would call you back for an interview? Two weeks later and still no call. Your resume was impeccable; you used every buzzword your career advisor gave you; you said you’d do anything to get your foot in the door. So, what happened? Leaving recruiters and hiring managers with a memorable first impression is critical. If you cannot relate your skills to the job or organization’s needs, you become just another resume in the pile. You must master the ability to clearly articulate your unique skill set and how it makes you the perfect fit for an organization. This session combines presentation, lecture, and interactive role play to help attendees identify their unique skills and accomplishments and articulate them in a way that leaves managers and recruiters wanting to hear more.

As co-manager of the Women’s Initiative for Intel, Lori Wilson is responsible for driving strategies that positively impact retention and enthusiasm specifically for Intel’s mid-level female employees and strengthening Intel’s diversity commitment internally and externally. Wilson joined Intel in 1987 in Chandler, Ariz., and has held a variety of positions in human resources, including training, staffing, payroll, compensation, and benefits and business operations.

C. Timothy Branner is manager of work force diversity and HR compliance at the Otis Elevator Company, a division of UTC. In this role, he is responsible for programs to create a best-in-class, diverse talent acquisition function and for leading the company’s efforts in developing and implementing the strategies to ensure organizational capability to manage and value diversity. He is past area manager for the Western-Tristate and Canada Area with INROADS, Inc. During his nearly 15 years with INROADS, Branner directly mentored and impacted the lives of more than 300 high-performing young people now pursuing careers in engineering, business, the applied sciences, and health care.

Engineering Majors in the Financial Services Industry
Workshop
Speakers: TBA
Thursday 1:30 – 3:00 p.m.
Orange County Convention Center, W224E
The goal of this session is to educate students about a “day in the life” of an engineering major working in the financial services industry. We will highlight how engineering skills and a diverse talent pool are integral and contribute to the success of Wall Street firms through process reengineering, enhancing controls, and riskmitigation. With these skills, engineers are able to deliver accuracy, timeliness, and integrity to a wide range of financial services businesses.

How to Work a Career Fair
Lecture Presentation
Speaker: Tina M. Kilmer, P.E.
Thursday 1:30 – 3:00 p.m.
Orange County Convention Center, W340CD
Join us for this preparatory class for working a career fair. Learn how to optimize your time at the Career Fair, effectively prepare yourself for visiting the employers’ booths, make the right contacts, and ultimately, find the right job. You will leave this class 100 percent prepared for the WE10 Career Fair.

Tina M. Kilmer, P.E., is vice president of product compliance for Bally Technologies. She is a leader in the fields of technical compliance, engineering and design, game and graphic development, project management, and strategic planning. Kilmer holds an electrical engineering degree from the University of Illinois at Urbana-Champaign.
Interview for Success
Lecture Presentation
Speaker: Beverly Taylor
Thursday 1:30 – 2:30 p.m.
Orange County Convention Center, W224F
Company representatives will be interviewing candidates for a limited number of positions. What will make you stand out from the crowd? Your resume may get you “in the door,” but not past the “next door.” Often, well-intentioned students with excellent grade point averages (and even internship experience) do poorly in interviews. While you might understand what a particular company is looking for in a successful job candidate, there are nuances you need to be aware of in how you describe your accomplishments and your future aspirations.

Beverly Taylor is a project engineer who manages all the technical aspects of multimillion-dollar power-generation projects. Prior experience includes working as a Six Sigma Master Black Belt, product cost manager, and design engineer. Taylor has interviewed thousands of students at campuses and makes decisions on inviting or declining students for further progress. She has interviewed students for two large corporations, General Electric and Caterpillar.

Preparation and Succeeding in College Internships
Lecture Presentation
Speaker: Eileen Vélez-Vega
Thursday 1:30 – 2:30 p.m.
Orange County Convention Center, W224B
College internships are an essential tool for every student to develop confidence in their engineering field of study. This presentation is a toolkit for students to prepare for their internships and take advantage of their experience. They will learn how to prepare for the job, how to get noticed and be considered as a potential employee after graduation. The speaker offers key elements for college success, and applying these experiences to transition into their careers.

Eileen Vélez-Vega manages the design and construction of airport infrastructure in the state of Florida, focusing on constructability and development of the airport projects to ensure the continued safe and effective operation of the airports during construction. Vélez-Vega serves as the lieutenant governor of SWE’s Region D. She is a registered licensed engineer in Florida and Puerto Rico. Vélez-Vega obtained her bachelor’s degree in civil engineering from the University of Puerto Rico at Mayagüez, and a master’s degree in civil engineering from Mississippi State University.

Surviving and Prospering When Hit with Middle Manager Issues
Panel Discussion
Speakers: Tricia Berry, Danielle Forget Shield, Irene Chang, and Michele Tesciuba
Thursday 1:30 – 2:30 p.m.
Mid-Career Session
Virtual Participation
Orange County Convention Center, W240B
Back by popular demand, a diverse panel of entertaining middle managers share their insights and experiences on issues faced in the middle of their careers. Explore what you can do when you’ve already achieved your professional goals or what to do when family priorities or professional interests change. Learn about lateral moves and why you might consider one for the sake of experience, visibility, or future opportunities. Get energized about your own mid-career transitions.

Tricia Berry is executive vice president for 825 Basics LLC, a career enhancement company. She is also director of the Women in Engineering Program and director of the Texas Girls Collaborative Project at the University of Texas at Austin leading recruitment and retention efforts of women and pre-college STEM collaborations across Texas.

Irene Chang has spent her career with ExxonMobil Chemical Company, working in various manufacturing, supply chain, technology, and planning assignments. She juggles career and SWE along with soccer mom duties, early child development and filial obligations, and dreams of organizing her digital photos and tending her garden someday.

Danielle Forget Shield, P.E., C.E., is president of 825 Basics LLC. She has more than 10 years’ experience in entertaining presentations, workshop development, career coaching, and organizational management. Shield finds satisfaction in implementing the methods she teaches and seeing those she has mentored successfully navigate their careers.

Michele Tesciuba received her B.S. from UCLA and her M.S. from MIT, both in mechanical engineering. She has 15 years of experience with Schlumberger Oilfield Services, where she has served in a variety of positions with increasing responsibility. Tesciuba is a supply manager in Canada, where she supports several company divisions with their supply chain needs. Prior to this, Tesciuba held positions in engineering, operations, sales, and management. She has worked with Schlumberger in Houston and Paris, and currently resides in Calgary, AB, Canada, with her husband and daughters.
The Experienced Engineer: Career Search Tips from the HR Managers Who Hire Them
Panel Discussion
Moderator: Rachel Heidenreich
Speakers: Jason Campbell, Amy Hammar, Marlon Doles, and Vickie Schmidt
Thursday 1:30 – 2:30 p.m.
Orange County Convention Center, W231B
Are you ready to go for that promotion? Maybe you want to take a job in a new department or a new field. Or are you returning to work after time off? It’s time to polish off that old resume and give it a makeover. Learn how technology has evolved to create more powerful tools to use in your job search. This panel will comprise the HR representatives who hire experienced professionals. Hear firsthand the do’s and don’ts to let your talents and experience shine.

Jason Campbell has worked in human resources for the last 12 years, including the following disciplines: compensation and benefits, corporate staff, extensive project management, international (lived and worked in Shanghai, China, for two years), labor relations, and now human resources manager for global sales and marketing for Rockwell Automation. Before working for Rockwell Automation, Campbell worked for International Paper. He holds a bachelor’s degree in human resources management from Crichton College, an M.B.A. from Regent University, and is currently enrolled in Penn State’s human resource management master’s degree program.

Amy Hammar is an engineer working in engineering and order-to-delivery recruiting and development for Caterpillar Inc. She has responsibility for the global engineering and order-to-delivery headcount forecasting, and supports the U.S. engineering and order-to-delivery recruiting strategy. She has worked in new product design, elastomeric compounding, Six Sigma project management, and mid-range engine application iron supervision. Hammar has been working with technical talent recruiting since 2007. She holds a bachelor’s degree in chemical engineering from the University of Akron.

Vickie Schmidt is a human resources representative with Rockwell Automation. She is responsible for managing HR activities, including HR planning and strategy, staffing, compensation, and employee relations. In addition, Schmidt provides leadership related to various strategic and operational HR initiatives to ensure HR strategies are linked with the business objectives. She has an undergraduate degree in human resources management from Concordia University in Milwaukee.

Trendy Stress?!
Lecture Presentation
Speaker: Erica Messinger
Thursday 1:30 – 2:30 p.m.
Virtual Participation
Orange County Convention Center, W240A
With our never-ending to-do lists, overwhelming number of emails, and not enough time to handle it all, stress comes as no surprise. Have we become comfortable in this place of being stressed? Is it trendy to be stressed? What does stress look like to me? Am I always busy? How does stress serve me? How do I let go of doing, doing, doing and learn to just be?

Erica Messinger is a business development manager with Agilent Technologies, where she’s worked for more than 10 years. She holds an executive M.B.A. from the University of Colorado and a B.S. in electrical engineering from the University of Illinois at Urbana-Champaign.

Build Your Success Team
Workshop
Speaker: C. Timothy Branner
Thursday 2:45 – 3:45 p.m.
Orange County Convention Center, W224B
This interactive workshop is designed to help college students and recent graduates leverage their probability of success in the workplace. Participants will come away with a clear understanding of why it is critical for their professional and personal development to build a success team. They will review tools to identify key team members and then start the foundational work to build their own success team that will empower them to soar to new heights.

C. Timothy Branner is manager of work force diversity and HR compliance for the Otis Elevator Company, a division of UTC. In this role, he is responsible for programs to create a best-in-class, diverse talent acquisition function. He is also responsible for leading the company’s efforts in developing and implementing the strategies to ensure organizational capability to manage and value diversity. He is past area manager for the Western-Tristate and Canada Area with INROADS Inc. During his nearly 15 years with INROADS, Branner directly mentored and impacted the lives of more than 300 high-performing young people now pursuing careers in engineering, business, the applied sciences, and health care.

College to Career
Workshop
Speakers: Heather Malikowski and Rachel Heath
Thursday 2:45 – 3:45 p.m.
Orange County Convention Center, W224A
This session will discuss what a student (soon to be an individual contributor of a company) needs to know when job seeking, and then transitioning into an effective member of the work team. Learn strategies to help you stand out above everyone else to hiring companies. Discuss the factors to think about when you
need to choose one job over the other. Learn what major lifestyle differences to expect between college and work – including the minor changes you may not have considered. Discuss what it is like to work in a male-dominated industry with an aging work force.

**Heather Malikowski** is a senior engineer in the Corporate Engineering Programs department at Exelon Nuclear. She is responsible for governance and oversight of the in-service inspection programs for six nuclear power plants. In her 10 years in the nuclear power industry, Malikowski has held various positions in engineering and was loaned for two years to the Nuclear Energy Institute working in the Industry Materials Initiative. Malikowski holds a B.S. in materials engineering from Rensselaer Polytechnic Institute.

**Rachel Heath** is a reactor engineer at the Limerick Generating Station. As a qualified nuclear engineering and reactor unit lead at Exelon Nuclear, her daily activities include monitoring the reactor core parameters, planning reactivity maneuvers and fuel moves, and preparing and reviewing technical documents. Heath is involved in the nuclear industry groups North American Young Generation in Nuclear, the American Nuclear Society, and Women in Nuclear. She holds a B.S. in nuclear engineering from the Pennsylvania State University.

**Finding a Job: What I Wish I Had Known**

*Lecture Presentation*

**Speakers:** Geraldine John and Patricia Mwangi

**Thursday 2:45 – 3:45 p.m.**

**Orange County Convention Center, W224H**

This session will provide a personal insight of the most important lessons learned through personal experiences, on the road to establishing a successful career. The presenters will take attendees through the three major transitional stages: the student phase, the searching phase, and the new-hire phase, sharing their thoughts on key learnings at each stage. Highlights range from courageous conversations at work to investing in a 401-K.

**Geraldine John** is a Six Sigma Black Belt at Cummins Power Generation. She holds a B.S. from Luther College and an M.S.S. from the University of St. Thomas.

**Patricia Mwangi** holds a B.S. in mathematics from Coppin State University and a master’s in electrical engineering from Morgan State University. She is currently working toward an M.B.A. from the University of Minnesota.

**Her Story: The Power of Women**

*Lecture Presentation*

**Speaker:** Jill Tietjen, P.E., F.SWE

**Thursday 2:45 – 3:45 p.m.**

**Orange County Convention Center, W225**

Women have changed the culture and the economy of the U.S. throughout its history through their networking and leadership. Using these key skills, women won the right to vote, led people to freedom through the Underground Railroad, and changed the face of business. During this interactive presentation, attendees will learn how to use networking to enhance their leadership skills and will have the opportunity to practice networking in action.


**Job Hunting When You’re over 40**

*Lecture Presentation*

**Speakers:** Susan Parsons, F.SWE, and Michelle Tortolani

**Thursday 2:45 – 3:45 p.m.**

**Mid-Career Session**

**Virtual Participation**

**Orange County Convention Center, W240B**

Experienced technical professionals suddenly facing job loss can use this opportunity to reassess goals and objectives and retool their careers. But where to start? This session’s presenters will share their own experiences and lessons learned in finding a satisfying new position. They will address recruiters, job sites, social networking, telephone screening interviews, and more to help attendees discover what makes them happy and learn how to navigate the new world of job hunting.

**Susan Parsons, F.S.W.E.,** is a contracts director with CGI Federal Inc. She holds a B.S. in aerospace engineering and an M.B.A. As a result of multiple acquisitions, her position was downsized in the toughest economy ever. Parsons used her network and placement services to find her current position.

**Michelle Tortolani** is a program manager with Northrop Grumman Electronic Systems. She holds B.S. and M.S. degrees in electrical engineering, and has more than 25 years of experience in telecommunications, defense product and system design, development, integration, operation, and maintenance management. Downsized as a result of company purchase, Tortolani built on her network and participation in professional associations to find her most recent position.

**Speed Mentoring**

*Special Networking Event*

**Mentors to be announced on-site**

**Thursday 3:30 – 5:00 p.m.**

**Orange County Convention Center, W340CD**

Looking for some advice? Want some mentoring? Wish you could ask a vice president, director, manager, or fellow engineer about your next career move or the best way to resolve a current conflict you’re facing? Looking for interview or resume tips? Want to know if people management or project management is for you? Whether you are in college, a recent grad, or a seasoned professional, this
session is for you! Based on the speed-dating concept, this event will be fun, fast, and facilitated! Come get the advice you always wanted from amazing ladies you never thought you'd get to meet.

**Interviewing Skills for Students**

*Lecture Presentation*

**Speakers:** Caroline Cunningham and Cynthia Murphy  
**Thursday 4:00 – 5:00 p.m.**

**Virtual Participation**

*Orange County Convention Center, W240B*

This session provides students key strategies to assist them in successfully navigating the interview process. The workshop is presented in specific sections that detail pertinent, relevant information that candidates should know before interviewing for any job. This workshop is targeted to a collegiate audience, but many tips could be useful for all levels of interviewees.

**Caroline Cunningham** is the supervisor of corporate college recruiting with Chevron Corporation. Her team is responsible for all intern and full-time hiring for Chevron’s U.S. college recruiting program. Cunningham has more than 16 years of experience in both college and professional recruiting and has worked in a variety of industries including pharmaceutical manufacturing, health care, consumer distribution, and nonprofit services. She holds a bachelor’s degree in theater arts from Occidental College and is PHR certified.

**Cynthia Murphy** is a manager with the university affairs department of Chevron Corp. Her organization manages Chevron’s relationships with universities throughout the world. She has more than 15 years of recruiting experience with Chevron — serving in a variety of roles through the years — and has worked in various Chevron businesses, including refining, technical competency management, staffing/recruitment, new hire and competency development, business planning, and technology. Murphy holds a B.S. in chemical engineering from the University of California, Davis.

**Leadership Is a Choice, Not a Position**

*Workshop*

**Speakers:** Clémentine Uwineza and Heidi Kenkel  
**Thursday 4:00 – 5:00 p.m.**

*Orange County Convention Center, W232C*

To be a truly effective leader, you must discover and invest in yours and others’ desires and drives, and not allow negativity to take up space in your mind or those of your teammates. During this workshop, you’ll gain knowledge and skills on how to step into a place of leadership no matter your position.

**Clémentine Uwineza** began her career with John Deere in 2005. She is currently a strategic supplier quality engineer with John Deere Power Systems, responsible for quality planning, control, and improvement activities on exhaust gas recirculation system and engine after-treatment components. She is a graduate of the University of Wisconsin-Platteville with a bachelor's degree in industrial engineering with an emphasis in management. She is currently working on a master's degree in engineering project management from the University of Wisconsin-Platteville. Uwineza is an active member of SWE and NSBE.

**Heidi Kenkel** joined John Deere in 1996 and has held assignments in design engineering, human resources, product verification and validation, quality, and reliability engineering. She is currently a general supervisor for inventory control at John Deere’s Tractor and Cab Assembly Operations in Waterloo, Iowa. Kenkel received a B.S. in mechanical engineering from Michigan Technological University, an M.B.A. from the University of Iowa, and an M.S. in systems engineering from Iowa State University.

**Mentoring for Success: Transition to Work/Life**

*Lecture Presentation*

**Speaker:** Janice Hearn  
**Thursday 4:00 – 5:00 p.m.**

*Orange County Convention Center, W224B*

This presentation will provide the highlights of an eight-year formal mentoring program guiding 250+ new graduate engineers in the torturous path to career professional. The importance of first impressions and communication styles are stressed along with “learning the ropes” at the new worksite.

**Janice Hearn** is a principal engineer with Savannah River National Laboratory’s Counter Terrorism and Homeland Security Section. She holds an M.S. in nuclear engineering, an M.S. in mechanical engineering from Kansas State University, and a B.S. in mechanical engineering from Carnegie Mellon University.

**Friday, November 5**

**An Organized Woman Is a Successful Woman: Managing the Ever Growing To Do List**

*Workshop*

**Speaker:** Jennifer Erickson  
**Friday 10:00 – 11:00 a.m.**

*Orange County Convention Center, W231A*

Jumpstart your dreams and aspirations using effective goal-setting techniques and the methods to turn those goals into tangible actions. This workshop will cover various techniques, including those from authors Warren Woods, Alan Lakein, and Charles Hobbs, and personal experiences in using these techniques from presenter Jennifer Erickson.

**Jennifer Erickson** is an IBM Web project manager. She holds a B.S. in computer science and a B.A. in English from Texas State University, and recently received an M.B.A. from the University of Texas at Austin.
### Climbing the Corporate Ladder

**Lecture Presentation**

**Speakers:** Marie Mattoni, Jami DeBrango-Palumbo, Tiana Homans, and Jolene Leathers  
**Friday 10:00 – 11:30 a.m.**

**Virtual Participation**

**Orange County Convention Center, W240A**

Are you interested in the advancement of women in STEM? The goal of this session is to invest in the personal and technical development of our SWE membership. The panel will consist of biomedical female executives who are at various stages of their careers. Topics of discussion will include industry trends and opportunities, remaining relevant in an emerging global market, leadership development, risk taking, work/life balance, and career succession planning.

**Marie Mattoni** is an engineer in biotech manufacturing at Roche.  
**Jami DeBrango-Palumbo** is the head of BPM/OE, PTB Biologics for Genentech.  
**Tiana Homans** is OPEX lead champion for Roche.  
**Jolene Leathers** is associate director of external quality operations, drug substance at Genentech.

### Getting to Executive Level While Having Work/Life Balance

**Panel Discussion**

**Speakers:** John F. Daegele, Peggy Nelson, Linnie Haynesworth, Michelle Scarabella, and Patricia McMahon  
**Friday 10:00 – 11:30 a.m.**

**Mid-Career Session**

**Orange County Convention Center, W224C**

Strategies, pitfalls, and stories will be provided to help participants map a path through glass ceilings while balancing work/life demands and needs. Topics for discussion include inclusion and cultural awareness, and career and life transitions.

**John F. Daegele** is sector vice president of systems engineering, integration, and test, one of the three major engineering functions within Northrop Grumman Aerospace Systems Sector. Daegele has more than 25 years of space system industry experience in program management, system engineering, production, operations, and system integration and test. He holds a bachelor's degree in electrical engineering from the University of Notre Dame and a master's degree in electrical engineering from the University of Southern California. He is also a graduate of the executive program in management from the Anderson School at the University of California, Los Angeles.

**Peggy Nelson** is a vice president and program manager for the Advanced Mission Programs, Space Systems Division, Northrop Grumman Aerospace Systems. Nelson manages all program activities, leads capture, program initiation, and start-up activities on new business opportunities. She earned her bachelor's degree in mathematics from UCLA, a master's degree in electrical engineering from CSU Northridge, and a certificate from the UCLA Anderson School of Management in executive management.

**Linnie Haynesworth** is vice president and deputy program director of National Polar-orbiting Operational Environmental Satellite System, Northrop Grumman Aerospace Systems. She is responsible for the effective communication of program performance to customers and leadership, risk management, cost and schedule milestones and deliverables for next-generation remote sensing system to disseminate environmental data to civilian and national security users. She holds a bachelor's degree in electrical engineering from USC and has participated in the African-American Leadership Program at the UCLA Anderson School of Management.

**Michelle Scarabella** is vice president of Tactical Systems, F/A-18 & F-5/T-38 Programs, Strike and Surveillance Systems Division, Northrop Grumman Aerospace Systems. She manages the F/A-18, F-5, and T-38 programs, including cost, schedule, technical, quality, and customer satisfaction; and supply chain and quality for F/A-18, B-2, Joint STARS, and E-2C. Scarabella earned her bachelor's degree in human services from California State University, Fullerton. She holds a master's degree in business administration from the University of Phoenix and a certificate from the UCLA Anderson School of Management in executive management.

**Patricia McMahon** is sector vice president and general manager of Aerospace Systems Sector’s Battle Management and Engagement Systems Division at Northrop Grumman. McMahon manages 4,500 employees on E-2, E-8C, and IO/EA programs. She was named one of 2004 and 2006 Long Island’s 50 most influential women, and in 2007, nominated to its hall of fame.

### Successful Mentoring Relationships: Being Proactive as a Mentee

**Lecture Presentation**

**Speakers:** Jennifer Walton and Laura Riegel  
**Friday 10:00 – 11:30 a.m.**

**Orange County Convention Center, W232B**

Are you interested in finding a mentor to guide you in your career development? Are you already part of a mentoring program but would like to gain more from this experience? Making the most of your mentoring relationship can be achieved by becoming a proactive mentee. This session will explore the skills you need: selecting the right mentor, setting goals, building trust, asking difficult questions, and more.

**Jennifer Walton** is a configuration design engineer in Boeing Phantom Works and an active SWE member. She is involved in several mentoring relationships: serving as a mentor to Boeing interns, participating as a mentee in the Engineering Mentoring Program, and, recently, initiating a mentoring relationship with
Women’s Networks: Enhancing Your Career

Panel Discussion

Speakers: Seena Drapala, Cindy Breitkreuz, Barbara Ruf, and Birgit Sorgenfrei

Friday 10:00 – 11:30 a.m.

Orange County Convention Center, W224D

This panel of experienced women engineers will discuss how women’s networks can help enhance your career. By participating in the session, you will learn about various women’s networks, what they are not, and what is needed to start or improve a network. This informative program will provide participants with the tools to enhance their burgeoning networks.

Seena Drapala, now retired, was formerly GE energy electronics global commodity leader for the optimization and control business headquartered in Minden, Nev. She holds a B.S. in mechanical engineering from Union College in Schenectady, N.Y. Her SWE accomplishments include charter section president for Region F’s New York State Capital District and, most recently, assuming the chair position for the national conference programming board committee. Drapala was active in GE Women’s Network – Women in Technology Initiative, organizing GE participation at the SWE conference.

Cindy Breitkreuz attended the University of Arizona, where she graduated with a B.A. degree in nuclear engineering. She is currently general manager of Wind Field Service at GE Energy. Breitkreuz resides with her husband, a GE engineer, and two teenage sons in Marietta, Ga.

Barbara Ruf has a B.S. in statistics and an M.S. in computer science. In addition, she has more than 20 years of industry experience, spending the last eight years with Boston Scientific in various roles in research and development, quality, and operations. Ruf is currently serving as the vice chair for the Women’s Network, one of the employee resource groups at Boston Scientific.

Birgit Sorgenfrei is project management team leader for stop-start systems at Ford Motor Company. Her work has included research on sensors for electrical power assist steering systems, component and system radio design, vehicle planning, hybrid battery software delivery, and fuel cell technology development. She graduated with B.S. and M.S. degrees in electrical engineering from Michigan Technological University and the Massachusetts Institute of Technology, respectively, as well as an M.B.A. from the University of Michigan.

Working with Children: Women Talk about Their Experiences with Balancing Children and Being an Engineer in the 21st Century

Panel Discussion

Speakers: Amanda Ponder, Christina Royalty, Deanne DeCou, Jennifer Marvin, Kim Curry, and Mary Wang

Friday 10:00 – 11:30 a.m.

Mid-Career Session

Orange County Convention Center, W225

This panel brings speakers from all over the country who have had varying experiences with raising children and working. From working full-time, part-time, single, married, going to school, and multiple other perspectives, these women will discuss what they have been through and what they have done in order to balance their careers and children. They will share their experiences and answer questions from attendees.

Amanda Ponder balances an engineering career with spending time with her family, as well as staying active in volunteer leadership positions.

Christina Royalty leads the process management coordination group for BCA Engineering Airplane Systems. She started her Boeing career in 1985 working as the equipment manager for 757 and 737 audio and video entertainment systems. During that time, Royalty documented the process and requirements for developmental avionics buyer furnished equipment.

Deanna DeCou adopted a child from Russia five years ago. She balances work with motherhood, hiking, camping, biking, and volunteer work.

Jennifer Marvin has nearly 20 years of experience working for large engineering corporations, including Boeing, Kimberly-Clark, and Fluor Daniel. She lives in Everett, Wash., with her husband and two youngest daughters, ages 16 and 12.

Kim Curry balances work with a 2-year-old. She co-founded the Texas Space Center Section of SWE.

Mary Wang was born in Taiwan and raised in a very conservative Chinese culture. She moved to the U.S. and obtained a B.S. in computer science and an M.B.A. In addition to working full time at Boeing, she actively volunteers, presents for Boeing on diversity issues, and balances motherhood.
Career and Life Transitions

Career Development Panel in the Global Energy Industry

Panel Discussion
Moderator: Amy Yip
Panelists: Cynthia Murphy, Michelle Johansen, and Lindsay Laskowski
Friday 1:30 – 3:00 p.m.
Orange County Convention Center, W224C

This panel will highlight the career paths of engineers in the global energy industry with more than 10 years of experience in their careers.

Amy Yip is the facilities engineering horizons coordinator for Chevron. She began her career with Chevron as a production engineer in West Texas in 1998 and moved on to become a facilities engineer in the company’s Midcontinent Business Unit working on projects in East Texas and Oklahoma areas. In 2006 she moved to Paris to work as a subsea pipeline engineer on a major capital project that is located offshore of Angola. Yip holds a B.S. in mechanical engineering from the University of Texas at Austin. In addition, she was the FY09 president of the SWE Houston Area Section.

Cynthia Murphy is a manager with the University Partnership Program of Chevron Corporation. Her organization’s role is to manage Chevron’s portfolio of university relationships and partnerships around the world. She has worked in various Chevron businesses throughout her 19-year engineering career, including refining, new hire and competency development, strategic planning, organizational capability, and technology. She also has more than more 15 years of recruiting experience with Chevron. Murphy holds a Bachelor of Science degree in chemical engineering from the University of California, Davis.

Michelle Johansen is the process engineering manager for the Chevron Richmond Refinery in Richmond, Calif. She graduated from Iowa State University with a B.S. in chemical engineering and has been working for Chevron for 21 years in Pascagoula, Miss., and Richmond, Calif., in process engineering, operations coordination and planning, maintenance, operations, and technical management positions.

Lindsay Laskowski graduated from Texas A&M University with a B.S. in chemical engineering. She currently works as the capital stewardship advisor for Chevron's MidContinent Alaska Business Unit, creating and executing investment analysis principles and techniques. Laskowski is pursuing her M.B.A., focused on international project management, from the University of Texas at Dallas.

Communication Etiquette for the Modern Workplace

Workshop
Speaker: Alexis McKittrick, Ph.D.
Friday 1:30 – 2:30 p.m.
Orange County Convention Center, W231A

Today we have dozens of means of communicating — texting, calling, e-mailing, instant messaging — the list goes on. But, what is appropriate for the workplace and what isn’t? This session will focus on how to properly deliver information in today’s workplace. It will cover topics such as: how to make business calls with professionalism, teleconference do’s and don’ts, use of “text speak” in the office, and how social networking plays into your work image.

Alexis McKittrick, Ph.D., has worked for Praxair R&D since late 2005. She received a Ph.D. in chemical engineering from Georgia Institute of Technology and a B.S. in chemical engineering from the University of Maryland, Baltimore County.

Diversify Your Education: How to Get More out of College than an Engineering Degree

Lecture Presentation
Speaker: Crystal Byrd Farmer
Friday 1:30 – 2:30 p.m.
Orange County Convention Center, W330F

In this session you will learn ways to maximize your experiences in college by exploring subjects outside of the traditional engineering curriculum. Options include double majoring, auditing classes, independent study, and extracurricular organizations. Learn how to make time for these opportunities and how to incorporate the experiences into your engineering resume and future career.

Crystal Byrd Farmer successfully diversified her interests by obtaining a dual degree in mechanical engineering and Russian at the University of South Carolina. She is a service engineer at Cummins in Columbus, Ind., supporting diesel engines in service around the world.

Engineering and the M.B.A.: A Perfect Match

Panel Discussion
Moderator: Laurie Stewart
Speakers: Jill Riedl, Ritu Pathak, and Sanyogita Lakhera
Friday 1:30 – 3:00 p.m.
Orange County Convention Center, W225

Learn how you can launch your engineering degree and experience into an exciting and fulfilling career in business leadership. Diverse and successful women in business with backgrounds in engineering will tell their stories and share advice on how the engineering degree coupled with an M.B.A. launched their careers ranging from investment banking to consulting to
product marketing. Panelists will also share tips on how to present the best application for business school if you’re an engineer.

Laurie Stewart is executive director of master’s admissions for Tepper School of Business at Carnegie Mellon University, overseeing the school’s admissions. She has worked at the Tepper School since 1991 and in graduate admissions since 1994. Previously, she was assistant dean for student affairs at the Tepper School. Stewart began her professional career at General Motors in the product engineering department at Pontiac Motor Division. She holds a Bachelor of Mechanical Engineering degree from Kettering University and is an alumnus of Tepper’s M.B.A. program.

Jill Riedl is the manager of product planning and program management for the Global Operator Station Platform. In this role, she is responsible for worldwide operator station (cab) product planning and program management for the Agriculture and Turf division at John Deere. Riedl began her career at the John Deere Harvester Works Product Development Center, where she held positions in design and test engineering. She later transferred to John Deere Welland Works as a reliability engineer. In 2002, she transferred to the John Deere Waterloo Works, where she held various positions, including manufacturing engineer, production supervisor, quality engineer, manufacturing engineering supervisor, and business unit manager of cab operations. Riedl holds a B.S. degree in mechanical engineering from the University of Illinois and an executive M.B.A. from the Kellogg Graduate School of Management at Northwestern University.

Ritu Pathak is the capital governance analyst at Chevron in San Ramon, Calif., where she is responsible for capital stewardship, internal investment analysis, and strategy development for Chevron’s manufacturing, marketing, and trading businesses. Her earlier roles at Chevron include project manager in the logistics and supply chain, and strategy and performance analyst in Asia Pacific. Pathak received an M.B.A. from Haas School of Business at the University of California, Berkeley. She has a master’s in engineering from the University of Missouri-Columbia and a B.S. in electrical engineering from Thapar University, India.

Sanyogita Lakhera is a Citi 2008 advanced technology associate in the Non Agency Mortgage Technology group. Her current role is to align IT solutions toward the business needs. She works toward the interpretation of business rules and requirements for data-intensive technical systems. Prior to joining Citigroup, Lakhera worked for Risk Management Solutions and Infosys. Lakhera is a graduate of the Delhi College of Engineering, India, where she earned her bachelor’s in engineering with distinction. She earned a master’s in computational sciences in engineering from the Technical University of Braunschweig, Germany. She also earned a master’s in industrial engineering from the University of Illinois at Urbana-Champaign.

How to Play the Field and Get What You Want
Panel Discussion
Speakers: Pamela Snyder, Stacey Espinosa, and Priscila Silva-Araujo
Friday 1:30 – 3:00 p.m.
Orange County Convention Center, W340B
You are in an interview with a company you’d really like to work for. As the interview draws to a close, the interviewer asks you, “What questions do you have for me?” Do you know what to ask? During an interview, you need to take the opportunity not just to sell yourself, but also to interview the employer. Starting salary and location are certainly important, but there are many other factors to consider, such as medical insurance, flextime, tuition reimbursement, stock options, retirement benefits, and more. This panel will discuss all the things to consider when evaluating potential employers, and how to gather all the necessary information. We will also discuss how to evaluate companies based on the factors that matter most to you.

Pamela Snyder joined Procter & Gamble in 2005 after graduating from Rochester Institute of Technology with a B.S. and M.S. in mechanical engineering. She is part of the Global Material Development and Supply Organization supporting baby wipe development for Pampers in North America and Europe. She leads a team working to develop the next generation of wipes technology. Snyder has held positions in baby care process development and material development.

Stacey Espinosa first obtained an internship with Procter & Gamble at the 2007 SWE national conference. She joined P&G full time in August 2009 after graduating from the University of Utah with a B.S. in chemical engineering. Espinosa is currently the converting leader for Bounty Napkins and is working to develop the converting innovation and technology for the next Bounty napkin.

Priscila Silva-Araujo is an insights/CMK manager for Procter & Gamble. In this role she manages insights for health, beauty, and baby care consumer products supporting Walmart Inc. Additionally, Silva-Araujo has been recruiting for Procter & Gamble at National Society of Hispanic MBAs virtual career fairs and college campuses. She is a University of Florida alumnus and has worked for Procter & Gamble for three years.

Going Up? Understand and Define Your Elevator Pitch
Workshop
Speakers: Michelle Schneider, Tricia Dugan, and Stacy Kalicz Johnson
Friday 1:30 – 2:30 p.m.
Orange County Convention Center, W340A
Your executive stops you in front of the elevator doors asking, “What have you been up to?” Do you freeze, answering in bland, generalized terms, or do you knock his or her socks off with a thoughtful articulation of your current success? There is no secret
to the power of networking, whether it is in the hallway, airport, or soccer field. You only have from the time the elevator door closes until the top floor to make your impression on a potential future hiring manager or networking contact. Come prepared to construct and practice your new formal and informal elevator pitch so we all leave the room without our socks.

**Michelle Schneider** holds a B.S. in chemical engineering from Northeastern University. She has worked in various engineering and management roles in her 12 years in the electronics industry. Schneider is actively involved in the Austin community, having served on the boards and committees of Girlstart, and other outreach encouraging girls in math and science careers.

**Tricia Dugan** has more than 10 years of leadership in the computer industry from product design and development to new product introduction. She holds an M.S. in electrical engineering from the National Technological University and a B.S. in electrical engineering from the Rochester Institute of Technology. In Austin, Dugan serves on the Technology Executive Education Council, as a Girlstart supporter/volunteer, and Zeta Tau Alpha Alumnae leadership.

**Stacy Kalicz Johnson** has more than 10 years’ technical experience with Agilent, all preparing her for marketing a wider breadth of the company’s products. She holds a B.S. and M.S. in mechanical engineering from the Rochester Institute of Technology. She is active in women’s causes as a volunteer for Zeta Tau Alpha and the local American Heart Association.

**Cally Edgren** is also actively involved in promoting STEM education and activities for pre-college students, and coaches a FIRST LEGO® League team as well as leading a Girl Scout troop.

**Roberta Kankus** is a technical manager at the Exelon Generation Corporation. She was the first woman to hold a senior reactor operator’s license for a commercial nuclear power plant. Kankus’ 35-year career began in core and reactor engineering. She has worked with the Institute of Nuclear Power Operations as one of the initial project managers establishing and assessing nuclear industry standards of operation. Kankus also has worked in business operations, strategic planning, and economic affairs.

**Sandy Lieske** is a vice president for Hewlett-Packard Company in Boise, Idaho. She oversees the Global Category Support, Serviceability, and Operations organization within the Global Customer Support Organization. Her teams have responsibility for all global category support management, IPG-wide serviceability and quality initiatives, and WW GCSO operations management. Previously, she was vice president of core technologies with the LaserJet Enterprise and Solutions business. She has been with HP since 1981. Lieske has a B.S.-ECE from the University of Wisconsin, an M.S.-ECE from the University of California, and an M.S. in management of technology from the National Technological University.

**Anne Vondrak** is the marketing manager for integrated architecture at Rockwell Automation, where her primary responsibility is providing messaging, materials, and application tools for the global sales force to influence sales across the industrial automation customer base. Since graduating with her degree in industrial engineering from Auburn University, Vondrak has held various positions at Rockwell Automation, including outside sales, sales training, and product portfolio management — and, she is the mother of three children!

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**Switching Ladders: Remapping Your Career in the Middle of Your Journey**

Panel Discussion

Moderator: Shoshana Wodzisz

Speakers: Cally Edgren, Roberta Kankus, Sandy Lieske, and Anne Vondrak

Friday 1:30 – 2:30 p.m.

Mid-Career Session

Orange County Convention Center, W330C

Just because you have started down one career path does not mean you have to finish on that same path. Engineering provides countless career options. Hear how these successful women have made interesting and inventive career choices, all while balancing personal and family commitments. Learn how to identify your skills and use your experiences to achieve the right career for you. Map out the process for obtaining the next job on your career ladder.

**Cally Edgren** is the program manager for the Product Environmental Compliance program at Rockwell Automation. During her 15-year tenure with Rockwell, she has also worked in various roles in product development and operations. She has B.S. and M.S. degrees in industrial engineering from the University of Wisconsin-Madison, where she was an active member and officer of the SWE collegiate section. She is a founding member of Rockwell Automation’s “SWE at Rockwell” employee group.

**Negotiating Your Flexible Work Arrangement**

Lecture Presentation

Speaker: Jonna Gerken

Friday 2:45 – 3:45 p.m.

Orange County Convention Center, W330B

Have you ever thought about making a change in your work/life balance? Have you thought about working from home, changing your office hours, or working part time? Are you afraid to ask your boss for a change? If so, then come discuss how to create a flexible work arrangement (FWA) proposal, what questions you need to answer, and what you need to know about working in a nontraditional arrangement. You will leave the session with a working draft of your FWA proposal and inside information on making it work. This session is led by Jonna Gerken, who is currently the only part-time supervisor at Pratt & Whitney in East Hartford, Conn. She has been working on a reduced schedule since 2005, when her first son was born.
Jonna Gerken is manager of the quality, delivery, cost group in hot section engineering at CANMC Pratt & Whitney Aircraft Engines. She oversees a team of engineers who provide leadership and mentoring in the areas of quality improvement, process certification, cost reduction, and continuous improvement. She is also a member of the Module Center ACE Site Council, the co-chair of the CAN Women’s Forum, and a member of the Work/life Balance Survey Action Team. She has worked for Pratt since 2000, holding positions of increasing responsibility within both operations and engineering. Gerken has a B.S. in industrial and management engineering and an M.B.A. in technology development, both from Rensselaer Polytechnic Institute.

The Laws of Networking
Workshop
Speakers: Suzannah Richardson and Latasha Gillespie
Friday 2:45 – 3:45 p.m.
Orange County Convention Center, W231A
It’s not what you know, it’s who you know. Networking is a skill that every successful employee will need to cultivate and develop. In the world of electronic social networks, however, has the true art of networking been lost? This session will challenge you to think differently about true networking, guide you through the “laws of networking,” and remind you of some do’s and don’ts. Participants will have an opportunity to use these skills through a speed networking session, during which they will network with other randomly selected participants for a total of three 10-minute sessions.

Suzannah Richardson has an industrial engineering degree from Cal Poly, San Luis Obispo, and has been with Solar Turbines for five years. During this time, she worked as a rotational manufacturing engineer before her current position, which involves installation of units for oil and gas applications. Richardson has organized multiple speed networking events at Solar Turbines.

Latasha Gillespie earned a B.S. in finance from Southern Illinois University, Carbondale and has been with Solar Turbines and its parent company, Caterpillar, for 14 years. She has held numerous positions in both organizations, including HR district office manager, Six Sigma Black Belt, and diversity recruiting coordinator. She currently oversees the company’s compensation, diversity, health benefits, workers’ compensation, disability, and compliance departments.

Designing Your Career to the Next Level
Panel Discussion
Speakers: Chris Stubbs, Kim Bullock, Annette Koch, Baerbel Dreissig, and Andrea Goddard
Friday 3:30 – 5:00 p.m.
Orange County Convention Center, W340B
Are you ready to jump-start your career? Is it time to move to the next level or a different career path all together? Come learn simple strategies to fast-forward your career, from a panel of Genentech employees. They will share experiences and tips on how to take proactive steps to accelerate your career, and gain success on your own terms. Strategies anyone can apply, such as job shadowing, networking, mentoring, and stretch assignments, will be covered.

Chris Stubbs is senior director of facilities at Genentech.

Kim Bullock is senior manager of manufacturing at Genentech.

Annette Koch works as an engineer in biotech manufacturing at Roche.

Baerbel Dreissig works as an engineer in manufacturing at Roche.

Andrea Goddard is senior director of SSF Site Quality at Genentech.

Is a Rotational Program Right for Me?
Workshop
Speakers: Caroline Key, Stefanie Naski, and Jennifer Vallero
Friday 3:30 – 5:00 p.m.
Orange County Convention Center, W330C
Many companies offer rotational training programs for early-career engineers to develop a broad perspective on the industry before settling into a longer-term position. Hear from program graduates about their rotational experiences, how programs can vary at different companies, and what you can gain by being in a rotational program. The presenters will take questions from the audience.

Caroline Key holds a B.S. from Rose-Hulman Institute of Technology and an M.S. from the University of Cincinnati in mechanical engineering. Through the Edison Engineering Development Program at GE-Aviation, she has held roles in analysis, design, and manufacture of aircraft engine components. Key is currently working as a design engineer on exhaust systems for the GE90 and CF34 engine lines in Cincinnati.

Stefanie Naski is a Six Sigma Black Belt for DuPont Leveraged Operations in Wilmington, Del. She graduated with a B.S.E. in chemical engineering and a minor in materials science from Princeton University in 2005. After graduating, Naski was hired into the Field Engineering Program with DuPont and has been with the company for five years. The Field Engineering Program is a rotational assignment program that DuPont offers to early-career engineers.

Jennifer Vallero graduated from the University of Colorado at Boulder with a bachelor’s degree in mechanical engineering. She currently works for GE Transportation in Erie, Pa., as a durability engineer, understanding and analyzing component failure modes to provide accurate and precise failure forecasting for components of the locomotive. Vallero has been a member of SWE since beginning her education at the University of Colorado, holding many positions on both the local and regional levels in the Society. In 2007, Vallero was one of the inaugural recipients of the Most Outstanding Junior/Senior Collegiate Member Award.
Building Brand YOU: a Personal Path to Career Success

Speaker: Donna Boerner
Friday 4:00 – 5:00 p.m.
Orange County Convention Center, W231A

This workshop will take participants through the same strategies that successful organizations use on a personal level to build your personal “Brand YOU.” As a participant, you will have the opportunity to reflect and self-evaluate how your core values, passions, talents, and skills are combined to define your unique brand. You will develop innovative ways to understand how the world perceives you and how personal branding can have a powerful influence on others. By defining your brand, you can concretely define a positive path to career success.

Donna Boerner is a graduate of the University of South Florida, earning a bachelor’s degree in electrical engineering in 1988 and a master’s degree in engineering management in 1995. She is also an advanced Toastmaster with extensive speaking experience.

Entering Industry with a Graduate Degree

Panel Discussion
Moderator: Anne Silverman
Speakers: Kimberly Ringenberger, Karolina DuBois, and Bich-Van Pham, Ph.D.
Friday 4:00 – 5:00 p.m.
Orange County Convention Center, W330F

Graduate students in engineering are often given guidance concerning careers in academia, but know little about how to transition to a career in industry upon graduation. This panel discussion will include a variety of topics, including different career paths in industry with a graduate degree, the job search as a graduate student, and transitioning to corporate life after graduate school. In addition, panelists will discuss how having a graduate degree has affected their careers. The challenges of a career in industry relative to graduate student life will also be discussed. Questions from the audience will be strongly encouraged.

Anne Silverman is a Ph.D. candidate in mechanical engineering at the University of Texas at Austin. She received her B.S.E. from Arizona State University in 2005 and her M.S.E. from UT in 2007. Her research in biomechanics focuses on experimental and computer simulation analyses of human movement. She is committed to graduate student professional development and involvement in SWE at the collegiate, regional, and national levels.

Kimberly Ringenberger is a study director for nonclinical testing at MED Institute Inc. At MED, she develops new testing models for vascular devices and has taken a project lead directing the installation of a new testing laboratory. She earned her M.S.M.E. in 2005 and her Ph.D. in BME in May 2009, both from Purdue University.

Karolina DuBois graduated with a B.S. and M.S. in electrical and computer engineering from Carnegie Mellon University in 2004. Since then, she has worked for Northrop Grumman, Electronic Systems in Baltimore. Upon starting with Northrop Grumman, she participated in the rotational program (professional development program). She is now a senior engineer working on digital systems design for Radar systems.

Bich-Van Pham, Ph.D., graduated with a B.S. in chemical engineering from Northwestern University in 2002. She worked at a small paint company for a year and a half before returning to school. She attended Purdue University, studying the protein-surface interactions relating to biocompatibility, and completed her Ph.D. in 2009. She is currently working as an engineer with Frito Lay R&D.

Hit the Road Running
Lecture Presentation
Speakers: Theresa Cash and Penny Navarro
Friday 4:00 – 5:00 p.m.
Orange County Convention Center, W224C

Did you know that the average 20-year-old will have 10 to 15 jobs during his or her lifetime, and within that time, will switch careers two to five times? To be successful with each move, we must articulate our individual goals, develop a plan that helps us reach them, and ask for what we want. In this session, the presenters will discuss how to effectively network, how to volunteer for your personal satisfaction while providing for your future, and how to lead whether you are a born leader or not. It’s a lot of work, but whom better to invest your time in than yourself.

Theresa Cash is an account engineer for AFM Global, a mutual property insurance company whose clients include over a third of the companies on the Fortune 1000 list. In her current position, Cash works with her clients to establish loss-prevention programs and design physical protection to help guard against losses and downtime at key locations worldwide. She graduated cum laude from Villanova University with a degree in chemical engineering, and recently completed her M.B.A. from the University of Connecticut.

Penny Navarro is an account engineer for Affiliated FM, a middle-market commercial property insurer. AFM is a stock company solely owned by FM Global. As an account engineer, Navarro works with clients to establish loss-prevention programs and provide physical solutions to help protect their assets, reduce the overall risk, and maintain their profits and market share. Navarro graduated from Guadalajara University, Mexico, with a degree in architecture. She worked in construction, coordinating loss-prevention and risk-improvement projects when she joined FM Global. She also worked as an FM consultant engineer for eight years covering one-third of Mexico’s territory.
Work/Life Balance for the Recent College Grad
Lecture Presentation
Speaker: Kristine Kuan
Friday 4:00 – 5:00 p.m.
Orange County Convention Center, W330G
As a recent college grad who has joined the work force, you have many conflicting priorities. Most likely, you work a lot of hours and you’re trying to get settled in a new town. In addition to all these demands, you would like to make fitness a priority, get more involved at your company, be more active in your community, and increase your network. During this presentation, you will learn tips on how to “have it all” and create a work/life balance that works for you.

Kristine Kuan is an R&D software engineer with Hewlett-Packard in its ProCurve Networking Division. She is actively involved as a technical lead recruiter for HP at UCLA, an intern coordinator for HP, one of the founders of the HP Roseville Young Employee Network, and president of her local SWE section.

Saturday, November 6

Time Is on My Side: Practical Tools for Managing Your Time
Lecture Presentation
Speakers: Sandra Dawson and Sierra Larson
Saturday 10:00 – 11:00 a.m.
Orange County Convention Center, W231A
This presentation will focus on providing participants with practical tools they can use to effectively manage their time, and show them how to create plans based on priorities, etc. Participants will also learn how to distinguish between what is critical and what is significant, as well as how to identify distractions from interruptions through various group exercises and tangible takeaways.

Sandra Dawson is the IS&GS Defense Leadership Development Program manager with six unit managers, leading more than 150 participants located across the country performing rotations throughout Lockheed Martin. In addition to her LDP manager role, Dawson contributes to new business pursuits through cost reviews as a basis of estimate subject matter expert and through proposal leadership roles. Dawson obtained an M.S. in financial services and an M.B.A., with a concentration in finance, both from Saint Joseph’s University. This combination of business and financial education complements Dawson’s technical degrees from Temple University, where she graduated with a B.S. in electrical engineering and an M.S. in engineering.

Sierra Larson is an infrastructure manager for Lockheed Martin’s Simulation and System Integration Laboratories, responsible for the build, facilities, and capital related to the flight simulation and modeling equipment used to test and integrate various aircraft. Larson holds a B.S. in mechanical engineering from the University of California, Davis. She also actively promotes science, technology, engineering, and math, and has organized and participated in many outreach activities at various schools.

Facebook, Twitter, Email Netiquette
Workshop: Collegians and recent graduates
Speaker: Nycletha McCarley-Cameron, Angel Williams, and Minna McCarthy Yale
Saturday 10:00 – 11:30 a.m.
Orange County Convention Center, W340C
Are you at risk for not landing (or losing) the job? Everyone acknowledges that social media is changing the way people think and is being adopted at an unprecedented rate. It’s easily becoming a visceral part of our daily interactions. What hasn’t been discussed, however, is the way in which these interactions influence employer hiring practices. Attend this panel discussion by engineering and human resource personnel for insider information on the impact of social media, as well as for tips on proper etiquette for electronic communications. Attendees will learn: appropriate conduct with electronic interoffice communications (instant messaging, texting, and email); awareness of impression (and impact) that Internet persona may have on potential employers (Facebook, Twitter, LinkedIn, etc.); and how using social media wisely can actually help you land the job.

After graduating with a B.S. in chemical engineering from Northwestern University, Nycletha McCarley-Cameron joined Abbott Laboratories as a validation engineer in its Pharmaceutical Division. From there, she enjoyed roles as a process engineer, manufacturing supervisor, and operations manager for a chemical manufacturing facility. Upon graduating from Northwestern with an M.S. in engineering management, she served as a validation supervisor, then as a plant engineering manager. Currently, McCarley-Cameron is the commissioning and validation engineering services manager, providing global engineering and quality program support to Abbott business units.

Having It All: Making Working Motherhood Work for You and Your Family
Panel Discussion
Speakers: Britney Head; Sherri Stuewer; Penny Wirsing, F.SWE; and Shawn Simmons, Ph.D.
Saturday 10:00 – 11:30 a.m.
Mid-Career Session
Orange County Convention Center, W232B
Work/life balance is a challenging task throughout all the stages of your career, especially when it comes to motherhood. The good news is that you can rely on support through women’s networks, family, flexible work arrangements, and household support services. This panel of mothers will share what support they use and how they’re balancing their careers and motherhood during relocation, promotions, sick children, soccer games, and more.
Britney Head is an environmental advisor for ExxonMobil Refining and Chemicals, where she is responsible for ensuring compliance with state and federal regulations. In her five years with ExxonMobil, she has held both process and environmental roles in several site locations. She returned to work full time when her son was 2-months-old, so she understands the joys and challenges of balancing work and a new baby. Head holds a B.S. in chemical engineering from Louisiana Tech University.

Sherri Stuewer is vice president of environmental policy and planning for Exxon Mobil Corporation. In this role, she is responsible for developing and coordinating ExxonMobil’s worldwide efforts to address emerging environmental issues, including climate change. Over her 34-year career with ExxonMobil, she has held a variety of technical and managerial positions in refining, planning, and logistics. Stuewer is a member of the board of trustees at Cornell University and a board member of the YMCA of Metropolitan Dallas. She is a past chair of the Industry Advisory Board to the International Energy Agency. Stuewer holds a B.S. and M.S. in engineering from Cornell University. She is married and has two daughters who both have engineering degrees.

Penny Wirsing, F.SWE, has been with ExxonMobil for more than 20 years and is currently an environmental group leader for the company’s Torrance Refinery, where she is responsible for ensuring compliance with local, state, and federal regulations. She earned her B.S. in civil engineering from Michigan State University while working full time as a single mom. Her daughter is now a successful assistant U.S. attorney. Wirsing was honored as a SWE Fellow in 2007.

Shaw Emson Simmons, Ph.D., a 10-year service employee, is the lead environmental and regulatory advisor for ExxonMobil Development Company, responsible for regulatory compliance and environmental management for projects in West Africa. She is currently on expatriate assignment with her family in Lagos, Nigeria. Dr. Simmons has a B.S. in petroleum engineering from the University of Oklahoma, an M.S. in environmental engineering from Rice University, and a Ph.D. in environmental toxicology from Texas Southern University. She has received the “Tomorrow’s Leader Today” Award and been featured in Ebony magazine as one of the “30 Leaders of the Future.” Dr. Simmons is married and has a 13-year-old son and an 8-year-old daughter.

Marcell Schmidt holds a B.S. in chemical engineering from Purdue University and an M.S. in bioengineering from the University of Illinois at Chicago. She worked for three years in the chemical industry in various roles before deciding to return to school full time for her master’s degree.

Kimber Brenneman holds a B.S. in agricultural and biological engineering from Purdue University. She worked in various food process engineering roles before returning to school full time to pursue a graduate degree. Brenneman is currently pursuing a Ph.D. in bioengineering from the University of Illinois at Chicago.

Managing Your Manager
Lecture Presentation
Speaker: Elizabeth Garypie
Saturday 1:30 – 2:30 p.m.
Orange County Convention Center, W231A
Do you ever wonder what your manager is thinking? Do you ever wish you could get your manager to pay more attention to issues that concern you? Do you want your manager to provide you more challenging opportunities? This session will offer insight into the mind of a manager — that is, help you to understand what is behind a manager’s actions and words. Learn how to communicate more effectively with your manager. Motivate your manager so she or he can be an advocate for you.

Elizabeth Garypie is chief engineer of Naval Hawk Programs for Sikorsky Aircraft, a division of United Technologies. Garypie currently provides overall technical leadership for all Naval Hawk helicopter development and production programs. Major programs include the MH-60R and MH-60S for the U.S. Navy and International S-70B. Garypie leads an organization of more than 20 engineering managers and team leads and 300 functional engineers. She received her B.S. in mechanical engineering from Trinity College, Hartford, Conn.

You Did What! Avoiding Career Suicide
Lecture Presentation
Speakers: Tina Haley and Cynthia Gray
Saturday 1:30 – 2:30 p.m.
Orange County Convention Center, W231C
So, you’ve been hired. You’ve got that incredible first job. Now, how do you avoid undermining it, and, more importantly, how do you position yourself to make the most of this opportunity? This presentation is designed for professionals new to the workforce. The focus will be on building a foundation for performance, relationship management, and professional development. The presenters will discuss networking, effective communications, time management, office culture, and other related topics.

Tina Haley is a senior engineer for the Walt Disney Company at Walt Disney World in Orlando. She is responsible for designing many varieties of rides, attractions, entertainment venues, and transportation systems with regard to electrical and automation
controls. She earned both a B.S. and an M.S. degree in electrical engineering from the University of Central Florida. Haley has been actively involved in SWE since 1998 in both collegiate and professional sections. She was awarded Central Florida's 2005 Woman of Distinction and Central Florida Engineers Week 2008 Young Engineer of the Year.

**Cynthia Gray** is a manager in engineering services with Walt Disney Parks and Resorts. She is responsible for training and labor initiatives for engineering services, and has been a cast member at Walt Disney World for 14 years. While at Disney, Gray has led engineering teams in design and engineering, telecommunications, and engineering services. She earned her master's degree in interactive telecommunications from New York University. She has been a member of the Society of Women Engineers for the past five years and served as the local chair for professional development for two years. She currently serves on the SWE conference planning board.

How Do You Know When It's Time to Change Jobs?

*Panel Discussion*

**Speakers:** Michele Neiman, Bonnie Page Danner, Denise Dubia, and Nicole Tannenbaum

**Saturday 2:45 – 3:45 p.m.**

*Mid-Career Session*

**Orange County Convention Center, W232C**

How do you know when it is time to change jobs? If you live for Friday nights and dread Sunday nights, it may be time. While work will always be "work," you shouldn’t dread the weekdays. If you have reached a plateau in your current role, and there is no line of sight for a promotion, it may be time to find a new job. While consistency is comforting, it could be a waste of your talents, especially if you have ambitions to move up in the company or climb the leadership ladder. This seminar is a witty, honest panel discussion to help you recognize when it is truly time to start planning your next career move.

**Michele Neiman** is director of strategic talent acquisition for Northrop Grumman. She has been a Northrop Grumman employee since 2002. Previously, Neiman was the director of staffing operations. Tannenbaum has expertise in full life-cycle recruiting and management in the civil agencies, defense, and the intelligence market. She also has extensive experience in management and proposal development, and more than 15 years of experience in the recruiting industry.

Learning from Women Engineering Pioneers: A Case Study

*Lecture Presentation*

**Speaker:** Laura Ettinger, Ph.D.

**Saturday 2:45 – 3:45 p.m.**

**Orange County Convention Center, W231A**

In keeping with SWE's 60th anniversary celebration, this session focuses on the history of women engineers and how understanding that history can help us in the future. Using oral histories and archival sources, the session offers a case study of women engineering alumnae from Clarkson University, a technological institution that reintroduced coeducation in 1964 after a 57-year break. This study challenges us to rethink how women engineering pioneers negotiated gender challenges and the experience of pioneering.

**Laura Ettinger, Ph.D.** is a historian of women professionals in engineering, science, and medicine. Her first book, *Nurse-Midwifery: The Birth of a New American Profession*, was named an Outstanding Academic Title for 2006 by Choice. A winner of teaching and research awards, she holds a Ph.D. from the University of Rochester. Dr. Ettinger is an associate professor of history at Clarkson University.
Maximize Your Career At Every Stage of Your Life
Lecture Presentation
Speaker: Tabitha Wong
Saturday 2:45 – 3:45 p.m.
Orange County Convention Center, W231C
Develop a personal strategy to guide your career to be in-sync with your personal life by knowing your current position, your future, and everything in-between. This workshop will help you answer questions such as: What kind of job should I look for when I just graduated? What should I do to plan for a successful return from maternity leave? How should I handle being a professional and a caretaker? What should I look for as I near retirement?

Tabitha Wong graduated with a B.S. in computer science from the University of California, Davis, an M.B.A. in finance from California State University, and Management of Technology Certification from the University of California, Berkeley. She has been a software consultant for more than 10 years and is responsible for leading development of custom solutions for various internal Intel department groups. Wong is an active SWE member and served on Region A’s collegiate leadership coaching committee from 2005-2008. Wong resides in Northern California with her husband and two young children, ages 4 and 1.

Pros and Cons of Telecommuting
Lecture Presentation
Speaker: Julianna Michna
Saturday 4:00 – 5:00 p.m.
Orange County Convention Center, W231C
Is telecommuting right for you? Working from home has both positive and negative aspects. This session is for anyone currently telecommuting (full or part time) or thinking about it in the future. Topics will include finding a balance between work and home life, ways to motivate yourself to succeed in a telecommuting environment, and what to consider before making the transition.

Julianna Michna holds a B.S. in polymer and textile chemistry from the Georgia Institute of Technology, an M.S. in textile technology from the Institute of Textile Technology, and a Master’s of Environmental Engineering from Rice University. She has been telecommuting since May 2006 for two different companies.

The Roads Less Traveled: Finding Balance and Joy amidst Multiple Transitions
Lecture Presentation
Speaker: Joan Scheske
Saturday 2:45 – 3:45 p.m.
Mid-Career Session
Orange County Convention Center, W232B
Considering pursuing an advanced engineering degree? Debating the strengths and weaknesses of returning to school to receive an M.B.A.? Wondering how to successfully disengage from the work force to raise kids for a while? At home now, looking for insights to reenter the work force? Need to change industries in this economy? Moving to a management role and looking for guidance/advice? Come gather suggestions and insights from the case study of a SWE life member who, over a 25-year career, has successfully made these transitions.

Joan Scheske is senior manager of strategic analysis at University of Michigan Medical School, Finance. She was the first woman in Ford history responsible for ensuring a vehicle line met safety standards. She transformed previous product from worst-in-class performer to best pick, employing high-end modeling to reduce empirical expense and product development time, leading a cross-functional team of 30. Scheske holds an M.B.A. and an M.S.M.E.
Sessions within the Careers in Academia track look at the various career paths and opportunities for women in academia. Administrators, faculty, and students within the academic community will share insights and experiences, as well as network.

By attending sessions within this track you will be able to:
- Evaluate the opportunities of a career in academia
- Prepare for graduate school
- Prepare for a career in academia
- Recognize the hot topics, paradigm shifts, and trends in STEM higher education

Thursday, November 4

Global Opportunities for Graduate and Post-Graduate Students
Panel Discussion
Speakers: Ellison Carter, Katherine Alfredo, and Jennifer Patterson
Thursday 10:00 – 11:30 a.m.
Orange County Convention Center, W231A

Working globally requires anticipating difficulties assimilating to another culture, but omitted from the preparation are the issues with re-acclimation into one’s own culture and cultivating experiences from abroad to further one’s research/career. After discussion about available graduate/postgraduate opportunities, the session’s panelists will focus on the personal difficulties encountered while abroad and how these international experiences have impacted their career paths and current/future research in the short and projected long term.

Ellison Carter is a doctoral student in the environmental and water resource department and NSF IGERT trainee at the University of Texas at Austin. Her research interests include environmental chemistry and pollution control strategies, which has led to collaboration with researchers at the National Institute of Standards and Technology (NIST) to study formaldehyde removal from indoor air. Prior to pursuing her doctorate, Carter used her degrees in biology (B.S.) and Spanish (B.A.) from Indiana University while working as a researcher and environmental educator at several biological stations in Costa Rica.

Katherine Alfredo is a civil engineering doctoral student and NSF Fellow at the University of Texas at Austin, focusing on drinking water quality and treatment. She received her B. Eng. in civil engineering from the Cooper Union and her M.S. in environmental and water resources engineering from UT at Austin. Alfredo’s interest in drinking water issues in rural, developing areas of the world brought her to Ghana, West Africa on a 2008-09 Fulbright Fellowship.

Jennifer Patterson is a post-doctoral fellow at the Ecole Polytechnique Federale de Lausanne in Switzerland, where she is researching hydrogel biomaterials for regenerative medicine applications and enjoying skiing in the Alps. She received a Ph.D. in bioengineering in 2007 from the University of Washington, which was supported by a National Science Foundation Graduate Fellowship. She received a B.S.E. in chemical engineering in 1998 from Princeton University, where she was the president of the student SWE chapter, and worked in the biomedical industry for several years before starting graduate school.

How to be Successful in a Faculty Interview
Panel Discussion
Speakers: Allison Hall, Donna S. Reese, Jennifer Bower Dawson, and Karla Welch
Thursday 1:30 – 3:00 p.m.
Orange County Convention Center, W231A

Graduate students and post-doctoral researchers who are interested in pursuing academic careers know that a successful faculty interview is important for obtaining a faculty position that is beneficial for both the university and the interviewee. This panel will feature both faculty who have recently completed the interview process and faculty who have served on recruitment committees, who can address topics such as what to expect during the interview (at both research and teaching universities), how to prepare for the interview, seminar presentation tips, strategies for success, and common mistakes to avoid. Questions will be strongly encouraged to guide the discussion.

Allison Hall is a Ph.D. student in the department of mechanical engineering at The University of Texas at Austin. She graduated in May 2005 from Tulane University with a B.S.E. in biomedical engineering and earned a M.S.E in August 2007 in mechanical engineering from UT-Austin. Hall’s research focuses on biomechanics of human movement, specifically experimental and computer simulation analysis of post-stroke hemiparetic walking.

Donna S. Reese is currently associate dean for academics and administration for the Bagley College of Engineering at Mississippi State University and a professor of computer science and engineering. She serves as faculty advisor for the MSU SWE student section. She manages a freshman engineering living/learning community and is interested in increasing the number of women and underrepresented minorities at all levels in academia.
Jennifer Bower Dawson is currently an assistant professor of mechanical engineering at York College of Pennsylvania. She earned her B.S. in mechanical engineering at Bucknell University in 2003, her M.S. in mechanical engineering at Stanford University in 2005, and her Ph.D. in mechanical engineering in 2008. Her teaching and research interests include mechanical design, dynamics and controls, robotics and spacecraft design.

Karla Welch is an assistant professor in the department of electrical and computer engineering at the University of Louisville. She received her B.S. degree in electrical engineering from the University of Kentucky and received her M.S. and Ph.D. from the department of electrical and computer science at Vanderbilt University. Dr. Welch’s research interests include human-machine interaction, adaptive response technologies, machine learning, robotics, engineering education, and physiological signal processing.

Life as a Graduate Student
Panel Discussion
Moderator: Allison Hall
Speakers: Chelsea Magin, Connie Slaboch, and Katherine Winters
Thursday 3:30 – 5:00 p.m.
Orange County Convention Center, W231A
Graduate school can be a rewarding and challenging experience, which is often very different from undergraduate education. This panel will feature current graduate students from a variety of disciplines who will address topics such as transitioning to graduate school, what life is like as a graduate student, the positive and negative aspects of graduate school, and provide advice on overcoming challenges common to graduate students. In addition, the panelists will discuss how to choose a graduate school/advisor and how to apply for graduate school and funding. Questions from the audience are strongly encouraged to guide the panel discussion topics.

Allison Hall is a Ph.D. student in the department of mechanical engineering at The University of Texas at Austin. She graduated in May 2005 from Tulane University with a B.S.E. in biomedical engineering and earned a M.S.E. in August 2007 in mechanical engineering from UT-Austin. Hall’s research focuses on biomechanics of human movement, specifically experimental and computer simulation analysis of post-stroke hemiparetic walking.

Chelsea Magin received her B.S. in materials science and engineering from the University of Florida and is currently a Ph.D. student in biomedical engineering. Her research focuses on the interactions of cells with microtopographically modified surfaces. Magin served as school outreach chair, vice-president external, and graduate advisor for the SWE section at UF. She is currently the graduate collegiate representative for Region D.

Katherine Winters is a Ph.D. student in engineering education at Virginia Tech. She is a graduate teaching fellow and teaches in the freshman engineering program. Her research interests focus on engineering student motivation and identity development, especially for graduate students in teaching roles. Winters received her bachelor’s and master’s degrees from Brigham Young University in civil engineering, conducting research in transportation safety and materials.

Connie Slaboch is a mechanical engineering doctoral student at the University of Notre Dame. Her research involves nanoindentation of thrombi to determine the mechanical properties and to diagnose blood related diseases at an earlier stage in their progression. Slaboch obtained her B.S. in mechanical engineering from Notre Dame and has been an active member in SWE since her freshman year. She received the Outstanding Member Award for the 2007-2008 school year.

Friday, November 5
The Academic Career Pathway
Workshop
Speakers: Lydia Soleil and Bonnie Ferri
Friday 10:00 – 11:30 a.m.
Orange County Convention Center, W231C
This workshop will give an overview of what it means to become a doctoral student, offering a snapshot of what faculty life is like at various institutions, the market conditions for academic careers, what you should do in graduate school to be competitive for an academic career upon graduation, and some of the nuts and bolts of the academic job search process.

Lydia Soleil holds a B.S. in biotechnology from Worcester Polytechnic Institute and a Ph.D. in physiology from the University of California, Davis. She is the assistant director of TA programs and graduate student development, Center for the Enhancement of Teaching and Learning at Georgia Tech. Dr. Soleil developed and taught a two-unit graduate course at the University of California, Irvine (UCI) on preparing for the academic job search, at the University of California, Irvine (UCI) and has developed and facilitated academic job search-related workshops at UCI and Georgia Tech, both for specific departments and campus-wide audiences.

Bonnie Ferri holds a B.S. in electrical engineering from the University of Notre Dame, a M.S. in mechanical and aerospace engineering from Princeton, and a Ph.D. in electrical engineering from Georgia Tech. As the associate chair for graduate affairs for ECE at Georgia Tech, she has started a seminar series for graduate students on academic careers. She has compiled presentations based on panel discussions from two prior offerings of this series and will present these during the workshop.
### To Post-Doc or Not to Post-Doc?

**Panel Discussion**

**Speakers:** Richelle Thomas, Anne Silverman, Ph.D., Sharnnia Artis, Ph.D., and Laura Fabris, Ph.D.

**Friday 10:00 – 11:30 a.m.**

Orange County Convention Center, W231B

Graduate students and undergraduates considering graduate school often find themselves questioning the benefits of completing a postdoctoral degree, as it seems to be a great asset for certain career choices, while making relatively little impact in others. This panel will discuss the necessity or lack thereof for completing a post-doctoral degree. Designed to help current students navigate the post-graduate professional world, it will feature both academic and industry professionals with varying backgrounds regarding post-doc participation and academic/industry sectors to weigh in on the topic. Participants can expect a balanced discussion from both sides to aid in their decision-making.

**Jennifer Patterson** is a post-doctoral fellow at the Ecole Polytechnique Federale de Lausanne in Switzerland, where she is researching hydrogel biomaterials for regenerative medicine applications and enjoying skiing in the Alps. She received a Ph.D. in bioengineering in 2007 from the University of Washington, which was supported by a National Science Foundation Graduate Fellowship. She received a B.S.E. in chemical engineering in 1998 from Princeton University, where she was the president of the SWE student section, and worked in the biomedical industry for several years before starting graduate school.

**Anne Silverman, Ph.D.,** is an NSF graduate research fellow at the University of Texas at Austin, where she researches below-knee amputee compensatory strategies over a wide range of walking speeds. Through experimental data analysis and modeling and simulation techniques, the goal of this work is to identify the potential metabolic and biomechanical consequences of using one strategy versus another in amputee gait. She received her B.S. from the Arizona State University in mechanical engineering, and her M.S. and Ph.D. in mechanical engineering from The University of Texas at Austin.

**Laura Fabris, Ph.D.,** received her B.S. and M.S. degrees in chemistry from the University of Padova, Italy. She then moved to industry for one year, where she worked as quality assurance associate. In 2003 she returned to academia to pursue her doctorate degree in chemical sciences, working peptide-protected gold clusters. In January 2006, she moved to the University of California at Santa Barbara, where she worked as a postdoctoral scholar on the development of SERS-based biosensors. In July 2009, she joined the department of materials science and engineering at Rutgers University, where she holds an appointment as assistant professor.

### Making the Choice to Attend Graduate School — What You Need to Know!

**Lecture Presentation**

**Speaker:** Shira Washington

**Friday 1:30 – 2:30 p.m.**

Orange County Convention Center, W231C

As a student you are faced with a decision as you approach graduation — graduate school or industry? If you are considering graduate school then this session is for you. Come and learn more about what you should consider when making this decision, including your future career plans, what is the best time to attend graduate school, preparation for graduate school, funding your graduate education, choosing the right institution, and other topics.

**Shira Washington** is the coordinator for graduate education programs at the University of Michigan College of Engineering. She holds a B.A. in communication studies from University of Michigan-Ann Arbor. The presenter is not only an alumna, but an employee of the University of Michigan. She will bring a firsthand perspective of the institution to prospective students.

### Succeeding in an Academic Environment

**Lecture Presentation**

**Speaker:** Karinna Vernaza, Ph.D.

**Friday 1:30 – 2:30 p.m.**

Orange County Convention Center, W231B

Promotion and tenure requirements vary from one institution to the other. Research I institutions emphasize scholarship; Master’s I institutions typically require a more balanced portfolio amongst teaching, scholarship, and service; colleges concentrate on teaching and service. The tenure process is a very stressful time in any professor’s career, and it is the individual’s responsibility to become aware of the expectations and requirements. This interactive presentation will examine different paths to success in an academic environment. We will consider how promotion and tenure typically works, the key items during your dossier preparations, the importance of a balanced portfolio, and the advantages of using your strengths from the moment you start this process. We will finalize this presentation with a discussion of lessons learned, where common pitfalls will be discussed. Participants will leave with a clear idea of what steps they should take towards achieving rank and tenure.

**Karinna M. Vernaza, Ph.D.,** is a tenured associate professor of mechanical engineering at Gannon University. She holds a Ph.D. and M.S. in mechanical engineering from the University of Notre Dame, and a B.S. in marine systems engineering from U.S. Merchant Marine Academy. Her research and teaching expertise includes fracture mechanics, solids mechanics, materials, active learning techniques and creativity in engineering. She consults for GE Transportation. She is currently a member of the university
rank and tenure committee. She has been the faculty advisor for Gannon University’s SWE collegiate section since 2004, and is the outreach representative for Region G.

Applying to Graduate School
Lecture Presentation
Chelsea Magin and Prinda Wanakule
Friday 2:45 – 3:45 p.m.
Orange County Convention Center, W231B
Most universities provide excellent career resources for graduating students entering industry. Unfortunately, many of these facilities provide little or no guidance for students who are interested in pursuing a graduate degree. This presentation will provide students with a step-by-step guide and timeline for choosing a graduate school, completing the prerequisites and applications, obtaining funding, and provide some insights on what to expect as a graduate student.

Chelsea Magin received her B.S. in materials science and engineering from the University of Florida and is currently a Ph.D. student in biomedical engineering. Her research focuses on the interactions of cells with microtopographically modified surfaces. Magin served as school outreach chair, vice-president external, and graduate advisor for the SWE section at UF. She is currently the graduate collegiate representative for Region D.

Prinda Wanakule is a biomedical engineering doctoral student and NSF Fellow at the University of Texas at Austin, where she focuses on development of novel biomaterials for drug delivery. She received her B.S. from the University of Florida in biological engineering and biomechanics, and held many leadership positions, including section president. Prinda founded graduate student groups at UF and UT, serves as Region C team lead for the collegiate leadership coaching committee, and is a member of the strategic planning committee.

Best Practices from NSF ADVANCE Programs
Panel Discussion
Speaker: Jenna Carpenter, Ph.D.
Friday 2:45 – 3:45 p.m.
Orange County Convention Center, W231C
This session will feature NSF ADVANCE programs sharing their best materials, resources, presentations, and programs for promoting the success of women faculty in engineering. Each presentation will feature take-homes for each participant.

Jenna Carpenter, Ph.D., is principal investigator on Louisiana Tech’s NSF ADVANCE grant, is currently on the board of directors of WEPAN and ASEE, is co-principal investigator on WEPAN’s Knowledge Center Project, and serves on the National Advisory Panel for SWE’s Assessing Women and Men in Engineering (AWE) Project. She has served as faculty advisor for Louisiana Tech’s SWE Student Section, and as an engineering department head and associate dean for 12 years.

Career Opportunities for Women of Color in Academia at HBCUs
Lecture Presentation
Speaker: Felecia M. Nave, Ph.D.
Friday 4:00 – 5:00 p.m.
Orange County Convention Center, W231C
Recruitment, retention, and advancement of female faculty through the professorate ranks and in administration in science, technology, engineering, and mathematics (STEM) disciplines continues to plague American colleges and universities. In 2004 and 2005, women earned approximately 50 percent of the Ph.D.s awarded in the STEM disciplines, yet they represented only 14 percent of the STEM faculty with even lower percentages for engineering and technology (NSF, 2005). Additionally, although women make up more than half of the undergraduates enrolled in U.S. institutions, they make up only 18 percent of the students enrolled in undergraduate engineering programs (NSF, 2007). Consequently, the pool of female students to replenish the faculty pipeline is limited. There is a growing body of literature that supports increasing the presence of women faculty in engineering schools as essential to encouraging the persistence of undergraduate and graduate students in the engineering and technology pipeline. In particular, “Access to same-gender faculty role models is critical to the success of female STEM students at every level in the pipeline (NSF, 2005).” This workshop is designed to provide participants information regarding the career opportunities for Women Of Color (WOC) at HBCUs. Strategies that have been identified through the ADVANCE-PAID projects that support WOC successful matriculation through the professoriate and administrative ranks at these institutions will be presented.

Felecia M. Nave, Ph.D., is the associate provost for academic affairs and associate professor of chemical engineering at Prairie View A&M University (PVAMU). Prior to her appointment as associate provost, she served as the interim assistant dean for the Roy G. Perry College of Engineering. While serving as the faculty advisor for the PVAMU section of SWE, she oversaw the revitalization of the chapter and in 2009 was recognized as the PVAMU Student Organization Advisor of the Year. Dr. Nave received her Master of Science and doctorate degrees from the University of Toledo in chemical engineering and her Bachelor of Science degree in chemistry from Alcorn State University.
**Women Engineering Deans: Defining Success On Their Own Terms**

**Lecture Presentation**

**Speaker:** Peggy Layne, P.E.

**Friday 4:00 – 5:00 p.m.**

**Orange County Convention Center, W231B**

Eleanor Baum became the first female dean of engineering in the United States in 1984, but women engineering leaders in academe are still few and far between. Currently, less than 10 percent of the engineering programs in North America are led by women. Who are these women? How did they get where they are today? And what impact are they having on engineering and engineering education? Interviews with women deans over the past 10 years illustrate the diversity of their career paths and similarities in their approach to leadership.

**Peggy Layne, P.E.,** joined Virginia Tech in 2003 as director of the AdvanceVT program, a program to increase the participation and success of women in academic science and engineering careers. She is a registered professional engineer with degrees in environmental and water resources engineering, and worked for 17 years as an environmental engineering consultant. Layne also spent a year working in the U.S. Senate as an AAAS Congressional Fellow sponsored by the American Society of Civil Engineers, and served as president of the Society of Women Engineers in 1996-97.

**Saturday, November 6**

**Graduate and Post-Graduate Funding Opportunities**

**Panel Discussion**

**Speakers:** Katherine Alfredo, Bevlee A. Watford, Ph.D., Richelle Thomas, Euridice Oware, Ph.D., and Ellison Carter

**Saturday 10:00 – 11:30 a.m.**

**Orange County Convention Center, W231B**

Graduate students must periodically find funding opportunities throughout their educational career. In this session, several funding opportunities will be presented that are available for graduate engineering students including NSF and Fulbright. Additionally, less traditional sources of funding will be discussed, such as those offered through private foundations or professional societies. The session will also focus on writing a competitive funding proposal. A list of major fellowships will be provided as a handout to accompany the discussion.

**Katherine Alfredo** is a civil engineering doctoral student and NSF Fellow at the University of Texas at Austin, focusing on drinking water quality and treatment. She received her B. Eng. in civil engineering from the Cooper Union and her M.S. in environmental and water resources engineering from UT at Austin. Alfredo’s interest in drinking water issues in rural, developing areas of the world brought her to Ghana, West Africa on a 2008-09 Fulbright Fellowship.

**Bevlee A. Watford, Ph.D.,** is the associate dean of academic affairs, the founding director of the Center for the Enhancement of Engineering Diversity (CEED) for the College of Engineering and a professor of engineering education at Virginia Tech. She received her B.S. in mining engineering and her M.S. and Ph.D. in industrial engineering and operations research from Virginia Tech. Dr. Watford has focused her research efforts on engineering education, particularly the research and implementation of activities that enhance the recruitment and retention of undergraduate students. She has received numerous grants from NSF as well as from foundations and corporations to support her work.

**Richelle Thomas** is a chemical engineering doctoral student at the University of Texas at Austin. She received her B.S. in chemical engineering from the University of Notre Dame. Her work examines the use of naturally occurring biological materials in novel, three-dimensional tissue engineering constructs. She currently works to impose simple, yet biologically relevant porosities in these constructs that can be tuned for various applications.

**Euridice Oware, Ph.D.,** is the program coordinator for an NSF-funded GK-12 program at Boston University that provides fellowship for science and engineering graduate students. She also recently completed her Ph.D. in engineering education at Purdue University. As a graduate student, she had funding through various sources such as research assistantships, teaching assistantships, and fellowships and grants from her university or external sources.

**Ellison Carter** is a doctoral student in the environmental and water resource department and NSF IGERT trainee at the University of Texas at Austin. Her research interests include environmental chemistry and pollution control strategies. She currently works with air filter media to characterize surface properties that promote gas-phase removal of recalcitrant, polar contaminants commonly found in indoor environments. This work most recently has led to collaboration with researchers at the National Institute of Standards and Technology (NIST) to study formaldehyde removal from indoor air.

**Is Graduate School an Option for You?**

**Lecture Presentation**

**Speaker:** Karinna Vernaza, Ph.D.

**Saturday 1:30 – 2:30 p.m.**

**Orange County Convention Center, W225**

Are you considering going the extra step in higher education? With the current economic crisis, both students and professionals might be considering graduate school in the near future. Pairing your engineering background with a higher education degree can be very valuable in shaping your career. This interactive presentation will examine the most common paths to extend your education: M.B.A., M.S., Ph.D. Selecting the program that best fits your interests and needs is an individual decision. Is a
master’s or a Ph.D. degree right for you? The pros and cons of these two paths will be discussed. Factors such as time, cost, funding sources, commitment, and challenges will be evaluated. The presentation will end with general tips and advice to succeed in graduate school. Participants will leave with an understanding of the differences between the most common higher education paths as well as knowledge of the steps to follow when making this decision.

Karissa M. Vernaza, Ph.D., is a tenured associate professor of mechanical engineering at Gannon University. She holds a Ph.D. and M.S. in mechanical engineering from the University of Notre Dame, and a B.S. in marine systems engineering from U.S. Merchant Marine Academy. Her research and teaching expertise includes fracture mechanics, solids mechanics, materials, active learning techniques and creativity in engineering. She consults for GE Transportation. She is currently a member of the university rank and tenure committee. She has been the faculty advisor for Gannon University’s SWE collegiate section since 2004, and is the outreach representative for Region G.

Graduate Student Involvement in SWE Collegiate Sections
Panel Discussion
Speakers: Chelsea Magin and Prinda Wanakule
Saturday 2:45 - 3:45 p.m.
Orange County Convention Center, W225
SWE collegiate sections have typically seen very little graduate student involvement, as graduate students become more involved with field-specific professional organizations, or have “outgrown” most collegiate section events. What many sections don’t realize, however, is that graduate students are an excellent resource, offering much experience, advice, perspectives, and ideas. This panel will feature discussions on how some sections have increased graduate involvement by creating graduate focus groups, hosting graduate-specific events, and more. It will also include administrative considerations, such as funding support and faculty engagement, and explore new ideas for how to best utilize your graduate student members.

Chelsea Magin received her B.S. in materials science and engineering from the University of Florida and is currently a Ph.D. student in biomedical engineering. Her research focuses on the interactions of cells with microtopographically modified surfaces. Magin served as school outreach chair, vice-president external, and graduate advisor for the SWE section at UF. She is currently the graduate collegiate representative for Region D.

Prinda Wanakule is a biomedical engineering doctoral student and NSF Fellow at the University of Texas at Austin, where she focuses on development of novel biomaterials for drug delivery. She received her B.S. from the University of Florida in biological engineering and biomechanics, and held many leadership positions, including section president. Prinda founded graduate student groups at UF and UT, serves as Region C team lead for the collegiate leadership coaching committee, and is a member of the strategic planning committee.

Women in Academia and Graduate Students: Conversation and Networking
Panel Discussion
Speakers: Mary Anderson-Rowland, Ph.D., Mary Verstraete, Ph.D., and Tricia Berry
Saturday 4:00 – 6:00 p.m.
Orange County Convention Center, W225
How can the women in academia and the undergraduate and graduate students work together and help each other? Join us to address this question, and identify opportunities to build a stronger, more dynamic, women in academia community. The panel discussion will be followed by networking and a reception.

Tricia Berry is the executive vice president and chief creative officer for 825 Basics, LLC. She has over 15 years’ experience in training, presentations, workshop development, coaching and process management. Berry’s varied experiences include career coaching, large volunteer program management, professional speaking, and workshop and training development and implementation.

Mary Verstraete, Ph.D., is an associate professor of biomedical engineering and the coordinator of the undergraduate program in biomedical engineering at The University of Akron. She is also the faculty advisor for the student sections of the Biomedical Engineering Society and the Society of Women Engineers. Dr. Verstraete teaches courses at the undergraduate and graduate level in biomedical engineering and at the undergraduate level in mechanical engineering. She currently advises all of the undergraduate students in biomedical engineering. Dr. Verstraete received her B.S., M.S. and Ph.D. in engineering mechanics from Michigan State University and received SWE’s Distinguished Engineering Educator Award in 2006.

Mary Anderson-Rowland, Ph.D., is an associate professor in the department of industrial engineering in the Ira A. Fulton School of Engineering at Arizona State University. Dr. Anderson-Rowland received her B.A. in mathematics from Hope College in 1961, and her M.S. and Ph.D. in mathematics from the University of Iowa in 1963 and 1966, respectively. In 1995, she became the first woman appointed as an associate dean in the Fulton School. Dr. Anderson-Rowland has been the recipient of numerous awards and recognitions including the Society of Women Engineers Distinguished Engineering Educator; the American Association of Engineering Societies National Engineering Award; and the Society of Hispanic Professional Engineers Educator of the Year in 2005.
Nora Davis, F.SWE, has been working in the computer engineering field for over 30 years. Davis is currently responsible for the evaluation and selection of computer hardware and software for use throughout the CIA. Davis earned her B.S. in electrical engineering and computer science at the University of California, Berkeley and an M.E.S. in digital systems from Loyola College, Baltimore. She was elected to the SWE College of Fellows in 2008.

Patricia Hudson is the director of Enterprise Operations Mission Engagement Office at the National Geospatial-Intelligence Agency. She began her federal career over 31 years ago as a cartographer at the Defense Mapping Agency. Her office is responsible for ensuring GEOINT dissemination needs are met. Hudson received her bachelor’s degree in mathematics from the University of Missouri, St. Louis and her master’s degree in geodetic science from Washington University. She is an avid fan of the St. Louis Cardinals.

Thursday, November 4

Choosing the Right Intelligence Agency for You
Lecture Presentation

Presenters: Nora Davis, F.SWE, Stacey Valentin, Jennifer R. Sanchez, Jill Singer, and Patricia Hudson
Thursday 3:30 – 5:00 p.m.
Orange County Convention Center, W224E

Ever wonder what it’s like to work in the intelligence community? Do you know the difference between working for the CIA and the FBI? Composed of representatives from several of the agencies that make up the intelligence community, this panel will discuss intelligence opportunities available and the differences between the agencies.

Lt. Stacey Valentin was accepted as a direct commission intelligence officer in the United States Navy in 2004. Upon completion of the intelligence community requirements, she was assigned to Naval Criminal Investigative Service (NCIS). She is currently serving as a recruiter and was selected as Navy Recruiting District Seattle’s Officer Recruiter of the Year in 2009. Valentin received her B.A. in history and teaching certifications from Western Washington University.

Jennifer R. Sanchez is a 30-year veteran of the FBI and has served as the deputy assistant director for the Information Technology Services Division since November 2009. In May 2009, Sanchez was named one of CIO Magazine’s “Ones to Watch” in information technology. Sanchez holds a B.S. in computer science, M.S. in information systems, and graduate certificates in software engineering and information engineering, all from George Mason University. She is also a certified project management professional.

Jill Singer was appointed as the chief information officer (CIO) for the National Reconnaissance Office (NRO), a Department of Defense agency, in January 2010. Prior to joining NRO, Singer served as the deputy CIO for the CIA. Singer received her B.S. in computer science and M.S. in systems analysis from the University of West Florida. She is also a graduate of the Federal Executive Leadership Program and University of Virginia’s Executive Leaders Program.

Friday, November 5

NASA: Then, Now and in the Future
Lecture Presentation

Speaker: David Rainer
Friday 1:30 – 2:30 p.m.
Orange County Convention Center, W232B

Presentation will cover the history of human space flight, including the lessons learned from Apollo I, space shuttles Challenger and Columbia, and how NASA implemented corrective actions following these tragedies. We will highlight technology and spin-offs from NASA programs, and finally, discuss where NASA is going (moon, Mars, and beyond).

David Rainer is lead mission assurance manager for Launch Vehicle Processing, Safety and Mission Assurance (S&MA) / NASA. He coordinates between engineering, operations, and S&MA to ensure processes provide for safe and efficient shuttle processing, launch, and landing. Rainer is responsible for assuring S&MA is ready to meet shuttle milestones. Previous roles were NASA test director and NASA convoy commander, responsible for the direction of the shuttle launch and landing teams.
New and Advanced Reactor Design Reviews and Engineering Issues
Lecture Presentation
Speaker: Jennifer Dixon-Herrity
Friday 2:45 – 3:45 p.m.
Orange County Convention Center, W232B
The presentation will give an overview of the Nuclear Regulatory Commission’s ongoing review of new reactor designs, introduce expected advanced reactor designs to be reviewed, and give an overview of the effect that the agency’s reviews have had on designs.

Jennifer Dixon-Herrity is chief of Engineering Mechanics Branch 2 in the Division of Engineering in the Office of New Reactors at the U.S. Nuclear Regulatory Commission. Since joining the NRC in 1990, she has served in progressively more responsible positions including nine years as resident inspector at nuclear plants. She graduated from the U.S. Merchant Marine Academy with a B.S. in marine engineering and a 3rd Assistant engineering license.

The Role of Government Research and Development
Panel Discussion
Moderator: Mary Kinsella, Ph.D.
Speakers: Andrea Valentin, Julie Christodoulou, Ph.D., Tia Benson Tolle, Ph.D., Elizabeth A. Holm, Ph.D., and Malgorzata “Gosia” Machate
Friday 3:30 – 5:00 p.m.
Orange County Convention Center, W232B
Research and development programs funded by the government play a significant role in advancing technologies for both government and private sector applications. Organizations, such as the Department of Defense and the Department of Energy, hire government scientists and engineers to perform research and development work themselves or to manage such work performed by contractors, both inside and outside the organizations’ facilities. Results of R&D programs benefit government and public entities, but also serve to spur additional innovation in the private sector. The purpose of this panel is to discuss the impact that these federal R&D programs have on the nation and the economy, in terms of technology, employment, and education. The panel will consist of government engineers working in various R&D capacities and representing different government sectors that have strong R&D programs.

Mary Kinsella, Ph.D., is a senior materials research engineer in the Materials and Manufacturing Directorate at the Air Force Research Laboratory. Currently she is the section chief for the metals processing section. She also manages the Metals Affordability Initiative, a multi-million-dollar program involving DoD system integrators and the majority of companies in the aerospace metals supply chain. Her research interests are focused on rapid prototyping and rapid manufacturing processes for aerospace applications. Dr. Kinsella is a member of the Society of Manufacturing Engineers and a senior life member of the Society of Women Engineers. She received a B.S. in manufacturing technology from Miami University, an M.S. in materials engineering from the University of Dayton, and a Ph.D. in industrial and systems engineering from Ohio State University.

Elizabeth A. Holm, Ph.D., is a distinguished member of the technical staff in the computational materials science and engineering department at Sandia National Laboratories. She is a computational materials scientist with a longstanding interest in bringing materials modeling to industrial practice. Over her 18 years at Sandia, she has worked on simulations to improve processes for lighting manufacture, microcircuit aging and reliability, and the processing of advanced bearing steels. Dr. Holm obtained her B.S.E. in materials science and engineering from the University of Michigan, S.M. in ceramics from MIT, and dual Ph.D. in materials science and engineering and scientific computing from the University of Michigan.

Andrea Valentin is a graduate of the 2009 Nuclear Regulatory Commission Senior Executive Service Candidate Development Program. She has been with the NRC for 18 years. She began her career in the Office of Nuclear Reactor Regulation as an intern and was a senior materials engineer. In August 2004 she was promoted to chief of the Corrosion and Metallurgy Branch in the Office of Nuclear Regulatory Research. In June 2007, she became chief of the Regulatory Guide Development Branch in RES. Valentin completed a congressional fellowship on Capitol Hill in 2003, and a detail to NRC Commissioner Merrifield’s office in 2006. She has a bachelor’s and a master’s degree in materials science and engineering from Northwestern University.

Julie Christodoulou, Ph.D., is director of the Naval Materials Division in the Sea Warfare and Weapons Department of the Office of Naval Research (ONR) in Arlington, Virginia. She oversees research and development of functional and structural materials and processing from the atomic and molecular level to engineered materials systems and platforms, and early device concepts for power and energy applications. Dr. Christodoulou holds a B.S. from the University of Texas at El Paso, a M.S. from the Johns Hopkins University, and her doctorate in materials science from Imperial College, London.

Malgorzata Machate is a mechanical engineer at the Naval Undersea Warfare Center in Newport, Rhode Island. Since joining NUWC in 2003 she has rapidly advanced her career by working on projects including: the DD 1000 Next Generation U.S. Navy
you will face on your way to success. The Federally Employed Women (FEW) current and past leaders have a compelling story to tell. Beginning with the establishment of the Federal Women’s Program and the subsequent founding of the organization, FEW, from its humble beginnings in a church basement in Washington, D.C. in 1968, to a more than 3,000 member organization with chapters from coast to coast; from the dreams of full equality for women in the workplace, to women now holding 37.2 percent of the GS-13-15 and 28.9 percent of the senior pay level positions in the federal government — despite the fact that 44.12 percent of the federal workforce overall is women. FEW remains committed to its mission of ending discrimination and advancing career opportunities in federal service.

Arlena Fitch-Gordon is a supervisory personnel security specialist for the Defense Industrial Security Clearance Office, Columbus, Ohio. She is a Diamond Life-Time member of FEW who has held chapter, region, and national offices since 1985, including vice president for diversity, vice president for training, and currently is executive vice president, second in command to the president. During her tenure with FEW, she has received the 1997 FEW Barbara Boardman Tennant Award; the 2006 FEW National Champion of Diversity Award; and the 2007 FEW National Allie Latimer Award for outstanding service to FEW. She has attended The Ohio State University, Columbus Community State College and is a graduate of the 1993 Leadership Columbus. She is listed as one of Columbus, Ohio's Most Influential for Who's Who in Black Columbus, 2010 Edition.

Allie B. Latimer, an attorney, civil rights activist and humanitarian, was instrumental in organizing FEW 1968, and served as the organization’s founding president until 1969. In 1977, as a federal attorney, Latimer was the first African-American and first woman to serve as general counsel of a major federal agency as well as the first African-American and first woman to attain the GS-18 salary level at the General Services Administration. She was also recognized by the Veteran Feminists of America as part of the “second wave of feminist pioneers.” Latimer was inducted into the National Women’s Hall of Fame in March 2010, in Seneca Falls, New York.

Sue Webster was elected national president of FEW for the term July 2008 to July 2010. She is assigned to the mission support services department serving on the lean/continuous improvement core team at the Crane Division, Naval Surface Warfare Center, in Crane, Ind. She received the 1995 Barbara Boardman Tennant Award for outstanding service to FEW and was the recipient of the 2004 State of Indiana Women's Commission Torchbearer Award (Volunteerism). She holds a master's degree from Indiana University/Purdue University at Indianapolis.

Rhonda Trent has been associated with FEW since 1989 and was national president for the term July 2006 to July 2008. Currently, she is employed with the Department of Homeland Security as a contracts specialist in Washington, D.C. She received the 2001 Barbara Boardman Tennant Award for outstanding service to FEW and the 2002 National President's Award. She holds a master's degree from the University of Oklahoma.
Careers in Government and Military

**Patricia Wolfe** served as national president for FEW from 2002-2006, where her duties included serving as the CEO, chairman of the board of directors, leader and spokesperson for the organization. She served as co-chair of FEW’s 2008 national training program. A two-time recipient of FEW’s Barbara Boardman Tennant Award for outstanding service to FEW, she is currently the acquisition workforce manager for the Office of Procurement Operations Acquisition Professional Career Program in Washington, D.C. She holds a bachelor’s degree from City University, Bellevue, Wash.

**Debbie Walsh** directs the Center for American Women and Politics’ multifaceted programs including: research that illuminates women’s distinctive contributions, roles and experiences in politics and government; leadership education and campaign training programs that empower women of all ages to participate fully in politics and public life; and up-to-the-minute information and historical perspectives about women as candidates, office holders and voters.

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**Navy Women in Nuclear Engineering**

*Lecture Presentation*

**Speaker:** U.S. Navy

**Saturday 1:30 – 2:30 p.m.**

*Orange County Convention Center, W340B*

The Navy operates some of the world’s most technologically advanced ships and equipment, and nothing projects naval power and capability more dramatically and instantaneously than its fleet of nuclear aircraft carriers. Find out how these women manage the operational intricacies that allow these marvels of technology to steam millions of miles incident-free.

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**Seizing This Moment: Women in Engineering and Technology Serving in Public Office**

*Lecture Presentation*

**Presenters:** Mary V. Hughes and Debbie Walsh

**Saturday 2:45 – 4:15 p.m.**

*Orange County Convention Center, W240C*

The 2012 Project’s 90-minute presentation includes both panelists’ remarks and Q&A. Panelists Mary Hughes and Debbie Walsh will provide real world inspiration about the importance of women serving as policymakers, and tangible next steps for attendees interested in exploring public service. Their presentation aligns with the theme of the SWE conference, “Launching Innovation, Defining Success.” Women in engineering have expertise that is crucial for innovative and sound policymaking for our country’s future.

**Mary Hughes** has run political campaigns and advised candidates for president, Congress, state and local office for more than 20 years. In addition, Hughes works with foundations and national women’s organizations to advance women in elective office through a better understanding of the role gender plays in voters’ decision making. She is the founder and director of the 2012 Project.
The Inclusion and Cultural Awareness track addresses the challenges and opportunities that women face in science, technology, engineering, and math (STEM) within the context of diversity, globalization, and culture.

By attending sessions within this track you will be able to:
• Recognize the “hot topics” concerning workplace diversity and globalization
• Develop skills to be a more inclusive leader and team member
• Build a culture of inclusion within your organization

Sponsored by DuPont

The Imposter Panel
Panel Discussion
Speakers: Nkiruka Okeke, Lynda Grindstaff, Allison Goodman, Kristine Kuan
Thursday 10:00 – 11:30 a.m.
Orange County Convention Center, W240B

Have you ever been recognized for something you felt like you didn’t deserve, completed something that you thought was small but everyone else thought was a huge accomplishment, or been afraid of being “found out”? Then this panel discussion is for you. The imposter syndrome is a psychological phenomenon in which people are unable to internalize their accomplishments. This panel discussion will describe what the imposter syndrome is, show attendees that they are not alone, and discuss practical ways of overcoming these feelings.

Nkiruka Okeke is a product development engineer at Numonyx in the Embedded Business Group. She is an active participant in the Numonyx Women's Network and helped to start the Numonyx Young Employee Group. She is currently the vice president of her local SWE section and has participated in SWE since college.

Lynda Grindstaff creates the future for Intel as a senior strategic innovator. Her tenure at Intel includes business client marketing, strategic planning, system software development, chipset validation, and management of a global technical marketing team based in the U.S. and India. Grindstaff is a respected expert, patent holder and highly-rated industry conference speaker. She is the recipient of the SWE Emerging Leader Award, holds a B.S. in computer science from California State University, Sacramento, and remains active in community outreach programs.

Allison Goodman is a validation program manager for Intel's new client and enterprise solid state hard drives. Prior to her current position, she has been a validation engineer working on several of Intel's products, and also a technical project manager in the laptop product group. Goodman earned her degree in computer and electrical engineering from Cornell University and is PMP certified. She is a lieutenant governor for the Society of Women Engineers and also a master instructor at Intel for project and product risk management.

Kristine Kuan is a software engineer at Hewlett-Packard in their ProCurve Networking Division. She has a degree in computer science and engineering from UCLA. Kuan is actively involved as a technical lead recruiter for HP at UCLA, an intern coordinator for HP, one of the founders of the HP Roseville Young Employee Network (YEN), and president of her local SWE section.

Thursday, November 4

Employee Resource Groups: A Journey of Employee Engagement and Inclusion
Workshop
Speakers: Tameika Hollis and Debbie Edwards Veihdeffer
Thursday 10:00 – 11:30 a.m.
Orange County Convention Center, W224E

Having a culture that values and leverages the talents of our entire workforce is critical to enhancing employee engagement and strengthening Northrop Grumman’s position as a preferred employer. During a climate assessment, employees from the Electronic Systems Sector requested targeted forums for networking, career development, and community/education outreach in support of the business. Responding to the executive management team's request to establish “grassroots” employee resource groups focused on enhancing diversity and inclusion, they came back with nine sector-level ERGs, with 39 campus chapters that include more than 2,600 members, with additional expansion planned.

Tameika Hollis is a Fellow engineer with Northrop Grumman Corporation. As a program manager, she is responsible for the development of a unique emerging technology. Hollis was the first chair of the Northrop Grumman Women Engineers Employee Resource Group for Electronic Systems. She has a B.S. and M.S. in mechanical engineering.

Debbie Edwards Veihdeffer is responsible for the sector’s work/life effectiveness strategy and associated practices, policies, and programs, to address priorities that include: culture change efforts, workplace flexibility, employee engagement, career transitions, and family-friendly initiatives with an emphasis on being a preferred employer. She is the recipient of SWE's 2010 Work/Life Balance Award.
Definition of Elite: Young, Female, Minority, and Professional

Workshop
Speaker: Trina Fletcher
Thursday 1:30 – 2:30 p.m.
Orange County Convention Center, W330B

With minority female leaders such as Ursula Burns, Indra Nooyi, and Andrea Jung, time is proving that opportunities are attainable when properly sought after. Whether you're a freshman in college looking for an internship or a senior getting ready for a full-time job, this workshop is designed for you. As young, female professionals, there is vital information you should know before even looking for a job. This workshop will provide information on how to succeed in the workplace and how to have a true presence. Topics such as handling the typical stereotypes, attire, the “glass ceiling” and the importance and power of networking will be shared. The audience will leave with a wealth of knowledge to carry on their journey to success. Interactive activities along with resume, e-mail and business card do’s and don’ts will be discussed.

Trina L. Fletcher holds a B.S. in industrial technology from the University of Arkansas at Pine Bluff (UAPB) and a M.S. in operations management from the University of Arkansas. While at UAPB, she served as the captain of the women's soccer team and president of the STEM and NSBE chapters for two consecutive terms. Fletcher’s career includes summer internships with Norfolk State University’s chemistry department, Caterpillar Inc., Kellogg’s, and a co-op with Lockheed Martin. Currently, she is a member of the Johnson & Johnson Global Operations Leadership Development program.

Women in Technology – An Understanding of India’s Culture as it Relates to Women in the Workplace

Lecture Presentation
Speaker: Theresa Dowden
Thursday 1:30 – 2:30 p.m.
Orange County Convention Center, W232C

This presentation will explore aspects of Indian women working in technology. Areas covered include:
• Aspects of Indian culture which support women studying and entering technical career paths, including a comparison of the Indian educational system with STEM issues in the U.S.
• Aspects of Indian cultural support systems which contribute to, or detract from, Indian women's success in technical careers, including family, business, and governmental support.

Theresa Dowden is a software development manager at IBM. She holds a B.S. in computer science from Marist College. She is currently studying for a M.S. in technology management at Marist College.

Impacts of Generational Differences

Lecture Presentation
Speakers: Sally A. Hollis and Elissa Narigon
Thursday 2:45 – 3:45 p.m.
Orange County Convention Center, W330B

Over the years, as the generational make-up of the workforce continues to change, you’ll find that some challenges stem from the fact that your co-workers and supervisors will be at different stages of their lives and careers, having different needs, varied values, and vastly different attitudes. Let John Deere help you learn different ways to stay engaged and connect with your peers and leaders from all generations.

Sally Hollis is currently an operations project manager at John Deere. She has held positions in operations, supply management, IT, and quality over the past 12 years. Hollis has a B.S. in mechanical engineering from Iowa State University and an M.B.A. from the University of Northern Iowa. She will share experiences she has gained working with John Deere employees, customers, and suppliers of all generations, from around the world.

Elissa Narigon currently works on the college recruiting team at John Deere as the recruiter network consultant, working with John Deere’s network of volunteer recruiters. Narigon graduated from the University of Northern Iowa in 2004 with a B.A. in behavioral arts. In 2006 she received her M.A. in industrial / organizational psychology from University of Northern Iowa. She also supports John Deere’s regional performance consultants as an occasional trainer, and is certified as a professional in human resources.

Diversity is Key to a World-Class Organization

Lecture Presentation
Speaker: Theresa Dowden
Thursday 4:00 – 5:00 p.m.
Orange County Convention Center, W330B

The American Society of Civil Engineers has developed a “Diversity Guide” to provide practical hands-on suggestions on how to foster, improve, and maintain a diverse workforce in the civil engineering profession. This session will share information from the ASCE guide and provide excerpts from abstracts of the personal experiences of diverse professionals in the public works and engineering fields. An exercise will be conducted to assist in identifying which methods to support diversity work best in attendees’ organizations. A tool box of ideas, processes, and programs available to improve diversity and foster inclusion will be discussed and provided to attendees for use after leaving the session.

Teresa Smith holds a B.S. in civil engineering technology from Georgia Southern University. She was the first African-American public works director in both Augusta, Ga. and Richland County, S.C. Smith is currently the president of A&S Engineering, LLC.

CONGRESS 2010 • SWE 201
Toward an Inclusive Profession, the Experience in Australia
Lecture Presentation
Speaker: Marlene Kanga
Thursday 4:00 – 5:00 p.m.
Orange County Convention Center, W330B
Approximately 15 percent of engineering students in Australia are women. However, following graduation, there tends to be a sharp decline in the numbers of practicing women engineers. This presentation describes the programs of the National Committee for Women in Engineering, Engineers Australia, to promote and support women engineers. It describes policies to encourage women to remain within the profession while they are working part-time, successes that have been achieved and the challenges for the future.

Marlene Kanga, Ph.D., is a director of iOmniscient Pty. Ltd., a member of the Council of Engineers Australia, serving as national vice president for engineering practice, past national chair for Women in Engineering, and represents Engineers Australia at the WFEO, CWIE, and at INWES; and is co-chair for ICWES15, to be held in Adelaide, July 2011.

Friday, November 5
Expectations of Successful Latinas in Engineering and Science
Panel Discussion
Moderator: Silvia Karlsson, General Motors
Speakers: Claudia Javenkoski, Penny Navarro, and Gabriela Stephenson
Friday 1:30 – 3:00 p.m.
Orange County Convention Center, W330A
Being recognized as a successful Latina engineer brings much self-satisfaction. However, many Latinas find that as work expectations increase, their families still need them in traditional roles, and the expectation to participate in volunteer, community, and civic roles can become overwhelming. In addition, they desire to maintain their authenticity and find some personal time. Our panelists will share tips on how to blend these worlds to create quality, harmony, and continued career success.

Claudia Javenkoski is a project manager for Kimberly-Clark. She joined the company in 1996 as a process engineer in Colombia, where she implemented process improvement programs with region-wide acknowledgement. She relocated to Wisconsin in 1999 and currently leads the commercialization of innovative solutions for Scott Extra Soft® and COTTONELLE® brands in U.S. and Canada. An active member of K-C’s diversity networks and local charity boards, Javenkoski holds a B.S. in chemical engineering from Universidad Pontificia Bolivariana, Colombia. Born in Manhattan, she enjoys traveling internationally, fitness, and watching soccer with her family.

Gabriela Stephenson is a business executive with over 16 years of experience in facility management, operations, workplace solutions, and services. She holds a B.S. in electrical electronic engineering from La Salle University in Mexico City, and a M.S. in automatic control systems from the University of Sheffield in the U.K. Stephenson started her career with Johnson Controls, taking positions in Mexico, the U.K., and the United States. Currently she is the FM Global WorkPlace Solutions director of facility management in the Americas, where she is responsible for the operational delivery of FM support services in the Americas region.

Penny Navarro is an account engineer for Affiliated FM, a middle market commercial property insurer and a stock company solely owned by FM Global. As an account engineer she works with clients to establish loss prevention programs and provide physical solutions to help protect their assets, reduce the overall risk, and maintain their profits and market share. Navarro graduated from Guadalajara University (Mexico) with a degree in architecture. Prior to joining FM Global, she worked in construction, coordinating loss prevention and risk improvement projects. She also worked as an FM consultant engineer for eight years covering one-third of Mexico’s territory.

Silvia Karlsson, P.E., has been an active SWE member since her undergrad years. She is involved with SWE at the local section, national, and corporate level and with the affinity group for women at GM. She has a B.S. in mechanical engineering from California State University, an M.S. in mechanical engineering from UCLA and an M.S. in management of technology from Rensselaer Polytechnic Institute. Karlsson has had a variety of assignments in both the aerospace and the automotive industry including an international assignment with GM de Mexico in Toluca, Mexico. She works for General Motors where she is currently assigned to the calibration and controls group for all advance propulsion technologies.

Managing in Today’s Diverse Marketplace
Lecture Presentation
Speaker: T. Hudson Jordan
Friday 1:30 – 2:30 p.m.
Orange County Convention Center, W340D
Are you a manager or an aspiring manager? Do you feel that cultural differences sometimes make it difficult to fit in, advance, or manage others? Today’s global workplace is made up of many diverse individuals and learning the importance of inclusion and acceptance of cultural differences is key to any company’s success. By attending this workshop, you will learn how to develop skills to be a more inclusive leader and team member, and build a culture of inclusion within your own organization.

T. Hudson Jordan is director of Global Diversity & Talent Strategies for Pitney Bowes Inc. Jordan leads the company’s continuing efforts to promote a culture of inclusion, working with corporate and business unit leadership to implement strategies that support...
Shelley Stracener received her B.S. in electrical and computer engineering from Baylor University in 2005. Prior to working at Stryker, Stracener was a hardware design engineer at Dell for five years, working closely with global design partners to launch and support five of Dell’s most successful storage products.

Global Business: Working in a Multinational Company

**Speaker:** Dan Gateno, IBM Corporation

**Friday 2:45 – 3:45 p.m.**

**Orange County Convention Center, W330G**

As Thomas Friedman states, “Technology has definitely made the world a whole lot flatter.” Today, it’s common practice to have products designed and managed by teams made up of employees whose country of residence, and therefore their culture, is quite different from our own. What’s the best way to work with a global team? What advantages/disadvantages are there to working across international boundaries? What is the most effective way to understand someone else’s culture? Find out firsthand from two IBMers about managing global employees and what it’s like to work directly in a different country.

Dan Gateno currently manages a systems software test department at IBM in Rochester, Minn. The team is responsible for the final, customer-like test for both the IBM i and AIX operating systems. His team is spread out across U.S. IBM sites in Minnesota, New York, and North Carolina. He also manages a global team in which employees reside in China, India, and Mexico. Gateno has a B.S. in computer management information systems from Minnesota State University and an M.B.A. from the University of Minnesota.
The American Association of University Women (AAUW) will present eight recent research findings described in AAUW’s recent report, *Why So Few? Women in Science, Technology, Engineering, and Mathematics* that help explain the small numbers of women in certain science, technology, engineering, and math (STEM) fields. Topics include beliefs about intelligence, spatial skills, stereotype threat, self-assessment, college/university departmental culture, and bias. The presentation will include recommendations for change. Participants will learn about the latest social science research findings exploring the underrepresentation of women in engineering and will understand that bias still exists against women in engineering so that they can be prepared.

### Why So Few? Women in Science, Technology, Engineering, and Mathematics

**Presenter:** Christianne Corbett  
**Lecture Presentation**  
**Saturday 2:45 – 3:45 p.m.**  
Orange County Convention Center, W330D

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**Rieko Asai**, joined Panasonic Corporation in 1989. She had 14 years of experience as a software engineer and participated in development projects, e.g., workstation task force, video server, and was the project leader of the source code obfuscation project for three years. Since 2006, she has been assigned to the System Engineering Center, where she is in charge of managing the global process team to promote software process improvement for global branches, especially for China and Vietnam.

**Craig Barnes** is currently serving as the chief technical officer for the Cummins India Operations. In this role he has oversight and functional excellence leadership for all technical activities in the country across all Cummins businesses and entities. In addition, he is the chief executive officer and managing director of Cummins Research and Technology India Ltd., a center of excellence for Cummins global analysis-led design activities. In October 2009, Barnes was honored by the Society of Women Engineers with the Rodney D. Chipp Memorial Award for his work in establishing a culture of inclusion in the workplace and creating opportunities for women engineers in the United States and abroad.

**Anca Eisele** has been a member of SWE since 2006, and has represented John Deere, Germany at the last three SWE national conferences. Eisele is the product and customer support manager for John Deere and SABO Walk behind Mowers product line. In this position she is responsible to anticipate and to take action to meet their customers’ needs and increase customer satisfaction. She holds a degree in mechanical engineering from University of Applied Science, Heilbronn, Germany, a M.B.A. in lean manufacturing consulting from the Institute of International Management Consulting, Ludwigshafen, Germany, and is certified by the American Society of Quality as manager of quality/organizational excellence.

**Sarah Taylor-Falcioni** is a software engineer for Rockwell Collins Government Systems Canada. As part of the modeling and simulation group, Taylor-Falcioni provides functional and performance analysis as well as planning and training solutions for tactical communication systems, creating custom models or integrating customer components as required. While taking communications engineering at Carleton University, Taylor-Falcioni was a recipient of the National Research Council’s Women in Engineering and Science Award, which included two internships with NRC. Following her graduation, she started working for IP Unwired, which was later acquired by Rockwell Collins. She is a long-time resident of Ottawa, Canada. She has her black belt in karate, is a mother of one, and is an active YMCA-YWCA volunteer.

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### Managing Cultural Diversity in a Global Environment

**Lecture Presentation**  
**Speakers:** Yu-Wen Wang and Laurie Yen  
**Saturday 4:00 – 5:00 p.m.**  
Orange County Convention Center, W232A

For IBM female employees, working in a global virtual team has become a daily operation that includes challenges such as different time zones, cultural differences, communication, professional skills, priorities, level of education, etc. However, the challenges are overcome and even become benefits by assigning tasks to each sub-team based on their core competence. Thus, the company’s resources are fully utilized and assigned to the right place. The team utilizes the software products they work on as well. Training sessions are held to educate team members and develop professional skills and competencies.

**Yu-Wen Wang** is a project manager at IBM, responsible for project management of the system x server publication information development as well as the ship group and translation with different ID teams, manufacturing sites, and translation services centers worldwide.

**Laurie Yen** is a software/globalization project manager at IBM, where she is responsible for managing software globalization projects and remote teams, developing processes, working with testing and software development teams and translation centers in different countries. She earned an M.A. in linguistics from University College London.
Thursday, November 4

Algae Biofuels – An Outlook
Lecture Presentation: Collegians, Recent Graduates
Speaker: Michele S. Touvelle, Ph.D.
Thursday 10:00 – 11:00 a.m.
Orange County Convention Center, W231C

In 2009, ExxonMobil announced an alliance with a leading biotech company, Synthetic Genomics Inc., to research and develop next generation biofuels from photosynthetic algae. This long-term investment is based upon the belief that algae holds significant potential as a fuel source. This talk will also address some of the key challenges in working on large scale production and commercialization of biofuels from algae.

Michele Touvelle, Ph.D., is the lubricant products division manager, products research and technology, at ExxonMobil Research and Engineering. She has a B.S. in chemistry from Western Illinois University and a Ph.D. in physical chemistry from Northwestern University. She joined Exxon Research and Engineering Company with Exxon Research and Development Laboratories in Baton Rouge, La. in 1991 as a research chemist. Dr. Touvelle held various technical positions in surface science, exploratory catalysis, and hydrosprocessing.

3D Modeling and Simulation
Workshop
Speakers: Robin White, Lillian Rodriguez, and Regina Powell
Thursday 10:00 – 11:30 a.m.
Orange County Convention Center, W240D

NAVSEA’s engineers build, buy, and maintain the navy’s ships and submarines and their combat systems. Modeling and simulation is a discipline for developing an understanding of the interaction of the parts of a system, and of the system as a whole. This workshop is designed to educate students on the powerful tools for new system designs, retrofits to existing systems and proposed changes to navy hardware/software. An engineering challenge will be held.

Robin White currently serves as the director for Aircraft Carrier Design and Systems Engineering. In this position she is head of the group within the Naval Sea System Command’s Naval Systems Engineering Directorate (SEA 05) that provides the technical leadership to ensure current and future aircraft carriers can safely and effectively perform mission requirements. White earned a bachelor’s degree in naval architecture and marine engineering from the University of Michigan in 1982 and a master’s degree in engineering administration, industrial and systems engineering from Virginia Polytechnic Institute and State University in 1997. She is a 1993 graduate of the Defense Systems Management College Program Management Course.

Growth Through Global Innovation
Panel Discussion
Speakers: Rosa Weber, Carol Hunter, Lisa Barnes
Thursday 10:00 – 11:00 a.m.
Orange County Convention Center, W224D

Emerging markets represent an important growth opportunity. Honeywell Aerospace has successfully established business and engineering growth strategies to align with the opportunity. Panel speakers will present the core components of our engineering emerging market growth strategy and “formula for success” in Mexico, Puerto Rico, India, China, and the Czech Republic; and two different emerging market technology projects and how those projects are impacting market growth. Session also includes Q&A.

Rosa Weber is a staff scientist in the communication, navigation, and surveillance department at the Advanced Technology Lab of Honeywell International. She holds a M. S. in software engineering and has 22 years of experience in the design and development of software architectures for avionics systems, specializing in flight management systems. Her latest assignment is to develop two ATM research labs in China and set the strategic direction for avionics product development and research for this fast growing region. Weber is a private pilot, holds two patents, and has received multiple Honeywell Aerospace Technical Achievement awards.

Lisa Barnes is a senior program manager at Honeywell Aerospace Engineering and Technology. She has a B. S. in electrical engineering from the University of North Dakota and has 21 years of experience in software development, system design, technical management and program management. Recently, Barnes worked within the international and contingent workforce group at Honeywell where she led the globalization team for multiple engineering organizations. While in this role, she had the opportunity to visit and work with engineers in India, Singapore, Indonesia, Malaysia, Czech Republic, Mexico, Puerto Rico, and numerous U. S. Honeywell sites to develop business and engineering growth strategies. She is project management professional certified, a member of the Society of Women Engineers, and the recipient of a Honeywell Team Performance Award.
**Risk Management - Keys to Success**  
**Workshop**

**Speakers:** Tricia Douma, Lisa DeStefano, and Joanne Goldberg  
**Thursday 10:00 – 11:30 a.m.**

**Orange County Convention Center, W224G**

The medical device industry is dedicated to improving patients’ lives through the use of our products. We are continually identifying and managing hazards that may cause harm to our patients. Today, by means of a presentation and panel discussion, we will explore risk management and its keys to success within the medical device industry. You will learn about the continuous risk management process that begins early in design and continues through the life of the product. You will walk away with an understanding of risk management strategies and tools as well as ideas for improving your risk management process.

**Tricia Douma** is program manager of design assurance engineering (DAE) at Medtronic CardioVascular, Structural Heart. She has been with Medtronic for 10 years, and as a program manager she has dual responsibilities as a development project core-team member and a staff member whose focus is improving risk management and reliability processes. Previously, Douma established and managed a multi-site design assurance engineering/reliability department dedicated to improving focus and support for expanding development projects. She has been awarded a patent, The IEEE Millennium Award, and a Medtronic Technical Contributor Award. She holds a B.S. E.E. from Michigan Technological University.

**Lisa Stefano** has been with Medtronic for 10 years. Her current role is as a member of cross-facility teams responsible for manufacturing transfers and research-clinical product builds. Previously, she was a principal design assurance engineer on product development teams. Stefano has been awarded Medtronic’s Quality Focus Award and Star of Excellence. She is a senior member of the American Society of Quality and has received three ASQ certifications. Stefano holds a B.S. in engineering and business administration from the University of Illinois and a M.S. in engineering from the University of Tennessee.

**Joanne Goldberg** has worked for Medtronic for 25 years in development, manufacturing, quality, and information technology groups. She recently developed and delivered Medtronic’s Project Risk Management class that is part of Medtronic’s curriculum: “Core Skills for Successful Project Management.” Goldberg is the leader of the Medtronic Women’s Council and represents her organization in the Medtronic Women in IT Forum. She holds a B.S. in chemistry from the University of Minnesota, is recognized as a Certified Software Quality Engineer by ASQ, and a Project Management Professional by PMI.

**Cybersecurity: From Awareness to Solutions**  
**Lecture Presentation: Collegians, Recent Graduates**

**Speaker:** Jessica Gulick  
**Thursday 2:45 – 3:45pm**

**Orange County Convention Center, W232C**

The world of cyber security continues to evolve. Join in a discussion on how the cybersecurity domain is changing, its key technology areas, business culture, situational awareness, key roles, and how it can be the path for you.

**Jessica Gulick** is an experienced cybersecurity program manager and strategist. She has co-authored NIST security publications and reports for security categorization, security within the SDLC, and
Customizing Energy Solutions for 21st Century Needs

Panel Discussion

Moderator: Aileen Barton

Speakers: Delome Fair, Judeth Brannon Corry, Ph.D., Cindy Breitkreuz, and Liz VerSchure

Thursday 3:30 – 5:00 p.m.

Orange County Convention Center, W224G

The next revolution in meeting the world’s energy needs is to develop flexible solutions to suit regional variations. Avenues to adapt solutions to customer requirements include technologies such as wind, nuclear, cleaner coal, and energy such as biofuels and coalmine gas. A key challenge to implementing these options is the community perception of viability, cost, and risks. This session will discuss how technology providers are communicating with customers to address concerns and develop customized energy solutions.

Aileen Barton is currently the marketing product manager for 7E/EA Heavy duty gas turbines in the energy space responsible for product positioning and viability in its market space. Barton graduated from the United States Merchant Marine Academy with a degree in marine engineering and then went on to earn graduate degrees in engineering and management at Rensselaer Polytechnic Institute. Barton joined General Dynamics-Electric Boat Division and held various leadership roles in engineering, manufacturing and quality before joining GE Aircraft Engines as a Six Sigma Black Belt at the Rutland manufacturing plant.

Delome Fair is an executive engineer for gasification at GE Energy. She graduated from the University of Kansas with a B.S. in chemical engineering in 1985 and a M. S. in chemical engineering in 1987. Fair has worked in nearly all aspects of gasification technology including process design, detailed engineering support, plant startup, and technical services. She has led gasification projects for chemical production and large polygen/IGCC projects. A licensing manager, she supported the sales activities for gasification technology. Fair became the first female chief consulting engineer for GE Energy in May 2008, and continues in this role today.

Judeth Brannon Corry, Ph.D., is principal engineer of gasification components engineering at GE Energy Gasification and IGCC Technology. She earned a bachelor’s degree in chemical engineering from Texas A&M in 1976 and earned a Ph. D. in chemical engineering from Carnegie-Mellon University in 1980. Her career has ranged from assistant professor, research engineer, technical support engineer, plant engineer, and other similar positions. She joined GE Energy-Gasification in 2006 as a senior CFD (computational fluid dynamics) design engineer. Dr. Corry has five U. S. patents and 19 U. S. patents pending for ideas developed while at GE.

Liz VerSchure has 26+ years of experience in the aircraft, marine and energy industries. She has held roles in supply chain, services, long-term partner management, product management and quality/Six Sigma. In 2006, she transitioned to GE Energy and her current position as general manager LM2500/LM1600 Products, a diverse aeroderivative product, serving the oil and gas, powergen and industrial plants segments. VerSchure holds a B.S. in industrial and operations engineering from the University of Michigan and a M.B.A. from Xavier University. She has held leadership roles in university recruiting, the GE women’s network and a non-profit board in her community.

Cindy Breitkreuz is general manager of Wind Field Service at GE Renewables. She earned a B.S. in nuclear engineering from the University of Arizona and joined GE’s Technical Leadership Program, focusing on power generation services, where she had assignments...
Launching Innovation - Building New Businesses
Lecture Presentation
Speaker: Florence Hudson
Thursday 4:00 – 5:00 p. m.
Orange County Convention Center, W224D
Building new businesses is an exciting opportunity to launch innovation, develop new markets, capture new business, and create new value. This is important for entrepreneurs and intrapreneurs — both for new companies and established companies. Learn from a business-building leader how to identify potential new businesses, size them, develop your business plan and gain commitment to investment for these businesses. Florence Hudson helped develop the Emerging Business Opportunity program at IBM, and has identified and launched new energy and environment businesses at IBM.

Florence Hudson is the IBM energy and environment executive and cloud computing strategist in IBM Corporate Strategy. She develops strategies and execution plans for “green” solutions to benefit clients in their goals to improve their impact on energy and the environment worldwide. Hudson has held a variety of leadership positions in IBM including vice president and director of strategy for 10 years, and acting chief technology officer in the Global Industrial Sector. She was a leader in developing the IBM Emerging Business Opportunities program. She has a B. S. in mechanical and aerospace engineering from Princeton University, and has attended and presented at executive education at Harvard Business School and Columbia University. She was also the SWE special director of strategic planning in 2005-2006, and received the Society’s Upward Mobility Award in 2008.

Friday, November 5

“Top 20” Tips and Trouble Spots Facing Protecting Your Innovation
Lecture Presentation
Speaker: Christine McCarthy
Friday 10:00 – 11:30 a. m.
Orange County Convention Center, W340B
In line with the conference theme of “Launching Innovation and Defining Success,” this presentation is geared toward the full range of membership. Emphasis is on both proactive approaches to gaining protection of ideas and cautionary descriptions of what not to do; the lessons this presentation offers resonate with seasoned technical leaders and inform emerging ones. Special emphasis is also on managing IP issues in post-doctorate research, during cooperative research, and in contractor-positions.

Christine H. McCarthy is of counsel in the intellectual property department in Barnes & Thornburg LLP’s Washington, D. C. office. McCarthy’s practice includes virtually all aspects of intellectual property law. Her practice focuses on providing strategic counsel for newly formed or acquired companies on market-shifting or highly innovative technologies. Her experience encompasses evaluating, creating and implementing corporate IP programs, conducting IP due diligence and audits in connection with IP portfolio building and inventories, and developing and implementing aggressive patent filing strategies.

Back to Basics - Using Lean to Achieve More
Lecture Presentation
Speaker: Maribel Claudio
Friday 10:00 – 11:00 a. m.
Orange County Convention Center, W232C
Lean is a process management philosophy derived from the Toyota Production System (TPS) that is renowned for its focus on the reduction of waste to improve overall customer value. In this workshop, you will learn how the basic concepts of continuous improvement can be used anywhere to increase productivity, reduce waste and associated costs, boost employee satisfaction, improve quality, and foster profitability in your work environment. You will walk away with a basic understanding of the lean tools and with ideas on how to immediately begin using lean to improve processes around you.

Maribel Claudio is lean facilitator for Medtronic Surgical Technologies and has been with Medtronic for 11 years. She currently leads and facilitates continuous improvement events within Medtronic Surgical Technologies. Claudio holds a bachelor’s degree in business management from Jacksonville University. She has received Lean Sigma certifications from the Jacksonville Lean Consortium and the University of North Florida. She is a member of the Society of Manufacturing Engineers and the First Coast Hispanic Chamber of Commerce and chairs Medtronic’s Latin Cultures Network in Jacksonville.

Launching Innovation Through Search Engine Technology
Panel Discussion
Presenters: Reena Lee, Kelly Conway, Surabhi Gupta and Robin Shostack
Friday 10:00 – 11:30 a. m.
Orange County Convention Center, W340A
The life span of a Google search query normally lasts less than half a second. Yet, each query involves many different steps that
must be completed before results can be delivered to a person seeking information. What are these steps taken to handle each query? How is search technology evolving as mobile device usage accelerates? Learn from women engineers how their roles contribute to innovations in search engine technology used by billions of people everyday.

Reena Lee is a technical account manager in Google's Partner Solutions organization. She works with handset manufacturers to build and deploy mobile products using Android. Lee previously worked at Intel on next-generation mobile microprocessors. She received B. S. and M. S. degrees in electrical and computer engineering from Carnegie Mellon and an M. B. A. from the University of Texas at Austin.

Kelly Conway is a software engineer at Google's Pittsburgh office, working on product search, which helps users find and compare products for purchase. She received her B. S. in computer science from Cornell University. As an active SWE member, Conway serves on SWE's national outreach committee and enjoys leading K-12 outreach initiatives.

Surabhi Gupta is a senior software engineer in Google's Search Quality group, working on improving the relevance of search results. She joined Google in 2007 after finishing her master's in computer science at Stanford University. Prior to that, she received her B. S. at Stony Brook University and studied abroad at Oxford University.

Robin Shostack is a technical program manager at Google working on web search. Previously, she worked on Google's information security team. She worked as a research chemist and systems administrator before settling in her current career in engineering management. Shostack has a B. A. and a M. S. in chemistry.

Sliced Based Testing
Lecture Presentation
Speaker: Brett Webb
Friday  10:00 – 11:00 a. m.
Orange County Convention Center, W232A

Discover how HP applied lean principles to qualification creating a new approach called slice based testing. The approach works to solve many typical software development life cycle issues such as the system not being fully testable until the end (aka waterfall). Slice based testing has:
• Enabled quality driven development by synchronizing delivery across technology components.
• Facilitated a goal based approach that allows testing to occur throughout the lifecycle with small batches and immediate feedback.
• Created the flexibility necessary to accommodate risk and development variability.
• Made possible predictable delivery and very positive expense benefits.

Brett Webb is a section manager in engineering services at Hewlett-Packard. Webb oversees the solution/system testing of LaserJet and Inkjet devices in the LaserJet and Enterprise Solutions business. Webb has been with HP since 1999 and had the opportunity to work as a firmware engineer, project manager, and a program manager before her current role. Prior to HP, Brett worked for IBM and Moore BCs. Webb has a B. S. from Utah State University.

Enabling Decisions with Modeling and Simulation
Lecture Presentation
Speaker: Stephanie Wojcik
Friday  1:30 – 2:30 p. m.
Orange County Convention Center, W232A

This presentation focuses on a real world example where constructive simulation helped key decisions makers at Boeing better understand the manpower and equipment needed to accomplish the production of a component. Using simulation, we identified key elements and their sensitivity on the process. As a result, we provided an optimum solution for the configuration of the elements of production. Having reliable data points provided a high level of confidence in the future performance of the manufacturing line.

Stephanie Wojcik supports the logistics modeling and simulation team within systems engineering at Boeing, where she applies modeling and simulation tools and processes, such as discrete event simulations, to achieve a wide range of innovative, affordable solutions in the area of performance based logistics. Wojcik holds a B. S. in aerospace engineering from Georgia Tech, a M. S. in mechanical engineering from Washington University, and a M. B. A. from Arizona State University.

Going Green – Defining Sustainability Priorities in an Organization
Professionals, Senior Technical Professionals
Speaker: Karen Kukec
Friday  1:30 – 2:30 p. m.
Orange County Convention Center, W232C

One of the challenges in developing a plan for sustainability is reaching consensus on the definition of sustainability and agreement on priorities for improvement. The Sustainability Solutions Navigator™ is a specially designed “board game” assessment tool that leads cross-functional teams through an interactive, collaborative process of evaluating sustainability-related needs and practices. The tool helps address a wide range of sustainability issues including the design of green buildings, improved facility operations, greening the supply chain, employee communication and reporting. Participants will complete the needs assessment exercise during the session and be able to compare their individual results with their peers and a benchmark of other healthcare organizations. The session results will also be shared with ASHE leadership to help define future educational and technical programs. This program is limited to 100 participants.
Karen Kukec is a marketing manager with Innovation Services for Johnson Controls. In this role, she oversees project design, development and execution while providing strategic planning, needs assessment, and project planning services to client organizations. Since joining Johnson Controls in 2006, she also served as a program manager for the systems marketing team. Kukec received her B.B.A. from the University of Wisconsin-Oshkosh and her M.B.A. from Concordia University.

**Power Your Hair Dryer - Plugging into the Sun**

*Lecture Presentation*

Speaker: Colleen Layman, P.E., Sara Titus, and Fanta Sacko

Friday 1:30 – 2:30 p.m.

**Virtual Participation**

Orange County Convention Center, W240A

Concentrated sunlight has been used to perform useful tasks as far back as ancient times. For instance, in 1866, a French inventor powered a steam engine with sunlight, the first known example of a concentrating solar-powered mechanical device. Given the growing world-wide concern with greenhouse gases and global climate change, solar power, direct (photovoltaics) or indirect (concentrating solar power for thermal power generation) is gaining momentum as a cost-effective option for large-scale electricity production. This presentation provides an overview of the fundamentals of solar power technology and solar thermal storage. It also discusses the details of solar power projects planned for construction.

Colleen Layman, P. E., is currently a senior engineering specialist with Bechtel Power Corporation in Maryland. She has over 15 years of diverse experience in the power generating industry with experience in engineering design, construction management, startup/commissioning, and daily power plant operations. Layman holds a B. S. in mechanical engineering technology, an M. S. in water resources and environmental engineering, and an M. B. A. in management of engineering and technology, and is a registered professional engineer.

Sara Titus earned her bachelor’s and master’s degrees in chemical engineering from the University of Maryland, Baltimore County. Titus has worked for Bechtel Power Corporation for the past four years. During that time she has worked on nuclear energy, integrated gasification combined cycle, carbon capture sequestration, as well as solar energy projects.

Fanta Sacko, an electrical engineer, has been working with Bechtel for four years. She is originally from Guinea, a French-speaking West African nation. She earned her bachelor's degree at Howard University in 2006. She has worked on several projects at Bechtel and was part of the design of one of the largest new U. S. Greenfield coal-fired power plants built in 20 years.

**Green and Clean Energy: How the Electric Utility is Doing Its Part**

*Panel Presentation*

Speakers: Tami Barron and Rochelle Routman

Friday 1:30 – 3:00 p.m.

Orange County Convention Center, W340C

It is a common misconception that the electric utility is not doing its part in providing clean energy alternatives, or in ensuring that they are producing energy in the cleanest manner available. In this session, Southern Company will share trends in the utility industry surrounding environmental stewardship. For example, the presenter(s) will explore:

- Breakthrough technology in capturing carbon emissions from power plants for storage underground rather than in the Earth’s atmosphere
- Technology to retrofit coal burning plants with devices to clean emissions before releasing them to the environment
- Smart grid initiatives that allow for more efficient use of electricity and thus cleaner power generation
- Nuclear energy initiatives
- Wind and solar projects
- Green substation

The goal of this session is to demonstrate the green aspects of electric power generation and delivery.

Tami Barron is general manager of Distribution Operations & Services at Georgia Power Company. She holds a Bachelor of Science degree in agricultural engineering from the University of Georgia, a M. B. A. from Columbus College, and is a 2001 graduate of Emory’s Goizueta Business School’s Executive Program. In her current role, she is responsible for distribution management systems, distribution design and performance, metering services, distribution control centers, and DOT/joint use/franchises for Georgia Power Company.

Rochelle Routman leads the Sustainability Working Group, which is responsible for implementing the sustainability strategy for Georgia Power Company. She also has permitting, compliance, and recycling responsibilities in the environmental affairs organization. Routman holds a B. S. in geology from the University of Georgia and a M.S. in public policy from the Georgia Tech. Prior to joining Georgia Power, Routman held a variety of positions in both government and industry.

**ACTive Pursuit of Excellence In Coil Tubing Operations**

*Lecture Presentation*

Speaker: Bonnie Powell

Friday 2:45 – 3:45 p.m.

Orange County Convention Center, W232C

This will be a technical session focusing on the challenges of bringing a new, innovative product to market, from field testing to commercialization. Targeted to professionals and collegians curious about the technology as well as development and deployment strategies.
Bonnie Powell spent four years as a Schlumberger field engineer, working anywhere from the plains of Canada, to the desert of North Africa, and on to the rigs of the North Sea. She then moved to Norway to manage a 56 million dollar, 130-person coiled tubing location. She is currently the CT new technologies implementation manager, supporting Schlumberger technologies worldwide. Powell graduated from Colorado School of Mines in 2004 with a B. S. in engineering.

Biofuels for Aviation: Fuel Properties, Technologies and Future Challenges to Carbon Neutral Aviation Growth

Lecture Presentation
Speaker: Tiffany Westendorf
Friday 2:45 – 3:45 p.m.
Orange County Convention Center, W232A
As part of GE's Ecomagination program, GE Aviation has completed flight demonstrations on a variety of biofuels, and GE Global Research has demonstrated biofuels production from various feedstocks. This lecture will focus on aviation fuel properties, the technologies Global Research has reviewed for biofuel production, and the future challenges for the mainstreaming of aviation biofuels. The lecture will also address the need for more efficient and economical biofuel production methods, to both reduce GHG emissions and drive global economic growth.

Tiffany Westendorf is a chemical engineer at GE Global Research. She is currently working as a biofuels process design engineer, and has extensive experience in techno-economic analysis of various biofuels production methods. Westendorf is also leading a coal/biomass solids handling program for high-pressure gasification. These activities allow her to present a broad technical perspective on biofuels. Westendorf holds a B. S. ChE from Rensselaer Polytechnic Institute and is working toward an M. S. ChE from Columbia University.

Competing in a Creative World

Lecture Presentation
Speaker: Elizabeth Martindell
Friday 2:45 – 3:45 pm
Orange County Convention Center, W330E
With technology accelerating the learning curve to a high-speed, lifelong process, it’s no wonder intellectual property is becoming a company’s greatest asset. With this trend, companies are also increasing policing of their IP matters. This session will cover both offensive and defensive techniques for guarding intellectual property. This includes a primer on how to find usable copyrighted images, as well as how to do a preliminary search for existing brand names or inventions. Bring laptops to this session to follow along.

Elizabeth Martindell is a patent attorney in the Columbus, Ohio area. She is a sole practitioner with a focus on intellectual property law. She has been certified to prosecute patents by the USPTO and has worked in a broad range of areas from missiles to toy cars. Martindell earned her mechanical engineering degree from Ohio University and J. D. from Cleveland-Marshall College of Law. She enjoys serving SWE by volunteering in many events as she demonstrates the beauty of the scientific world to those who never knew they were interested.

200+ Years of Patent Shoes and Patented Inventions

Lecture Presentation
Speaker: Cindy Murphy
Friday 4:00 – 5:00 p.m.
Orange County Convention Center, W340C
This session traces the historical contributions of women inventors. And it emphasizes that our inventive input is not confined to cooking and cosmetics. Women are responsible for society-changing inventions such as derailment-reducing bearings (Eliza Murfey, 1870), fire escapes (Anna Connelly, 1887), aircraft mufflers (Edi Jones, 1915), spread spectrum communication (Hedy Lamarr, 1941), torpedoes (Henrietta Bradberry, 1946), and leukemia-fighting chemotherapy (Gertrude Elion, 1954). This presentation honors the very proud heritage we women have at the Patent Office.

Cindy Murphy is the fearless leader of one of the precious few women-owned firms with a practice that focuses on patent preparation and prosecution. She holds a B.M.E (bachelor of mechanical engineering) from Georgia Tech and a J. D. from Cleveland-Marshall College of Law.

Adaptive Leadership: A Key to Innovation

Lecture Presentation
Speaker: Debora Humphreys, Ph. D., Karolyn D. Young, and Laura Speckman
Friday 4:00 – 5:00 p.m.
Orange County Convention Center, W232C
Today’s environment demands new solutions to complex problems. Leaders are therefore challenged to engage in a more adaptive manner. While technical expertise can often be applied to known problems, it may not be enough. Adaptive leadership requires competencies that include new ways of thinking, believing, and mobilizing others. This session provides an opportunity to become more aware of the changing role of leadership today and to determine how you can prepare yourself to adaptively respond to complexity. Presenters will demonstrate how the evolution a corporate mentoring initiative provides an example of adaptive leadership strategies in action.

Debora Humphreys, Ph.D., is a leadership coach and organization development specialist at The Aerospace Corporation, El Segundo, California. She helped develop and lead a new coaching service for high-potential leaders and corporate mentoring initiative. She has over 25 years’ experience working within technical environments and has taught M. B. A. students. Humphreys earned a Ph. D. in organizational behavior from Case Western Reserve University.
Laura Speckman is a manager and systems engineer at The Aerospace Corporation. She has over 20 years’ experience working in engineering and technology firms. Her current work includes leadership contributions to corporate mentoring strategy, intergenerational initiatives, and flexible job rotations. Speckman earned her M. S. in electrical engineering, communications from the University of Southern California and B. S. in chemistry from the California State University at Fullerton.

Karolyn D. Young is associate principal director of special programs for the National Systems Group at The Aerospace Corporation. She is responsible for corporate engineering resources and operations to develop the government architecture from concept design through development, deployment and operations. Young holds B.S. and M.S. degrees in aerospace engineering, from the University of Michigan. Young is an instructor at The Aerospace Institute, a member of the Challenger Center for Space Science Education Board of Directors, and SAG.

Innovating Technology in a Fast Changing Environment
Lecture Presentation
Speakers: Krupal Swami and Ines Halloran
Friday 4:00 – 5:00 p. m.
Orange County Convention Center, W340D
Come and see how State Farm is transitioning from your parent’s insurance company to the company who develops the newest mobile apps, such as PocketAgent and OnTheMove! This session explores how State Farm’s IT R&D area accelerates the delivery of new technologies to the business. The speakers will present: how ideas are generated, evaluated, and developed; techniques to research, prototype, and experiment; key challenges faced by the R&D team; and a demonstration of emerging technologies. The session will include time for questions and answers.

Krupal Swami is a lead IT architect in State Farm Insurance Companies’ Systems Department, with accountability for enabling the services around the people, processes, tools, and technology to ensure systems management direction is understood and able to be used by the enterprise. Prior to joining State Farm, Swami spent more than 13 years consulting for Fortune 500 insurance and financial services companies. An Illinois native, Swami received two bachelor’s degrees from Eastern Illinois University and joint M.B.A.s from UCLA Anderson’s School of Management and the National University of Singapore’s Business School. She is also PMP certified through the Project Management Institute and CSQA and CSTE certified through the Quality Assurance Institute.

Ines Halloran is the lead IT architect of State Farm’s IT R&D department, responsible for the technical direction and execution of R&D efforts, focused on mobile computing, cloud, open source, infrastructure optimization, vehicle technologies, and business intelligence. Throughout her 19-year career in IT, she has served in a variety of roles in software design and development, architecture design, infrastructure forecasting and optimization, and legacy modernization.

The Cyber Initiative – Battleground Of The Future: What It Means For You
Panel Discussion
Presenters: Sharon Muzik, Keith Grimes, Tamara Cleveland, and Sue Albert
Friday 4:00 – 5:30 p.m.
Orange County Convention Center, W232A
What do biometrics, digital forensics, virtual identities, and modeling, simulation, and wargaming have to do with national cyber security? What are cyber security and the cyber initiative? Would you be a candidate for an amazing engineering career supporting cyber? A Booz Allen Hamilton-sponsored panel will discuss how the cyber initiative is protecting against cyber attacks on the White House, the Pentagon, and the New York Stock Exchange, and answer your questions. Join us to discover exciting career opportunities and learn what engineering skills are needed to support cyber warfare. See these firsthand and participate in demonstrations, such as 3-D facial recognition and a biometrics booth.

Based in Dayton, Ohio, Booz Allen Hamilton senior associate Keith Grimes has over eight years of experience in electronic warfare (EW) technologies, systems engineering and integration, and program management. He leads Air Force related research and development initiatives for the firm with a focus on the application of applying systems engineering activities to research and development efforts. He holds a M.S. in systems engineering from Johns Hopkins, a M.B.A. from the University of Massachusetts and a B.S. in computer systems engineering from the University of Massachusetts. Grimes is a certified project management professional.

Based in Central Maryland, Booz Allen Hamilton senior associate Tamara Cleveland has over 17 years of experience in information assurance (IA) technologies, systems and software engineering, research integration, and program management. She leads IA research and cyber security initiatives for the firm with a focus on identity technologies including biometrics (face recognition). She holds a M. S. in systems engineering from University of Maryland and a B. S. in systems engineering from Duke University.

Booz Allen Hamilton senior vice president Sharon Muzik supports the firm’s Unified Combatant Command (UCC) effort; leads the U. S. Special Operations Command (USSOCOM) line of business; and provides leadership for 250 staff in the Tampa office. Muzik holds an M. S. degree in management information systems from the George Washington University, and a B. S. (cum laude) in information systems management from the University of Maryland.
Keeping ‘em Flying: Control, Condition Monitoring, and Diagnostics on Modern Aircraft

Panel Discussion

Speakers: Jean Panos, Christin Rauche, Ph. D., and Angie O’Gorman, P.E.

Saturday 10:00 – 11:30 a.m.

Orange County Convention Center, W340A

Most of the conference audience traveled here by airplane. We have high expectations for air travel: an uneventful trip, on-time arrival, and a reasonable ticket price. These translate into expectations for the airframer/engine builder team: safety, reliability, availability, low operating and life cycle costs. This session will feature panelists from airframer and engine companies discussing some of the technologies that integrate the complex network of mechanical, electrical, and hydraulic systems comprising the modern aircraft.

Jean Panos earned her engineering Sc.B. from Brown, and the M.S.M.E. from MIT. She has held positions in turbomachinery design in companies both large and small. A systems design and integration engineer for GE Aviation, she leads global teams providing solutions to customers flying and maintaining the CF6 turbofan engine.

Angie O’Gorman, P.E., earned her B.S.M.E. from Texas A&M University and is a licensed Professional Engineer. In 2005 she was recognized with the SWE Distinguished New Engineer award. O’Gorman has spent nearly 14 years supporting the Propulsion team at Boeing, primarily as an airplane/engine integrator on the 777 installations analysis team.

Christin Rauche, Ph.D., earned a B.S.M.E. from the University of Hartford and the M.S.M.E. and doctorate in industrial engineering from the University of Cincinnati. After starting her career with Pratt & Whitney in performance and operability, Rauche joined GE Aviation as a lead engineer in control systems and has held various positions of increasing responsibility. She is a certified lean six-sigma black belt, and currently leads the embedded Engines Software and Prognostics and Health Management and Flight Management Systems sections of the Aviation Software Engineering Center of Excellence.

Sustainability Through Energy Reduction and Creation

Panel Discussion

Speakers: Fred Discenzo, Ph.D., Roberta Kankus, Gabriela Stephenson and Jennifer Wright

Saturday 10:00 – 11:30 a.m.

Orange County Convention Center, W340B

Energy efficiency and renewable sources of energy are important topics in the manufacturing world from both a financial and ecological perspective. The integration of factory controls and information technology provide the critical business intelligence needed to drive efficiency strategies across the production facility. As companies invest in plant-wide optimization, innovative approaches to better manage and reduce industrial energy costs will contribute to long term sustainable production. Several renewable sources of energy are being studied and implemented. They include wind, solar, and remarkable life form that has generated most of the oil we pump from the ground today, the lowly single-cell algae. The availability of abundant, low cost bio-fuels and bio-polymers from algae is the subject of intense study and development around the world.

Fred Discenzo, Ph.D., is the manager of diagnostics and sensors, at Rockwell Automation’s Advanced Technology Laboratory in Cleveland, Ohio and is also the acting lab director. Dr. Discenzo has held various research and advanced development positions with major corporations. He has published many papers, provides regular presentations at universities and industrial organizations, and currently holds over 50 U.S. patents. He is frequently called on to assist customers in challenging programs involving sensors and controls. Project efforts have won multiple trade industry and customer awards. He has two bachelor’s degrees in mathematics, a master’s degree in polymer physics, and a doctorate in systems and controls. Dr. Discenzo represents Rockwell Automation on various university / industry advisory committees and is a board member of the Machinery Failure Prevention Technologies Society.

Jennifer Wright, sustainable solutions leader for Rockwell Automation, has been with the company since the acquisition of Propack Data Corporation in April of 2002. She is responsible for driving the accelerated growth of current offerings and the development of new sustainable production solutions. Wright was awarded the Professional Women’s Council Superior Leader Award in 2006 and is a member of the Sustainable Manufacturing Council. She is co-author of white papers on MES solutions and sustainability for IEEE and MESA, and holds a bachelor’s degree in industrial design from Western Washington University.

Roberta Kankus is a technical manager at the Exelon Generation Corporation. She was the first woman to hold a senior reactor operator’s license for a commercial nuclear power plant. Kankus’ 35-year-career began in core and reactor engineering. She has worked with the Institute of Nuclear Power Operations as one of the initial project managers establishing and assessing nuclear industry standards of operation. Kankus also has worked in business operations, strategic planning and economic affairs.

Gabriela Stephenson is a business executive with over 16 years of experience in facility management, operations, work place solutions and services. Currently she is the Global WorkPlace Solutions director of Facility Management in the Americas, where she is responsible for operational delivery of FM support services in the Americas region. Stephenson holds a B.S. in electrical electronic engineering from La Salle University in Mexico City, and a M.S. in automatic control.
systems from the University of Sheffield in the U.K. She started her career with Johnson Controls, where she has held several positions in Mexico, the U.K. and the United States.

**Effective Presentations: Tips and Guidelines for Presenting Technical Information and Quantitative Data**

**Lecture Presentation**

**Speaker:** Jo Ann Orlando  
**Saturday 1:30 – 2:30 p.m.**  
**Orange County Convention Center, W340D**

This presentation is designed to teach and empower engineers to prepare, develop, and deliver informative technical presentations that have a positive impact on all audiences. Students will be able to use these public speaking/presentation skills to not only add additional credibility to their technical work, but also to increase meeting efficiency, team morale, customer relations, and the opportunity for the successful completion of program goals.

Jo Ann Orlando is a V-22 Airframes project engineer at Boeing. She holds a B.S. in mechanical engineering and a M.S. in engineering management from Drexel University. As the vice president of education and current past-president of the Boeing Helicopters Toastmasters Club, Orlando demonstrates how effective presentation skills will garner major advantages in the technical world.

**Innovative Engineering Solutions for Loss Prevention**

**Lecture Presentation**

**Speaker:** Artemis Agelaridou Twohig, Ph.D.  
**Saturday 1:30 – 2:30 p.m.**  
**Orange County Convention Center, W340A**

The positive effect of loss prevention on the competitiveness and profitability of an enterprise is indisputable. Employing research and engineering in risk management can support the philosophy that the majority of loss is preventable. Scientific analysis and testing can provide deeper understanding of various hazards and help develop innovative techniques to minimize impact on operations and prevent a large extent of losses as demonstrated by a series of applications for fire, wind, and equipment failure.

Artemis Agelaridou Twohig, Ph.D., holds a B.A. in mechanical engineering from Aristotle University in Greece, an MSc from Cranfield University in the U.K. and a Ph.D. from Tufts University. She has been with FM Global Research since 2002 and contributed on scientific studies of a wide range of natural, industrial and equipment hazards.

**Arsenic Removal for Municipal Drinking Water Treatment**

**Lecture Presentation**

**Speaker:** Kerrie Greenfelder, P.E.  
**Saturday 2:45 – 3:45 p.m.**  
**Orange County Convention Center, W340D**

This presentation will focus on the removal of arsenic from groundwater for municipal drinking water treatment. Arsenic is regulated by U.S. EPA and allowable levels of arsenic were generously reduced in 2006, making many municipalities address the issue for their potable water supplies. Arsenic concentrations are prevalent in much of the groundwater of the Southwest and have impacted many municipalities, both large and small. The presentation will cover various treatment options, emerging technologies for arsenic removal, and several case studies.

Kerrie Greenfelder, P.E., holds a B.S. in chemical engineering from the University of Kansas. She has provided design engineering, construction oversight, start-up, and project management services for seven unique arsenic treatment facilities in the southwest.

**Identifying and Translating Customer Needs for Value Creation**

**Workshop**

**Speaker:** Cynthia Hoover  
**Saturday 2:45 – 3:45 p.m.**  
**Orange County Convention Center, W340A**

Ever wondered how development projects are identified in industry? Gain perspective on how to identify customer needs, assess value and develop technology solutions. A well proven stage gate process will be discussed with particular emphasis on how to uncover unmet needs, matching those needs to core competencies and developing solutions that create value for both the customer and the supplier. Examples from the biotechnology, electronics and healthcare industry will be provided.

Cynthia Hoover, Ph.D., is a director of R&D for Praxair, Inc. a global 10 billion dollar company. She has 15 years of industrial R&D experience and has led the development and commercialization of multiple technologies into the electronics, healthcare, biological, and pharmaceutical industries. She received her doctorate in chemistry from SUNY Buffalo.

**Impacting Today’s Health Care with Total Solutions**

**Lecture Presentation**

**Speaker:** Celeste Fralick  
**Saturday 4:00 – 5:00 p.m.**  
**Orange County Convention Center, W232B**

Worldwide healthcare is at a precipice with high costs, poor access, and limited technology. With innovative connectivities, novel home monitoring, and impactful form factors, healthcare can be managed across generations to drive the “accidentally
well” to become “actively well. “This session will describe the latest technology and the forces that are changing the way we approach healthcare. We will also examine how each of us can actively participate in this revolution as a health conscious woman, a caregiver, or passionate engineer.

Celeste Fralick oversees biomedical engineering in the new health group of Intel, insuring medical products interface seamlessly with users and peripherals. She was a key developer of Intel’s initial biotechnology strategies, product qualification and life cycle programs, and is active in various biotechnology industry boards, journal editorial staffs, and consortiums. Fralick has a B.S. in microbiology and chemistry as well as a M.S. biomedical engineering, and is completing her Ph.D. in biomedical engineering at Arizona State University.

Nanotechnology: Education, Research, and Career Opportunities
Workshop
Presenters: Nancy Healy and Lynn Rathbun
Saturday 4:00 – 5:00 p.m.
Orange County Convention Center, W340A
The goal of the workshop is to introduce students to the concepts of nanotechnology, the career opportunities available, and the educational requirements to pursue such a career. Participants will be provided with information they need to prepare for a career in nanotechnology.

Nancy Healy is the NNIN Education Coordinator at Georgia Institute of Technology. NNIN is an NSF sponsored network of 14 universities across the US.

Lynn Rathbun, Ph.D., is currently the NNIN program manager at Cornell University, and holds a doctorate in physics from Ohio State University.

The Future is Electrifying
Lecture Presentation
Speaker: Pamela Fletcher
Saturday 4:00-5:00 pm
Orange County Convention Center, Room 240D
The Chevrolet Volt, an electric vehicle with extended-range capability, is heading into production at the end of this year. Join Pam Fletcher, Global Chief Engineer of the Volt, for an open conversation about the car’s technology, and how the Volt will help shape the future of personal transportation.

Pamela Fletcher is the global chief engineer for Volt and Plug-In Hybrid Electric Powertrains. She is responsible for the Extended Range Electric Vehicle propulsion system in the Chevrolet Volt as well as the propulsion systems in GM’s upcoming line-up of Plug-In Hybrid Electric Vehicles. Fletcher holds a bachelor’s degree in mechanical engineering, awarded from the General Motors Institute, as well as a master’s degree in mechanical engineering, thermal sciences, awarded from Wayne State University. She also graduated from the Executive Development Program, within the Kellogg School of Management at Northwestern University.

The Evolving Role of Engineers in Healthcare
Lecture Presentation
Speaker: Elsa Mersereau
Saturday 4:00 – 5:00 p.m.
Orange County Convention Center, W340D
Engineers have been present in healthcare since the 1920s, yet the days of stopwatches and clipboards have passed. Join this session to learn how industrial and management engineers now act as coaches, trainers, and consultants engaging healthcare workers in improving processes in their daily work. Gain a deep understanding of the changing role engineers play in helping to improve the quality, cost, and safe delivery of healthcare. Engineers are currently flooding the healthcare industry due to the increased popularity of Lean and Six Sigma. This movement couldn’t come at a more critical time as U.S. healthcare costs reach 17 percent of the GDP and patients demand higher quality and safer care.

Elsa Mersereau came to Lean Healthcare West (LHW) after working as a lean coach at a large community hospital system in Denver, Colorado. She previously worked at the University of Michigan Hospital applying lean concepts within their academic health system. Mersereau received her industrial engineering degree from the University of Michigan. Her IE background and manufacturing experience has provided her a unique perspective on the application of lean manufacturing concepts to healthcare.
The Management and Strategy track focuses on how the decisions of managers and leaders shape the performance and success of their organizations. These sessions should provide guidance on rigorous thinking devoted to strategic planning and leading your organization or project team. The sessions spotlight aspects of organizational behavior, market structure and forces, and organizational design; and explore the character and challenges of successful women leaders within highly technical fields. By attending multiple sessions within this track, participants will develop new skills and hone current ones that will ultimately prepare and equip them to be more effective leaders.

After attending sessions within this track, you will be able to:
• Develop a greater capacity to grow as professionals within science, technology, engineering, and mathematics (STEM) fields
• More successfully meet the myriad opportunities, challenges, and demands of your profession
• Develop new skills and hone current skills that will make you a more effective manager and leader

Sponsored by Exelon Corporation

Thursday, November 4

Advocating for Yourself in the Workplace: How to Talk to Your Boss/Co-workers About What You Need
Workshop
Speaker: Bryn Dews
Thursday 10:00 – 11:30 a.m.
Orange County Convention Center, W224H
You are not alone! Many women have had the experience of being the only woman in a male-dominated organization. In this interactive workshop, the presenter will share what she knows and what she’s learned, and invite you to role play in a safe environment those conversations you need to have with your boss/co-worker(s) to keep your sanity and get what you deserve. Think you can help another woman engineer navigate this terrain? Need help yourself? This workshop is for you!

Bryn Dews is the team lead for the User-Centered-Design group inside of MITRE’s IT division. She has worked in IT for more than 10 years, and managed teams for more than 25 years. She earned a Bachelor’s of Business Administration in Management in three years from the University of Massachusetts Amherst. She earned an M.S. in computer information systems from Boston University while raising two small children. Dews has presented this workshop to full rooms at two other conferences and practices mentoring one-on-one with her colleagues, college students, and most recently, started a mentoring program with the SWE Boston Section for area high school girls.

Defining Success through Effective Brainstorming
Workshop
Speakers: Reena Lee and Kate Lester Hanpachern
Thursday 10:00 – 11:30 a.m.
Orange County Convention Center, W330A
In this workshop, you will learn how to effectively brainstorm, in order to generate a large number of ideas within a group. Once you have generated these ideas, you will learn how to evaluate the ideas within your team to decide which one to move forward with. Through fun, interactive games, you will practice these skills in order to master them before you return to your own campus or workplace.

Reena Lee is a technical account manager in Google’s Partner Solutions Organization. She works with handset manufacturers to build and deploy mobile products using Android®. Lee previously worked at Intel on next-generation mobile microprocessors. She received B.S. and M.S. degrees in electrical and computer engineering from Carnegie Mellon, and an M.B.A. degree from University of Texas at Austin.

Kate Lester Hanpachern is an M.B.A. student at the University of California, Berkeley, and the business development manager at Anchor Bay. Previously, she was an electrical engineer at Honeywell Space Systems and a Peace Corps volunteer in The Gambia, West Africa. Hanpachern received her B.S. in electrical engineering from the University of Florida.

What You Need to Hear, but No One Will Tell You
Workshop
Speaker: Rachel Hutter, P.E.
Thursday 10:00 – 11:30 a.m.
Orange County Convention Center, W240A
Gender differences have been scientifically studied, yet most leaders are relatively uninformed of the impact of these distinctions. Knowing the nuances of how men and women think, communicate, and interact can help you be more successful in your career. The speaker will share learnings from diverse technical and leadership roles in many different industries to give you insights into how men perceive women in engineering.

Rachel Hutter, P.E., is director of engineering services for Disney’s Animal Kingdom® Region, Walt Disney World®. A licensed professional engineer, she is a Michigan State University graduate...
with a degree in electrical engineering and a minor in theater — the perfect background for a Disney engineer. Hutter is an active member of the Society of Women Engineers Corporate Partnership Council and a recipient of SWE’s 2005 Emerging Leader Award.

Feedback: How to Give It, Get It, and Benefit from It
Workshop
Speaker: Lynda Grindstaff
Thursday 1:30 – 2:30 p.m.
Orange County Convention Center, W224D
Giving and receiving feedback can be tough. Have you been in a situation where you needed to give someone feedback on a project, job task, SWE event coordination, or a performance review? It’s never easy to give someone feedback, especially when it is negative. It may be easier if they are in your direct chain of command, but what if they are your peer, a volunteer for you, or not in your direct chain of command? Come to this interactive workshop where you will learn how to deliver feedback effectively to others through role-playing situations with other workshop participants.

Lynda Grindstaff is a client marketing engineer for Intel® vPro™ Technology. Her tenure at Intel spans more than a decade and includes leading the business client strategy for Intel vPro™ Technology, system software development, chipset validation, and management of a global technical marketing team based in the U.S. and India. An expert in her field, Grindstaff has a patent and is a recipient of the Intel Achievement Award, the Intel Software Quality Award, and the Society of Women Engineers Emerging Leader Award. A valued industry conference speaker, she holds a B.S. in computer science from California State University, Sacramento, and remains active in community outreach programs.

Managing Suppliers: What You Need to Know
Workshop
Speaker: Elizabeth Green
Thursday 1:30 – 2:30 p.m.
Orange County Convention Center, W224H
This session will focus on the basics of supply chain management and the interactions between companies as customer or supplier. Topics include writing requests for quotes/proposals, statements of work, and how to work effectively with your subcontract and procurement teams. Additionally, the presenter will include the basics of the acquisition cycle.

Elizabeth Green holds an M.S. in systems engineering, an M.B.A. in finance and organizational behavior, and a B.S. in international management. She is a corporate manager of subcontract risk management and strategy.

Organizational Storytelling: A Powerful Communication Tool
Lecture Presentation
Speaker: Rita Steed
Thursday 2:45 – 3:45 p.m.
Virtual Participation
Orange County Convention Center, W240A
Storytelling can be a powerful tool in organizations, but it is often underutilized. It can be used in a host of ways, including: creating a shared vision, generating new ideas, building strong work teams, reinforcing core values, and sharing knowledge both internally and externally. This presentation will talk about when and how to use stories for effective communication, cover the basics of storytelling, and discuss how to pick and incorporate stories to create inspiring presentations.

Rita Steed, an LC applications engineer for Agilent Technologies, provides technical support, gives customer seminars, and trains colleagues. She has also held positions in research and development, and sales and marketing. In addition to receiving technical degrees from the University of Nebraska-Lincoln, Steed studied marketing at Villanova University and storytelling at the University of Delaware.
Making Your Feedback Count

Workshop

Speakers: Liz Kelly, Jutta Boehm, Sabine Grozinger, Devrim Hodach, and Patricia Luffburrow
Thursday 3:30 – 5 p.m.
Orange County Convention Center, W231B

Are you shy or hesitant to give positive and constructive feedback to others? Do you want to maximize the potential of your employees by giving effective feedback? Successful feedback must be focused on the business impact of the behavior, given consistently and timely, leading to better relationships. In this interactive workshop, you’ll have a chance to practice delivering feedback effectively through role-playing situations with other participants.

Liz Kelly is a senior manager of manufacturing for Genentech.

Jutta Boehm is a project manager with Roche.

Sabine Grozinger is a project manager with Roche.

Devrim Hodach is CMO site manager for Genentech.

Patricia Luffburrow is senior director and Vacaville quality site head at Genentech.

Women Leaders Leading Change

Panel Discussion

Speakers: Anita Gale, Cheryl Bick, Faye Francy, and Michelle Albert
Thursday 3:30 – 5:00 p.m.
Orange County Convention Center, W224F

Join this panel of women leaders as they take a look at their career paths and how their education, opportunities, and courage helped them lead change within their organizations. They will also discuss major changes they have led as well as key learning from their experiences and tips for other engineers to bring about change in their careers.

Anita Gale is associate technical fellow, Space Shuttle payload/cargo integration at Boeing. She holds a B.S. and M.S. in aeronautics and astronautics from the University of Washington, and a systems engineering certificate from Cal Poly, Pomona. She is the only female member of the Boeing-Houston Technical Fellowship. Gale received the 2009 Rotary Stellar Award for career accomplishment, as well as the 2008 Boeing Award for Exceptional Volunteer Service for conducting student competitions worldwide. She is a board member of the National Space Society and Resnik Challenger Medal committee chair.

Cheryl Bick is a chemical technology technical principal at Boeing. She holds an A.A.S. from Yakima Valley Community College and a B.S. from Washington State University. She worked two jobs while going to school full time as a single mom of four. She has a diverse employment background with multiple jobs working with international women. Bick has successfully implemented change management concepts throughout her professional career.

Faye Francy is the director of the networked systems domain in the enterprise technology strategy office reporting to the office of the chief technology officer in engineering, operations, and technology at Boeing. She holds an MSc in forensic chemistry and a BSc in chemistry and math.

Michelle Albert currently holds a position as lead engineer for 747-8 interior certification at Boeing, and was recently recognized as an associate tech fellow. She holds an M.B.A. from Seattle University and a B.S. in mechanical engineering from the University of Portland. She started at Boeing in early 1988, spending the majority of her career in BCA as a payloads design engineer. Albert spent time in several design groups, including ceilings and galleys, before becoming an interior crashworthiness DER and transferring that knowledge into payloads safety and airworthiness.

Business Skills for Engineers in This Globally Competitive Environment

Workshop

Speaker: Letitia Rushton
Thursday 4:00 – 5:00 p.m.
Orange County Convention Center, W224H

In this globally competitive environment, the need for business-savvy engineers is greater than ever. However, many engineers still view the business discipline as a separate entity from engineering and have a difficult time assimilating it into the technical arena. This presentation seeks to familiarize engineers with basic business techniques and provide recommendations for integrating business concepts into their engineering work.

Letitia Rushton is a project and systems engineer supporting the Chinook helicopter program at the Boeing Company. She holds a B.S. in industrial engineering from Penn State, University Park campus, and an M.E. in engineering science from Penn State, Great Valley campus. She is currently a candidate for an M.S. in organizational dynamics from The University of Pennsylvania and is a member of the Organizational Dynamics Exchange Network Special Interest Group in Systems Thinking and Sustainability.
Intrapreneuring: What Is It and Is It for You?

**Workshop**

**Speaker:** Rita Steed
**Thursday 4:00 – 5:00 p.m.**

**Orange County Convention Center, W224A**

Intrapreneur is the intracorporate counterpart to an entrepreneur. Many people in large organizations want to create and establish an identity of their own. Intrapreneuring is a way to do that: creating innovation inside an organization instead of leaving to pursue entrepreneurial opportunities. This interactive presentation will look at intrapreneuring, the traits of the intrapreneur, facilitators and inhibitors of intrapreneurship factors leading to success, examples from both large and small corporations, and a model for innovation.

**Rita Steed,** an LC applications engineer for Agilent Technologies, provides technical support, gives customer seminars, and trains colleagues. She has also held positions in research and development, and sales and marketing. In addition to earning technical degrees from the University of Nebraska-Lincoln, Steed studied marketing at Villanova University and storytelling at the University of Delaware.

Role of Leadership in Business Strategy to Execution Success

**Lecture Presentation**

**Speaker:** Nirmala Krishnan
**Thursday 4:00 – 5:00 p.m.**

**Orange County Convention Center, W225**

The global economy has created the need to execute strategy effectively in business firms. Strategy is the art and science of informed action to achieve a specific vision, an overarching objective, or a higher purpose for a business enterprise. Michael Porter, a Harvard professor, refined the definition of strategy as “a broad formula for how a business is going to compete.” Implementation is more important than strategy. Having great ideas is terrific, but they won’t do much good if the leaders can’t execute them. This presentation will cover the components strategy, the framework for implementation, and the role of leaders in achieving execution success.

**Nirmala Krishnan** has been with the Boeing Company for 22 years with 11 years in management and 11 years as an engineer. She has an M.B.A. in technology management from the University of Washington and an M.S. from Seattle University. Currently, she manages the IT Aero Performance Software systems. In her previous assignment, Krishnan was the senior manager in the Boeing Research and Technology group. Her prior management assignments include 747-8 reliability, maintainability, and testability; airplane production support; Everett factory functional test systems, and Connexion by Boeing Passenger Services System. As an engineer, she worked in 777 product development and three years in 787 product development. She has presented papers at Boeing technical conferences, as well as at conferences for the National Society of Black Engineers and the Society of Women Engineers, on managerial and technical topics. Krishnan’s paper on “Women Leadership in the New Millennium” was recognized as the best technical paper award at the 2000 SWE conference.

Friday, November 5

Growth and Innovation Strategy

**Workshop**

**Speakers:** Sue Stark; Lei Zhang Schlitz, Ph.D.; and Mary Beth Siddons

**Friday 10:00 – 11:30 a.m.**

**Orange County Convention Center, W330A**

Strategic planning starting from portfolio management and innovation process in ITW is an annual process from business unit level all the way up to sector level. Employing the “outside-in” approach to examine macro market trends and opportunities, versus the traditional “inside-out” type of incremental new product opportunities, enables the company to focus on growth opportunities on the platform level that can “move the needle.” This is done to anticipate and prepare the company for fundamental changes in the future competitive environment. The presenters will be talking about the elements of culture shift as well as capability improvements necessary to create an environment that has higher potential for innovation.

**Sue Stark** is an authority on strategy and innovation. She has a proven, 22-year track record at Miller Electric, an ITW company, at delivering “outside-in” approaches to product and business development. Her current position is group vice president, commercial accessories and Cutting – ITW Welding North America. Stark graduated from the University of Wisconsin-Oshkosh with a B.B.A. in operations, and received an executive M.B.A. from the University of Wisconsin-Madison.

**Lei Zhang Schlitz, Ph.D.,** is vice president, research and development of Illinois Tool Works Inc., a Fortune 200 diversified manufacturer of highly engineered components and industrial systems and consumables. She earned her Ph.D. in mechanical engineering from the University of Wisconsin-Milwaukee. As a native Chinese, Dr. Schlitz earned her B.S. in engineering mechanics from Tsinghua University in Beijing.

As president of both the Food Equipment Group Service and Weigh Wrap organizations, **Mary Beth Siddons** is responsible for creating the strategic direction of both businesses by driving innovation and sound strategic planning. Prior to coming to ITW, Siddons served as the president of Snap-on Business Solutions and the president of Snap-on Diagnostics, both divisions of Snap-on Inc., Kenosha, Wisc. She has lived in the northwest suburbs of Chicago for 34 years, and is a graduate of Northern Illinois University.
Illinois University, Keller Graduate School of Management, and post-graduate studies at Kellogg Graduate School, Northwestern University.

First Line Supervision: How Can I Prepare?
Lecture Presentation
Speaker: Derek Lucero
Friday 1:30 – 2:30 p.m.
Orange County Convention Center, W330E
Many young professionals start their careers with a stint in first-line supervision. This often daunting job is usually entered without prior preparation or training. This session will explore some of the steps you can take to prepare yourself to be successful.

Derek Lucero is a steel castings buyer for the Global Purchasing Division of Caterpillar Inc. Upon graduation from high school in Española, N.M., Lucero earned a B.S. in industrial engineering from New Mexico State University and an M.S. in industrial engineering from Texas A&M University. Since joining Caterpillar full time in 2007, he has held manufacturing and logistics-related positions in several different business units across the U.S. and Mexico. He is currently in his last year of the Manufacturing Professionals Development Program and recently relocated back to the U.S. from Saltillo, Mexico.

Self Leader
Lecture Presentation
Speakers: Goldman, Sachs & Co.
Friday 1:30 – 2:30 p.m.
Orange County Convention Center, W224D
The Self Leader Program provides a forum for people early in their careers to think about establishing career direction and learn ways to get the best out of the people they work with. Through interactive discussions, case studies, and practice exercises, participants will identify and learn key concepts and behaviors that are proven levers of success on the job. After attending this program, participants will be: more effective at impacting and influencing others; more aware of the role emotional intelligence plays in relating to others; and better able to take charge of their careers.

Mastering Crucial Conversations
Workshop
Speaker: Melissa Zaczek
Friday 2:45 – 3:45 p.m.
Orange County Convention Center, W330F
We all have difficult and important conversations with peers, professors, colleagues, bosses, family members, etc. Most of the time, however, we don't even realize we're in the middle of a crucial conversation until it is too late. Based on the bestselling book, this session will help you to become aware of when a conversation turns crucial, keep the situation safe for all parties, and achieve positive results.

Melissa Zaczek is a senior performance development engineer with Cummins Inc. She holds a B.S. and M.S. in mechanical engineering from Rochester Institute of Technology. Zaczek has served in many SWE positions, including collegiate leadership coach for Region H.

Who Am I in This Company? Employee Retention Efforts on a Global Level
Workshop
Speaker: Bill Purkerson
Friday 2:45 – 3:45 p.m.
Orange County Convention Center, W224D
Your company works diligently to recruit specific talent to fit unique hiring needs. What is your strategy for retaining these personnel? How can you keep employees engaged and on the right development track? Would you like to learn how to provide developmental leadership opportunities, peer interaction, and management interface? During this session, the presenter will share creative information on global retention efforts through new college graduate, group mentoring and mid-level manager programs.

Bill Purkerson is a human resources manager for Fluor Corporation in Greenville, S.C. He is responsible for the college relations program and manages the employment services function for the office. Purkerson has been with Fluor for the past 10 years and previously worked in academic advising and counseling at Clemson University.

Responsibility without Authority: Managing Managers in Matrix Organizations
Workshop
Speaker: Elizabeth Garypie
Friday 4:00 – 5:00 p.m.
Orange County Convention Center, W224D
Are you considering a role in upper management? Do you want to learn more about the differences from first-line management and what it is like to lead those who don't report directly to you? This interactive session is geared toward women considering a more senior role with larger responsibility. Share experiences and discuss the skills required and how to prepare. Gain insight into how to motivate and lead a large matrix and global organization and how to overcome some of the challenges.
Elizabeth Garypie is chief engineer of Naval Hawk Programs for Sikorsky Aircraft, a division of United Technologies. She currently provides overall technical leadership for all Naval Hawk helicopter development and production programs. Major programs include the MH-60R and MH-60S for the U.S. Navy and International S-70B. Garypie leads an organization of more than 20 engineering managers and team leads and approximately 300 functional engineers. She received a B.S. in mechanical engineering from Trinity College, Hartford, Conn.

Jag Soni, Ph.D., a leadership coach and organization development specialist at The Aerospace Corporation, is credentialed by the International Coaching Federation as a professional certified coach. She holds a B.A. and M.S. in psychology, and Ph.D.s in behavioral medicine and clinical psychology from the University of Miami, Florida. With more than 25 years of experience, Dr. Soni addresses large-scale issues related to organizational development and change, development of effective executive leaders, executive teams, and conflict management.

Jeanne McGraw, Ph.D., energy storage section manager, Physical Sciences Laboratories (PSL) at The Aerospace Corporation, is a battery expert supporting Delta II and IV launch vehicles. With Dr. Soni’s assistance, she spearheaded the PSL professional development committee in support of the PSL strategic plan. As a personal outcome from this activity, Dr. McGraw now serves as the PSL new business point of contact. She holds a B.S. in chemistry from the University of Denver, and M.S. and Ph.D. degrees in materials science from the Colorado School of Mines. Dr. McGraw has been involved with SWE since 2000 and a member since 2005.

Rising to the Top: A Path Toward Management

Workshop
Speaker: Henry O. Hernandez Jr.
Friday 4:00 – 5:00 p.m.
Orange County Convention Center, W240A
Are you ready for leadership? Why not consider it today? Leadership is an earned responsibility, whether obtained through familial roles, career goals, or workplace associations. This session will explore key principles that can marry your technical skills and experiences with a role in management. This is your gateway to career advancement.

Henry O. Hernandez Jr. is vice president, diversity and inclusion for SAIC. His past experience includes corporate and consulting positions and former intelligence officer for the CIA. Hernandez is co-founder and first president of the National Society of Hispanic MBAs. He holds a B.A. in mechanical engineering from Rice University and an M.B.A. from UCLA’s Anderson School of Business Management.

Saturday, November 6

PRIMeD for Professional Development: Integrating the Emerging and the Experienced for the Future

Lecture Presentation
Speaker: Jag Soni, Ph.D., and Jeanne McGraw, Ph.D.
Saturday 10:00 – 11:30 a.m.
Orange County Convention Center, W225
Equipped to thrive in the future? Is “professional development” difficult organizationally or individually? Might there be many ways to develop yourself and others? Shift from the typical “one size fits all” approach to one that elicits individual and organizational talent. Broaden your repertoire of development tools. Increase professional growth opportunities. Improve organizational cohesiveness. Create the environment you want. Strengthen your strategic plan. Take control — it’s your future, your “professional development.”

Stepping into the Spotlight

Lecture Presentation
Speaker: Michella Thomas
Saturday 10:00 – 11:00 a.m.
Orange County Convention Center, W240A
Have you ever had your meeting hijacked or the show stolen from you? All too often, type As step in to get the credit. So, how about recognition for those of you who are confident, have great ideas, and “do” rather than “say”? You have what it takes to lead, but your talents are overlooked because you’re NOT LOUD ENOUGH! No worries — leadership is not only for type As. There are role models you can look to for great leadership. This presentation will provide techniques to help you contribute effectively and make lasting impressions. The speaker will present examples of stepping into the spotlight and how this helped her career to develop to leadership roles.

Michella Thomas is a corporate account manager of customer services marketing and business development with Solar Turbines Inc. She holds a B.S. in mechanical engineering from the University of California, San Diego, and has spent 20 years working at Solar Turbines in a variety of managerial and leadership positions.

Technical to Management: A Synopsis of Two Managers’ Experiences

Lecture Presentation
Speakers: Jessica Eidem and Dan Gateno
Saturday 1:30 – 2:30 p.m.
Orange County Convention Center, W340C
You’ve been in your technical role for some time and wonder what management would be like. If you ask yourself questions such as,
“Would I be good at it?” and “Could I go back to being technical?,” then this presentation is for you! Two IBM managers with unique backgrounds will cover the process and emotions related to doing just that. The purpose is not to convince people that one way or the other is right, but to strengthen their intent to move into management or help people decide it is not for them. A Q&A session will follow with managers from other companies.

**Jessica Eidem** manages a compliance department at IBM in Rochester, Minn. The team is responsible for mid-range safety and EMC certifications. She has also managed an IBM customer test department. Before becoming a manager in 2006, Eidem was a mechanical design engineer for IBM for five years, working on a variety of products. She earned a B.S. in mechanical engineering from South Dakota State University and an M.B.A. from Cardinal Stritch University.

**Dan Gateno** manages a systems software test department at IBM in Rochester, Minn. The team is responsible for the final, customer-like test for both the IBM i and AIX operating systems. Before becoming a manager in 2008, Gateno held various positions across different divisions in IBM. He has spent time as a consultant, technical educator, and sales specialist. Gateno has a B.S. in computer management information systems from Minnesota State University and an M.B.A. from the University of Minnesota.

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**Kathleen Buse** received her B.S. in chemical engineering and public policy from Carnegie Mellon University, her M.S. in electrical engineering from Rochester Institute of Technology, and is close to completing a doctorate in management from Case Western Reserve University. Buse has worked for more than 25 years as an engineer and manager for four corporations, including Kodak and Sherwin-Williams. She now works as a consultant and researcher.

**Mentoring Millennials: Transferring Knowledge from One Generation to the Next**

**Lecture Presentation**

**Speaker:** Laura Speckman and Annika Hylmö, Ph.D.

**Saturday 2:45 – 3:45 p.m.**

**Orange County Convention Center, W340C**

A primary resource of the aerospace industry is specialized knowledge. With an aging work force, the question is how to engage and develop new recruits from the Millennial generation while gathering knowledge residing in experiences of employees from older generations. Many organizations must identify generational differences and similarities impacting abilities to maintain corporate mission success. The Aerospace Corporation’s Systems Engineering Division developed focus groups revealing strong themes around Millennials’ expectations for mentoring and learning, including generational styles limiting spontaneous knowledge transfer, the impact of subject matter expert availability on Millennial motivation, and career orientation. Several strategies and practical applications are identified.

**Laura Speckman** is a manager and systems engineer with The Aerospace Corporation. She has more than 20 years of experience working in engineering and technology firms. Her current work includes leadership contributions to corporate mentoring strategy, intergenerational initiatives, and flexible job rotations. Speckman earned her M.S. in electrical engineering, communications from the University of Southern California, and B.S. in chemistry from the California State University, Fullerton.

**Annika Hylmö, Ph.D.,** is a workplace consultant with an extensive research background in organizational systems, specializing in demographic shifts in the workplace and changing communication and technologies. Dr. Hylmö earned her Ph.D. in organizational communication from Purdue University, Indiana, and her M.A. in international communication from The American University, Washington, D.C.
The Outreach Track at WE10 is a powerful resource for SWE’s members and engineering outreach practitioners. This conference program track has been created for those who currently deliver, or want to begin delivering, outreach programs that inspire and support girls to study and pursue careers in engineering. The Outreach Track comprises sessions that highlight many of the best practices used in engineering outreach today. Participants will have the opportunity to network, share experiences, and initiate new collaborative projects across regions and organizations. This program track is part of SWE’s commitment to supporting outreach practitioners by giving them the tools to run effective programs that encourage and support girls to pursue careers in the engineering profession.

By attending sessions within this track you will be able to:
• Discuss hot topics in K-12 outreach
• Recognize effective methods in measuring program outcomes
• Evaluate K-12 outreach program curricula
• Recruit and train outreach volunteers
• Develop strategic partnerships with other groups involved in outreach

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Thursday, November 4

FIRST LEGO League Robotics Workshop/FIRST Outreach

Workshop
Speaker: Laura Melnik
Thursday 9:00 a.m. – 12:00 p.m.
Orange County Convention Center, W340A

This session is an introduction to coaching and managing a FIRST LEGO League team, including hands-on programming of the LEGO NXT robot. Attendees will learn what is expected of a team during competition, tips on managing and motivating a team, and more. SWE sections can learn how to obtain funding to sponsor all-girl teams.

Laura Melnik is a software engineer with General Electric and is the president of Florida Robotics Education Inc., a nonprofit organization created specifically to facilitate providing educational technology to students in Florida. Melnik has been actively involved with the FIRST LEGO League in Florida for more than 9 years and has been the director of the Florida FIRST LEGO League for five years. She is recognized within FIRST as a leader and educator.

Exploring Engineering with Parents and Children

Workshop
Speaker: Joan Chadde
Thursday 10:00 – 11:30 a.m.
Orange County Convention Center, W232C

Discover how college STEM students can engage children and their parents in the excitement of doing hands-on engineering activities by hosting a Family Engineering event in their community. The goal of Family Engineering is to increase interest in engineering and to engage, inspire, and encourage all students to consider careers in engineering and science. Participants will receive selected activities from the new Family Engineering Activity Guide being developed with support from the National Science Foundation.

Joan Chadde is the education program coordinator for the Center for Science and Environmental Outreach at Michigan Technological University. She holds a B.S. in natural resources from the University of Michigan, and an M.S. in water resources from the University of Wyoming. She completed her secondary science teaching certification from Michigan Technological University. Since 1998, Chadde has conducted more than 200 family science and engineering nights enlisting university students enrolled in MTU’s communicating science course as the presenters. The Center conducts after-school science classes, science fair, and teacher professional development, reaching more than 10,000 people annually. Chadde is a co-PI on the Family Engineering Project funded with a $1.5 million grant from the National Science Foundation.

How to Apply for a SWE Program Development Grant

Lecture Presentation
Speaker: Mary Perkinson
Friday 10:00 – 11:30 a.m.
Orange County Convention Center, W224C

Has your section ever had a great idea for an event but not enough money to make the event a reality? Do you know about the SWE program development grants (PDGs) but have no idea how to apply? Learn about PDG proposal requirements, evaluation criteria, and what makes a strong proposal. The discussion will feature best practices, tips, and tactics that will give you insight on writing a proposal to get your event funded.

Mary Perkinson is an active member of the Society of Women Engineers on the national, regional, and local levels. She is a technical service engineering manager II with Northrop Grumman Shipbuilding. Perkinson was an FY10 recipient of the Distinguished New Engineer Award. In addition, she was the FY09 chair-elect and is the FY10 chair of the program development grant committee, and serves on the outreach committee.
**Effective Leadership: Accomplishing the Impossible**

**Workshop**

**Speaker:** Shayla Bennett  
**Thursday 10:00 – 11:00 a.m.**

**Orange County Convention Center, W232A**

As creative forces of nature, we are constantly working to improve the world around us. Whether at work, home, in our communities, or within our networks, we diligently seek to make the most of every endeavor. Outreach is really no different, but sometimes we struggle to make the most of our resources. With a few tools, you can be effective in leadership and be able to accomplish the impossible in every area of your life.

**Shayla Bennett** is a process engineer for NeXolve Corp., wholly owned subsidiary of ManTech International Corp. She holds a B.S. in industrial and systems engineering from the University of Alabama in Huntsville. Within SWE, Bennett is the NAL SWE outreach chair and the "Wow! That's Engineering!"** work group lead for the national outreach committee.

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**Working with Girls Inc.: Introducing the TEEMS Program**

**Workshop**

**Speaker:** Jennie Mathur  
**Thursday 1:30 – 2:30 p.m.**

**Orange County Convention Center, W340A**

This session will be an introduction to Girls Inc., including discussion of their mission, the girls they serve, and the way in which you can connect with a Girls Inc. in your area. SWE has partnered with Girls Inc. to create a program called TEEMS (Together Exploring Engineering, Math & Science). You will hear from SWE members who participated in the TEEMS pilot, and learn how to start, run, and fund your own TEEMS program.

**Jennie Mathur** is the program and training manager for Operation SMART programming at Girls Incorporated. Operation SMART is a Girls Inc. approach to providing STEM-related programming to girls ages 6-18. Mathur has a master’s in media arts and sciences, and her interests lie in using technology in innovative ways as a means of providing educational experiences for adult learners.

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**Utilizing Skills-Based Volunteering to Launch Successful, Innovative Outreach Programs**

**Lecture Presentation**

**Speaker:** Yvonne Simms  
**Thursday 1:30 – 2:30 p.m.**

**Orange County Convention Center, W231C**

Skills-based volunteering applies skills a person already has to volunteer activities. Throughout their careers, engineers utilize more than their technical skills. A dynamic, long-term outreach program can be achieved when applying these skills. This was demonstrated by the SWE North Alabama Section’s outreach program, which started in 1999 and culminated in 2009 with SWE’s signature event, "Wow! That’s Engineering!". This session will present ways to apply these skills to outreach.

**Yvonne Simms** is a systems engineer with The Boeing Company. She holds a B.S. in civil engineering from Michigan Technological University and is currently pursuing a Master of Aeronautical Science from Embry-Riddle Aeronautical University. Simms is a SWE outreach committee member, co-lead of its Girl Scouts Working Group, and was the outreach chair for the North Alabama Section. She received the 2008 Boeing Exceptional Volunteer Service Award for her service to Girl Scouts via SWE.

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**You Can Inspire Engineering Girls and Best Practices: Sharing Successful Programs**

**Workshop**

**Speaker:** Karyn Schroeder  
**Thursday 1:30 – 2:30 p.m.**

**Orange County Convention Center, W330A**

You can inspire girls to pursue careers in engineering and science! Discover best practices developed by Kimberly-Clark helping the company to reach more than 15,000 potential future engineers through its Engineers Week program. Whether you have participated in outreach before, or want to begin doing so, this program will help to strengthen or start you on your journey.

**Karyn Schroeder** is a research scientist with Kimberly-Clark. She leads Kotex® new product development projects specifically designed for girls ages 10 to 22. She has worked for Kimberly-Clark for nine years, and is a materials science and engineering graduate from Michigan Technological University. Schroeder has two published patents and six patent applications.

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**For Inspiration and Recognition of Science and Technology (FIRST)**

**Lecture Presentation**

**Speaker:** Charles Kennedy  
**Thursday 2:45 – 3:45 p.m.**

**Orange County Convention Center, W330A**

The mission of FIRST is to inspire students to pursue careers in science, technology, engineering, and math. FIRST has programs for students grades K-12. Its most visible programs center around involving students in robotic competitions. One of the main benefits of these programs is the opportunity the students have to interact with adult mentors as they go through the design, build, and programming process. FIRST provides a great opportunity for SWE members to be role models for emerging scientists and engineers.

For the past four years, **Charles Kennedy** has been the For Inspiration and Recognition of Science and Technology (FIRST) regional director for Florida, Alabama, Mississippi, and Louisiana.
In this position, he is responsible for recruiting and supporting FIRST teams, and for conducting the Florida and Bayou Regional FIRST Robotic Competitions. Kennedy has more than 40 years’ experience in aerospace engineering and program management.

Role Models Matter: Outreach to Inspire Girls in Engineering

Lecture Presentation

Speakers: Linda Kekelis, Ph.D.; Lyn Gomes; and Janet Auer
Thursday 2:45 – 3:45 p.m.
Orange County Convention Center, W340A

How can you get a seventh-grade girl interested in engineering? This workshop brings together the expertise of Techbridge, Carollo Engineers, and Chevron — partners that have successfully introduced girls to the possibilities of engineering. This workshop will provide tips to combat stereotypes and show that engineers are creative problem-solvers. Participants will experience hands-on activities and receive a CD with resources for classroom visits and field trips. This workshop is open to all conference attendees.

Linda Kekelis, Ph.D., is director of Techbridge at Chabot Space and Science Center. She has a doctorate in special education from the University of California, Berkeley. With more than 20 years’ experience leading girls’ programs, Dr. Kekelis has conducted research and written extensively, translating research into practical applications for educators, professionals, and parents.

Lyn Gomes is a mechanical engineer with Carollo Engineers. She designs HVAC systems for plant buildings and structures, including offices, electrical rooms, and process areas. She also writes operation and maintenance manuals, performs training, and assists with renewable energy projects. Gomes has been actively involved in outreach and dissemination projects.

Janet Auer is a community engagement specialist with Chevron Corporation. Her responsibilities include managing Chevron’s Bay Area community program activities, with a focus on STEM education. Auer has helped Chevron receive many awards for its community partnerships.

Science, Technology, Engineering, and Mathematics (STEM) for Girl Scouts

Lecture Presentation

Speaker: Susan E. Anderson
Thursday 2:45 – 3:45 p.m.
Orange County Convention Center, W231C

Thinking about a Girl Scout badge workshop on STEM and wondering what activities to do? This session provides an overview of the various GSUSA and Council’s Own STEM-related badges for the diverse Girl Scout age levels. This session is open to collegians and professionals who want to know more about what kinds of badge activities to use in Girl Scout STEM workshops. (Note: This is not a session on how to run a workshop; that is covered by other SWE resources that are found online.)

Susan E. Anderson has been working with Girl Scout troops since 1981. She received an honorary doctorate in 2005 from the University of Rhode Island for her voluntary 25 years of bringing science and engineering to youth. In 1998, she left Raytheon Company, Portsmouth, R.I., as a senior development engineer to develop science and engineering programs for educators. She is the outreach chair for SWE’s New England Shoreline Section and co-founder of the national SWE Girl Scout Group.

Diamonds Are a Girl’s Best Bet

Workshop

Speaker: Maria Marez Baker
Thursday 4:00 – 5:00 p.m.
Orange County Convention Center, W231C

Learn about this outreach program directed toward middle and high school girls that engages them in a discussion of diamonds from an engineering standpoint.

Maria Marez Baker holds a baccalaureate degree in electrical engineering from Cleveland State University. In addition, she is a GIA-certified diamond grader. She made a career transition into electrical engineering after a 20-year career in the jewelry industry. She is passionate about outreach and believes that she may have made the transition into the rewarding career of engineering sooner if she had had a mentor or role model.

Engineer Your Life: Effectively Communicating Engineering Careers to High School Girls

Workshop

Speaker: Margot Sigur
Thursday 4:00 – 5:00 p.m.
Orange County Convention Center, W330A

Are you looking for effective strategies to inspire girls to explore engineering? Engineer Your Life (EYL) is a national campaign to showcase engineering as an exciting and rewarding career choice for high school girls. In fact, an independent evaluation shows that girls who are using the EYL website have a broader definition of what engineering is and a better understanding of how to pursue an engineering degree. After exploring the EYL site, 78.5 percent of girls listed engineering as their number one career choice. Join us for this workshop and learn how to use EYL’s free resources and strategies to encourage girls to pursue engineering.

Margot Sigur is an outreach coordinator for the WGBH Educational Foundation. She builds awareness for, provides training around, and encourages use of WGBH series’ resources. Sigur has facilitated workshops around engineering and media literacy.
The Do’s, Don’ts, and How To’s of Outreach

Lecture Presentation

Speakers: Jasmine Harris and Nicole Fronk

Thursday 4:00 – 5:00 p.m.

Orange County Convention Center, W340A

Outreach is an important function for all SWE sections. The Weber State University Collegiate Section has organized and participated in a variety of events with a range of target audiences. They have had many experiences, lessons learned, and great ideas they wish to share with SWE sections across the nation. The most successful form of outreach they have organized involves simple hands-on workshops and make-and-take projects. A discussion on collaboration, networking, and volunteering will benefit all SWE sections in meeting their outreach goals.

Jasmine Harris is a senior at Weber State University majoring in manufacturing engineering technology. She has been president of the SWE section at WSU for a year-and-a-half and a member for two years. Harris has organized many outreach events, and increased membership and involvement in the WSU section.

Nicole Fronk is a senior at Weber State University studying design graphics engineering technology and will graduate in May 2011 with high honors. She served as vice president of her SWE section and as student senator for the College of Applied Science and Technology.

Friday, November 5

Outreach Programs, Practical Advice for Promoting STEM to Elementary, Middle, and High Schools

Lecture Presentation

Speaker: Dawne LeKang

Friday 11:00 a.m. – 12:00 p.m.

Orange County Convention Center, W330C

When my children started school, my interest in outreach programs became more personal. I thought I could wander in, fill out a volunteer form, and I’d be imparting my engineering knowledge to eager students. Navigating the school system and finding opportunities for influence was more complicated than I anticipated. This workshop provides practical guidance on making contacts, finding programs that actively solicit community volunteers, preparing for visits, and how corporations can (and do) get involved at the schools through corporate partnerships. I will also provide specific information on creating elementary, middle, and high school toolkits for use in outreach programs.

As a senior systems engineer, Dawne LeKang is responsible for the institutionalization of engineering processes. In the past 20 years, she has been a program manager, technical lead, lead systems engineer, and software developer. She was recognized as a SWE Distinguished New Engineer in 2000, and has been active with the Baltimore Washington Section, serving as an officer and being named the Member of the Year in 2001. LeKang’s most significant contributions have been with outreach programs.

 Become a Tornado! Generate Winds of Change within Your Organization for Outreach!

Lecture Presentation

Speakers: Laureen Pellegrino and Jennifer Millard

Friday 2:45 – 3:45 p.m.

Virtual Participation

Orange County Convention Center, W240A

Every outreach event begins with an idea. Discover how two passionate and driven people successfully developed an engineering outreach event for more than 125 Girl Scouts. This presentation will discuss strategy and the various ways in which the outreach event was successful. We will cover topics such as funding, volunteers, the pitfalls, and the focus dedicated to each attendee. The presentation will provide the necessary information to make your own outreach event a successful one.

Laureen Pellegrino began her outreach efforts with developing “Bring Your Child to Work Day” programs. She plays an integral role in recruiting volunteers for middle and high school events, such as the Department of Energy Science Bowl and the Future City Engineering Competition. An active member of the SWE NY Section, she holds many leadership roles, including project manager of the Girl Scout Engineering Fair. Pellegrino is a principal operations engineer with BAE Systems.

Jennifer Millard has been a member of SWE since 2005. Her most recent leadership positions are SWE NY website coordinator and the Stony Brook University Section counselor. As a counselor, she has been instrumental in guiding the collegiate section to become one of the Top 5 in Region E. One of her main outreach projects has been co-chairing the Girl Scout Engineering Fair. Millard is a software engineer for the Omnicon Group.

Free Outreach Resources from PBS: Design Squad

Workshop

Speakers: Susan Buckey and Margot Sigur

Friday 4:00 – 5:00 p.m.

Orange County Convention Center, W330B

“Design Squad,” PBS’ award-winning engineering competition series, is more than just a TV show. It has robust educational resources that give kids the opportunity to flex their design process skills, while learning science and engineering concepts. Learn about the program and its multimedia campaign. Try activities from the latest outreach resource, the Design Squad Teacher’s Guide. Hear how others have incorporated “Design
K-12 Outreach

Squad” into their outreach efforts and discuss ways to start up or spice up your outreach with “Design Squad.” Each participant will take home free resources that they can incorporate into their outreach efforts right away.

Margot Sigur is an outreach coordinator with the WGBH Educational Foundation. She builds awareness for, provides training around, and encourages use of WGBH series’ resources. She has facilitated workshops around engineering and media literacy.

Susan Buckey is an outreach production coordinator for WGBH. She has worked on Design Squad, ZOOM, and FETCH. Previously, Buckey taught fourth grade.

Reaching Out
Lecture Presentation
Speaker: Laura Loyacono
Friday 4:00 – 5:00 p.m.
Orange County Convention Center, W330E
This session will include information about Project Lead The Way and efforts to recruit more girls into an engineering career path. Participants will exchange ideas about their past experiences and brainstorm recommendations on how to attract more girls into engineering.

Laura Loyacono is director of Project Lead The Way in Kansas City. She coordinates a regional K-12 STEM education initiative aimed at increasing the number of students prepared to enter engineering careers. Loyacono earned an M.A. in public administration from the University of Kansas.

Saturday, November 6

Invent It and Build It
Special Event
Saturday 10:30 a.m. – 4:00 p.m.
Orange County Convention Center, W224
See description on page 78.

High School Extracurricular Engineering Programs: Are They Working? Opportunities to Explore, Assess, and Experience
Panel Discussion
Speaker: Leann Yoder
Saturday 2:45 – 5:00 p.m.
Orange County Convention Center, W240D
Do high school outreach efforts draw students to engineering? JETS Teams Competitions Assessment represents an innovative approach to defining success of a large, nationwide high school competition. TEAMS is an annual, nationwide theme-based competition that presents engineering through the practical applications of math and science alongside everyday world challenges. With more than 10,000 high school students participating at more than 80 sites (mainly universities), TEAMS is one of the largest academic competitions in the United States.

Leann Yoder is executive director of JETS. In her tenure with the organization, she has gained extensive knowledge of the pre-college science, technology, engineering, and mathematics community. She has developed strategic partnerships with organizations that have helped expand JETS’ reach by more than 25 percent in four years and focus its programs into three clearly defined categories — explore, assess, and experience — leading students down the path of career discovery in engineering.

How to Bring Nanotechnology from the Lab to the K-16 Classroom
Lecture Presentation
Speaker: Polly Kroha
Saturday 2:45 – 3:45 p.m.
Orange County Convention Center, W340B
The Center for Nanoscale Chemical-Electrical-Mechanical Manufacturing Systems (Nano-CEMMS) at the University of Illinois at Urbana-Champaign has developed a wide range of hands-on educational modules and internship programs designed to spark interest in science, technology, engineering, and mathematics and nanotechnology. Since 2003 our programs, materials, and partnerships have impacted more than 15,000 K-16 students. See how these resources inform people about nanotechnology in fun and engaging ways, and learn from our “lessons learned” on how to create a successful outreach program.

Polly Kroha is managing director and education coordinator at the Center for Nanoscale Chemical-Electrical-Mechanical Manufacturing Systems at the University of Illinois at Urbana-Champaign (UIUC). She has more than 20 years’ experience making technical content accessible to nontechnical users. She holds an M.S. in computer science education from Barry University, and a B.A. in Spanish from UIUC. Before joining Nano-CEMMS, Kroha taught high school math, programmed educational software, and designed and delivered training at UIUC.
Thursday, November 4

Archives Workshop: Preserving Section Scrapbooks

SWE Leadership Track
Speaker: Troy Eller, SWE Archives
Thursday 10:00 – 11:00 a.m.
Orange County Convention Center, W232B

Do you have SWE scrapbooks that are turning yellow and beginning to crumble? Are you creating new scrapbooks for your section? This workshop will teach you the different facets of scrapbook preservation, from proper handling and storage techniques to establishing proper environmental control. The workshop will also offer guidance in digitizing old scrapbooks and creating new scrapbooks with long-term preservation in mind.

Troy Eller is the Society of Women Engineers archivist at Detroit’s Walter P. Reuther Library, Wayne State University. Prior to becoming SWE’s archivist she was a college reference librarian. She holds a M.L.I.S. from Wayne State.

SWE’s Government Relations and Public Policy Program
Lecture Presentation
 Speakers: Peggy Layne, P.E., and Cathy Pieronek, J.D.
Friday 2:45 – 3:45 p.m.
Orange County Convention Center, W340A

Did you know that FY10 SWE President Nora Lin, along with other leaders of the science, technology, engineering and mathematics (STEM) community, joined President Obama at the White House when he announced the “Educate to Innovate” initiative? The Society of Women Engineers advocates for strong STEM education programs and gender equity in education and the workplace, and is often called on to educate policy makers on these and related issues. SWE’s policy initiatives are non-partisan and carefully focused on issues of importance to women engineers.

Peggy Layne, P.E., joined Virginia Tech in 2003 as director of the AdvanceVT program, a program to increase the participation and success of women in academic science and engineering careers. She is a registered professional engineer with degrees in environmental and water resources engineering, and worked for 17 years as an environmental engineering consultant. Layne spent a year working in the U.S. Senate as an AAAS Congressional Fellow sponsored by the American Society of Civil Engineers and served as president of the Society of Women Engineers in 1996-97. She is FY11 chair of SWE’s government relations and public policy committee, and a past president of the Society, having served in 1996-1997.

Cathy Pieronek, J.D., is assistant dean for academic affairs and director of the Women’s Engineering Program at the University of Notre Dame College of Engineering. She earned her B.S. in aerospace engineering and her law degree from the University of Notre Dame, and an M.S. in aerospace engineering from UCLA. She has worked as a systems engineer on NASA projects for TRW Space & Defense Sector in Redondo Beach, Calif. Her research focuses on engineering education, and particularly on the issues that affect the persistence of women in engineering. Her SWE leadership roles include Title IX Lead (FY08), chair of the GRPP (FY09-FY10) and president of the Chicago Regional Section (FY10).

Meet the SWE Editorial Board
Panel Discussion
Speakers: Deb O’Bannon, chair, and volunteer members of the editorial board
Saturday 10:00 – 11:30 a.m.
Orange County Convention Center, W231C

The panelists will discuss the award-winning SWE Magazine’s contribution to the Society, and the editorial board’s role regarding the development of editorial themes and concepts. The panel will answer questions about how the magazine can be used for maximum value, the role and use of the electronic version, and how contributions can be submitted.

Deb O’Bannon is an associate professor of civil engineering at the University of Missouri-Kansas City and current chair of the editorial board. She has been a member of the board since 2000.

Effects of Leadership Training and Networking Opportunities on Professional Advancement: A Quantitative Study
Lecture Presentation
Speaker: April Lauper, P.E.
Saturday 1:30 – 2:30 p.m.
Orange County Convention Center, W231B

If the specific problem that affects the success of a company is the lack of leadership, can membership in a professional society lessen this effect? The Society of Women Engineers was the specific professional society studied. An online cross sectional survey, by means of a 10-point Likert scale, was used on this quantitative descriptive statistical research study. The study gathered the perceptions of the membership (both professional and collegiate) regarding the effectiveness of the society’s leadership-training programs and networking opportunities, and their effect of perceived professional advancement or enlargement in their real-world professions. The results indicated that the colleagues and professional perceived tangible results of membership from taking...
the leadership training offered within the Society. The benefit of networking was split. The collegiates perceived benefit while the professionals accepted the null hypothesis.

April Lauper, Ph.D., holds two B.S. degrees from Texas A&M University. The first degree is in industrial technology and the second is in mechanical engineering. In 2000, she obtained her M.B.A. from Our Lady of the Lake University in San Antonio, Texas. In 2009, she obtained the Doctor of Business Administration from the University of Phoenix. Dr. Lauper has 36 years’ experience in the mechanical design of pressure vessels, storage tanks, heat exchangers, storage bins, pipe stress, and miscellaneous mechanical equipment.

Hit the Ground Running: Transitioning from College to Career
Workshop
Speakers: Karen Johnson and Jennifer Thomas
Saturday 2:45 – 3:45 p.m.
Orange County Convention Center, W240D
Not sure what to expect from your first job out of college? In this module, you’ll learn how to transition from a fantastic student into a savvy employee, become familiar with appropriate workplace behavior, etiquette and attire, and understand how to be successful in the working world.

Karen Johnson graduated from Drexel University in 2006 with a bachelor’s and master’s in mechanical engineering. She was her collegiate section’s webmaster, president, and vice president. Johnson currently works for The Charles Stark Draper Laboratory in Cambridge, Mass., where she is a member of the technical staff. She is a member of the collegiate leadership coaching committee (CLCC) and is an active member of SWE Boston, serving as the collegiate section liaison and the professional development co-chair.

Jennifer Thomas, originally from Miami, graduated with a B.S. in aerospace engineering from the University of Central Florida in May of 2006. At UCF, she joined SWE in 2001 and served as section president for two years. Upon graduation, she accepted a position in the engineering development program at Pratt & Whitney, where she has worked in compression system aerodynamics, test engineering, engine systems operability, and turbine durability. Thomas has been a collegiate leadership coach for the past four years and has also served on the local level as secretary and section representative for the Hartford Section.

Managing Different Generations
Panel Discussion
Speakers: Esther A. Heller, Jessica (Jacey) Rogers, and Kimberly Homan
Saturday 4:00 – 5:00 p.m.
Orange County Convention Center, W340C
Today, whether in a corporate, government, or non-profit environment, we can be interacting with members of four generations: Traditional, Baby Boom, Generation X, Generation Y — aka Millennium. Each has been influenced by events that occurred while they were growing up, creating communication and collaboration issues. This interactive session will delve into differences in work and leadership styles. Together, we will find what we have in common and develop strategies to improve cross-generational communications.

Esther A. Heller is a pragmatic Baby Boomer with degrees in mathematics from Brandeis and Stanford Universities, a certificate in electronics engineering from University of California, Davis, and is a graduate of Equity Institute’s diversity trainers program. She worked in the computer industry for 15 years before entering the diversity arena 16 years ago. She is Jacey Roger’s mentor and has been a SWE member for 32 years and leadership coach for seven years.

Jessica (Jacey) Rogers is an independent member of Generation X with a mechanical engineering degree from the University of North Carolina at Charlotte and currently living in Germany. She works as a thermal fluids engineer for AREVA GmbH in Generation III nuclear power plant design. She is Kimberly Homan’s mentor and has been a SWE member for eight years and a leadership coach for three years.

Kimberly Homan is a collaborative Millennial with a degree from the University of Alabama at Birmingham in civil engineering. She is a civil engineering graduate at the Alabama Department of Transportation, where she does air analyses and NEPA documentation for federal-aid projects. Homan inspires the best in Rogers and Heller, and has been a SWE member for five years and a leadership coach for two years.

Are You an Active Listener?
Workshop
Speakers: Kristina Wang and Gretchen Gonzales
Saturday 4:00 – 5:00 p.m.
Orange County Convention Center, W232C
Are you an active listener? It’s easy to hear what someone is saying, but it takes much more effort to listen. In this interactive module, improve your leadership and teamwork abilities by learning to implement active listening skills.

Kristina Wang received her B.S. and M.S. degrees in aerospace engineering sciences from the University of Colorado at Boulder, and is currently enrolled in the aeronautics and astronautics Ph.D. program at the University of Washington. She enjoys being involved in SWE because of the opportunities SWE provides for its members. In the past, Wang has served as the regional collegiate senator and collegiate leadership coach for Region i, as well as president of the CU Section. In the professional realm, she has spent time working for the Colorado Space Grant Consortium, BioServe Space Technologies, Cessna Aircraft Company, Blue Origin, and Funovation Inc.

Gretchen Gonzales graduated from the University of Nebraska-Lincoln with a B.S. in computer engineering in 2008. Currently she is an information management business analyst for Kiewit Corporation. Gonzales has been a collegiate leadership coach since 2006 and has been an active member of SWE since 2004.
The WE10 Poster Session offers a forum for authors to present their work in an informal and interactive setting. Plan to visit the poster discussion hour, which will take place from 2:30 – 3:30 p.m. on Friday, Nov. 5. The WE10 posters showcase the innovation, creativity, and best practices of our talented women in engineering and technology, as well as promote opportunities for our attendees to connect to each other and to engage in discussions about the excellent work presented.

Display Dates and Times:

Thursday 6:00 – 8:00 p.m.
Friday 10:00 a.m. – 4:00 p.m.

Location: Orange County Convention Center, West Exhibit Hall F

Discussion Open Forum Hour:

Friday 2:30 – 3:30 p.m.
Location: Orange County Convention Center, West Exhibit Hall F

Titles and Authors:

Best Practice - Quality Assurance in Product Lifecycle
Authors: Sowmya Vijayalakshmi and Radhika Parameshwaran, IBM India Private Limited

Developing a Biosensor Utilizing Surface Acoustic Wave Device
Authors: Jasmine Pearcey, Mandek Richardson, and Venkat Bhethanabotla
Department of Chemical and Biomedical Engineering, University of South Florida

Girls Go Green - Using Environmental Themes to Attract Females to STEM Careers
Authors: Cecilia A. Elmore, P.E., M.Ed and Cynthia Guess, Missouri University of Science and Technology

IBM’s Smarter Planet Strategy
Author: Romelia Flores, IBM Corporation

IBM’s Systems Management Solution
Authors: Nikita Mathur, Esha Seth, and Hinjewadi Pune Maharastra, IBM India Pvt Ltd

Incorporating Micromouse Competition into Undergraduate Courses
Authors: C. Bringes and L. Palmer
Department of Computer Science and Engineering, University of South Florida

Mobile Telephony for Base of Pyramid Sector in Developing Countries like India
Author: Kiran Grover, IBM Corporation

Phase Change Memory: The Future of Non-volatile Memory
Authors: Nkiruka Okeke, Tricia Gullard, and Sue Holm, Numonyx

Quantitative Impedance Analysis of Nanowires and Cancer Cells
Author: Dorielle Price, University of South Florida

Real-Time Reservoir Modeling Making an Impact on Business Decisions
Author: Eileen Nunez Paclibon, BP

RFID - the next big thing
Authors: Julie K. Bennett and Danielle Vardaro, The Boeing Company

Role Based Access Control - The Backbone of Modern Security Systems
Author: Harinipriya Raghunathan, IBM India Pvt Ltd

Smarter Planet through Virtualization
Authors: Sowmya Vijayalakshmi and Radhika Parameshwaran, IBM India Private Limited

Structure-Function Relations of Pd Nanoparticles for Fuel Cell Electrocatalysis
Authors: María Sanchez, Selasi Blavo, John N. Kuhn
Department of Chemical and Biomedical Engineering, University of South Florida

Sulfur Tolerance of Silica-Supported Platinum Nanoparticles with Size Control
Authors: Lyndsey Baldyga and John Kuhn

Textural Features for HiRISE Image Classification
Authors: Lauren Hunkin, NASA, Mario Parente, SETI Institute and Janice Bishop, Department of Computer Science and Engineering, University of South Florida

Variation in Microneedle Geometry to Increase Shear Strength
Authors: Hayde Silva, Puneet Khanna, Shekhar Bhansali
Bio-MEMS and Microsystems Research Laboratory, Department of Electrical Engineering

Women in Engineering Advisory Committee - Getting Graduate Students Involved!
Authors: Michelle Oswald, Pam Cook, and Heather Doty, University of Delaware
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