



In the Spotlight 2009 - Best and Emerging Practices Showcase

A joint poster, panel and demonstration session at the [WEPAN National Conference](#)

June 19th, 2009

1:30-6:00 p.m.

Omni Hotel Downtown, Capital Ballroom and Balcony, Austin, Texas

Title		Showcase Presenter	Description
SH-01	Attracting Women to Computer Security through an REU	Paige E. Smith, Michel Cukier, University of Maryland	The Computer Security REU takes advantage of an <i>enhanced team research experience</i> as a method of overcoming barriers to success for women in STEM majors. The research team is a predominantly female group, providing a hierarchy of role models and mentors for the participants. The CS Scholars also act as role models for high school students, introducing the high school women to undergraduate research experiences. The poster will highlight of some key results learned in the first two years of the program's existence.
SH-02	The Benefits and Challenges of a Girls' Pre-Engineering Camp	Tiffany Smith, Elizabeth J. Cook, University of Oklahoma	This past summer, the University of Oklahoma College of Engineering initiated its first-ever high school girls' pre-engineering camp, called Discovering Engineering Via Adventure in Science (DEVAS). The program includes interacting with practicing female engineers from all fields through lunch and dinner discussions, a series of hands-on sessions with college professors from the various disciplines, visits to local companies, and tours of campus.
SH-03	Guide to Running a STEM Camp for Your Company	Janel Barfield, Carlie Bower, Christy Lauridsen, Afua Bruce, Lisa Gable, Carol Woodhouse, Deirdre Athaide, Jennifer Schachter, Helena Pugsley, IBM	Running a Science, Technology, Engineering and Mathematics (STEM) camp for middle school girls requires a lot of planning and dedication for successful execution. These camps typically have little funding and require the time and resources of many volunteers. This guide can be used as a starting point for someone who wants to organize this kind of camp for the first time or as a useful resource for those who already support similar programs.



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SH-04	Engineering Technology Program for Girls Ages 9-13	Jeanne W. Christman, Elizabeth M. Dell, Carol Romanowski, Teresa Wolcott, Rochester Institute of Technology	This poster describes a program led by female Engineering Technology students, with support from female faculty, to provide an introduction to Engineering Technology to 4th – 7th grade Girl Scouts through a series of interactive laboratory experiments. The program takes place on our college campus and makes use of four different Engineering Technology laboratories.
SH-05	She Power! - Women In Technology Mentoring Program for Female IBM Taiwan employees and Female College Students	Li-Fen Li, Yu-Wen Yang, IBM Taiwan	Embracing the IBM global principle to create a diversity work environment, IBM Taiwan set up a mentoring program in 2007 for the university female students in Taiwan, namely "Women In Technology Mentoring Program" and "WIT Mentoring". This one year program is designed to encourage the female college and graduate students majoring in Science, Technology, and Management to pursue a career in the technology industry, and to promote the campus relationship between IBM and the universities in Taiwan.
SH-06	Practical Guide to Advance Women in Engineering	Elizabeth T. Cady, Norman L. Fortenberry, Catherine J. Didion, National Academy of Engineering	This poster describes the development a train-the-trainer model that incorporates the research base in gender equity and engineering education into the curricula, classroom climate, and academic preparation of students in grades six through fourteen. The ultimate goal is to increase the number of women who earn bachelor's degrees in engineering. In support of this goal, we have begun production of three related booklets that address recruitment, retention, and advancement of women and girls, including women of color and women with physical disabilities, in engineering and pre-engineering courses.
SH-07	CalWomenTech: Huge Increases in Women via Marketing	Donna Milgram, The Institute for Women in Trades, Technology & Science	The Institute for Women in Trades, Technology & Science's CalWomenTech Project is funded by NSF and is working with 8 community colleges in California to assist them in increasing the number of women in technology education areas in which they are under-represented. An important component of the Project has been to assist the colleges with marketing and early results show these strategies are working.



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SH-08	I Know I Need a Mentor	David Porush, MentorNet	Virtually every study shows that mentoring is one of the primary ingredients in career success especially for those protégés (mentees) who are less likely to have visible models on the other side of the career bridge, and especially as they approach that bridge. E-mentoring - using the Web to match and guide relationships -- levels the playing field for women and other under-represented protégés by creating a safe, no-fault environment and a relationship with a mentor outside the protégé's organization. MentorNet is an 11-yr-old non-profit devoted to e-mentoring women and minorities in engineering and related sciences.
SH-09	IBM Interactive Tools Encourage Diversity	Carlie S Bower, Beth Tracy, Lisa Gable, IBM	Participants will learn about IBM's groundbreaking interactive programs: Power Up, a 3D virtual world showcasing green initiatives in solar, water and wind energy in a gaming environment; TryScience, an interactive science and technology center; TryEngineering, online resources for educators and students; and World Community Grid, the world's largest shared humanitarian effort, powered by IBM's grid computing technology.
SH-10	Expanding the Pipeline: Increasing Women's Participation in STEM	Adrienne Marie Stropes, IBM	This poster will focus on influences and decisions from childhood to undergraduate graduation. Negative impacts from social pressures, classrooms and lack of early exposure to computers are some of the areas explored as contributors to decreased confidence and (therefore) interest by women in STEM. It also explores Malaysia, which does not have this disparity amongst CS students and proves as a useful comparison to other "Western" cultures.
SH-11	Kentucky's Success with the National Girls Collaborative Project	Suzanne Scheff, University of Kentucky	This poster will describe the process and transformation accomplished by the state of Kentucky after becoming a member of the National Girls Collaborative Project in Fall 2007. The "Kentucky Girls STEM Collaborative", has had tremendous success in connecting with others who share a passion for increasing girls' interest in science, technology, engineering and math.



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SH-12	Faculty Recruitment and Hiring Processes at University	Canan Bilen-Green, Elizabeth Birmingham, Ann Burnett, Karen Froelich, North Dakota State University	This poster summarizes a recruitment program developed to achieve gender diversity and fairness in recruitment and hiring processes. A full-time position in University has been created to provide training for faculty search committees, assist search committees in targeted recruiting efforts, and work with search committee members to help them identify and use effective and gender sensitized search and hiring practices. The recruitment plan was developed through analysis of policies and practices implemented at other ADVANCE institutions. This recruitment program not only increases the participation of women at all levels, but also attracts highly qualified candidates of both genders to University.
SH-13	The Power of the Women On Whose Shoulders We Stand	Jill Tietjen, Technically Speaking	Explore historical women whose accomplishments epitomize aspects of leadership that would be desirable for women of the 21st century to emulate. The machine that folds paper bags with flat, square bottoms was invented in 1870 by Margaret Knight, only one of more than 850 women featured in a new book, Her Story: A Timeline of the Women Who Changed America. The 272-page, impressively illustrated book marks women’s achievements in a variety of areas, including technology, academia, politics and sports. Author Jill S. Tietjen, a former president of the Society of Women Engineers, runs Technically Speaking, a consulting company aimed at improving women’s career opportunities in technology.
SH-14	The Power of Synergy: Networking via Mentoring	Suparna Sinha Roy and Linda Zimmer, IBM	This paper describes programs that have been effective in connecting networks via mentoring. These include testimonials of women from global business scenarios, both mentors and mentees, talking about networking value add as a result of the mentoring relationship. A framework is proposed to optimize networking outreach from mentoring relationships. Conclusions will include recommendations for optimizing career progression via mentoring relationships – to expand networks and connections.



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SH-15	Addressing Regional and State Competitiveness: Central Texas Engineering Education Collaborative	Hannah Gourgey, E3 Alliance	The Central Texas Engineering Education Collaborative, facilitated by E3 Alliance, addresses a critical need for regional and state competitiveness. Central Texas is a recognized technology and entrepreneurial hub, but to remain competitive, we must provide a skilled engineering workforce to local business and create strategies that attract and retain students traditionally underrepresented in higher education, particularly in science, technology, engineering, and mathematics (STEM) disciplines. The Collaborative leverages and scales existing proven program components to strengthen the regional engineering pipeline.
SH-16	Central Texas Discover Engineering: Bringing Engineering to the Community	Leslie McMaster, Central Texas Discover Engineering	For more than fifteen years, Central Texas Discover Engineering has been connecting teachers with engineers who want to share their passion for their profession. Up to 20,000 students are served each year in this unique partnership between local businesses, professional societies and schools. This all-volunteer organization trains guest lecturers in classroom management and age specific activities. Collaborators have included the local PBS station KRLU, the Austin Children's Museum, the Texas Girls Collaborative Project and Citizen Schools.
SH-17	Elementary School Computer Science: From Bee Bots to Crystal Rain Forests in Houston ISD	Karen North, Houston ISD	This display will show samples of what computer science looks like at the elementary school level. The CS lessons are part of The Creative Problem Solving and Design Tool Series and include an online puzzle lesson, Bee-Bot World, Crystal Rain Forest, graphic programming and drawing tools. The display will also show how students connected computer science to recycling and will include an overview of CSTA/ACM Level I curriculum, a curriculum model designed to introduce computer science to students from kindergarten through eighth grade.
SH-18	Engineering the Leander Way: An After School Collaboration Using Engineering is Elementary Curriculum	Carol Edenfield and Julia McComas, Leander ISD	This display will showcase the Leander ISD (Texas) after school program, Engineering the Leander Way, for girls in grades 3-5 held at four bilingual campuses in the fall of 2008. The program was designed around the research-based STEM curriculum, Engineering is Elementary: A Sticky Situation, Designing Walls. We encouraged parental involvement and support in this program through parent information meetings. In partnership with IBM Austin's Women in Technology (WIT), female engineer guest speakers presented their education and experience to the parents and girls.



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SH-19	Latinitas Tech Savvy Chica Project: A Collaborative Workshop Series Encouraging Hispanic Girls to Explore Technology	Laura Donnelly, Latinitas	Latinitas will showcase the Tech Savvy Chica Project, a collaborative workshop series focused on encouraging Hispanic girls to explore technology and was tailored to recruit and meet the unique interests of Latina girls. Also showcased will be the video public service announcements, audio recordings and webpages created by the girls to share the lessons they learned throughout the project such as shattering myths that girls aren't good at technology, promoting the importance of technology coursework, exploring career opportunities in STEM and encouraging girls to pursue higher education.
SH-20	UTEP Future Educators of Math and Science "Girls Count" Collaborative Outreach Program	Ellen Esposito and Carlos Amato, The University of Texas at El Paso	Girls Count is an outreach program led by undergraduate student members of UTEP's Future Educators of Math and Science (FEMaS) organization. Teachers and 40 El Paso 5 th grade girls participated monthly in inquiry-based, integrated math and science activities led by the students who are enrolled in degree plans leading to math and science secondary teacher certification.
SH-21	Imaginarium of South Texas Wind Tunnel Tinkering	Cheryl Potemkin, Imaginarium of South Texas	The Imaginarium of South Texas will showcase one of the museum's outreach exhibits: the wind tunnel. Made of easily found and affordable items, the wind tunnel is able to travel to different locations around the community. Presenters will share the wind tunnel experiments, as well as how to construct a wind tunnel of your own.
SH-22	Tinkerer's Workshop: An Austin Children's Museum and UT Austin Women in Engineering Program Collaboration	Christina Soontornvat, Austin Children's Museum	Learn how the Austin Children's Museum collaborated with the UT Austin Women in Engineering Program (WEP) to design its Tinkerer's Workshop - an exhibit to engage girls in science and engineering. Ongoing partnerships with WEP and TxGCP have informed exhibit development, including the Summer 2009 exhibit Maker Kids and the design of the new museum.
SH-23	Texas Girls Collaborative Project (TxGCP)	Didey Muniz and Tiffany Grady, TxGCP	The TxGCP connects leaders and advocates from non-profits, K-12 schools, higher education institutions, companies, museums and organizations across the state of Texas committed to informing and motivating girls to pursue careers in science, technology, engineering and mathematics (STEM). The TxGCP provides many opportunities for individuals and organizations across Texas to meet or reconnect, learn about each other's work, and develop ways to work together to better serve girls and young women in STEM.



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SH-24	Girlstart	Julie Shannan, Girlstart	Girlstart is a non-profit organization created to empower girls to excel in math, science, and technology. Girlstart has quickly established itself as a best-case practices leader in empowering, educating, and motivating girls to enjoy and become more proficient in math, science and technology. Girlstart will display information about summer camps, after school workshops, and results from our Project IT Girl NSF funded project for high school girls.
SH-25	Girl Scouts of Central Texas	Terry Olguin, Girl Scouts of Central Texas	Girl Scouts of Central Texas introduced First Robotics into their programming last year, sending two teams to FIRST Lego competition and 1 team to First Robotics. With the help of mentors from National Instruments and UT, all 3 "Rookie" teams received awards. The Girl Scouts also collaborates with organizations including the Texas Girls Collaborative Project, Society of Women Engineers (Green Building event), Stunt Ranch (Science in the Movies event), and the Society for the Prevention of Cruelty to Animals to provide new and exciting programs for girls.
SH-26	Design Squad and Engineering Your Life: Bringing Engineering to Life	Thea Sahr, WGBH Educational Foundation	WGBH, Boston's public television station, has developed Design Squad and Engineer Your Life to bring engineering to life for kids. Based on in-depth research and message testing, Engineer Your Life meets high school girls where they live, promoting engineering through the lens of what matters to girls as they begin to shape their own futures. Design Squad, an award-winning reality TV series, shows kids engineering is fun, something that they can do, and helps make the world a better place. Both are supported by media-rich web sites, a robust network of partners, and resources to inspire the next generation of engineers.
SH-27	National Center for Women & Information Technology	Lecia Barker, National Center for Women & Information Technology	The National Center for Women & Information Technology (NCWIT) is a coalition of more than 170 prominent corporations, academic institutions, government agencies, and non-profits working to increase women's participation in information technology (IT). Member organizations and the NCWIT social science team identify best practices for recruiting, retaining, and advancing women. These best practices are transformed into Promising Practice Sheets (theoretical/research foundations accompanied by case studies) and Programs-in-a-Box (turnkey solutions that address pressing issues facing the IT community).



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SH-28	Society of Women Engineers (SWE) - Aspire, Advance, Achieve	Karen Horting, Walter McFall, Penny Parang, Suzanne White, SWE	SWE is a not-for-profit educational and service organization that empowers women to succeed and advance in the field of engineering, and to be recognized for their life-changing contributions as engineers and leaders. Founded in 1950, SWE is the driving force that establishes engineering as a highly desirable career for women through an exciting array of training and development programs, networking opportunities, scholarships, outreach and advocacy activities, and much more. Learn about SWE, the AWE (Assessing Women and Men in Engineering) Project and SWE-Southwest Texas outreach activities.
SH-29	Texas Alliance for Minorities in Engineering (TAME)	Shari Getz, Texas Alliance for Minorities in Engineering	TAME enables Texas students to pursue careers in STEM by creating partnerships among educators, industry, government and families to inform, educate and motivate students; implementing classroom and extra-curricular programs and activities; focusing on populations that remain underrepresented in fields of STEM, and promoting diversity in STEM careers. Learn about TAME's new Science Squad Comic Book, Trailblazer, Halliburton Scholarships, local and statewide Math and Science Competitions, Essay and Poster Contests, and much more.
SH-30	Share Your Stories! 20 Years of WEPAN	Jenna Carpenter and Beth Holloway, Women in Engineering ProActive Network	The WEPAN Knowledge Center professional interest group "Share Your Stories! 20 Years of WEPAN" is celebrating WEPAN's 20th birthday by collecting member's stories on how WEPAN has impacted them, their institution, engineering education, or the culture for women in engineering. Come see the slideshow featuring reflections of WEPAN's founders and past presidents from the "Share Your Stories" group, sponsored by the WEPAN Knowledge Center Professional Community.
SH-31	Lockheed Martin		The Lockheed Martin team is naturally diverse – encompassing 140,000 people with a wide variety of skills, backgrounds, perspectives and lifestyles. We draw from this tremendous source of talent to forge a great company – one team that is committed to the success of our customers on projects of profound significance to our world. Lockheed Martin is a proud supporter of WEPAN and many WEPAN Institutional Members.