WEPAN’s National Conference is a lively annual forum for ideas and an opportunity to foster conversations among educators, researchers, academic leaders, women in engineering and science staff, corporate and government advocates and others who work to effect gender equity in STEM (science, technology, engineering, and mathematics) fields.

**Vision:** To achieve the full participation of women in engineering.

**Mission:** WEPAN is the leader and catalyst for transforming culture in engineering education to promote the success of all women.

- WEPAN translates research into practice to catalyze the transformation of engineering education.
- WEPAN fosters diversity in engineering graduates, our innovators of tomorrow.
- WEPAN inspires a network of advocates to empower and advance the education of women pursuing engineering and related STEM disciplines.
- WEPAN develops national models to attract and retain women in engineering.
- WEPAN mobilizes diverse, inclusive, and collaborative stakeholders.

WEPAN’s Vision and Mission were approved at the March 24-25, 2008 Board Meeting. Visit [www.wepan.org](http://www.wepan.org) to read more on WEPAN’s strategic plan.
President’s Welcome

Welcome to the 2008 WEPAN National Conference – Gateway to Diversity: Getting Results Through Strategic Communication in St. Louis, Missouri! We’re glad you’re here! We want to facilitate all of us being more strategic in how we communicate to transform environments that allow for the full participation of women in engineering. Whatever our roles – WIE Directors, Administrators, Professional Staff, Engineers, Industry Partners, MEP – we can contribute to this vision through effective communication.

The 2008 Conference Committee has planned an innovative and comprehensive program that will help us all be better communicators. In honor of the beautiful city of St. Louis, conference events and sessions are organized into eight gateways emphasizing strategic communication, research and implementation—

Gateway #1: Institutional and Organizational Change
Gateway #2: Gender Equity in the Classroom and Workplace
Gateway #3: National Policies to Enhance Gender Equity
Gateway #4: Research and Assessments
Gateway #5: Strategically Building Internal and External Support for Gender Equity
Gateway #6: Innovative and Effective Recruitment and Retention Strategies
Gateway #7: Market Research and Branding
Gateway #8: Developing Personal and Career Communication Skills

Focusing on communication, we have designed several ways for you to interact with colleagues throughout the conference. The communications committee has designed a way for you to learn more about a method most college students and future graduates are using to communicate – Facebook! This platform will provide conference attendees with a way to extend conversations that normally happen during sessions to begin before the session and continue after the session. In addition, Showcase 2008: Best and Emerging Practices will provide you with the opportunity to experience mini-presentations and dialogue about these effective practices. At this event, we will also be celebrating the 10th Anniversary of MentorNet which has provided a very effective method for mentoring communication! I hope you will be enriched by your participation in the 2008 WEPAN Conference. On behalf of WEPAN and the Conference Committee, we welcome you to St. Louis!
2008 Conference Committee

Conference Chair
Susan Arnold Christian
Outreach Program Coordinator, Women in Engineering and Science Program, Kansas State University

WEPAN Liaisons
Paige Smith, Ph.D., Board Liaison
Director, Women in Engineering, A. James Clark School of Engineering, University of Maryland

C. Diane Matt, CAE, Development Liaison
Executive Director, WEPAN, Inc.

Martha Cyr, Ph.D., Conference Program Committee Liaison
Director, K-12 Outreach
Worcester Polytechnic Institute

Program Committee
Bev Louie, Chair
Director, Women in Engineering Program, University of Colorado

Debra Lasich
Executive Director, Women in Science, Engineering and Mathematics Program, Colorado School of Mines

Brenda Hart, Moderator Coordinator
Director of Student Affairs, J. B. Speed School of Engineering, University of Louisville

Karen Zunkel, Ph.D.
Director, Program for Women in Science and Engineering, Iowa State University

Lisa Norwood, Showcase Session Co-Coordinator
Assistant Dean, Engineering Undergraduate Studies, School of Engineering and Applied Sciences and Director, Women in Science and Engineering Program, University of Rochester

Debbie Taylor, Showcase Session Co-Coordinator
Program Director, Graduate Experience Project, University of Michigan

Promotion/Marketing Committee
Lora Leigh Chrystal, Chair
On-campus Coordinator, Program for Women in Science and Engineering, Iowa State University

Alana Johnson
Coordinator, Women in Engineering, A. James Clark School of Engineering, University of Maryland

Suzanne Zum-Birkhimer, Ph.D.
Associate Director, Women in Engineering Program, Purdue University

Tamika McMillian
Project Management, IBM

Registration Committee
Cathy Deno, Chair
Executive Assistant, WEPAN Member Services

Tours & Local Events Committee
Jane Daniels, Chair
Program Director, The Henry Luce Foundation

Betty Preece
Science Education Consultant

Jennifer Trost, Networking Event
Women’s Connections Coordinator, Milwaukee School of Engineering

Evaluation Committee
Rajni Singh, Chair
Java Technologies, India Software Lab, IBM

Rachelle Reisberg
Director, Women in Engineering, Northeastern University

Proceedings Committee
Karen Peterson, Editor
Principal Investigator, National Girls Collaborative Project

Barbara Bogue, Co-Editor
Associate Professor, Engineering Science and Mechanics, The Pennsylvania State University

Development Committee
C. Diane Matt, CAE, Chair
Executive Director, WEPAN, Inc.

Newcomers Committee
Katie Kizzir, Co-Chair
Director, Technology & Education Executive Council, Skillpoint Alliance

Didey Muniz, Co-Chair
Program Coordinator, Women in Engineering Program, The University of Texas at Austin

Logistics
Amelia Sapp, Chair
Manager of Program Services, The Women’s College of the University of Denver

2009 Conference Chair
Katie Kizzir
Director, Technology & Education Executive Council, Skillpoint Alliance
2008 WEPAN Board of Directors

Kimberly D. Douglas, Ph.D., P.E.
President
Director, Women in Engineering & Science Program
Kansas State University

Tricia Berry
President-Elect
Director, Women in Engineering Program
The University of Texas at Austin

Paige E. Smith, Ph.D.
Secretary
Conference Committee Liaison
Director, Women in Engineering
A. James Clark School of Engineering
University of Maryland

Michelle D. Layman
Treasurer
Head of Discipline, Engineering Refining and Marketing
BP

Beth M. Holloway
Past President
Leadership Committee Chair
Director, Women in Engineering Program
Purdue University

Directors
Stephanie G. Adams, Ph.D.
Faculty Member at Large
Awards Committee Liaison
Associate Dean for Undergraduate Education
University of Nebraska - Lincoln

Linda N. Betz
Ex-Officio
Director, IT Policy and Information Security
IBM Corporation

Jenna P. Carpenter
WIE Member at Large
Knowledge Center Liaison
Academic Director, Chemical and Industrial Engineering, Professor, Math & Stats
Louisiana Tech University

Martha Cyr, Ph.D.
Director of Professional Development
Conference Program Committee Liaison
Director, K-12 Outreach
Worcester Polytechnic Institute

DiOnetta Jones
Director of Diversity Advancement
Diversity Advancement Liaison
Director of Diversity Programs, College of Engineering
Cornell University

Julie Martin Trenor
Director of Communications
Communications Advisory Committee Liaison
Director of Undergraduate Student Recruitment & Retention, Instructional and Research Assistant Professor
University of Houston

C. Diane Matt, CAE
Ex-Officio
Executive Director
WEPAN, Inc.

Michael Merritt
Ex-Officio
Executive Director
Network Design and Analysis Research Department
AT&T Labs

Barbara A. Rael
Director of Membership
Membership Committee Liaison
Director, Diversity and Women in Engineering Programs
Rensselaer Polytechnic Institute

Kathryn Tobey
Industry Member at Large
Corporate Relations Committee Liaison
Program Director
Lockheed Martin Space Systems Company

Michael Tomasello
Director of Strategic Partnerships
Research Committee Liaison
Senior Director – MESA
University of California

WEPAN Staff

C. Diane Matt, CAE
Executive Director
WEPAN, Inc.

Donna Ogrentz
Office Administrator
WEPAN Inc.

Erika Farmer
Development Director
WEPAN, Inc.

Cathy M. Deno
Executive Assistant, Member Services
WEPAN , Inc.
Administrative Assistant, Women in Engineering Program
Purdue University

WEPAN Staff

C. Diane Matt, CAE
Executive Director
WEPAN, Inc.

Donna Ogrentz
Office Administrator
WEPAN Inc.

Erika Farmer
Development Director
WEPAN, Inc.

Cathy M. Deno
Executive Assistant, Member Services
WEPAN , Inc.
Administrative Assistant, Women in Engineering Program
Purdue University
Shirley Ann Jackson, Ph.D., is the 18th President of Rensselaer Polytechnic Institute. Described by Time Magazine as “perhaps the ultimate role model for women in science,” Dr. Jackson has held senior leadership and advisory positions in government, industry, research, and academe. Her research and policy focus includes global energy security and the national capacity for innovation, including addressing the “Quiet Crisis” in the U.S. science, technology, engineering, and mathematics workforce. She is the former president, and chairman of the Board, of the American Association for the Advancement of Science (AAAS); a member of the U.S. National Academy of Engineering, The American Philosophical Society, the Council on Foreign Relations; and a Fellow of the American Academy of Arts and Sciences, the American Physical Society, and the AAAS. She is a Regent of the Smithsonian Institution, and serves on the board of directors of NYSE Euronext and chairs the NYSE Regulation Board. She is a director of IBM, FedEx, Marathon Oil, Medtronic, and PSEG. Dr. Jackson served as chairman of the U.S. Nuclear Regulatory Commission from 1995 to 1999. She holds an S.B. in physics and a Ph.D. in theoretical elementary particle physics from M.I.T., and 43 honorary doctoral degrees. Describing her as “a national treasure,” the National Science Board selected Jackson as its 2007 recipient of the Vannevar Bush Award for “a lifetime of achievements in scientific research, education, and senior statesman-like contributions to public policy.”

Sonya Stewart is vice president for Diversity & Equal Opportunity Programs (EOP) for Lockheed Martin Corporation. In this role, she has responsibility for development, implementation and change agency of enterprise-wide diversity and EOP strategies, policies and programs, as well as ambassador of diversity to Lockheed Martin’s industry partners and customers. Prior to joining Corporate Headquarters, Sonya served as director of Global Mission Solutions, Lockheed Martin Technical Operations (LMTO), providing mission critical solutions and operations to the intelligence community at large. She has held progressive leadership positions throughout her career in program management, engineering execution, change management and new business capture within Integrated Systems & Solutions (IS&S). Sonya is a graduate of several Lockheed Martin leadership programs to include Executive Assessment & Development Program (EAD), Program Manager’s Development Program (PMDP) and Technical Leadership Development Program (TLDP). Additionally, she has completed the Wharton Executive Education Program, Finance and Accounting. Prior to joining Lockheed Martin Corporation, Sonya served as a captain in the United States Air Force. She has a Bachelor and Master of Science Degree in Electrical Engineering from North Carolina A&T State University.

Jacquelyn F. Sullivan, Ph.D., serves as the associate dean for student cultivation in the College of Engineering and Applied Science at the University of Colorado at Boulder. In this role, she leads the College’s diversity, recruitment and retention programs targeted at expanding the capacity of the engineering profession through development of replicable models for K-16 engineering education. As founding co-director of the College’s nationally-recognized Integrated Teaching and Learning (ITL) Program and Laboratory, Dr. Sullivan was a driving force behind creation of this hands-on K-16 learning initiative, for which she shares NAE’s 2008 Bernard M. Gordon Prize. As director of K-12 engineering for the ITL Program, Dr. Sullivan initiated and directs a long-term, multi-faceted program that makes the world of engineering come alive to K-12 teachers and students via weekly in-classroom applied science instruction by engineering students, after-school and summer camps and workshops, and the free, online TeachEngineering digital library of K-12 engineering curricula. Through service on NAE and NSF committees, she plays a national role in focusing the attention of educators and industry on K-12 engineering challenges and opportunities. At CU-Boulder, Dr. Sullivan also co-led the development of a retention-building First-Year Engineering Projects course and co-teaches a junior-level Innovation and Invention technical elective. She has published broadly, from Science magazine to NAE’s The Bridge. Dr. Sullivan received her Ph.D. in environmental health physics and toxicology from Purdue University. She brings 14 years of engineering experience in the energy and software industries and served for nine years as the director of an interdisciplinary water resources and environmental engineering research center.
WEPAN 2008 Awards Presented at the Networking & Awards Luncheon

Tuesday, June 10, 2008, 12:30 p.m.-1:45 p.m.
Regency A-C

WEPAN Awards honor key individuals, programs, and corporations for accomplishments that underscore WEPAN’s mission. They are presented at the annual conference for extraordinary service, significant achievement, model programs, and work environments that support the career success of women engineers. Sponsored by ExxonMobil.

Betty Vetter Award For Research
The Betty Vetter Award for Research recognizes notable achievement in research related to women in engineering. The award is named in memory of Betty M. Vetter, director of the Commission on Professionals in Science and Technology, who served as the first treasurer of WEPAN, Inc. and was a founding WEPAN Board member.

Breakthrough Award
The Breakthrough Award recognizes and honors an employer for creating a work environment that enhances the career success of women engineers of all ethnicities. The name of the award signifies the ability of an employer to “break through” the artificial barriers that prevent women engineers of all ethnicities from attaining their full potential. Recipients are announced in the national media and in all WEPAN publications and web sites. The winning company will receive a commissioned, original sculpture representing a fusion of pieces of broken glass by artist Vivian Shimoyama.

Founders Award
The Founders Award honors a WEPAN member who exemplifies the spirit of the WEPAN founders through extraordinary service. The award is named for WEPAN, Inc. founders Suzanne G. Brainard, Jane Zimmer Daniels and Susan Staffin Metz.

Distinguished Service Award
The Distinguished Service Award recognizes a WEPAN member whose individual service has made a significant impact for the organization.

University Change Agent Award
The University Change Agent Award recognizes and honors an individual who has driven positive change at his/her institution with regard to the climate for women in STEM fields, with an emphasis on engineering.

National Engineers Week
Introduce A Girl To Engineering Day Award
WEPAN and Introduce a Girl to Engineering Day, a program of National Engineers Week, work together to recognize major contributions of WEPAN Institutional Members to the Introduce a Girl to Engineering Day.

Women In Engineering Program Award
The Women in Engineering Program Award recognizes an outstanding WIE program (examples include a Women in Engineering Office, Diversity Programs in Engineering Office, or ADVANCE Centers) that serves as a model for other institutions.

Women In Engineering Initiative Award
The Women in Engineering Initiative Award recognizes a new program or an existing program or project that serves as a model for other institutions. Institutions are limited to one award in a three-year period.

Awards Committee Members
Chair: Sara Xayarath Hernández, Cornell University
Committee Members
Brenda Hart, University of Louisville
Glenda La Rue, The Ohio State University
Walter McFall, Argonne National Lab (retired)
Betty Preece, Science Education Consultant
Eve Riskin, University of Washington
Tammy Salmon-Stephens, University of Wisconsin-Platteville
Sheryl Sorby, Michigan Technological University
Board Liaison: Stephanie Adams, WEPAN Faculty Member at Large, University of Nebraska - Lincoln

We are hoping you are having a great experience at the 2008 Conference! Join the WEPAN facebook group and continue the experience at home—look in your conference tote bag for more details!
Conference Highlights—WEPAN 2008 National Conference

June 8 - 10, 2008—Hyatt Regency St. Louis

Conference Opening Reception—
Gateway to Connections

Sunday, June 8, 5:00 p.m.–6:30 p.m.
Regency A-C
Come join us for hors d’oeuvres and a cash bar as we kick off the 2008 National Conference. Make new friends and reconnect with old ones. Sponsored by IBM

Keynote Speakers—

Monday, June 9, 8:50 a.m.–9:45 a.m.
Regency A-C
Sonya Stewart, Vice President Diversity and Equal Opportunity Programs, Lockheed Martin Corporation
Diversity: A Journey of Cultural Transformation Practice
Sponsored by Lockheed Martin

Monday, June 9, 1:00 p.m.–1:45 p.m.
Regency A-C
Shirley Ann Jackson, Ph.D., President, Rensselaer Polytechnic Institute
Pathways to Progress: Enhancing Engineering Education
Sponsored by Intel

Tuesday, June 10, 10:00 a.m.–10:45 a.m.
Regency A-C
Jacquelyn F. Sullivan, Ph.D., University of Colorado-Boulder
Changing the Conversation—Engineering Messages that Resonate for All
Sponsored by Du Pont

Showcase 2008: Best and Emerging Practices—

Monday, June 9, 4:15 p.m.–5:45 p.m.
Foyer C
More than a poster session, this inaugural WEPAN Showcase will allow for ‘mini-presentations’ and encourage dialogue and discussion. Plan to explore several of the emerging topics and enjoy light refreshments in honor of the 10th anniversary of MentorNet. Presenters represent a broad range of topics, backgrounds, and organizations. This is a great way to gather insights from a wide range of individuals!

Networking & Awards Luncheon—

Tuesday, June 10, 12:30 p.m.—1:45 p.m.
Regency A-C
WEPAN Awards honor key individuals, programs, and corporations for accomplishments that underscore WEPAN’s mission. They are presented each year at the annual conference for extraordinary service, significant achievement, model programs, and work environments that support the career success of women engineers. Sponsored by ExxonMobil

Riverboat Dinner Cruise
Meet in the Grand Hall. Buses will begin loading at 6:30 p.m., leaving from the main hotel entrance. Riverboat boarding begins at 7:00 p.m. Boat leaves the dock at 7:30 p.m. Relax and enjoy the views of the Gateway Arch and St. Louis as you travel on this dinner cruise. A buffet dinner and cash bar will be provided. Music performed by the Dixieland Duo will add to the ambiance of the evening.
Hyatt Regency St. Louis
at Union Station

DIRECTIONS
By Metrolink light rail system: Take train from airport terminal to Union Station. Hotel is part of station complex. By car from Lambert Field International Airport (15 miles): Take I-70 East to 170 South. Go to Hwy-40 (I-64) East to Chestnut and 20th exit. Turn right onto 20th Street & left at Market Street — hotel on right.
Today’s world is powered by knowledge and science.


We put science to work by creating sustainable solutions essential to a better, safer, healthier life for people everywhere. Operating in more than 80 countries, DuPont offers a wide range of innovative products and services for markets including agriculture and nutrition, building and construction, communications, transportation, safety and protection.

Looking for opportunity and advancement in a science and engineering-driven environment?

Visit us at www.dupont.com/careers
Lockheed Martin is a proud sponsor of the Women in Engineering Programs & Advocates Network Conference. Best wishes on a successful conference!

For more information about opportunities with Lockheed Martin, visit our Web site at www.lockheedmartin.com/careers.

An Equal Opportunity Employer

Ignite the passion of tomorrow’s scientists and engineers.

Want to help change the world? Show kids that engineering is about working together to improve lives through innovation and problem solving.

Check out DESIGN SQUAD* —an Intel sponsored, Peabody award winning reality series on PBS. Watch two teams compete to tackle real-world engineering challenges.

Intel* thanks WEPAN for promoting institutional and national change to enable success for all women in engineering. For more information on Intel’s education programs—and to access free educator resources, visit our Web site.

www.intel.com/education

©2008 Intel Corporation. All rights reserved. Intel and the Intel logo are trademarks of Intel Corporation in the United States and other countries.
At ExxonMobil, we believe in the power of diversity. Every day, from all over the world, we see the immense value of varied cultures, experiences, and perspectives. And as our industry faces the formidable challenge of meeting the world’s growing energy needs, we know it will be met only through the shared intellect, skill, and dedication of us all.

Taking on the world’s toughest energy challenges.*

*ExxonMobil

IBM employees can design their own lives like never before—choosing the company that honors who they are and what they do with their time outside of work. The message of diversity has always been, “Come as you are.” Today, that invitation has expanded to say, “Work for us and we will support the life you want to create.” IBM is a proud sponsor of the Women in Engineering Proactive Network National Conference. To find out more about IBM’s commitment to diversity, visit www.ibm.com/diversity.

IBM and the IBM logo are registered trademarks of International Business Machines Corporation in the United States and/or other countries. Other company, product and service names may be trademarks or service marks of others. ©2007 IBM Corporation. All rights reserved.
Schedule at a Glance

Sunday Workshops—Morning (SWM): 8:00 a.m.-12:00 p.m.

- Grand A—SWM-1
  - Gateway 2: Gender Equity in the Classroom and Workplace
  - Gateway 6: Innovative and Effective Recruitment and Retention Strategies
- Grand B—SWM-2
  - Gateway 6: Innovative and Effective Recruitment and Retention Strategies

Sunday Workshops—Afternoon (SWA): 1:00 p.m.-4:00 p.m.

- Grand A—SWA-1
  - Gateway 1: Institutional and Organizational Change
- Grand B—SWA-2
  - Gateway 6: Innovative and Effective Recruitment and Retention Strategies
- Grand C—SWA/A-3 (12:00-4:00 p.m)
  - Gateway 6: Innovative and Effective Recruitment and Retention Strategies

Network with a Community of Women in STEM—11:30 a.m.-5:00 p.m.—Regency B
Newcomers Session—4:00 p.m.-5:00 p.m.—Foyer A
Opening Reception—5:00 p.m.-6:30 p.m.—Regency A-C

Monday

Conference Welcome—8:30 a.m.-8:45 a.m.—Regency A-C
Kick-off Keynote Session: Sonya Stewart, Lockheed Martin Corporation—8:50 a.m.-9:45 a.m.—Regency A-C

Monday Session 1 (M1): 10:00 a.m.-11:00 a.m.

- Grand A—M1-1
  - Gateway 1: Institutional and Organizational Change
- Grand B—M1-2
  - Gateway 6: Innovative and Effective Recruitment and Retention Strategies
- Grand C—M1-3,4,5
  - Gateway 6: Innovative and Effective Recruitment and Retention Strategies
- Grand D—M1-6,7,8
  - Gateway 1: Institutional and Organizational Change

Monday Session 2 (M2): 11:15 a.m.-12:15 p.m.

- Grand A—M2-1
  - Gateway 5: Internal and External Support for Gender Equity
- Grand B—M2-2
  - Gateway 6: Innovative and Effective Recruitment and Retention Strategies
- Grand C—M2-3,4,5
  - Gateway 1: Institutional and Organizational Change
  - Gateway 3: National Policies to Enhance Gender Equity
- Grand D—M2-6,7,8
  - Gateway 1: Institutional and Organizational Change

Keynote Luncheon—12:30 p.m.-1:45 p.m.—Regency A-C
Keynote Speaker: Shirley Ann Jackson, Ph.D., Renssalaer Polytechnic Institute—1:00 p.m.-1:45 p.m.—Regency A-C

Monday Session 3 (M3): 2:00 p.m.-3:00 p.m.

- Grand A—M3-1
  - Gateway 1: Institutional and Organizational Change
  - Gateway 3: National Policies to Enhance Gender Equity
- Grand B—M3-2
  - Gateway 6: Innovative and Effective Recruitment and Retention Strategies
- Grand C—M3-3
  - Gateway 3: National Policies to Enhance Gender Equity
- Grand D—M3-4,5,6,7
  - Gateway 6: Innovative and Effective Recruitment and Retention Strategies

Coffee Break—3:00 p.m.-3:15 p.m.—Foyer A

Monday Session 4 (M4): 3:15 p.m.-4:15 p.m.

- Grand A—M4-1,2,3
  - Gateway 1: Institutional and Organizational Change
  - Gateway 3: National Policies to Enhance Gender Equity
- Grand B—M4-4
  - Gateway 6: Innovative and Effective Recruitment and Retention Strategies
- Grand C—M4-5
  - Gateway 7: Market Research and Branding
- Grand D—M4-6
  - Gateway 8: Developing Personal and Career Communication Skills
**Showcase 2008: Best and Emerging Practices—4:15 p.m.-5:45 p.m.—Foyer C**

- **Featuring Gateway 1:** Institutional and Organizational Change
- **Gateway 4:** Research and Assessments
- **Gateway 6:** Innovative and Effective Recruitment and Retention Strategies

Mini-presentations at 4:30 p.m.-4:45 p.m. and at 5:00 p.m.-5:15 p.m. at the Showcase displays

**Getting Involved: Overview of WEPAN Committee and Leadership Opportunities—Grand C**

Attend Session A: 4:30 p.m.-5:00 p.m. or attend Session B: 5:00 p.m.-5:30 p.m.

**Conference Dinner Celebration: Riverboat Dinner Cruise**

Meet in Grand Hall. Buses start loading at 6:30 p.m. and leave from main entrance. Return at 9:30 p.m.

---

**Tuesday**

**WEPAN Committee Meetings with Continental Breakfast — Grand D & E**

Join a committee—open to all: 8:30 a.m.-9:45 a.m.

**Keynote Speaker—Jacquelyn F. Sullivan, Ph.D., University of Colorado-Boulder—10:00 a.m.-10:45 a.m.—Regency A–C**

**Tuesday Session 1 (T1): 11:15 a.m.-12:15 p.m.**

- **Grand A—T1-1**
  - Gateway 1: Institutional and Organizational Change
  - Gateway 3: National Policies to Enhance Gender Equity

- **Grand B—T1-2,3,4**
  - Gateway 2: Gender Equity in the Classroom and Workplace

- **Grand C—T1-5**
  - Gateway 3: National Policies to Enhance Gender Equity

- **Grand D—T1-6,7,8**
  - Gateway 5: Strategically Building Internal and External Support for Gender Equity

**WEPAN Networking & Awards Luncheon—12:30 p.m.-1:45 p.m.—Regency A–C**

**Tuesday Session 2 (T2): 2:00 p.m.-3:00 p.m.**

- **Grand A—T2-1**
  - Gateway 1: Institutional and Organizational Change

- **Grand B—T2-2,3,4,5**
  - Gateway 4: Research and Assessments
  - Gateway 6: Innovative and Effective Recruitment and Retention Strategies

- **Grand C—T2-6**
  - Gateway 7: Market Research and Branding (continued)

- **Grand D—T2-7**
  - Gateway 6: Innovative and Effective Recruitment and Retention Strategies

**Coffee Break—3:00 p.m.-3:15 p.m.—Foyer A**

**Tuesday Session 3 (T3): 3:15 p.m.-4:15 p.m.**

- **Grand A—T3-1**
  - Gateway 1: Institutional and Organizational Change

- **Grand B—T3-2,3,4**
  - Gateway 6: Innovative and Effective Recruitment and Retention Strategies

- **Grand C—T3-6 (continued)**
  - Gateway 7: Market Research and Branding

- **Grand D—T3-5,6**
  - Gateway 1: Institutional and Organizational Change

**Discussion Group Dinners—Meet in Grand Hall—6:00 p.m.**

Have a lively dinner discussion on a featured topic with other conference attendees. Sign up at the conference registration desk if you would like to join one of the groups. Go to a restaurant of your choice; a list of nearby restaurants is provided in your conference bag.

**Gateway Key:**

1  2  3  4  5  6  7  8  (Listing of Gateways on page 17)
Sunday, June 8, 2008

7:30 a.m.–  5:30 p.m.  Registration Open  Coatroom near Regency Ballroom

8:00 a.m.–  12:00 p.m.  Grand A  Gender Equity in the Classroom and Workplace/Innovative and Effective Recruitment and Retention Strategies

SWM-1  NSF - Advanced Technological Education (ATE)Centers/Projects Focus Group Meetings
Ruta Sevo, Independent Consultant, Charlene Allison and Mel Cossette, Edmonds Community College

Participants will be limited to those involved with the National Science Foundation’s Advanced Technological Education (ATE) programs. In the first half of the workshop, representatives of these programs will share current recruitment and outreach strategies in their home institutions that encourage girls and women to enter and pursue science, technology, engineering, and mathematics (STEM) careers. During the second half, staff of the project “Proven Practices for Recruiting Women to STEM Careers in ATE Programs” will share preliminary findings from their survey, followed by a discussion involving participants on the effectiveness of various practices. The goal of the workshop is for each participant to leave with a working knowledge of proven strategies to use in recruiting women of all ages into their programs.

10:00 a.m.–  12:00 p.m.  Grand B  Innovative and Effective Recruitment and Retention Strategies

SWM-2  Design Squad: Getting Kids Excited About Engineering
Thea Sahr, Natalie Hebsheie and Margot Sigur, WGBH Educational Outreach

Design Squad is a PBS reality competition show entering its second season following eight high school students competing to design and build fantastic, whimsical and fully operational engineering projects, and battling for the $10,000 college scholarship from the Intel Foundation. Participants will learn to use compelling messages that encourage kids to consider engineering; and to lead effective hands-on engineering activities, events and workshops, train others, and incorporate Design Squad into their outreach programs.

12:00 p.m.–  4:00 p.m.  Grand C  Innovative and Effective Recruitment and Retention Strategies

SWM/A-3  Mentoring, MentorNet, and Strategic Communications to Achieve Results
Carol Muller, Ray Rose and Amie Aldana, MentorNet

For the last ten years, MentorNet has provided a dynamic, research-based infrastructure for institutions of higher education to manage mentoring relationships for women students in engineering and related sciences more efficiently (men and early career faculty are also served through this infrastructure). Join us for this interactive workshop to gain information, contribute experiences and learn from others. Workshop participants will gain information about effective mentoring and strategic communications designed to engage their constituents.

1:00 p.m.–  3:00 p.m.  Grand A  Institutional and Organizational Change

SWM-2  Developing Strategic Communications for First-Generation College Students: Effectively Communicating College and Career Opportunities in Engineering
Julie Tenen and Jessica Olson, University of Houston

This workshop on strategic communications for first-generation college students and their parents regarding college and career opportunities in engineering follows a lively discussion at the 2007 WEPAN Conference entitled One Size Does Not Fit All: Engineering Effective WIE Programs for Urban Universities, Community Colleges and Minority Serving Institutions, which focused on challenges related to recruiting and retaining first-generation college students. Research-based recommendations and implications for practice will be discussed by the workshop leader and participants. Small group exercises and brainstorming sessions will guide participants in generating ideas for their own strategic communications college students.

11:30 a.m.–  5:00 p.m.  Regency B  Networking with a Community of Women in STEM (Schedule on page 15)

A mini conference for all faculty, students and staff involved in Science, Technology, Engineering or Math in any way. Connect with colleagues, engage in discussions, discover benefits of WEPAN and learn effective strategies to strengthen STEM programs on your campus.

4:00 p.m.–  5:00 p.m.  Foyer A  Newcomers Session

Newcomers are conference participants who are either new to the WEPAN organization or attending their first WEPAN conference. WEPAN is excited to welcome new members and conference attendees and has created special opportunities for you during the conference. The Newcomers Session is a perfect opportunity to learn more about WEPAN and how to maximize your conference experience. You will also be introduced to WEPAN leaders and provided a chance to network with representatives from institutions of higher learning, corporations, government agencies and other not-for-profit organizations that are focused on the full participation of women in engineering.

5:00 p.m.–  6:30 p.m.  Regency A-C  Opening Reception

Make new friends and reconnect with old ones at the conference opening reception and welcoming ceremonies. Sponsored by...
Networking with a Community of Women in STEM

Sunday, June 8, 2008  11:30 a.m.– 5:00 p.m.

A mini conference for all faculty, students and staff involved in Science, Technology, Engineering or Mathematics in any way. Connect with colleagues, engage in discussions, discover benefits of WEPAN and learn effective strategies to strengthen STEM programs on your campus.

PROGRAM—

11:30 a.m.  Pre-registration required.

11:30 a.m.  Registration, networking lunch with WEPAN members

12:00 p.m.–12:20 p.m.  Opening/Introductions
Tricia Berry, WEPAN President Elect
Laura Riegel, St. Louis Section, Society of Women Engineers (SWE)

12:20 p.m.–12:25 p.m.  Break

12:25 p.m.–1:15 p.m.  Transitioning from 2 to 4 Year Colleges
Keynote Speaker: Dr. Mary Anderson-Rowland, Associate Professor
Industrial Engineering, Arizona State University

1:15 p.m.–1:20 p.m.  Break

1:20 p.m.–2:10 p.m.  Connecting the Pipeline from High School to College and Beyond
Keynote Speaker: Cecilia Elmore
Director, Women’s Leadership Institute, Missouri Science and Technology University

2:10 p.m.–2:15 p.m.  Break

2:15 p.m.–3:05 p.m.  Discussion Groups (Select one)
A—Successful Mentoring Programs
Moderator—Laura Riegel, Boeing, SWE

B—Filling the Pipeline from K-12 through College
Moderator—Debbie Wright, City of Maryland Heights, SWE

C—Recruiting and Retaining Women STEM Faculty
Moderator—Peggy Layne, PE
Program Director ADVANCE, Virginia Tech

D—Transitioning and Transferring
Moderator—Debra Schatz, Assistant Director Admissions, Missouri Science and Technology University

3:05 p.m.–3:10 p.m.  Break

3:10 p.m.–4:00 p.m.  Discussion Groups (Select one from A-D above)

4:00 p.m.–4:05 p.m.  Closing/Evaluation

4:05 p.m.–5:00 p.m.  Newcomers Session with WEPAN members, speakers, moderators
Monday, June 9, 2008

8:00 a.m.–  Registration Open  
5:00 p.m.  Coatroom near Regency Ballroom

8:30 a.m.–  Conference Welcome
8:45 a.m.

8:50 a.m.–  Kick-off Keynote Session—  
9:45 a.m.

10:00 a.m.–  Grand A Institutional and Organizational Change

M1-1 Workshop—Evaluating Collaboration Between Science, Technology, Engineering and Mathematics Programs in the National Girls Collaborative Project
Karen Peterson, National Girls Collaborative Project; Carrie Liston, Puget Sound Center for Teaching, Learning and Technology

Collaboration and its effects can be difficult to define, observe, and measure. Based on an evaluation of the National Girls Collaborative Project, we will discuss the measurable aspects of collaboration and initial and expected outcomes stemming from the effort to encourage organizations to collaborate in more complex ways. Using a collaboration rubric based on Hogue’s Levels of Community Linkage model developed to capture increasing levels of collaboration between different groups, we will discuss preliminary results.

M1-2 Panel—Using Online Social Network Sites to Create Relationships with Students
Jennifer Trost, Milwaukee School of Engineering; Kimberly Douglas, P.E., Ph.D., Susan Arnold Christian, Rebecca Greif, Sharnée Hudgins, Katie Kerr, and Ashton Archer, Kansas State University

In communicating with the next generation of scientists and engineers, recruitment strategies must be both effective and efficient, and internet communication with the millennial generation is key to maintaining and building relationships. In order for outreach and retention programs to be successful, they need to be on the student’s level with regards to advertising, communicating and staying in touch. This workshop will explore how to use Facebook to market programs for outreach and on-campus programs and outline lessons learned.

10:00 a.m.– Grand B Innovative and Effective Recruitment and Retention Strategies
11:00 a.m.  
Moderator: Jenna Carpenter, Louisiana Tech University

M1-3 Motivating Engineering Women Students: Student Organization Awards
Mary Anderson-Rowland, Ph.D., Arizona State University

Research has shown that participation by students in organizations in engineering and computer science can increase retention by creating a feeling of belonging among the participants. In order to increase organizational activity and to have student organizations strive to meet a high standard of operation, awards are given out each year by the professional Society of Women Engineers (SWE) organization. This paper will explore the present SWE student section award system to understand its operation, and the system used by the Institute for Industrial Engineers (IIE) for its student chapters.

M1-4 The STEM Equity Pipeline Project: Increasing the Participation of Women and Girls in STEM Cluster CTE Programs of Study at the Secondary and Community College Level
Mimi Luftenick, National Alliance for Partnerships in Equity

This session gives an overview of the STEM Equity Pipeline project, an extension services grant funded by NSF. A case study is used to illustrate the institutional change process implemented as the cornerstone of this project. The case study illustrates the necessity of using data and action research to document performance and identifying root causes before implementing strategies. The project’s goal is to impact the formal education community’s capacity to increase the participation of women in STEM.

M1-5 The Women’s Industry Network at WPI: Career Mentoring for Women
Shelley Errington Nicholson, Worcester Polytechnic Institute

Enrollment is at an all-time high for women at tech schools. This session discusses a program created at WPI to mentor these young women as they head into a field where they are the minority. The Women’s Industry Network (WIN), a mentoring program that brings together female WPI students and professional women, is designed to help participating students explore their chosen field and prepare for the challenges ahead by providing networking opportunities and access to working women.

10:00 a.m.– Grand D Institutional and Organizational Change
11:00 a.m.  
Moderator: Martha Cyr, Worcester Polytechnic Institute

M1-6 Advancing Women Faculty at the New Jersey Institute of Technology through Collaborative Research Networks: An Analysis of Preliminary Results and Methodology
Nancy Steffen-Fluhr and Maria Plummer, New Jersey Institute of Technology

The most serious problem facing women science and engineering faculty is isolation. The impacts of isolation are often subtle, but accumulate with devastating effect. The NSF-funded ADVANCE Project at the New Jersey Institute of Technology uses a variety of strategies to address faculty isolation. In this paper, we report initial results and the innovative assessment strategy designed to measure faculty advancement. We present an overview of our data-collection methodologies and a preliminary analysis of the data obtained thus far.
M1-7  Academic Climate and Advisor Support Affects the Quality of Women’s Experiences in Graduate School
Jenn Buckle, University of California-San Francisco; Carolyn Sparre, Beth Lopour, and Alice Agogino University of California-Berkeley

Recent trends in mechanical engineering graduate student enrollment at a major university demonstrated stagnation in the percentage of women students, while national statistics showed a continuous increase. Survey results of mechanical engineering graduate students showed students felt well supported by peers, faculty advisors, and department administrators, and were satisfied with classroom and research facilities. Statistically significant differences existed based on gender.

M1-8  Communicating With Those Who Do Not See the Need For Change
Ann Holmes, Ann Holmes and Associates; and Márcia Ecsedi, P.E., AURA Management Consultants

Discussion and analysis will be presented of the steps taken and lessons learned in the process of establishing an Equity and Diversity (E&D) Committee in a conservative, regulatory Professional Engineers association. Current representation includes engineers who are women, aboriginal, internationally trained, and black. Unearthed challenges include talking about organizational change, identifying the sites where action by the organization’s leaders was required, and clarifying the need for communication to all members about the actions required to achieve diversity goals.

11:15 a.m.– Grand A  Strategically Building Internal and External Support for Gender Equity
Moderator: Margaret Anderson, Rochester Institute of Technology

M2-1  Panel–Partnerships for Progress: Developing Creative Collaborative Strategies for Advancing Academic Women in Engineering
Betsy Homsher, Kettering University; C. Diane Matt, WEPAN; Betty Shanahan, SWE and Carol Muller, MentorNet

This panel, comprised of representatives from WEPAN, SWE, MentorNet, and the academy will explore questions such as: 1) What collaborative opportunities/partnerships can be developed among these organizations that will have a significant impact on fostering institutional change and individual advancement? 2) What’s the most effective framework for maximizing collaborative opportunities? 3) What communications strategies will best serve to keep academic women informed of leadership training and other opportunities? 4) What resources do academic women need and how can a collaborative effort best provide them?

M2-2  Discussion–Why Can’t Women in Science Programs be Popular Too?
Kasey Price and Susan Blessing, Ph.D., Florida State University

This discussion is designed to encourage communication about effective recruitment strategies for pre-freshman women entering women in science (WIS) programs based on survey findings that explore students’ knowledge of and interest in the program and parental involvement in applying. Goals include: 1) Allowing open communication about challenges WIS programs face compared to other campus programs; 2) Creating implementation strategies for marketing and recruitment; and 3) Discussing current student interest data and creating plans for future implementation.

M2-3  Metrics for Assessing Broadening Participation in a Title IX Context
Elizabeth Cady and Norman Fortenberry, Center for the Advancement of Scholarship on Engineering Education

The National Science Foundation (NSF) promotes participation of underrepresented groups in funded activities through the Broader Impacts merit review criterion. The Center for the Advancement of Scholarship on Engineering Education (CASEE) of the National Academy of Engineering convened a workshop to discuss possible metrics by which grantee efforts at broadening participation might be demonstrated. Metrics appropriate for use by grantee institutions as well metrics appropriate for use by individual investigators were identified. This presentation will summarize the process used to identify the metrics and discuss their possible use within a Title IX context.

M2-4  Gendered Organizational Cultures and Networks in Engineering Research: Results from European Project PROMETEA
Felizitas Sagebiel, Ph.D., University of Wuppertal

This paper will give an overview of the European Commission Project PROMETEA (www.prometea.info) dealing with effects of gendered organizational cultures on careers of female engineers working in research. The question was if social structures and cultures of engineering research organizations remain male oriented dominated by traditional hegemonic masculinity or, if new masculinities are developing in Europe. Results focus on gendered organizational cultures, analyzed by gendered division of labor, gender stereotypes and gender awareness.

M2-5  Opportunities to Collaborate Between ABET and WIE
Karan Watson, Texas A&M University

This session will briefly present ABET, its criteria, and its processes, and juxtapose this with common WIE missions, goals, and activities. While it may not be necessary, and in some cases even desirable, for the ABET and WIE to intertwine at some institutions, it will be useful for all WIE administrators to understand the framing and vocabulary of ABET, and be certain that they are positioned so that they can leverage common outcomes, or at least fully communicate the relativity of WIE programs to the needs of the degree programs to properly prepare graduates.

11:15 a.m.– Grand D  Institutional and Organizational Change
Moderator: Sheila Edwards Lange, University of Washington
Monday, June 9, 2008, continued

**M2-6 Institutional Transformation at North Dakota State University**
Canan Bilgen-Green, Ph.D., Elizabeth Birmingham; and Ann Burnett, North Dakota State University

In 2002, a group of faculty and administrators at North Dakota State University came together to prepare a proposal for the ADVANCE Institutional Transformation program. Between 2002 and 2007, the percentage of tenured women faculty at NDSU has risen from 4.5% to 8.9%. The percentage of female assistant professors increased from 32% to 42% and associate professors increased from 11% to 21%. In this paper we will discuss how climate at NDSU changed between 2002 and 2007 and the initiatives that were implemented at NDSU as a result of an ad hoc committee’s efforts.

**M2-7 Promoting Institutional Change Via the Faculty Search Process: A National Database and Career Workshops**
Jan Rinehart, Rice University; Sherry Woods, University of Texas at Austin; and Rebecca Richards-Kortum, Rice University

Since October 2004, the Cockrell School of Engineering at the University of Texas at Austin, the George R. Brown School of Engineering, and the Weiss School of Natural Sciences at Rice University designed and hosted Negotiating the Ideal Faculty Position workshops. At each workshop, 400-730 women responded to a national invitation. From the applicants, a national database was designed to provide search committees access to outstanding female scientists and engineers.

**M2-8 Cornell University’s Diversity Programs in Engineering (DPE) Office Maintains Focus on Women’s Issues in a Globally-Focused Engineering Environment**
DiOnetta Jones and Sara Xayarath Hernández, Cornell University

Cornell University’s newly established Diversity Programs in Engineering Office (DPE) focuses on outreach, recruitment and retention programs for students and faculty that facilitate the success of women and underrepresented minorities in engineering. The transition from operating the Women’s Programs and Engineering Minority Programs offices separately to the centralized DPE office will be examined, and the collaborative relationships with other departments and organizations and the structure and purpose of the Diversity Advisory Committee are highlighted.

12:30 p.m.– Regency A-C **Keynote Lunch**

1:45 p.m.

Sponsored by Intel

1:00 p.m.– Regency A-C **Keynote Session**

Shirley Ann Jackson, Ph.D., Rensselaer Polytechnic Institute

Pathways to Progress: Enhancing Engineering Education

**M3-1 Workshop—Mentoring, Motivating and Modeling: Inspiring and Increasing the Participation of Women in STEM**
Sondra Lancaster, UNCF; and Sonya L. Greene, Ph.D., UNCF Special Programs Corporation

The United Negro College Fund Special Programs Corporation (UNCFSP) utilizes a three-tiered mentoring approach in programs such as the NASA Administrator’s Fellowship Project (NAFP) Women’s Consortium. NAFP mentors use methodologies such as strategic planning, outreach, networking, professional development, and evaluation and assessment tools that have increased the participation of women pursuing graduate degrees STEM fields. The project’s dissemination plan, as well as evaluative measures for gauging the success of the project, will be presented.

2:00 p.m.– Grand B **Innovative and Effective Recruitment and Retention Strategies**

**M3-2 Discussion—Getting Apples to Converse with Oranges: Facilitating Successful Student-Faculty Communication**
Emily Wilcox and Mahjabeen Raza, Kansas State University

Have you ever been in a situation where you don’t speak the language and you have no idea what people are talking about? College freshmen often face communication culture shock when they step onto campus for the first time: colleges and universities have a language all their own and it can be discouraging to students who haven’t been exposed to a university culture. Participants will leave the session with a better understanding of the student-faculty communication divide and an appreciation for the creation of a supportive communication culture to help students speak the language of college.

2:00 p.m.– Grand C **National Policies to Enhance Gender Equity**

3:00 p.m.

**M3-3 Discussion—Finding Meaning in Title IX**
Paige Smith, Ph.D., University of Maryland-College Park; and Catherine Pieronek, University of Notre Dame

This is a working session that revolves around the recent initiatives within the federal government to conduct Title IX reviews of institutions receiving federal funding. First the recent experiences of two schools that have undergone a Title IX review will be briefly discussed. The session attendees will work through an exercise to develop recommendations on the types of data and information that should be collected to maximize the Title IX review process.

2:00 p.m.– Grand D **Innovative and Effective Recruitment and Retention Strategies**
Moderator: Judy Cordes, Michigan State University

**M3-4 Watson Women’s Network Leadership: A Best Practice at IBM Research for Innovative and Effective Recruitment and Retention**
Anna Topol, Ph.D., Maria Eleftheriou, Jane Snowdon and Hillery Hunter, IBM
The Watson Women’s Network (WWN), a community of technical women at IBM’s T. J. Watson Research Center, provides business value and positive internal and external visibility for the IBM Corporation. The WWN is focused on reaching all women in technology at our Yorktown and Hawthorne sites to give them opportunities to reach beyond their daily routines, connect with others, ask questions, find solutions, identify mentors, and feel part of a bigger community. This presentation will discuss methods and lessons learned that may benefit other organizations, diversity groups, and professional networks.

M3-5  The National Girls Collaborative Project: Building Capacity Through Collaboration
Brenda Britsch, National Girls Collaborative Project

The National Girls Collaborative Project (NGCP), funded by the National Science Foundation (NSF), aims to advance the agenda of gender equity in Science, Technology, Engineering and Mathematics (STEM). The NGCP develops regional collaboratives across the country to help girl-serving organizations, education, and business work together to leverage resources and provide more opportunities for girls in STEM. Session presenters will provide an overview of how NGCP works to strengthen capacity of participating organizations and how NGCP helps address the need for collaboration in this area.

M3-6  Attracting and Retaining Females and Minority Students Into Technology
Antonia Munguia and Alka Harriger, Purdue University-Lafayette

The 2007-2011 strategic plan of the College of Technology (COT) at Purdue University named STEM Education as one of its six strategic areas, and the college created a diversity office and its evolution as it relates to the current offerings of its recruitment and retention programs will be discussed. The audience will learn what worked and why as well as the roles of various people involved in each program that contributed to its success.

M3-7  Effective Strategies to Change Attitudes Toward Female Participation in Science and Technology
Anu Gokhale and Kenton Machina, Illinois State University

The NSF-funded project pursued by the authors is designed to change attitudes toward women in science and technology, increase female participation in these disciplines, and demonstrates the effectiveness of several intervention strategies, with respect to five factors. The model exemplified in this project has the potential for replication at comparable institutions, and the results from the control group emphasize the need for curricular interventions.

M4-1  The Prevalance of Women in Academic Leadership Positions, and Potential Impact on Prevalence of Women in the Professorial Ranks
Canan Bilen-Green, Ph.D. and Karen Froelich, North Dakota State University

A recent study by the American Association of University Professors (AAUP) explores the proposition that a higher proportion of women in strategic leadership positions can facilitate institutional change and improve recruitment, retention, and advancement of women within the professorial ranks. The findings provide useful descriptive statistics reporting the prevalence of women in such strategic leadership positions and the associated impact on prevalence of women in the various professorial ranks. Variation in findings due to organizational size, geographic region, land-grant status, ADVANCE funding, and public/private ownership are also reported.

M4-2  Career Advancement Program for Tenured SEM Women Faculty
Beth Montelone and Ruth A. Dyer, Kansas State University

Professional development at most institutions is designed for new tenure-track faculty. Few institutions provide programs that assist mid-career and senior faculty with moving to higher levels of professional achievement. As part of Kansas State University’s ADVANCE Project, we implemented the Career Advancement Program for tenured women faculty in engineering and science to advance them in mid-career, senior rank, and leadership positions. This program was designed to enhance networking, research expertise and stature, and leadership skills.

M4-3  Policy Change Is Not Enough: Measuring the Impact of Work/Life Policies at a Research University
Peggy Layne, Virginia Tech

Virginia Tech is in the final year of an NSF ADVANCE Grant where institutionalizing a suite of work/life policies for faculty, including tenure clock extension, modified duties, part-time employment, and dual career hiring, is a priority. Results show women faculty’s reluctance to use work/life policies for fear of backlash from colleagues, while the policies are available to and utilized by male faculty. This paper presents data on the policies usage and impact on faculty career progression.

3:15 p.m.– 4:15 p.m.  Grand A  Innovative and Effective Recruitment and Retention Strategies

M4-4  Workshop—Engineer Your Life: Talking to High School Girls About Engineering
Leslie Collins, National Engineers Week Foundation; Thea Sahr, Ceit Zweil and Natalie Hebschie, WGBH Educational Outreach

Engineer Your Life is an unprecedented awareness and outreach campaign designed to encourage and inspire college-bound high school girls to integrate engineering into their future studies and into their careers. This presentation will explore the research and messaging of the Engineer Your Life project, and includes practical tips for how engineers can apply this messaging in their own work, in outreach to high school students, and in spreading the word to their professional colleagues.
Monday, June 9, 2008, continued

3:15 p.m.– Grand C  Market Research and Branding
4:15 p.m.

M4-5  Discussion—Developing a Strong Brand Identity for Your Organization: Lessons Learned from the WEPAN Branding Initiative
Julie Trenor, University of Houston; Sheila Edwards Lange, University of Washington; Carlie Bower, IBM Corporation; and C. Diane Matt, WEPAN

An essential element of strategic communications for any organization is a strong brand identity. The process WEPAN used in developing its updated brand identity serves as an excellent model for organizations wishing to develop or strengthen their own brand. Small group and individual exercises will spark conversation about building or reinvigorating a brand identity for participants’ own programs. Participants in this session will gain a better understanding of best practices in branding by learning from the collective experience of the group.

3:15 p.m.– Grand D  Developing Personal and Career Communication Skills
4:15 p.m.

M4-6  Improv For Effective Collaborative Innovation?
Jean Kristufek, IBM

There is no script, no exhaustive planning done in advance, no predetermined staging or direction. But the result, for practiced improvisational theater actors, is an innovative, organic and entertaining performance. Improv ideas were easily extendable to the Enterprise Networking and Transformation Solutions (ENTS) and Grow Innovation Focus Team (GIFT) who promote an innovative internal culture that mines new ideas for increasing productivity. Various games and concepts translate well from the improv theater to the technical world.

M4-7  Enhanced Professional Networking and its Impact on Personal Development and Business Success
Anna Topol, Ph.D., Mary Helander, Ching-Hua Chen-Ritzo and Jane Snowdon, IBM

At IBM Research, the Watson Women’s Network (WWN) devised an innovative networking event to connect IBM business services with research solutions. This mixer facilitated professional networking between IBM’s technical and business communities. The results help to quantify how professional networking events cultivate new cross-divisional business collaborations and help enhance personal and professional skills. This presentation will discuss methods and lessons learned that may benefit other organizations, diversity groups, and professional networks.

4:15 p.m.– Foyer C  Showcase 2008: Best and Emerging Practices
5:45 p.m.

4:30 p.m.– Grand C  Getting Involved with WEPAN
5:00 p.m.

Are you curious about being on a WEPAN Committee, Task Force, or becoming a Board member? WEPAN volunteers are an engaging group dedicated to making a difference. At this session, you will hear some WEPAN history and learn about the strategic plan, committee roles, basics of non-profit volunteering, and what it is like to get involved. All conference participants are encouraged to attend.

5:00 p.m.– Grand C  Getting Involved with WEPAN (repeated)
5:30 p.m.

Are you curious about being on a WEPAN Committee, Task Force, or becoming a Board member? WEPAN volunteers are an engaging group dedicated to making a difference. At this session, you will hear some WEPAN history and learn about the strategic plan, committee roles, basics of non-profit volunteering, and what it is like to get involved. All conference participants are encouraged to attend.

6:30 p.m.– Conference Dinner Celebration:
9:30 p.m.  Riverboat Dinner Cruise
Meet in Grand Hall. Buses start loading at 6:30 p.m. and leave from main entrance. Return at 9:30 p.m.

2008 WEPAN National Conference Proceedings

View or Search the WEPAN Conference database from its first conference in 1990, including the full text of the 2008 papers. Sample conference content includes recruitment and retention issues, mentoring, science education, faculty promotion and tenure, diversity initiatives, and policy considerations. This site is the official digital archive of the Proceedings of the WEPAN National Conference and was created by WEPAN in cooperation with the Office of Digital Scholarly Publishing, a joint effort of The Pennsylvania State University Libraries and the Penn State Press. The site was developed and is maintained by the Office of Digital Scholarly Publishing.
Showcase 2008: Best and Emerging Practices  Foyer C

We will honor MentorNet on its 10th Anniversary! Join us for refreshments as we congratulate MentorNet and open the Showcase.

Innovative and Effective Recruitment and Retention Strategies—Mini presentations: 4:30 p.m. - 4:45 p.m.

SC-01 How Did They Fare: Women and Underrepresented Minority Engineering and Computer Science Students in a Five-Year Program
Mary Anderson-Rowland, Ph.D., Arizona State University
The Collaborative Interdisciplinary Research Community (CIRC) program, initiated in Fall 2002, helps academically sound junior and senior engineering and computer science students with financial need to improve retention and encourage the students to go on to graduate school right after completing their Bachelor of Science degree. Forty-two percent of the participants enrolled in graduate school, compared to the national average of 17.9%. This showcase paper compares participants and non-participants, looking at gender and ethnicity.

SC-02 From It’s a Girl Thing to Girls Go Green, A Brief History of Female Pre-College Outreach Programs at Missouri S&T
Cecilia Elmore, P.E. and Cindi Guess, Missouri University of Science & Technology
This poster describes the various pre-college outreach programs for young women from 7th grade to the 12th grade level at the University of Missouri-Rolla (Missouri University of Science and Technology as of January 1, 2008). We will demonstrate how to effectively market, develop, and assess programs, and effectively engage students in multiple hands-on activities. Our results show that nearly 60% of the women participating in our summer and during-the-semester programs enrolled at UMR. Since 2000, the female population has grown by 32%.

Institutional and Organizational Change—Mini presentations: 4:30 p.m. - 4:45 p.m.

SC-03 Assessing Gender Differences in the Careers of Science, Engineering, and Mathematics Faculty
Catherine Didion, Center for the Advancement of Scholarship on Engineering Education
The National Academies recently completed a study that presents new findings about career differences between female and male faculty in science, engineering, and mathematics. Academic hiring, promotion, tenure, and the allocation of institutional resources are examined, based on two surveys of faculty and departments at major U.S. research universities in six fields: chemistry, physics, biology, mathematics, civil engineering, and electrical engineering. This presentation will share some of the findings of the study on gender differences and explore policy implications for institutions of higher education.

SC-04 Developing Effective Surveys: Methods of Testing
Dana Hosko, Pennsylvania State University-College Park
Testing surveys with experts and intended audience cohorts is key to getting data that is an effective basis for decision making. Testing ensures that the survey and the individual questions or sets of questions will yield the information sought. This paper will 1) discuss methods of testing surveys and survey questions; 2) share specific practices and outcomes from the AWE Project; 3) provide examples of how tests results were used to develop surveys and 4) tips on how to set up tests and use the results.

SC-05 Maximizing Industry and Academia Efforts to Attract Females into Science, Engineering & Technology (SET) Careers
Becky Schmieding and Ginny McCright, IBM
Enrollment in Electrical Engineering and Computer Science has been declining at South Dakota State University (SDSU). While the downward trend is national, SDSU is below the national average. A solution was to host a workshop with three objectives: to encourage girls to consider a SET career, to encourage them to attend SDSU, and to help teachers and parents encourage them into SET careers. This presentation addresses how government, academia and industry work together to influence female enrollment in SET. It includes the program structure, results, lessons learned and recommendations.

SC-06 NSF ADVANCE-PAID: Partnering for Diversity New Mexico Institutions of Higher Learning and Research
Shawn Werner, New Mexico State University
An Alliance for Faculty Diversity (AFD) has been formed among the three Ph.D.-granting institutions in New Mexico and the Earth and Environmental Sciences Division of LANL to share NMSU-ADVANCE and PAID grants’ best practices of mentoring, promotion and tenure, and department head training as well as improve the transition to the professoriate for students and postdoctoral fellows. Approaches during the first year of the grant will be presented.
Innovative and Effective Recruitment and Retention Strategies — Mini presentations: 5:00 p.m.–5:15 p.m.

SC-07 Engineering Waves Energizing the Middle and High School Students Through a Residential Summer Camp
Regina Rahn, Ph.D., and Suma Rajashankar, Ph.D., Northern Illinois University
The College of Engineering and Engineering Technology at Northern Illinois University has a new program funded by the E. Eugene Carter Foundation entitled Get WISE (Women in Step with Engineering). The mission is to inspire women in middle and high school to consider engineering careers, to encourage stronger academic preparation and to recruit students. Qualitative and quantitative data on Get WISE was collected. The paper includes a data analysis and discussion of camp execution and issues related to sustainability.

SC-08 Girl Geeks/ My Story: Illustrated Personal Stories of the Pathways of Rutgers University Women Into Their Current Scientific and Engineering Careers
Catherine Duckett and Christina Leshko, Rutgers University
Women faculty members at Rutgers are telling the stories of their professional development as scientists, engineers and mathematicians in a novel way, through the Office for the Promotion of Women in Science, Engineering and Mathematics website. Faculty members contribute stories to the web as part of searchable database, entitled “Our Stories.” These women have entered academia at a variety of times and through a variety of pathways. This diversity of paths and spectrum of success is the image our website hopes to project to recruit younger scientists and engineers.

SC-09 Keep Up, Keep Stretching: Continuing Education and the Value of It
Rebecca DeWitt, Lockheed Martin Corporation
You don’t need me to tell you the world is changing at a constant rate. Are you? Don’t wake up one morning and find yourself obsolete? You are empowered! Keep learning and continue to further your education. Education not only increases your knowledge base and opens your world but it widens your career network and gives you the confidence to chase the next challenge. I am proof of it, come talk to me.

Institutional and Organizational Change — Mini presentations: 5:00 p.m.–5:15 p.m.

SC-10 New Corporate Strategies for Attracting and Retaining Technical Talent
Geetha Rashmi, IBM
In today’s computerized world where the working population has increased and the standard of living has also increased, it is the greatest challenge for the organization to recruit and retain the right talent. A recruitment process is successful only if the worthy candidate fills the position. The real success is when the candidate does not leave the job. This paper presents strategies which can be incorporated to make the recruitment process effective.

SC-11 Creating a Climate that Fosters Institutional Change
Catherine Didion, Center for the Advancement of Scholarship on Engineering Education
Institutional and organizational change often occurs in a top-down way, in which influencers at the upper hierarchical levels of an organization learn and adopt the components of change first and then share them with the rest of the organization. The Engineering Equity Extension Service (EEES) project adopts a train-the-trainers approach to organizational change. EEES relies on extension agents from collaborating organizations, who learn principles of gender equity from experts and then use them in professional development workshops that they host for educators.

Corporate sponsors and other non-profit organizations will also have posters displayed during this event.
Presentation describes core concepts and cites literature as a toolkit for people making the case for women in engineering programs. The outline constitutes a proposed bias literacy for everyone who participates in the discourse on discrimination but may not read the gamut of social science research literature.

**T1-4 Women in Engineering Programming in South Korea: Making Best Practices Even Better**
Amy Freeman, Pennsylvania State University-College Park

The author was invited to Pukyong University in Busan, South Korea to speak at an international conference on Women in Engineering. The cultural barriers and accomplishments involved in creating a Women in Engineering Program in that country will be highlighted. Some barriers include family acceptance of this occupation for daughters, how women engineering students are viewed, challenges with employers, and recruitment and retention remedies developed by the WEP program in South Korea.

**T1-5 Panel—SWE Public Policy Initiatives for Women in Engineering**
Catherine F. Pieronek, University of Notre Dame and Betty Shanahan, SWE

Over the last three years, the Society of Women Engineers has taken an active role in public-policy matters related to women in engineering, in K-12 STEM education and the application of Title IX to STEM programs at the college and university level. This presentation provides an opportunity for members of SWE’s Government Relations and Public Policy committee to describe SWE’s efforts in this regard, and gives participants ideas for how to foster change at their own educational institutions.

**T1-6 Using an Academic-Business Partnership to Reach More Women**
Alka Harriger, Purdue University-West Layfayette and Suchita Dadhich, IBM

SPIRIT (Surprising Possibilities Imagined and Realized through Information Technology) represents a partnership between an academic organization (Purdue University) and a large business (IBM) and funded by government (National Science Foundation). SPIRIT introduces high school teachers, guidance counselors, and students over 6000 people during the three-year period — to the 3-D programming environment called Alice that engages and improves students’ understanding of difficult programming concepts. Examples are shared of IBM’s active involvement and positive impact in marketing, implementation, and evaluation.

**T1-7 Pipeline Partnerships: University Precollege Programs, University Diversity Initiatives and External Supporters Collaborate to Increase the Numbers of Underrepresented Students in the STEM Pipeline**
Karla Korpela and Chris Anderson, Michigan Technological University

A seven-year longitudinal evaluation from Michigan Technological University’s 35-year history with precollege programs that target...
Because Dreams Need Doing: Developing a Sustainability Strategy for Organizations working for Women and ICTs.

T1-8 Gender Equity Initiatives—Causes and Effects
Kamala Parvathanthan and Ranjani Santhanam, IBM
A large number of girls in India finish graduate school. However, well-qualified girls disappear after college before taking a job or advancing up the ladder in the male-dominated IT industry. Strong technical roles in the IT industry are still male dominated; women settle for periphery roles despite having qualifications. This paper studies hurdles of the educated, well-qualified woman. Case studies are used to show how IBM diversity initiatives encourage women to pursue their goals.

12:30 p.m. — Regency A-C Networking & Awards Luncheon
1:45 p.m. WEPAN Awards honor key individuals, programs, and corporations for accomplishments that underscore WEPAN’s mission. They are presented each year at the annual conference for extraordinary service, significant achievement, model programs, and work environments that support the career success of women engineers.

2:00 p.m.— Grand A Institutional and Organizational Change

T2-1 Workshop—Developing a Sustainability Strategy for Supporting Women and ICTs: Communicating Effectively with Funders
Ann Holmes, Ann Holmes & Associates and Claudia Morrell, Center for Women and Information Technology, UMBC
Do you want to develop or scale up a program that will attract, educate, recruit and/or retain women in ICTs or SET? Do you want to establish a centre to encourage more women and girls to prepare for careers and become leaders in information technology, to communicate information related to the richness and breadth of women’s lives, concerns, and possibilities using technology, and/or to foster research concerning gender and information technology? This workshop is designed to support the development of a sustainability strategy for organizations working for women and ICTs.

2:00 p.m.— Grand B Innovative and Effective Recruitment and Retention Strategies/ Research and Assessments
Moderator: Glenda LaRue, The Ohio State University

T2-2 The Need for Female Role Models in Engineering Education
Ingrid Bauer, University of Dayton
This research paper assesses the need of undergraduate female engineering students for encouragement and validation, and will evaluate the idea that the best way to increase the low numbers of female engineers is to provide undergraduate female engineering students with the presence of strong role models in the form of female faculty members. There were three main study components: 1) beginning focus group; 2) the survey; and 3) follow-up focus groups. Study participants were female undergraduate engineering and technology students in their third year of study or beyond.

T2-3 Making Young Females and Minorities Aware of Technology Degrees
Angela Lemons, North Carolina Agricultural and Technical State University
Many females are not told about degrees that are male dominated. To overcome this challenge faculty in the Electronics, Computer, and Information Technology department, participate in targeted outreach. One such program is Tech Girls Day sponsored by Cisco, NC A&T State University and High Points Andrews High School (HPAHS). 100 girls visited campus to hear women talk about careers in information technology and engineering. We also partnered with Cisco to visit HPAHS for Technology Day.

T2-4 Honoring Culture, Diversifying Workforce, Strengthening Science
Leslie Wilkins, Jenilyne Gaskin, Kula Uluhiwai, and Sheryl Hom, Maui Economic Development Board, Inc.
Now in its seventh year, Excite Camp continues to nurture the importance of keeping middle school girls engaged in math and science. In a two prong effort to help increase awareness, enthusiasm, and self-confidence for math and science in Native Hawaiian girls, campers are exposed to real-world science applications with respect to their native culture and history. Survey results of multi-year tracking of past participants currently in high school, college or workforce, revisions/additions made to the program as it progresses through its seventh year and methods of providing support for Excite Camp Alumni beyond the program will be presented.

T2-5 An Intergenerational Working Conference to Define Research Questions for Future Work on Women’s Success in STEM
Maria Brunette, Paula Rayman, Meg Bond, Jody Lally, and Padmaja Sistla, University of Massachusetts at Lowell
Many of the scholars who have been engaged with research in the area of women in Science, Technology, Engineering and Mathematics (STEM) are now approaching retirement. Additionally, new themes and issues are emerging from the next generation of scholars. In this paper the authors present results of a qualitative study that was conducted to provide structure, implement, and evaluate an intergenerational working conference on Women’s Success in STEM. The working conference led to a collective effort to define future research priorities.

2:00 p.m.— Grand C Market Research and Branding

T2-6 Workshop—Because Dreams Need Doing: Implementing Effective Messages to Attract Future Engineers
Jacquelyn Sullivan and Beverly Louie, University of Colorado at Boulder
Why might a teen who dreams of a career helping people never consider engineering? Results from a messaging research project conducted by the National Academy of Engineering suggest we perpetuate the messaging disconnect that exists in the public’s lack of
understanding of engineering. What can we do? How can we more effectively communicate the creative essence of engineering? Let’s explore and create new messaging, and develop approaches that promote an inviting image of engineering to attract future engineers.

2:00 p.m. – Grand D Innovative and Effective Recruitment and Retention Strategies

T2-7 Panel—Women of Color in Technology
Wanda Ronquillo, Juliet Pro, Paulina Acevedo, Denise Brown, and Marina Ruiz, IBM

The ever-changing work force creates unique career situations for the Women of Color in Technology. This workshop covers issues facing diverse women and the importance of education, position, roles, responsibilities, past and present, performance expectations, career advancement tools, mentoring opportunities, work-life, family balance, gender challenges, and career expectations. Panelists include diverse IBM professionals working in the technology industry. The four topics covered are: Communicating Technology Opportunities, Women in the Work Place, Challenges & Barriers, and The Successful You.

3:00 p.m. – Foyer A Coffee Break
3:15 p.m.

3:15 p.m. – Grand A Institutional and Organizational Change
4:15 p.m.

T3-1 Panel—Seeking Innovation in Our Ordinary Life
Jin Zhang, IBM

The word – innovation - has become so hot that everybody is talking about it and every organization is promoting it. Meanwhile, most of us usually relate innovation with technology breakthrough and inventions. This panel will draw experience from both academic and industry for innovations in their ordinary life. Innovation can happen in product, process, and business models. At the end of this session participants will have a deeper understanding of the impact that innovation has upon institutional and organizational change. Participants would conclude that innovation is not just for the scientists; instead, it’s for each of us.

3:15 p.m. – Grand B Innovative and Effective Recruitment and Retention Strategies
4:15 p.m.

Moderator: Phyllis Brady, University of California – Santa Barbara

T3-2 Attracting More Women to Engineering and Science: Using International Water Studies, a Living/Learning Community, and K-12 Outreach to Help Make the Connection in the Classroom
Andrew Curtis Elmore, Ph.D. and Cecilia Elmore, P.E. University of Missouri-Rolla

Women As Global Leaders is a multi-year living/learning community class that has local and international experiential learning elements. Students from a variety of engineering, science, and business programs participate in an interdisciplinary class which includes fund-raising, community outreach and awareness including K-12, and data collection and analysis. The results of a pre-college yield analysis indicate that 79 percent of women participating in a K-12 outreach event eventually enrolled in a science or engineering program at the University of Missouri-Rolla.

T3-3 The Use of Hands-on Science Kits to Develop Interest in the Engineering Program at Sweet Briar College
Hank Yochum, Dorsa Sanadgol, Tim Loboschefsli, and Scott Pierce, Sweet Briar College

Sweet Briar College, a liberal arts and science college for women in central Virginia, has an on-campus engineering major, only the second at a women’s college in the United States. In an effort to publicize this new program, to communicate the excitement and creativity involved in engineering, and to show the relevance of science to high school students, we have implemented an outreach and recruitment program consisting of hands-on science kit visits to area high schools. Preliminary results from our assessment will be presented.

T3-4 A Summer Camp Program to Introduce Girls to Opportunities in Engineering
Suzanne Zurn-Birkhimer, Ph.D., and Beth Holloway, Purdue University-West Layfayette

The Women in Engineering Program at Purdue University has evolved over the past 38 years to include a summer camp program established in 2000 to nurture young girls who are excited about engineering. Two camps, Exciting Discoveries for Girls in Engineering (EDGE) and the Love Engineering at Purdue (LEAP) summer camps are targeted to girls motivated by using their imagination and creativity to solve interesting problems facing society. This presentation will provide an overview of the structure of the Women in Engineering Summer Camp Program, explore the participant demographics and evaluations, and describe the effective practices that are utilized.

3:15 p.m. – Grand D Institutional and Organizational Change
4:15 p.m. Moderator: Brenda Hart, University of Louisville

T3-5 Women in the IT Profession in India: The Millennium Scenario
Mayandi thevar Suriya, Ph.D., Annamalai University

Women’s status in India’s IT sector are examined from two approaches: Gender in IT and Gender and IT. The former highlights the absorptive capacity of IT, and the latter looks into gender segregation and gender sensitivity of IT organizations; both have changed the gender calculus in India. In India, the majority of women in rural economies remain in the midst of poverty. The IT invasion offers new liberties to a small, but influential, group of women.

T3-6 Communication and Synergy in the Multi-Generational Workplace
Carlie Bower and Christina Mendez, IBM

The blending of multiple generations in the workplace has created a working environment in which productivity has become strongly dependent upon cross-generational communication. It is widely accepted that there are four primary generational groups present in the United States workplace: the Traditionalist, the Baby Boomer, the Generation Xer, and the Millennial. This work will explore core characteristics of each generation from a historical context and will provide effective strategies for leveraging the unique attributes of each generation to create a more productive team environment.

6:00 p.m. Grand Hall Discussion Group Dinners
Sign up at the conference registration desk.
2009 National Conference

June 18-20, 2009
Austin, TX

Directly following the 2009 ASEE Conference & Exposition

Attend the 2009 Conference Planning Kick-Off
Tuesday, June 10th 8:30-9:45 a.m.
Grand D & E

Conference Chair: Katie Kizziar (kkizziar@skillpointalliance.org)