

JUNE FORUM

"Celebrating Diversity in Engineering: Where do we go from here?"

Please join us on Friday June 21 from 5:00-7:00 pm for the Forum on Women in Engineering of the IEEE Board of Directors Series at Hotel Le Westin Mont-Royal, 1050 ouest, rue Sherbrooke, Montreal, Quebec, Canada

The Speaker is Dr. Monique Frize, P. Eng., O.C. Professor of Electrical Engineering Nortel/NSERC Women in Engineering Chair Faculty of Engineering, University of New Brunswick P.O. Box 4400, Fredericton, NB, Canada E3B 5A3

Abstract:

The profession is seeing more diversity in people choosing to be engineers. The discussion will address what more can be done to integrate and value the enriching perspectives from the diverse groups. Strategies will address the education process, workplace issues and role of the professional and technical associations in achieving more balance in the future.

NETWORKING BREAKFAST FOR WOMEN

Please join us and meet with other women scientists and engineers in a relaxed and friendly atmosphere or breakfast. It will be held at the 1996 IEEE International Conference on Plasma Science on Tuesday, June 4 from 7:15 am - 8:30 am at White Hill Room of Boston Park Plaza Hotel and Towers. RSVP required. Please contact:

Cha-Mei Tang
(301)975-4272
fax: (301)975-3038
e-mail: c.tang@ieee.org

CONFERENCE NETWORKING RECEPTION

Please join us for an informal reception and meet with other women scientists and engineers in a relaxed and friendly atmosphere. The reception is hosted by the IEEE Women in Engineering Committee and will be held at the 1996 MTT-S International Microwave Symposium on Tuesday, June 19 from 6:00 pm - 7:00 pm in the Vista Room of the Hilton Hotel. The San Francisco Hilton is the Headquarters Hotel for the conference and the Vista Room is on the top floor with a beautiful view (I am told!).

RSVP not required. Please contact for questions:

Julia Brown
(310) 317-5068
E-mail: julia.brown@ieee.org

INSTITUTE ARTICLE

An article titled, "Women in Engineering A Canadian Perspective," by Julie Sheridan-Eng, a member of IEEE Committee on Women in Engineering, was published in the Women in Engineering Column of the May 1996 issue of THE INSTITUTE.

A forum sponsored by the IEEE Women in Engineering Committee during the February Board Series in San Diego, Calif., USA included two speakers: Linda Weaver, on "Women in Engineering: the Canadian Perspective," and Ray Findlay, on "Personality Types." Weaver, who is IEEE Region 7 director, worked five years as a hospital engineer, five years as an engineer in the Canadian navy, and now owns her own company, TecKnowledge Healthcare Systems. In the Canadian defense industry, she said, relatively little had been done to assess the numbers and status of women in engineering until the 1990 L'Ecole Polytechnic incident, in which a disturbed individual entered a classroom, singled out women students and shot many of them.

The tragedy spurred a flurry of activity, including the establishment of advisory committees and task forces, as well as a government-funded full-time position to investigate the issues facing women in engineering. Previous activities had

focused on recruiting women into engineering studies. However, Weaver said, recent research showed that while the percentage of engineering students who were women increased from 0-5 percent in 1970 to 25-40 percent in the 1990s, "the percentage of practicing engineers who were women remained flat," increasing from 0-1 percent to only 0-5 percent.

To explain this trend, the Ontario Professional Engineering Association sponsored a statistically valid, focused national survey of 10,000 actively employed engineers, both men and women. The study showed that while entry-level positions had become more accessible to women, higher-paying management positions had not. Both men and women surveyed felt that women were not given equal access to field assignments, high-profile projects, promotion to management and other forms of recognition.

The research also showed that the stress level of women engineers changes relative to their male counterparts as engineering experience increases. While men and women in the first five years of their engineering careers indicate the same level of stress on the job, women engineers with greater than five years of experience indicate a higher stress level than their male contemporaries, and they begin to drop out of the profession in larger numbers. This is perceived to be due to a combination of lack of equal access to advancement and the difficulty of balancing work and family.

However, the latter cannot be used as a sole excuse for why women engineers leave the profession, because women doctors and lawyers also face the same challenging professional/family balance, and in Canada, 50 percent of doctors and 40 percent of lawyers are women, compared with only 8 percent of practicing engineers. The survey indicated that women also face attitudinal barriers from superiors and other male engineers, and difficulties in networking due to their small numbers and relative isolation.

As a result of this research, Canada has been developing activities to foster retention of women in engineering - mentoring to link new women engineers with more experienced engineers, help with networking, and public recognition of exceptional professional achievements.

PERSONALITY TYPES. Findlay, a professor at McMaster University, Hamilton, Canada, and IEEE vice president - regional activities, discussed personality typing and its effect on the successful interaction of groups. He described personality types as combinations of four paired traits: extrovert vs. introvert; intuitive vs. sensing; thinking vs. feeling; and judging vs. perceptive.

Findlay explained that studies show that 75 percent of North Americans were found to be extroverts vs. 25 percent introverts; 25 percent intuitive vs. 75 percent sensing; 50 percent thinking vs. 50 percent feeling; and 50 percent judging vs. 50 percent perceptive.

Findlay's own studies of 2,200 people showed that 13.8 percent of scientists are introverted-intuitive-thinking-perceptive and 8 percent of engineers are introverted-intuitive-thinking-judging, compared to only 1 percent of the general population in each of these personality types.

Findlay offers a class in which students are forced to solve problems in groups comprised of all personality types. Findlay noted that there is a marked difference in the effectiveness of group interactions once people are made aware of their and others' personality types.

Julie Sheridan-Eng is a member of IEEE Lasers and Electro-Optics Society and IEEE Electron Devices Society. he is currently a member of Technical Staff at Lucent Technologies (formerly AT&T) Bell Laboratories in Breinigsville, Pa., USA.

IEEE ITEM.

Susan Blanchard is the 1996 president of the Engineering in Medicine and Biology Society, succeeding Janie Fouke, 1995 president. Veteran IEEE observers believe this is the first time that one woman succeeded another as president of an IEEE society. Congratulations to both.

UPDATE ON THE WIE www PAGE

Our new feature for the Web page is an Opportunities Section! Look here for information on job openings and please let us know if you would like to post a position.

The IEEE WiE now supports a NetForum Bulletin Board service through this www page. Be sure to stop by and make a contribution. We hope to eventually get some worthwhile discussions going that will be of benefit to all. Let us know about your views on the usefulness of bulletin boards!

The Women in Engineering Committee maintains a World Wide Web site, accessible through the IEEE home page "<http://www.ieee.org/>" or directly: "http://www.ieee.org/ieee_women_in_eng/women.html". The committee can be contacted by e-mail at "women@ieee.org."

Our committee scopes:

Scope 1:

Gather and disseminate information regarding the status of women and initiatives for, by and on behalf of women in engineering and science.

Scope 2:

Enable mentoring and education programs within IEEE and make available information regarding gender related educational issues which may improve the entry into, and the retention of women in engineering programs.

Scope 3:

Increase the participation of women within IEEE.

Scope 4:

Address ways to improve the climate for women in IEEE and the workplace.

The work of the committee has been divided into a number of subcommittees headed by one of the committee members:

Education: Julie Sheridan, j.sheridan@ieee.org

Awards: Cha-Mei Tang, c.tang@ieee.org

Meetings: Jan Brown, jan.brown@ieee.org

Communication: Cathy Downer, c.downer@ieee.org>

Liason: April Brown, april.brown@ieee.org>

Workplace Issues: Julie Shimer, j.shimer@ieee.org

You are invited to contact any of these committee members or the entire committee (women@ieee.org) if you would like additional information, would like to share with us initiatives you know about both within and outside of IEEE, or would like to work with us on any of the initiatives. We would also like to hear from you with ideas and suggestions about what you would like to see the IEEE be doing or share with us your experiences and thoughts.

If you'd like to subscribe to this monthly newsletter, send a message to majordomo@ieee.org and type: subscribe women-newsletter.