

May 2001



# WIE Newsletter

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## ARE YOU A SENIOR MEMBER?

Are you a Senior Member? Have you nominated a colleague lately for consideration as a Senior Member? This is the highest IEEE grade for which an individual can apply for and is the first step in becoming a Fellow of IEEE. A common misconception is that Senior Member grade is impossible to attain. To become a Senior Member, you don't have discovered that  $E=mc^2$  or have invented the remote control. IEEE Bylaw I-105.3 sets forth the criteria for elevation to Senior Member Grade as follows:

**Senior Member.** The grade of Senior Member is the highest for which application may be made and shall require experience reflecting professional maturity. For admission or transfer to the grade of Senior Member, a candidate shall be an engineer, scientist, educator, technical executive, or originator in IEEE-designated fields.

The candidate shall have been in professional practice for at least ten years and shall have shown significant performance over a period of at least five of those years, such performance including one or more of the following:

- Substantial engineering responsibility or achievement, or
- Publication of engineering or scientific papers, books, or inventions, or
- Technical direction or management of important scientific or engineering work with evidence of accomplishment, or
- Recognized contributions to the welfare of the scientific or engineering profession, or
- Development or furtherance of important scientific or engineering courses in a "recognized educational program," or
- Contributions equivalent to those of (a) to (e) in areas such as technical editing, patent prosecution, or patent law, provided these contributions serve to advance progress substantially in IEEE-designated fields.

Note -- It's ten years professional experience that is required **not** ten years of IEEE membership. Some people join IEEE as Senior Members --- Maybe you should have too?

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We're on the Web!

Visit us at:

<http://www.ieee.org/women>

## ARE YOU A SENIOR MEMBER?



(Continued from page 1)

Still wondering why go through the trouble? Look at the benefits new Senior Members are entitled to:

- An attractive fine wood and bronze engraved Senior Member plaque to proudly display
- IEEE will recognize all newly elevated Senior Members with a coupon worth up to \$25.00. This coupon can be used towards your payment of one new IEEE Society. Note that the coupon will expire on 31 December 2001.
- A letter of commendation to your employer on the professional achievement that IEEE Senior Member grade signifies (optional at the request of the newly elected Senior Member)

Members who wish to apply for Senior Member grade do so by completing a form (and usually attaching a resume or curriculum vitae) and by asking at least three IEEE Senior Members or Fellows to provide recommendations. Please contact Carrie Loh at [c.loh@ieee.org](mailto:c.loh@ieee.org) if you have any difficulty finding Senior Members or Fellows as references. In many cases, the best references are those Senior Members or Fellows with whom you have had direct professional contact (for example, IEEE members at the company where you work). However, many IEEE members who are qualified for promotion to Senior Member grade have not had direct professional contact with three Senior Members or Fellows.

Completed Senior Member forms with their references are sent to the Admission and Advancement (A&A) Department at IEEE where they are collected. The A&A Chair convenes an A&A panel 9 or 10 times a year of 12-15 IEEE Senior Members or Fellows to review each application and determine whether senior membership should be granted. Typically, more than 95% of applicants are granted senior member grade, 2.5 % are deferred for further information and 2.5 % are denied. When elevation is denied, most often it is due to a lack of at least five years of demonstrated significant performance.

You can apply for Senior Member grade (or nominate someone else) through the web at <http://www.ieee.org/organizations/rab/md/smelev.htm> and provide the necessary references at <http://www.ieee.org/organizations/rab/md/smref.htm>. If you prefer to receive printed Senior Member forms or need additional information, send a request to [application-request@ieee.org](mailto:application-request@ieee.org). When completing the application form, be sure to add the name of WIE to the "Nominating Entity" line on the Senior Member application form so that we can announce the newly elevated Senior Members on the WIE Newsletter.



## IEEE OFFERS RETIREMENT SAVINGS OPTION

With the average engineer changing jobs several times during his career, it is important to remember saving for retirement. The IEEE Financial Advantage Program offers a portable mutual fund program to help you plan for your future. From conservative to aggressive investments, JP Morgan offers over 30 stock, bond and money market funds to help you work toward your goals. With mutual funds like these, you get the benefit of investing while leaving the day-to-day decisions to the experts.

Members in the US and Canada can read more at:

[http://www.ieee.org/services/financial/fap/programs/financial\\_services/mutualfunds.html](http://www.ieee.org/services/financial/fap/programs/financial_services/mutualfunds.html)

Non-US Members can invest in the Non-US Investment Fund. Find out more at:

[http://www.ieee.org/services/financial/fap/programs/financial\\_services/investment.html](http://www.ieee.org/services/financial/fap/programs/financial_services/investment.html)

# SEEKING WAYS TO IMPROVE THE ENGINEER'S IMAGE



BY PATRICIA ENG  
*The Institute*, May 2001

What vision comes to mind when you hear, "I need a good engineer!" A few years ago, that question was asked of a U.S. elementary school class. Invariably, they described either older Caucasian males or aliens who looked like Mr. Spock of the "Star Trek" television program. Both of these personages were characterized as boring and nerdy at best. Personally, I don't know anyone who looks like Mr. Spock, and not all engineers are white males. We are as diverse a population as the problems we solve.

All parents know that youngsters are influenced by positive images they see in the media and peer pressure to "do something cool." Because engineers are often portrayed as socially inept white men who don't dress well, engineering is not seen as a desirable profession and engineering enrollments are declining.

While we do not have TV shows to tout the positive aspects of engineering, we do have role models within the IEEE and elsewhere in the profession. For example, Dr. Mitra Dutta, recipient of the 2000 IEEE-USA Harry Diamond Award, has received numerous awards for outstanding achievements in her field. Dr. Dutta is a striking, vivacious person with a quick wit and a way of making even the most boring electronic theory interesting. Not only has she taught physics and engineering at U.S. universities such as Rutgers, The State University of New Jersey; the University of Maryland and North Carolina State University, she has worked in Jamaica and the West Indies.

Perhaps we could do a TV series about an engineering professor who not only inspires her students, but also lives in a tropical paradise, drives a sports car and improves our quality of life.

If that isn't enough to shatter the prevailing image of an engineer, how about model Cindy Crawford? In high school, she received straight A's in calculus and was awarded a full chemical engineering scholarship to Northwestern. Not bad for a geek. We'll leave the discussion on disparities between engineering and modeling salaries for a later time.

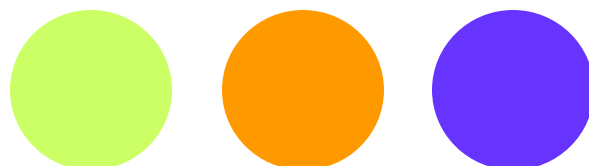
Both the medical and legal professions have seen an increase in the overall numbers of students and in the number of minorities and women choosing these professions, but not so in the engineering field. I believe that the image of the engineer has discouraged young people from looking at engineering as a possible vocation.

We must reach future engineers and scientists in terms they understand and value. If we believe that engineering is an exciting and rewarding career, we should depict it that way.

The 2001 U.S. National Engineers Week held in February sponsored a new program, Introduce a Girl to Engineering Day. The focus of the event was to show that engineering is a fun profession, and that engineers are real people. It showed that engineers have good career prospects and salaries that are -- while not in Cindy Crawford's range -- respectable.

Not everyone is cut out to be an engineer, but we need to take a serious look at the future of the profession. Enrollment in engineering curricula continues to decline, while the need for engineers of all disciplines continues to increase.

In the upcoming year, the IEEE Women in Engineering Committee will be working to identify available resources that can be used to highlight not only variety within the profession, but also the diversity of the engineering workforce. We invite you to help us in this effort. If you are aware of a resource, let us know by e-mail at [women@ieee.org](mailto:women@ieee.org).





## ENGINEER GIRL

The Engineer Girl website is part of the NAE's Celebration of Women in Engineering project. This project tries to bring national attention to the opportunity that engineering represents to all people at any age, but particularly to women and girls.

The Celebration is the first of several projects focusing on gender and diversity in the engineering workforce. This informative site contains the following:

- Gallery of Women Engineers
- Engineering Careers
- Education Information
- Why be an engineer
- Fun facts
- Ask an Engineer
- Great Achievements
- Cool Links

Please log-on to <http://www.engineergirl.org/nae/cwe/egmain.nsf/?Opendatabase> for more information.

## WIE COMMITTEE SCOPES OF INTEREST

### 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. Make available information regarding gender-related educational issues, which may improve the entry and retention of women in engineering programs.

### SCOPE 3

Increase the participation and membership of women within IEEE.

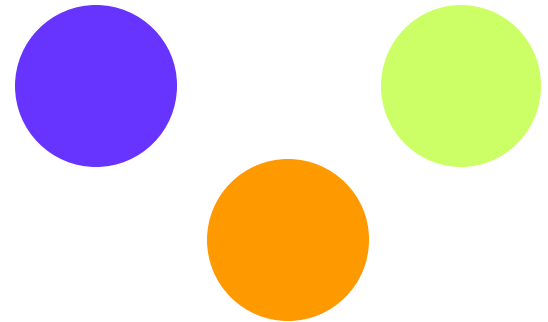
SCOPE 4: Address ways to improve the climate for women in IEEE and the workplace.

**IEEE Women in Engineering**  
445 Hoes Lane  
PO Box 1331  
Piscataway, NJ 08855 USA  
<http://www.ieee.org/womenE-mail:women@ieee.org>

## RECOGNIZE SOMEONE FOR THEIR CONTRIBUTIONS

1 July 2001 marks the nomination deadline for many IEEE annual awards. Do you know someone who has accomplished a major achievement?

The IEEE Awards Board encourages you to submit nominations for outstanding candidates. Nominate them for one of the medals offered by IEEE. To read summaries of the medals and to obtain nomination forms, guidelines to nominators and lists of past recipients, visit [www.ieee.org/about/awards/medalst.htm](http://www.ieee.org/about/awards/medalst.htm)



## WIE JOBS FILE

WIE has initiated a WIE Job Posting File with job postings that have been forwarded to us, unsolicited. If you would like to subscribe to this monthly posting file, send a message to [majordomo@ieee.org](mailto:majordomo@ieee.org) and type: `subscribe women-jobs`. This file will be maintained on a monthly basis. If you have any comments on the file, or would like to submit posting information, please submit to WIE at [women@ieee.org](mailto:women@ieee.org).