

The IEEE web site has undergone a change to a new "look and feel." The new "look" refers to the bright and attractive design of the pages and the "feel" is in the consistency and organization of the site information. The site features an improved search capability that uses keywords to make it more useful. The IEEE Women in Engineering (WIE) Committee's web site can be found at www.ieee.org/organizations/committee/women. Please change your bookmarks!

IEEE WIE August 1999 NEWSLETTER

If you would like to subscribe to this newsletter, please send a message to "majordomo@ieee.org" and type in the message body, subscribe women-newsletter.

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Making a difference as an engineer: Improving lives by creating new medical technologies, by Sarah A. Audet.

What does it take to create an entirely new medical technology, one that dramatically improves the lives of patients suffering from debilitating neurological disorders? A strong desire to make a difference! The Women in Engineering Committee would like to share with you the success of Lynn Otton, a principal design engineer in the Neurological and Drug Delivery Business at Medtronic, Inc., headquartered in Minneapolis, Minn.

Lynn, together with a team of scientists and engineers, championed the development of a completely new approach for treating tremors associated with Parkinson's disease and other movement disorders.

The new medical technology is called the Activa® Tremor Control Therapy and was approved by the FDA in August 1997. The Activa system is totally implantable in the human body and includes quadripolar deep brain stimulation leads, the Itrel II implantable pulse generator, and an extension that connects the lead to the implantable pulse generator.

The system stimulates the brain's thalamus to eliminate tremors. Traditional therapies have been thalamotomy, where a section of the thalamus is removed or the use of levodopa drugs. Traditional procedures bring the risk of side effects, and may need to be repeated as the disease progresses.

Lynn's leadership was critical in the clinical trial stage of the development of the Activa Tremor Control Therapy system. Lynn worked closely with neurosurgeons during this phase, bringing her 18 years of experience in implanted lead design with her. Lynn's leadership was also critical in the FDA approval process. Most of the technical sections of the 23 volumes of documents (over 7,000 pages) used for FDA approval were written and edited by Lynn.

Lynn joined Medtronic in 1989 after developing cochlear implants at 3M's medical division for eight years. Lynn's principals for excellence in leadership include an unwavering commitment and dedication to the global goals, laser-like focus on key areas, constant communication, use of the team approach, and continual relationship building.

Through her experiences, Lynn has learned that the first commandment of being heard as a woman in the engineering field is to have earned the respect of colleagues, management, and customers. It's not a question of equality, states Lynn, "It's a matter of respect." Respect as a women in the engineering field, Lynn stresses, is not a given, it must be earned.

Lynn advises our families and communities to develop confidence in young women, as well as young men, early in their lives, and to inspire them to imagine, create, and dream. Lynn counsels us all to foster in our young their innate curiosity in science, technology, and math and states that stifling this is a crime. Self-confidence, says Lynn, is crucial to making it over all the barriers and obstacles that will get in their way. With early confidence, our young will learn that they can do anything, if they really, more than anything else, desire to.

Lynn was awarded "Engineer of the Year" by the leading engineering trade magazine, Design News, in March 1999 for her leadership in the development of Activa Tremor Control Therapy. Lynn granted funds received from the award, US\$34,000, to the College of Biomedical Engineering at the University of Minnesota to fund scholarships for aspiring female engineering students.

Lynn has obtained a deep satisfaction from the results of the work she, and her team, have accomplished. She could not imagine doing anything else other than developing medical technology that will restore quality to the lives of millions of people around the world! Lynn is making a difference.

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IEEE Election Update

Members seek election information at Web site:
Almost 1,000 people have visited the IEEE Annual Election Candidates' Web site at
"http://www.ieee.org/organizations/corporate/candidates.htm".

Ballots will be mailed on or before 1 Sept. and must be returned before noon on 1 Nov. While election results are announced by the IEEE Tellers Committee on 11 Nov., these results are unofficial until the IEEE Board of Directors accepts the Tellers Committee report on 14 Nov.

Please note in order to receive an election ballot your contact information in the IEEE database should be up to date. If you have moved or your mailing address has changed contact IEEE member services to update your membership record. Member Services can be reached via phone: 1-800-678-4333, e-mail: member-services@ieee.org, or fax: 732-562-6380.

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IEEE Educational Activities - Sloan Career Cornerstone Project Status

IEEE Educational Activities has completed the Sloan Career Cornerstone Project with the development of these four multimedia products that take an in-depth look at careers for electrical engineers and computer scientists:

- *The IEEE Student Career Web site at www.ieee.org/organizations/eab/sloancareers/sloancareers.htm
- *"Careers for Electrical Engineers and Computer Scientists" CD-ROM
- *"What's Out There" and "Getting Ready" videos.

Free copies of the CD-ROM and videos were mailed to IEEE Student Branches worldwide and to all U.S. college electrical engineering departments.

"We want to encourage students to think about careers early, and provide them with the appropriate resources to do so," says Peter Wiesner, Educational Activities." Staff and volunteers from numerous IEEE entities contributed to the success of this project including societies, Regional Activities, Marketing and IEEE-USA."

The Alfred P. Sloan Foundation funded this project. Ten other professional associations also received grants to produce similar products. For more information, contact Christy Bouziotis, Educational Activities, at c.bouziotis@ieee.org.

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WIE Jobs File for August 1999

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 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.

We are pleased to offer other IEEE sites that contains job listings:

*The IEEE USA Jobs Listing Service on the www at: www.ieeeusa.org/jobs.html.

*IEEE Careers & Education Web Site: "Careers & Education, Enabling Careers through Life-long Learning" can be accessed at www.ieee.org/organizations/eab/careeresource.htm.

*Women in Technology International (WITI) web site at www.witi.com. WITI has joined forces with Advancing Women www.advancingwomen.com and Career Mosaic ® to create two new co-branded sites devoted to the employment needs of women.

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Kate Jackson Receives National Award for Women Engineers

Dr. Kate Jackson, the Tennessee Valley Authority's Executive Vice President of River System Operations & Environment, has been honored by the Society of Women engineers as this years recipient of its National Upward Mobility Award.

Each year the society recognizes one woman who has made an outstanding contribution in the field of engineering and/or technical management.

At TVA, Jackson is responsible for TVA's integrated river management system which includes flood control, navigation, hydro power production and water supply for industries and cities, water quality and wildlife protection and recreation on TVA lakes. Jackson is also TVA's environmental officer and is responsible for the development of environmental policy and strategy.

She received her doctorate in engineering and public policy from Carnegie Mellon University in Pittsburgh, Pennsylvania, and was post-doctoral fellow at the National Academy of Sciences and Engineering in Washington, D.C., during 1991.

Jackson received the award at a reception in her honor in Pheonix in June.

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HISTORY IN THE MAKING

Which is a greater engineering achievement, landing a human being on the moon or manufacturing non-stick cookware? The Verezzano Narrows Bridge or the silicon chip? The laser or the self-lubricating windmill? It may depend on how you define "achievement." The National Academy of Engineering (NAE) has defined it as having a positive impact on humanity, and, in celebration of the millennium, they are seeking nominations from engineering societies and related organizations, from within their respective fields of expertise, for "The Greatest Engineering Contributions to Societal Progress in the 20th Century."

The History Center is encouraging and accepting recommendations from IEEE members for appropriate achievements within IEEE-related technologies, and the History Committee will be serving as the screening committee. If you are interested in making recommendations or in learning more about the program, visit the Web page (www.ieee.org/history_center/contributions.html) that has been established at the Center's Web site, or else call Research Coordinator Robert Colburn at 732-932-1066. Don't delay! Recommendations are due to the IEEE History Committee by September 30, and their nominations are due to NAE by October 29. Excerpt from the Leadership Wire 13-Aug-1999.

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IEEE Membership Information: Senior Member

Senior Member is the highest IEEE membership grade that may be obtained by application.

Why Apply?

for recognition of accomplishment by peers
for professional advancement
for personal satisfaction

Who should apply?

Engineers, scientists, educators, technical executives or those in IEEE designated fields who have at least ten years active professional practice, with five or more years of significant performance, accomplishments in engineering, publications, management, education or professional contributions.

We highly recommend all qualified IEEE members to apply for Senior Membership. Another reason to apply for Senior Member grade is that Senior Member grade is required before one is eligible for IEEE Fellow nomination.

To obtain Senior Member Application forms, please contact:

IEEE Operations Center
Admission and Advancement Committee
445 Hoes Lane
PO Box 1331
Piscataway, NJ 088551331
Tel:(732) 562-5502 /Fax:(732)9810225
Email: rab.aa@ieee.org

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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 Committee

445 Hoes Lane, PO Box 1331, Piscataway, NJ 08855-1331

www.ieee.org/organizations/committee/women/ E-mail: women@ieee.org