

the Beacon

Have a Great
New Year!

The Monthly Publication of the Maine Section, IEEE www.ieee.org/maine

Chairman's Message

Passing the Torch

by Brian Conroy

As of January 1, a new slate of officers takes over the operations of the Section. The 2002 officers were elected at the Section annual meeting in May. Below is the list of Section officers for 2002. Their terms of office run from January 1 to December 31.

Chairman-Elect	David Potts	Fairchild Semiconductor
Vice Chairman-Elect	Daniel Martin	Integrity1
Treasurer-Elect	Merlin Smith	IBM (retired)
Secretary-Elect	Tom Carbone	Fairchild Semiconductor
Junior Member-at-Large-Elect	David Kotecki	University of Maine
Senior Member-at-Large	Ian Goepfert	Fairchild Semiconductor
Junior Past Chairman	Brian Conroy	Central Maine Power
Senior Past Chairman	Jack Swanton	ECHOLab, Inc

We've got an all-star cast for 2002, starting with Dave Potts as Section Chair. Dave has been past Chair of the Computer/EDS chapter and has been our Webmaster since we've been on line (he created our web site). Dave also publishes the electronic version of the *Beacon* and maintains the Section's electronic mailing list. You'll be in very capable hands under Dave's tutelage.

Some tried and true executive committee members are back in new positions for 2002. Dan Martin, our Vice-Chair for 2002, has arranged the last two annual meetings and has represented the Section for National Engineers Week for the last few years. Merlin Smith will be treasurer for a second year after serving as secretary for several years. Dave Kotecki is Junior-Member-at-Large for 2002 after serving as Secretary in 2001. As you can see, there will be plenty of continuity on the executive committee to lead us through the task of planning the Section year.

We also have some new faces on the Section Executive Committee. Tom Carbone, our Secretary-Elect, comes to us from the Computer/EDS Chapter as a past Chair. Tom was responsible for creating the joint Computer/EDS chapter several years ago. Also, Ian Goepfert joins us in 2002 a Senior-Member-at-Large following a recruiting effort by Dave Potts (it takes effort to get the best!). Ian is already well into the planning of our next annual meeting. Look for the results of his work in meeting announcements in future *Beacon* issues.

I will be continuing in 2002 as Junior Past Chair. My main responsibilities will be for the Nominating Committee. It will be a tough job too! After all, I'll have to find volunteers for the 2003 Executive Committee that will be as good as the members of the 2002 Executive Committee. Wish me luck....

December/
January '02
Volume 11
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Officers

Chair:
Dave Potts

Vice Chair:
Dan Martin

Treasurer:
Merlin Smith

Secretary:
Tom Carbone

Chair, Comm. Chapter:
Andrew Perkins

Chair, CS/EDS
Chapter:
Mustafa Guvench

Chair, PES/IAS
Chapter:
David Conroy

Jim Skilling Recognized for Outstanding Service to the Maine Section

The Maine Section recently awarded Jim Skilling an IEEE clock plaque as a token of appreciation for his many years of outstanding volunteer service on the Executive Committee. The letter that Section Chairman Brain Conroy wrote to accompany the gift stated that "your volunteer service to the Maine Section of IEEE over the years has been valued and appreciated." Jim did a particularly fine job of setting the standard for clear and complete financial reports. Jim is retired from the University of Maine at Augusta after teaching there for 13 years. However, he still teaches an Advanced Java course each spring.

IEEE Power System Fundamentals CD-ROM Set Available

Here's your chance to have Power System Fundamentals at your fingertips. Dr Bruce F. Wollenberg, Director of Graduate Studies at University of Minnesota (UM) & Director of the UM Center for Electric Energy, designed and delivered this three and half hour course at the 2001 IEEE Power Engineering Society Summer Meeting in Vancouver, BC, Canada in July.

The IEEE Educational Activities Board production of Power System Fundamentals is now available. For those working in the electric power industry, this two CD-ROM set provides an opportunity to learn or review some of the basics of power system engineering. For those who possess a general engineering background and supervise engineers, it can provide some familiarity with power system engineering terms. It teaches the basics of AC Power Systems, but avoids the use of deep mathematics. Think of it as "Power Systems 101."

Topics include three phase circuits, symmetrical components and sequence networks, power transformers, the per unit system and power flow, symmetrical and unsymmetrical faults, system protection, automatic generation control, and power system transient stability.

Dr. Wollenberg is an IEEE Fellow and is a contributor to IEEE Transactions on Power Systems. "The Power System Fundamentals tutorial was conducted to introduce someone who wasn't a power specialist to understand, in a basic way, how power systems work," said Dr. Wollenberg. "Using this, non-power systems people can 'fill in the gaps' in their understanding."

The CD-ROM set has accompanying onscreen transcript, video presentation synchronized with the power point slides, and an outline for ease of jumping to topics. The transcript

provides reinforcement for learning and adds extra support for users with non-English as their primary language. In addition the slides are produced in PDF format for easy printouts.

To order use IEEE number EC 142 for the 2 CD-ROM set, \$250.00 member; \$300.00 non-member.

Software Requirements: Windows 95, 98, NT or 2000; Internet Explorer 4.0 (or higher), or Netscape Navigator 4.0 (or higher); Windows Media Player 6.1 (or higher), or RealPlayer G2, version 6.0.5.27 (or higher). Hardware Requirements: Pentium 200 MHz processor; 32 MB RAM; Windows compatible sound card; 4x CD-ROM drive. PC compatible only.

The CD-ROM set can be ordered from the IEEE Customer Service Department, 445 Hoes Lane, PO Box 1331, Piscataway, NJ 08855-1331, USA; by e-mail: customer-service@ieee.org; by phone: 1.800.678.4333; and on the Web at <http://shop.ieee.org/store/>. For further information on Education Activities check out our Website www.ieee.org/organizations/eab/index.htm.

2001 IEEE Annual Election Results

Partial results of the just completed IEEE annual election are listed below. There were no Constitutional Amendments in 2001. The number of ballots mailed was 249,374. The number of valid ballots returned was 49,378. The rate of return was 19.80 percent. Complete results are posted on the IEEE Web site at www.ieee.org/organizations/corporate/candidates.htm.

IEEE President-Elect, 2002: **Michael S. Adler**
Region 1 Director-Elect, 2002-2003: **Roger K. Sullivan**
Technical Activities Vice-President-Elect, 2002: **Leah H. Jamieson**
IEEE-USA President-Elect, 2002: **James V. Leonard**

It is worth noting that **LeEarl Bryant** will make history on January 1, 2002 when she becomes the first woman president of IEEE-USA. She was a pioneer in the development of the Society of Women Engineers Texas section and in 1988, was elected an SEW Fellow. Bryant has spent much of her career as a technical manager with an extensive background in the telecommunications, transportation and defense industries. IEEE-USA is an organizational unit of the IEEE created in 1973 to promote the careers and public-policy interests of the more than 230,000 electrical, electronics, computer and software engineers who are U.S. members of the IEEE.

Maine Section Student Branch News

The new officers for the two Maine IEEE student branches are listed below.

Officer Position	UM Student	USM Student
President	John Roberts	Caglar Gurcan
Vice President	Sara McCabe	Maria Belousev
Secretary	Roxie Paine	David Sparrow
Treasurer	Matt Rodrique	Eric Wood
Coffee Shop Mgr.	John Dunn	N/A

Professors **Jim Patton** and **Carlos Luck** serve as the Branch counselors of the UM and USM branches, respectively. In belated manner, the IEEE State Excom wants to congratulate two UM EE Department students, **Rachael Morehouse** and **Eric Soucie**, for participating in the 2000 Northeast Region Conference at Rochester Institute of Technology, Rochester, NY. They received the conference award for the Most Marketable subject based on their paper presentation, "Virtual Walking Cane", and a prototype demonstration. The prototype device with functional and electronic schematics were on exhibit at the 2001 National Engineering Week Banquet at Wells Common, UM, Orono. The Section executive committee is pleased to have given partial financial support to this student achievement.

IEEE student members at USM have been actively assisting with the recruiting and retention efforts of the engineering department. They have been visiting local high schools and offering tutoring assistance to current engineering students. The branch is also sponsoring a USM engineering logo contest. The purpose of this contest is to promote the USM engineering department by using tee-shirts, pens, and stickers as promotional aids to be given to high school students when they visit the campus or when IEEE members visit local high schools. In addition to promoting the USM engineering department, the IEEE student branch will also sell items with the logo printed on it in order to raise funds for future student activities.

Early this semester, the IEEE student branch at UM hosted a Co-op Engineering Job Fair, and it was quite successful. Other events of the semester included meetings, an overnight for high school students, and a Christmas Party. The UM branch has a number of activities planned for the spring. Included in these are three technical talks, one to be given by Fairchild Semiconductor and another by Bath Iron Works. College recruitment efforts will take place in March, and they plan on sending two more groups of students down to RPI for the design competition. The branch would also like to attend an engineering seminar sometime during the coming semester.

Maine Section Members Encouraged to

Apply for Senior Member Status

The Maine Section Executive Committee encourages all Section members with at least 10 years of professional experience (not 10 years IEEE membership) and 5 years of significant performance to apply for the IEEE membership grade of Senior Member. Engineering education counts toward the tens years of professional experience as follows:

3 years for a baccalaureate degree in an IEEE-designated field

4 years if you hold a baccalaureate and masters degree

5 years if you hold a doctorate

Many prospective applicants make the mistake of assuming that "significant performance" requires special awards, patents or other extremely sophisticated technical accomplishments; such is not the case. Substantial job responsibilities such as team leader, task supervisor, engineer in charge of a program or project, engineer or scientist performing research with some measure of success (papers), or faculty developing and teaching courses with research and publications, all are indications of significant performance

as well as the following:

- A. Substantial engineering, responsibility or achievement
- B. Publication of engineering or scientific papers, books or inventions
- C. Technical direction or management of important scientific or engineering work with evidence of accomplishment
- D. Recognized contributions to the welfare of the scientific or engineering profession
- E. Development or furtherance of important scientific or engineering courses in a program on the "Reference List of Educational Programs"
- F. Contributions equivalent to those of (A) to (E) above in areas such as technical editing, patent prosecution or patent law, provided these contributions serve to advance progress substantially in IEEE-designated fields.

In order to qualify for Senior Member status, an individual must also provide three references from IEEE members holding Senior Member, Fellow or Honorary Member grade. Your professional colleagues are your best source of these references. The senior member grade is the IEEE's distinguished title for professional technical excellence bestowed by your professional peers. Being a senior member also can be a plus when interviewing for a position, seeking a promotion or requesting conference travel.

Each newly-elected senior member now receives an engraved IEEE senior member plaque made of wood and bronze (a \$25 value) that any member would be proud to display. Application and nomination forms can be accessed online at: www.ieee.org/organizations/rab/md/smforms.htm.

Beacon Publishing

The Beacon is published on a monthly schedule based upon the need to advertise upcoming meetings. All material submitted for the Beacon must be received by the editor no later than the 15th of the month preceding the issue in which it should be included. Sorry, NO EXCEPTIONS!!

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