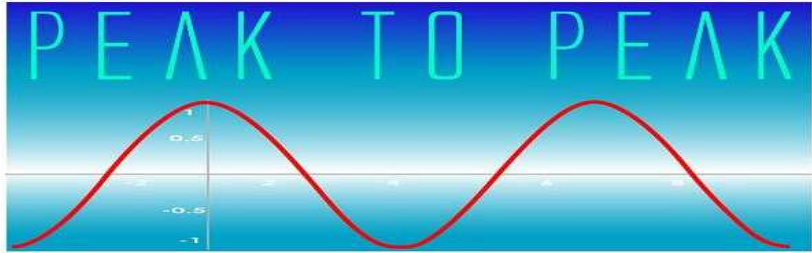




JULY 2006

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THE IEEE NEW HAMPSHIRE SECTION NEWSLETTER

Chairman's Thoughts

By Tom Perkins

Summer is finally here, and hopefully the inclement weather will subside. We're hoping for great weather for our July 22 summer cruise, but if it does rain, there is still plenty of cover for fellowship, food and viewing the lake. See the important changes in the article on the next page.

I am very pleased to announce formation of a new society chapter in our NH Section. It is the Engineering in Medicine and Biology Society (EMBS). It appears that this group may help to grow activities in the Dartmouth College area of our state. See the article on the next page for more details.

We are beginning to make progress with membership upgrades to Senior Member. If you are one of the members seeking to be upgraded, please initiate the process by following the directions at:

<http://www.ieee.org/organizations/rab/md/smprogram.html>. Send me an e-mail and I'll try to provide names of Sr. Member references. Also, please see the article on page 4 for more details.

Please feel free to contact me, Tom Perkins, at

tomperkins@ieee.org or NHIEEE@aol.com. I would enjoy hearing from you.

From the Editor

By Jim Anderson

Correction - In this column last month we inadvertently referred to Mr. Steve Brody of Thermo Electron Corp., as Mr. Tom Brody. We apologize for any inconvenience that this error may have caused.

Your Dusty Old PC May Hold the Cure for Cancer
To learn how you can use an old computer to advance medical research see the article at <http://www.cnn.com/2006/TECH/06/05/research.at.home.ap/index.html>. This is a lot more practical than looking for intelligent life in outer space.

Web Page Additions
The minutes of the ExCom meetings are now being posted on the website once they are approved.

Improvements
If you have any suggestions for improving this newsletter, please contact the Editor, Jim Anderson at james-w-anderson@ieee.org

Summer Cruise Update - Don't Miss the Boat!



The IEEE New Hampshire Section's 2006 Summer Cruise is setting sail from Weirs Beach at 12:30 PM on Saturday, July 22, 2006

\$15 each for IEEE members and family (\$50 per family maximum)
\$38 each for all others

Ticket price includes 2 ½ hour cruise on Lake Winnepesaukee,
Private, air-conditioned dining room,
Dinner Buffet & Cash Bar

~~All guests are invited to remain on board for the 3:15 Cruise at no additional charge.~~

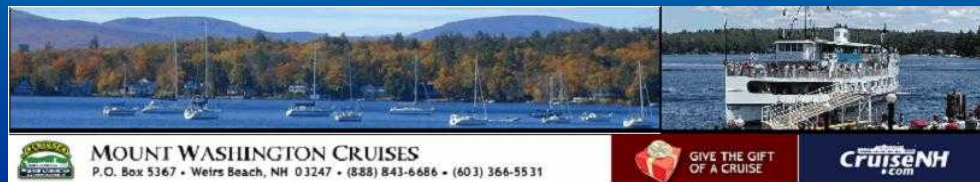
NOTE: The 3:15 cruise has been chartered and will not be open to us

RSVP: NHIEEE@aol.com by July 12, 2006 at the latest!

NOTE: There are only a few openings still available

MAIL PAYMENTS TO: Donna Davis
NH Section Administrator
34 Cohas Drive
Auburn, NH 03032

Please include your name, email address, # of guests, and check made payable to: IEEE-NH Section



Chapter News

Engineering in Medicine and Biology Society

By Wayne J. Smith

It is with great enthusiasm that we announce that the formation of an Engineering in Medicine and Biology Society (EMBS) Chapter, under the umbrella of the IEEE New Hampshire Section, has been successful. The petition is in the final stage of approval. Many thanks go to Nathalie Gosset for initiating this effort and seeing it through. Also, many thanks go to the

NH IEEE-EMBS members who signed the petition. Hopefully, with establishment of the EMBS Chapter, and through regular chapter meetings and technical communications, we can collectively assist in fostering biomedical engineering activity in New Hampshire. I am looking forward to our first meeting!

If you have any suggestions for meeting topics or speakers; or if you would like to become active in the Chapter please contact me at:

wjsmith@cisunix.unh.edu



Product Safety Engineering Society

By Steve Brody

The IEEE Central New England Chapter of the Product Safety Engineering Society (CNE PSES) is a relatively new addition to the IEEE. The Central New England Chapter is also known as the Northeast Product Safety Society (NPSS) and it functions under both names under agreement with the NPSS Membership and the PSES Board. John Freudenberg is the CNE PSES Chairman, and Steve Brody is the NPSS President.

The CNE PSES/NPSS, currently consisting of 300+ product safety engineers and related functions from a variety of industries throughout New England who are interested in an open exchange of product safety information and technical information related to product safety.

The CNE PSES/NPSS meets every month from September to November, and again from January to June, usually the 4th Wednesday of the month, at a member firm's site. The November meeting is normally a Vendor's Night and EMC and Product Safety related suppliers display their products and/or services. The May meeting is a Membership Dinner. Each meeting features one or two guest speakers on a topic of interest to the members. Currently we meet at the offices of BioDefense Corporation, 128 Spring Street, Suite 360, Lexington, MA 02062. The AdCom meets immediately prior to the general meeting.

If you or anyone you know would like to give a product safety technical presentation, please contact Paul Smith, our meeting scheduler, by email at paulsmith1@cs.com. A technical presentation should be 45 to 60 minutes in duration and be related to product safety. Although the presentation may reference your company and its services, the presentation must not be simply company advertising. We would also appreciate any slides or handout materials be made available for posting on the NPSS web site. Releasing

presentation materials for posting is desired but not a requirement to make a presentation.

The 2006 NPSS meeting schedule is available on the NPSS website at http://www.nepss.org/meetings/NPSS_2006-7_Calendar.html

Further information about the Northeast Product Safety Society and how to become a member is available at <http://www.nepss.org>. You can also contact one of the NPSS officers via links on the NPSS web site.

For more information about the CNE PSES/NPSS check out the Chapter website at <http://www.nepss.org> or look for a link and information on the NH IEEE web site or at <http://ewh.ieee.org/soc/pses/>.

A Joint Chapter Meeting of the Computer Society and the Microwave Theory and Techniques Society Presents

Ad Hoc Wireless Networking:

Where is the Beef?

Speaker: Dr. Anthony Ephremides

Communications Society Distinguished Lecturer

University of Maryland

Date: Wednesday, September 20, 2006

Time: 6:00 PM

Abstract: Dr. Ephremides will be reviewing new problems and trends in wireless adhoc networks with emphasis on sensor networks. Topics will include energy efficiency, cooperation, and network coding. All these have in common the coupling between the layers that

reaches from application layer down to the hardware level.

Tony Ephremides - Anthony Ephremides holds the Cynthia Kim Professorship of Information Technology at the Electrical and Computer Engineering Department of the University of Maryland in College Park where he holds a joint appointment at the Institute for Systems Research, of which he was among the founding members in 1986. He obtained his PhD in Electrical Engineering from Princeton University in 1971 and has been with the University of Maryland ever since.

He has held various visiting positions at other Institutions (including MIT, UC Berkeley, ETH Zurich, INRIA, etc) and co-founded and co-directed a NASA-funded Center on Satellite and Hybrid Communication Networks in 1991. He has been the President of Pontos, Inc, since 1980 and has served as President of the IEEE Information Theory Society in 1987 and as a member of the IEEE Board of Directors in 1989 and 1990. He has been the General Chair and/or the Technical Program Chair of several technical conferences (including the IEEE Information Theory Symposium in 1991 and 2000, the IEEE Conference on Decision and Control in 1986, the ACM Mobihoc in 2003, and the IEEE Infocom in 1999). He has served on the Editorial Board of numerous journals and was the Founding Director of the Fairchild Scholars and Doctoral Fellows Program, a University-Industry Partnership from 1981 to 1985.

He has received the IEEE Donald E. Fink Prize Paper Award in 1991 and the first ACM Achievement Award for Contributions to Wireless Networking in 1996, as well as the 2000 Fred W. Ellersick MILCOM Best Paper Award, the IEEE Third Millennium Medal, the 2000 Outstanding Systems Engineering Faculty Award from the Institute for Systems Research, and the Kirwan Faculty Research and Scholarship Prize from the University of Maryland in 2001, and a few other official recognitions of his work.

He is the author of several hundred papers, conference presentations, and patents, and his research interests lie in the areas of Communication Systems and Networks and all related disciplines, such as Information Theory, Control and Optimization, Satellite Systems, Queueing Models, Signal Processing, etc. He is especially interested in Wireless Networks and Energy Efficient Systems.

Location: BAE Systems Headquarters Building - Main Lobby Auditorium, 65 Spit Brook Road, Nashua, NH. One half mile East of Everett Turnpike, Exit 1.

For more information call Tom Perkins @ (603) 885-5040, or e-mail thomas.perkins@baesystems.com

Power Electronics

If you have any suggestions for meeting topics or speakers; or if you would like to become active in the Chapter please contact Chuck Button at chuckbutton@ieee.org

Power Engineering

If you have any suggestions for meeting topics or speakers; or if you would like to become active in the Chapter please contact Paul Krell at krell@unitil.com

Senior Member Upgrade

By Duncan Morrill

What are the benefits?

- The professional recognition of your peers for technical and professional excellence.
- An attractive fine wood and bronze engraved Senior Member plaque to proudly display.
- Up to \$25.00 gift certificate toward one new Society membership.



- A letter of commendation to your employer on the achievement of Senior member grade (upon the request of the newly elected Senior Member.)
- Announcement of elevation in Section / Society and / or local newsletters, newspapers and notices.
- Eligibility to hold executive IEEE volunteer positions.
- Can serve as Reference for Senior Member applicants.
- Invited to be on the panel to review Senior Member applications.

<http://www.ieee.org/organizations/rab/md/smprogram.html>

What are the requirements?

IEEE Bylaw I-105.3 sets forth the criteria for elevation to Senior Member Grade, as follows: "a candidate shall be an engineer, scientist, educator, technical executive or originator in the IEEE designated fields" of Engineering, Computer Science and Information Technology, Physical Sciences, Biological and Medical Sciences, Mathematics, Technical Communications, Education, Management, Law, or Policy.

For more details on these fields see:

<http://www.ieee.org/portal/pages/membership/rep/designatedfields.html>. "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."

- A baccalaureate degree counts for 3 years of experience
- A baccalaureate and masters degrees for 4 years of it
- A doctorate degree for 5 years of it

Many prospective applicants make the mistake of assuming that "significant performance" requires special awards, patents or other extremely sophisticated techni-

cal accomplishments; such is not the case. Substantial job responsibilities and/or accomplishment suffice.

Significant performance that would serve to qualify an individual for elevation to Senior Member need not have occurred in the years immediately prior to the application. Thus, life and retired members are eligible for elevation.

How do I upgrade?

If you've read the IEEE requirements for elevation to senior member at:

<http://www.ieee.org/organizations/rab/md/smrequirements.html> and feel you're qualified, then contact our Secretary Chuck Button at chuckbutton@ieee.org to get the process underway.

How I Became an Engineer?

By Jennifer Ng

Was it because you were always interested in taking things apart and putting them back together (with "extra pieces")? Was it by chance? Was it because you come from generations of engineers and this was your destiny? What was it? Please send me (jng@ieee.org) your story on how you became interested in Engineering and chose this profession. Every month, we will feature an article in the newsletter.

Upcoming Events

July 13th 2006
6:00 pm, CR Sparks Restaurant
NH IEEE Section ExCom Mtg

Currently limited to IEEE Section Officers. For more information, email NHIEEE@aol.com or go to CR Sparks Map & Directions

July 22nd 2006
12:30 pm, Weirs Beach
NH IEEE Section Summer Cruise

Cruise on Lake Winnepesaukee with dinner buffet and cash bar. For more information, email NHIEEE@aol.com

The Flag of the United States of America

By Unknown



I am the flag of the United States of America.
My name is Old Glory.
I fly atop the world's tallest buildings.
I stand watch in America's halls of justice.
I fly majestically over institutions of learning.
I stand guard with power in the world.
Look up and see me.

I stand for peace, honor, truth and justice.
I stand for freedom.
I am confident.
I am arrogant.
I am proud.

When I am flown with my fellow banners,
My head is a little higher,
My colors a little truer.

I bow to no one!
I am recognized all over the world.
I am worshipped - I am saluted.
I am loved - I am revered.
I am respected - and I am feared.

I have fought in every battle of every war for more
then 200 years.
I was flown at Valley Forge, Gettysburg, Shiloh and
Appomattox.
I was there at San Juan Hill, the trenches of
France, in the Argonne
Forest, Anzio, Rome and the beaches of Normandy.
Guam, Okinawa, Korea and KheSan, Saigon, and
Vietnam know me.

I'm presently in the mountains of Afghanistan
and the hot and dusty deserts of Iraq
and wherever freedom is needed.
I led my troops, I was dirty, battle worn and tired,

But my soldiers cheered me and I was proud.

I have been burned, torn and trampled on the
streets of countries I have helped set free.
It does not hurt for I am invincible.
I have been soiled upon, burned, torn and tram-
pled in the streets of my country.
And when it's done by those whom I've served
in battle - it hurts.
But I shall overcome - for I am strong.

I have slipped the bonds of Earth
and stood watch over the uncharted frontiers of
space
from my vantage point on the moon.

I have borne silent witness to all of America's
finest hours.
But my finest hours are yet to come.
When I am torn into strips and used as ban-
dages
for my wounded comrades on the battlefield,
When I am flown at half-mast to honor my sol-
dier,
Or when I lie in the trembling arms of a grieving
parent
at the grave of their fallen son or daughter,

I am proud.



Questions & Answers

Q: Who are the NH Executive Committee members?

A: A list of all the members and their contact information is found on the section website at http://www.ewh.ieee.org/r1/new_hampshire/Officers.html

Q: Who do I contact about suggestions for the newsletter?

A: The Editor, Jim Anderson can be reached at james-w-anderson@ieee.org

Q: How can I be removed from the mailing list or update my email address for section news?

A: Send email to the NH Section Administrator, Donna Davis, at

NHIEEE@aol.com

Q: How do I get elevated to IEEE Senior Member Grade?

A: Please visit the IEEE Senior Member website:

<http://www.ieee.org/organizations/rab/md/smpprogram.html>

The NH IEEE Section can support your application and you will need two additional Senior members as references. Please contact Chuck Button (NH Section Secretary) at chuckbutton@ieee.org for more details.

Q: Why aren't the links active in the newsletter articles?

A: Try downloading the latest free version of Adobe Reader at http://www.adobe.com/go/gntray_dl_get_reader

Q: Why doesn't the URL http://www.ieee.org/nh_section work?

A: At the present time the URL is case sensitive and you must use http://www.ieee.org/NH_Section. We hope to have this corrected by IEEE shortly.

Q: How do I start a new society chapter?

A: Please refer to this site for details on eligibility and requirements: <http://www.ieee.org/portal/pages/tab/cha/newchap.html>

