

Newsletter

WHAT IEEE MEANS TO YOU

We have learned that the noble act is to ask what we can do for others and not what they should do for us. Nevertheless, oftentimes the question lingers, how we can benefit of things we do. This column is intended to give some ideas on how to benefit from being an IEEE member, in particular. The good thing is that this is entirely a win-win situation, as using these resources does not deprive others.

Here are testimonials on how our colleagues experience these benefits. To list these is intended to give you an idea on how to use resources that you may not have been aware of and be able to take more advantage of the things IEEE offers. Your experience is welcomed.

Testimonials

- My IEEE membership really pays for itself and then some. As an entrepreneur, I priced several insurance policies for my business. Through the IEEE, I got the best deal and saved several hundred dollars. That savings continues year after year.
- It is great to have the IEEE email address, which makes me independent from an ISP.
- My IEEE membership was a great way to make new connections when I moved here. Also, the material of the meetings, conferences, and publications really helps me keep my technical focus. Being involved in Section leadership has also helped me learn to let go and rely on the dependability of others.

More ways how you may benefit from the IEEE membership are listed at theinstitute.ieee.org ♦

NETWORK BASED CONTROL: ANALYSIS AND SYNTHESIS FOR LARGE SCALE INTELLIGENT SYSTEMS

IEEE Eastern North Carolina Section (ENCS) Industrial Electronics (IE) Chapter and Computation Intelligence (CI) Chapter Joint Seminar

Date: Thursday, March 15, 2007

Time: 12:00 - 1:00 pm

Location: Room 2040 (ADAC Lab), EB2 (Engineering Building 2), NC State University, 890 Oval Drive, Raleigh, NC 27606

Speaker: Dr. Timothy Chang, Department of Electrical & Computer Engineering, NJIT, NJ, USA

Direction: www.adac.ncsu.edu/Directions/Direction.htm

Co-Sponsor: IEEE Industrial Electronics Society Networked Control Systems and Application Technical Committee.

Contact person: Mo-Yuen Chow, [chow\(at\)ncsu.edu](mailto:chow(at)ncsu.edu), 919-515-7360 ♦

THE NEWSLETTER -- A FORUM FOR YOUR ACTIVITIES

This local newsletter is an excellent opportunity to share local news and events with the community.

If you have accomplished something that you would like to share with others or want to share about a project, this newsletter is an magnificent forum to gain visibility in the local community.

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An electronic version of this and previous Newsletters can be found at:

ewh.ieee.org/r3/enc/nl.htm

Other news worth reporting are reports from conferences, activities, technical, as well as social events or meetings.

We plan four issues per year (next one in May) and are looking forward to hear from you.

Please send your contribution to: [mhorrer\(at\)ieee.org](mailto:mhorrer(at)ieee.org) ♦

HOW TO BECOME A SENIOR MEMBER

Jim Ray

The title senior member may add prestige to your IEEE membership and there is a procedure for qualified people to obtain this status.

For folks interested in becoming a senior member, our section executive committee has streamlined the process a bit. If you have your ten years in the field or otherwise qualify, go ahead and make the leap. We will assist you with the references. All of the web links are on our section web site courtesy of Lee Haas. Visit our site for a summary of the process, for detailed instructions and for online forms.

To start the process, go to our section web site: http://ewh.ieee.org/r3/enc/info/sr_member/index.html

Then send your resume and membership number to your references for review. Given that the requirements are met, look toward the bottom of that web page for the links necessary to complete the process. Click on the Senior Member Application Form link and complete the form with the following information for nominator:

Nominator's Name: Jim Ray
 Nominator's Member#: 04609491
 Nominating Section or Society: Eastern NC
 Nominator's Membership Grade: Senior
 Nominator's Email: [jim\(at\)neuse.net](mailto:jim(at)neuse.net)

As chairperson for membership development, I'll complete one of the reference forms and get two fellow board members to do the same. The process takes time and your patience is appreciated. To monitor progress, there is a link to check the status. Please let me know if there are any hold ups on references or approval. Calling me at 838-1672 is the best way to reach me since I get more email than I can process.

Welcome to IEEE Senior Membership! ♦

BEYOND ENGINEERING

Disclaimer: The following is a meeting report, it is for information only. and is not meant to be tax advice. The numbers presented in this article are deemed to be accurate, but verify any information on taxes presented with an authoritative instance like a tax advisor or the IRS.

With the eyes on April 15, this years section meeting was dedicated to income tax preparation. Chuck Miller of the Wake Forest Road office of Liberty Tax service in Raleigh informed an interested audience of the latest changes in the tax code. Chuck is an engineer by education but has found his interest in tax topics and has been doing this for about 20 years now.

The majority of the changes reflect changed limits like an increase for the social security tax from \$90k to \$94.2k.

401k contribution limits for those eligible increase to \$15k and to \$20k for those over 50.

New is that charitable contributions are now subject to very strict verification rules.

The mileage rate is split in the calendar year. 44.5 cents for miles driven before 8/31/06 and 48.5 cents for miles driven thereafter. However when operating a car for medical reasons, the rate is 18 cents/mile, while for charitable purposes the rate is only 14 cents/mile.

"You may ask me how and what, but not why" was a phrase we also heard when people were wondering about the logic of some of the tax code.

Overall, it was an interesting and informative talk. ♦

Editor's Note:

E-mail addressing notation

Due to concerns about spam, all email addresses are ciphered by replacing the at-sign with (at) and the dot-org/com ending with a bullet. In case you wondered, we did not invent a new protocol, but just a "different" way to present the information

LOOKING FOR LEADERSHIP IN ALL THE UNEXPECTED PLACES

Society of Women Engineers

Date: Thursday, March 15th, 6:15pm
 Location: Cisco Systems campus in Morrisville
 Speaker: Charlotte Purvis, Purvis Communications Inc.

We are happy to announce that Cisco Systems is sponsoring a joint meeting of the local chapters of SWE (Society of Women Engineers) and WITI (Women in Technology International).

As members of IEEE and the Women in Engineering Affinity Group, you are invited to attend.

Registration will be on a first-come, first-serve basis and is limited, so register soon!

Please register at
www.witi.com/rtp/meeting.php?id=2030

Promo Code: rtpvip1 (for free registration)

For more information about the speaker and WITI, click on the link above. You will have to set up a username & password on the WITI site to complete the registration. A brief description of the presentation topic follows:

Looking for Leadership in All the Unexpected Places

Most of us have participated in "Leadership 101" programs and know the basics of leadership. We have read books on leadership. We have observed leaders in action. We have been mentored by leaders. And we've been leaders ourselves – both formally and informally.

We will begin this seminar with a review of the basics of leadership. Then we'll use our creativity as we look for leadership lessons in some of the unexpected places. We'll look for leadership lessons in

- situations that appeared to be less than successful
- people who may not think of themselves as leaders

- some leadership "tools": a mission statement, a mirror, and a magnet.

We'll close with a discussion about how women in technology can use the lessons learned to prepare for positions of greater leadership.

Contact person: Jana L. Jenkins 919-787-7000 x228 or jjenkins@sdiraleigh.com ♦

A BRIEF ANALYSIS OF THE RFID PHYSICAL LAYER

Embedded Systems Group March Meeting

Date: Monday, March 26th.
 Location: MCNC, 3021 Cornwallis Road, Research Triangle Park, NC 27709.
 Directions: www.ieee-embedded.org
 Speaker: Tom Frederick, Sirit, Inc.

We start at 6:00 P.M. with socializing over refreshments and Pizza, supplied courtesy of Montie Roland (www.montie.com) and Dave Vanden Bout (www.xess.com). The program starts at 6:30 P.M.

By popular request we are proud to bring you the second installment on RFID! The presentation will focus on the operation of backscatter and inductively coupled passive RFID systems. The physics of power harvesting, minimum activation field, and the range equation will be discussed. Aspects of the physical layer for forward and reverse links will be reviewed, including impairments, modulation, and demodulation techniques. The multiple access protocols in common use today for reading many tags simultaneously in the interrogation zone will also be covered.

Thomas J. Frederick received his undergraduate degree in Electrical and Computer Engineering from the University of Wisconsin at Madison and his Ph.D. in Electrical Engineering from Florida Atlantic University. He has spent nearly twenty years in product development focusing on the application of statistical signal processing in areas such as DoD satellite communications, PSTN voice-band modems, detection and estimation for EAS, and wireless communications for cellular and now RFID. ♦

WHO IS WHO

CONTACT INFORMATION FOR IEEE EASTERN N.C. SECTION

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Online Links

ENCS Homepage

www.ieee.org/encs

ENCS Calendar

<http://ewh.ieee.org/cgi-bin/cal/calendar.pl?month=10&calendar=enc&month=9>