



WESTERN NORTH CAROLINA SECTION

Forty Year Anniversary in 2005

Newsletter for Sept, 2005

I hope everyone is back from summer vacation and is well rested.

Don't forget, you can keep up with all the activities by checking you **WNC Section website**: <http://www.ewh.ieee.org/r3/wnc>

Here's a list of the items presented this quarter. Read more about each item in the report below:

- **Benefits of IEEE Membership:** Make sure you are aware of and are using the great benefits and services
- **Student/Educational Activities:** Help students and teachers get a new perspective on Engineering – Check it out!
- **Regular Membership Meetings:** Come, join the fun!
- **Professional Activities:** Want to get involved?
- **Awards:** Have you applied for Senior Membership?
- **Annual Elections:** Your vote counts!
- **Dr. Robert Moog:** The passing of our most distinguished member.

The Benefits of IEEE Membership - Article by Fred Orland

Make sure you are aware of and are using the great benefits and services of your IEEE membership. Check the following websites for a complete description and how to access the benefits of your membership.

Key IEEE membership website URLs:

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

IEEE member benefits and services:

http://www.ieee.org/portal/site/mainsite/menuitem.818c0c39e85ef176fb2275875bac26c8/index.jsp?&pName=corp_level1&path=membership&file=benefits.xml&xsl=generic.xsl

A good example of a services is the "free" IEEE Email alias. This allows you to change ISPs and never need to change your Email address.

If you have any questions please contact Fred Orland at fredorland@ieee.org

Encourage your engineering colleagues to join IEEE.

Student/Educational Activities

This is the area in which our Section works with aspiring engineers in an effort to give back to the profession some of the benefits that we have received from it. This is a very enjoyable and rewarding endeavor and we would like to see more of our members become involved, particularly those that are retired. Your experiences are very valuable and it is a joy to share them with the young to encourage them and bring them into the field. If you think you might be interested in sharing your experience with these young students, please contact Fred Orland at: fredorland@ieee.org

- **Western Carolina University (WCU)** WCU has a very active IEEE Student Branch, advised by Dr. Bob Adams.
 - **Senior Project Preliminary Design Review:** There are over 20 Seniors that will be working on their Senior Design Projects. These Projects take two semesters to complete and the IEEE traditionally performs a Preliminary Design Review (PDR) on each of the Projects. The PDR is currently scheduled for December 7, 2005. It is a one evening event in which we initially have dinner with the students in the cafeteria and then meet to have the students present their preliminary designs. Questions and comments by the IEEE members are encouraged. We will probably need a minimum of 8 regular members to participate – the more the merrier. If you think you have the time and would enjoy this event, please contact: jimcorr@ieee.org We always run a carpool from the Asheville area.
 - **Career Roundtable:** This is an event in which several IEEE members talk about their own careers and then open the floor to questions by the students. Traditionally, this event is open to all IEEE members and any and all can contribute. The date for this event, probably early November, will be announced in an email to the members.
- **University of North Carolina – Asheville (UNCA)**
 - **Senior Project Preliminary Design Review:** This year UNCA Mechatronics will have 8 students doing their Senior Project. This is a one semester course at UNCA and is a highly team oriented endeavor. Four separate presentations are planned, in which the IEEE is invited to participate. These include: 1) Project Proposal, 2) Preliminary Design, 3) Detail Design, 4) Final Design. All IEEE members are invited to participate. If you think you have the time and would enjoy this event, please contact: jimcorr@ieee.org
 - **Career Roundtable:** Similar to that event at WCU, described above. The date for this event will probably be in early 2006.
- **Teacher In Service Training expands into Region 3 and North Carolina Sections** - [Article by A. J. Burke](#)

A group of educators and engineers gathered at a conference center near Atlanta's Hartsfield Airport on 22-23 July 2005 to attempt to expand the IEEE

USA's Teacher In Service Training Program (TISP) in IEEE Region 3. This workshop was held to increase partnerships between IEEE Region 3 Sections and their local school systems through the implementation of the Teacher In-Service Program (TISP). Goals of the workshop included:

- Empower Section "champions" to develop collaborations with their local pre-university community to promote applied inquiry-based learning.
- Enhance the level of technological literacy of pre-university educators.
- Encourage pre-university students to pursue technical careers, including engineering.
- Increase the general level of technological literacy of pre-university students for many years.

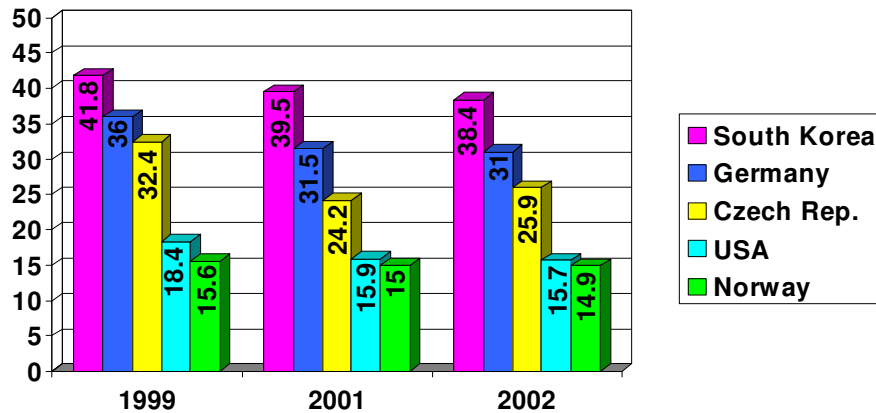
The Region 3 TISP workshop was attended by more than 60 participants representing more than 23 IEEE Sections including 3 from North Carolina (see photo below).



North Carolina IEEE Sections were represented at the Education Activities Board event by (from left to right) John Whitlow - Eastern Section, A.J. Burke - Western Section, and Lonnie Baxley - Central Section

TISP is an optimal way to enhance the level of science, technology, engineering, and mathematics knowledge of the local pre-university community. This should have the long term effect of reversing the trend we are seeing in college enrollments in Engineering in the last few years (see chart contained in the email attachment).

Percentage of Science Degrees Awarded



Science degrees include life sciences, physical sciences, mathematics, statistics, computer sciences, engineering, manufacturing, and building

Source: Organization of Economic Cooperation and Development



Expansion of TISP will play an important role in The Engineering Center for Pre-University Education. Recently launched by IEEE Education Activities, The Engineering Center for Pre-University Education is an umbrella organization of engineering professional associations and educational professional associations, dedicated to increasing the propensity of young people worldwide to choose engineering as a career path. It also provides an opportunity for engineers and educators to work together and build lasting relationships which in the future can be used to influence these students to choose engineering as a career

If you are interested in working with the IEEE WNC Section Ad Hoc Pre-college Education Committee that is working on this program with IEEE Education Activities, Region 3 and the IEEE WNC Section contact ajburke@ieee.org or spawls@emory.edu.

Regular Membership Meetings

- Buncombe County 9-1-1 Emergency Communications Center facilities tour.** The tour will be followed by a social dinner and brief meeting.
Date: September 27, 2005. Tour begins at 6 PM. Please arrive a little early. We will meet for dinner at approximately 7 PM. at the Charlotte Street Grill, located at 157 Charlotte St. (2 blocks north of I-240).

Location: *Buncombe County Emergency Communications Center, 35 Woodfin Street; Asheville, NC 28801.* The center is located in the ground floor of the Buncombe County Health Center in downtown Asheville. Entry is through the main door beside the overhead door on the building's east side. Park in the lot at the corner of College St. and Woodfin St. next to the church. Walk west to the alley way off of College St. and then down the alley way to the main door.

- **Borg Warner tour and dinner meeting:** *October 20, 2005.* Details in an email to follow.
- **Section Awards dinner, Elections, Open discussion:** *November (3rd week).* Details in an email to follow.
- **Medical Imaging:** Possible for January

Professional Activities

WNC IEEE Local Consultant's Network (LCN) - [Article by Chuck Stonecypher](#)

In late June we held an initial meeting for Western North Carolina members, 17 attendees, to explore mechanisms by which a network for making consultants from the WNC IEEE section available to local industry. As a result of the meeting two activities were initialized:

1. Establishment of an internet network for communication among our membership. This is a private group that let's us share job opportunities and raise questions among ourselves regarding the nuts and bolts of implementing consulting activities. The network has been up and running for about 2 months.
2. At this time about five members have joined the IEEE Consultants database. We hope additional members will join as the year progresses. Our intent is to give local and national businesses visibility to individual technical consultant capabilities through the network. There is a direct link to the IEEE consultant database on our Western North Carolina IEEE website.

We are planning a meeting in the coming month (time and place to be provided by e-mail announcement) to lay out further activities that will include introducing local industry to our capabilities. In addition we believe our membership will find it constructive to make their employers aware of the capabilities available through our consultants.

Remember our vision

WNC companies can efficiently utilize the skilled expertise within the IEEE for:

- Unique design requirements for limited periods

- Trouble shooting of technical problems
- Proposal Development
- Strategic market and management strategies

Our substantial retired membership can provide a range of capabilities to support full engineering programs for local companies and the active membership could take advantage of the program opportunities to network and develop new employment opportunities.

WNC companies can benefit through the availability of a matrix of capabilities which they would not otherwise be able to afford. Smaller companies will be able to bring the full engineering capability aboard for a fixed duration, without long term commitments until the manufacturing revenues support the venture.

Awards

Senior Membership Upgrade - [Article by Fred Orland](#)

This is a good time to Upgrade to Senior Member Status. Get the recognition as a senior engineer with a minimum of 10 years experience.

- 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.

It is easy and there are no additional fees. I will assist you with the nomination. All I need is your resume. Contact Fred Orland at fredorland@ieee.org for questions and assistance. Need to have your nomination and resume sent to me by November 1 or sooner preferred.

For more information check the website at:

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

We continue to encourage members to apply for the rank of IEEE Senior Member. If you are interested, please contact Fred Orland at:

fredorland@ieee.org

IEEE ANNUAL ELECTIONS

Votes must be in by November 1, 2005. You can vote electronically at:

<https://www.directfote.net/ieee/>

or mail in your paper ballot you received in the mail.

There are 4 important IEEE level elections coming up before the end of this year.

1. IEEE President Elect: For more information check the website at:
http://www.ieee.org/portal/site/mainsite/menuitem.818c0c39e85ef176fb2275875bac26c8/index.jsp?&pName=corp_level1&path=corporate/elections&file=preselect.xml&xsl=generic.xsl

2. IEEE - USA: For more information check the website at
<http://www.ieeeusa.org/volunteers/elections/index.html>

3. IEEE Region 3 Director: For more information check the website at
http://www.ieee.org/portal/site/mainsite/menuitem.818c0c39e85ef176fb2275875bac26c8/index.jsp?&pName=corp_level1&path=corporate/elections&file=reg3.xml&xsl=generic.xsl

4. IEEE WNC Section will conduct the annual election of officers for the section during the November section meeting.
Please submit nominations by Oct 20th to our Nominations Chair: Bob Pettigrew at Email: robpet50@ieee.org

Dr. Robert Moog - Article by Fred Orland

Dr. Robert Moog passed away on August 21. He was a member of our IEEE section and it was an honor to be associated with a man of his exceptional talents, accomplishments and character. His impact in the music industry with his invention and development of the MOOG Synthesizer is a legacy that will live on. He is truly an inspiration as a man and as an engineer.

We thank him for a very interesting section meeting when he presented the historical development of his analog synthesizers and demonstrated the MINI-MOOG. With many major awards in his long illustrious career, Dr. Moog was selected this year as the IEEE Region 3 "Outstanding Engineer of the Year". Our Section is planning to present his "Outstanding Engineer Award" to his wife at the WNC Section November meeting

Dr. Robert Moog, Bob as he preferred, we will miss you. Our thoughts are with his family, going through this difficult time.

Submitted by:

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