
Eastern North Carolina Section Newsletter

November 2007



Splinters from the Chair

Roger Lawrence

It has been a good year thanks to all our chapter/special interest Chairs, our committee members, and volunteers. Thank you, members at large, for your participation in IEEE ENCS. Your support of this organization is much appreciated and we welcome your input. The quickest and easiest way to know what is going on is to visit our website <http://www.ewh.ieee.org/r3/enc/> where you will find scheduled meetings posted to the calendar. Remember to mouse-over and click the calendar entries to access the details of meetings. You can access information about our officers and membership information. You can even update your personal information or renew your membership there via a link to IEEE.

Congratulations to Grayson Randall who has received the

IEEE USA Citation of Honor for leadership that inspired pre-college and college engineering students in the area of robotics. Grayson works enthusiastically and tirelessly and the success of his efforts is described in this newsletter. We are proud to have him working with us in IEEE ENCS.

We are pleased to announce the formation of a new chapter: The Industrial Electronics Society Chapter under the leadership of Mo-Yuen Chow. Mo-Yuen has been chairman of the Computational Intelligence Society and has handed over this role to Le Xu. Thanks to Mo-Yuen for his excellent leadership of CI and also for his initiative in forming the new IES group.

Congratulations to Section members who have achieved elevation to Senior Membership.

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We are pleased to act as nominating sponsors for members interested in applying for Senior Membership. Thanks to Jim Ray and his team for their support. Details of requirements for Senior Membership may be found on our website and at www.ieee.org

There have been a variety of interesting meetings during 2007 covering diverse interests. Meetings have covered subjects that range from tax preparation, to understanding amplifier electromagnetic compatibility, to various aspects of designing embedded systems, and to electro technologies dealing with waste water. A presentation covering aspects of Amateur Radio was well received. As all engineers know, engineering technologies are not only useful but are absorbingly entertaining to boot.

The section has also been out and about this year. It was great to have the interest and support of those who attended the Computer and Technology Showcase in May. It was a valuable forum and well attended. I met a number of members and was pleased to renew contact with some folks we had not seen in a while.

The North Carolina Global TransPark Authority and Insight Racing invited the Section to Kinston to view the Lotus Elise Autonomous Vehicle. Those who missed this event were able to catch up with the progress being made on the DARPA

project at NCSU in September.

CP&L invited us to their Community Day Open House at the Harris Energy and Environmental Center. They hosted a successful and insightful day and offered good information as well as entertainment that appealed to all ages.

This year's family picnic at The North Carolina Museum of Science attracted the greatest member involvement at one event for the year. It was good to meet so many of you. 267 people attended and we all had a good time. The weather was hot, as always in July, but not too humid despite the rain storm the day before. There were many interesting things to do for all family members. Thanks to all those who volunteered to help out for this event. Special thanks are due to Lee Haas for his organizational part in this.

RENCI@NCSU hosted our Section Meeting for October. Their open house offered many of us hands-on experience and a taste of pushing back the frontiers of communication.

Our sincere thanks are due to Matt Horrer who has been our newsletter editor for a number of years. He kept us "on track" from quarter to quarter and we appreciate his diligence in this. Jim Ray has taken over and we welcome him to his new role. The newsletter purpose is to disseminate information and all members are welcome to contribute. We especially welcome general interest items

and technical input.

We also have a new Chair for our Social Committee. We welcome Clinton Banner to the role and look forward to his contribution to the Section.

We thank Walter Heger for his bioinformatics, health, and jobs special interest group contribution to IEEE ENCS and we wish him every good fortune in his relocation.

As we head into Thanksgiving and Christmas Holiday celebrations we at IEEE ENCS wish our members good health, happiness, success, and prosperity in their professional and personal lives. We hope to see more of you at meetings when time permits and we thank you for your continued participation in IEEE activities. I leave you with two actions to be undertaken when you receive this newsletter ...

Important things to do: the most important item to address at this time is the upcoming election of officers. Your nomination/voting form is included in this edition of the newsletter. Please vote.

Second item of importance and essential if your vote is to count is to ensure that your email address is current. Changes to contact information (and this includes email address) can only be made by you. To stay in contact with the organization update your contact information at www.ieee.org or use our website link to IEEE.

IEEE ENCS Nomination-Committee Chair, 2006-2007

Dave Ruden

Roger has done a terrific job as Section Chair, but it's time for our leadership to change up. We have many people contributing graciously to keeping the Section operating smoothly, but only 4 positions are filled by election from you, our membership. These 'section-officer' positions are: Chair, Vice-Chair, Treasurer, and Secretary.

Candidates are typically selected from the ongoing Section leadership based on their interests and abilities.

Mostly our officer elections are uncontested. This is an election, however, and professional contests are welcomed. Election 'turnout' (vote count) is generally very light, which is unfortunate given the quality of

membership we have in this Section. On the other hand, a light vote-count means your vote counts a great deal. So I urge you to exercise your voice and help us define the continuing course of the Section. The Election ballot can be found in this newsletter. Please Vote!

Ballot for IEEE Eastern NC Section Officers for 2008

Vote for one person for each position:

Chair:

Thomas Jepsen

Write-in _____

Vice Chair

Dev Palmer

Write-in _____

Secretary

Paul Goodson

Write-in _____

Treasurer

Jim Ray

Write-in _____

The following must be included to validate your ballot.

Name _____ Member Number _____

Ballots MUST be received by December 30, 2007

Robotics & Automation-Women In Engineering Demo

Mary Ellen Randall

The Robotics & Automation Chapter and the Women In Engineering Affinity Group hosted a demonstration of the Lone Wolf, a fully robotic Lotus Elise. The Lone Wolf demonstrated its sleek maneuvering to a crowd of over 300 spectators on September 21 in the McKimmons Center parking lot at NC State University. Young and old alike delighted as the Lone Wolf drove itself through the parking lot with no human intervention and no remote control. Spectators included middle school and high school robotics teams from Apex and Greensboro. The team developing the Lone Wolf is called Insight Racing (www.insightracing.org).

The Lotus Elise has been



specially equipped to compete in the DARPA (Defense Advanced Research Projects Agency) Urban Challenge. The Urban Challenge is the 3rd in a series of robotic Grand Challenge races sponsored by the Depart-

ment of Defense to encourage development of autonomous vehicle control. Designed to meet a congressional mandate that one-third of the United State's military vehicles will be capable of autonomous driving by 2015, the Urban Challenge will take place on November 3, 2007 in Victorville, California. The team of competitors has been narrowed to 36 from the original 89 contenders. The next step in the competition is the National Qualification even on October 26-31, also at Victorville. Insight Racing's Lone Wolf is one of the 36 remaining contenders.

The Urban Challenge is not the only purpose for the Lone Wolf. The team hopes it will inspire students to study engineering. "We are delighted to have so many young students come out to view our fully autonomous Lotus," said Grayson Randall,



founder and team leader for Insight Racing. “We hope to show our future engineers that there is no limit to what they can do or imagine.” When asked what is left to be done before the race, team members said that they were completing some final hardware and software changes and planned extensive testing before leaving for California.

Interested IEEE members can view the Urban Challenge through a link on Insight Racing’s web site www.insightracing.org.

About Insight Racing: Insight Racing is a robotic vehicle racing team sponsored by NC State University, Lotus Engineering, Insight Technologies, The Advanced Vehicle Research Center, SAS, Northrop Grumman, NC CAR, Control Corporation, Smith Anderson, Ascot Technologies, Auto Europe, BDMICRO LLC, PC MedEvac, Tekelec, Automation Direct, Cinnamon Peripherals, DataWatt Solutions, NC Global TransPark, Four Brothers Auto, gridconnect, Lotus of Durham, Novatel, OmniSTAR, PEAK system technik, Revware, Sanford Lee County Regional Airport, Yokohama Tires, Four Brothers Auto and Henry’s Muffler Shop. More information can be found at www.insightracing.org or email walt@insightracing.org.

About the DARPA Urban Challenge: The DARPA Urban Challenge race is the third in a series of Grand Challenges. It has captured international attention because this driverless vehicle race stretches the limits of current technology know-how. Detailed information can be found at ww.grandchallenge.org.



Understanding the West Antarctic Ice Sheet from Space Distinguished Lecture and STELLA Training

By Linda Hayden

The Spring 2007 IEEE-GRSS Distinguished Lecture Series was held in the Center of Excellence in Remote Sensing Education and Research (CERSER) on Tuesday March 20, 2007. Dr. Robert Bindshadler's presentation title was "Understanding the West Antarctic Ice Sheet from Space: Beyond Dogsleds and Frozen Toes."

Dr. Bindshadler is the Chief Scientist of the NASA's Hydro-spheric and Biospheric Sciences Laboratory, a Senior Fellow of the Goddard Space Flight Center, a Fellow of the American Geophysical Union and a past President of the International Glaciological Society. He maintains an active interest in the

dynamics of glaciers and ice sheets, primarily on Earth, investigating how remote sensing can be used to improve our understanding of the role of ice in the Earth's climate.

As the leader of thirteen Antarctic field expeditions he has extensive first-hand knowledge of the hazards and challenges of working in the Antarctic environment. Other research has taken him to Greenland and various glaciers throughout the world. During his 27 years at Goddard, he has developed numerous unique applications of remote sensing data for glaciological research including measuring ice velocity and elevation using both visible and radar imagery, monitoring melt of the

ice sheet by microwave emissions, and detecting changes in ice-sheet volume by repeat space-borne radar altimetry.

He has testified before Congress and briefed the U.S. Vice President on the issue of ice-sheet stability and served on many scientific commissions and study groups as an expert in glaciology and remote sensing of ice. He has published over 140 scientific papers and numerous review articles.

The distinguished lecture by Dr. Bindshadler focused on the how West Antarctic ice sheet continues to be a climatic wild card in scientists' attempts to predict the future of the planet. The mystery rests as much on what we do know about ice sheets as what we don't know. The West Antarctic ice sheet rests on a bed below sea level where ice-free periods have layered a bed of thick marine ooze. Ice can, and does, slide rapidly on this slippery material. All other ice sheets of this type have slid back into the ocean, raising sea level over 100 meters. Will the West Antarctic ice sheet be the last to go? If it happens as rapidly as its icy kin disappeared, a potential 5-meter increase in sea level around the globe could occur fast enough to cause widespread economic and ecological damage. Others have argued that the West Antarctic



Faculty participants in the STELLA training and the distinguished lecture are shown with Dr. Cameron Wake, Dr. Linda Hayden and Dr. Robert Bindshadler.

ice sheet is uniquely stable pointing to its persistence in our warm climate.

The study of the peculiar case of West Antarctica has been full of fascinating discoveries. These have come through a combination of wearying field work in a hostile environment, intense scrutiny from a vast stable of satellite sensors and complex numerical models. Remote sensing data are used for everything from making better maps of field areas, to quantifying surface elevations and velocities. Detailed imagery also allows us to detect surface features that record past flow directions. Twenty-five years of concentrated research have revealed a multifaceted dynamic system that responds to what falls on it, what it rests on and what it must push against. The ice sheet is changing constantly and is a collage of different basins all behaving with a high degree of independence.

The Lectures Series was preceded by a meeting of the Northeastern North Carolina Chapter of the IEEE Geoscience and Remote Sensing Society (GRSS) and a training workshop on STELLAR for faculty from 6 universities. STELLAR is a software package for building and simulating models of dynamic systems and processes. Using a set of building block icons, the developer can construct a map of a process or issue of any kind. This allows the user a practical way to dynam-

ically visualize and communicate how complex systems and ideas really work. Dr. George Hurtt and Dr. Cameron Wake of the University of New Hampshire

led faculty members on an introductory workshop on utilizing STELLAR and how to implement it in the classroom.



Dr. Robert Bindschadler is shown with Kaiem Frink a junior CS major at ECSU. Dr. William Porter, Vice President of the Eastern North Carolina GRSS chapter is shown in the background.



Dr. George Hurtt is shown with faculty members during STELLAR training workshop.

IEEE ENCS October 18, 2007 Meeting

Theresa-Marie Rhyne

The October 18, 2007 meeting of the IEEE Eastern North Carolina Section featured an open house of the Renaissance Computing Institute's Engagement Facility at North Carolina State University (RENCI@NCSU).

RENCI@NCSU is located in Suite 1500 of the Partners I Building on NC State University's Centennial Campus. Attendees had the opportunity to see interactive three dimensional graphics on a 14 feet wide by 8 feet high visualization display wall, examine state of the art video and sound editing tools

for producing animations, and communicate via the Access Grid to researchers at a remote site. Dr. Mo-Yuen Chow, Professor of Electrical and Computer Engineering and his research team, located at another site on NC State University's Centennial Campus, used the Access Grid to show current research in networked based distributed control to attendees. For more information on RENCI@NCSU see:

<http://www.renci.org/about/ncsu.php>. Over 30 IEEE ENCS members and guests enjoyed this event.



Attendees of the RENCI@NCSU Open House watching and listening to Dr. Chow's presentation.

ComSoc and EMBS Members hear Presentation on IPv6

Thomas C. Jepsen

A joint meeting of the Communications Society chapter and the Engineering in Medicine and Biology Society was held on October 23 at the MCNC Auditorium. The speaker was Dr. Ciprian Popoviciu, CCIE, a Technical Leader at Cisco Systems. Dr. Popoviciu brought us up to date on what is happening with the long-anticipated upgrade to IPv6. As most of us know, IPv4 has an address space limitation of approximately 4 billion addresses - less than the number of people on earth at present. IPv6 solves the address space problem, and provides a number of other desirable features. While it was originally believed that address

space would run out around 1997, a number of advanced techniques, such as Network Address Translation (NAT), have extended the use of the IPv4 addressing scheme. However, in the United States, the Department of Defense (DoD) and the Office of Management and Budget (OMB) have mandated the use of IPv6 in all federally contracted projects by June 2008. This has created a new sense of urgency in switching over to the new format for many businesses.

IPv6 has the potential for use in healthcare IT applications. One is in networking home healthcare devices and sensors. IPv6 enables "ad hoc" network-

ing as well as the standard DNS lookup for network connectivity. Plans for implementing the National Health Information Network (NHIN) in the U.S. must also support IPv6.

Dr Popoviciu's excellent presentation provoked a number of questions and extended discussions after the meeting. We look forward to many more such meetings in the next year!

submitted by Thomas C.

Jepsen

Chapter Chair, IEEE ENCS Communications Society Chapter Chair, IEEE ENCS Engineering in Medicine and Biology Society tjepsen@ieee.org

Eastern NC Section Awards

Can you think of a colleague that deserves recognition by our section? If so, please take a few minutes to nominate that person by visiting our section nomination page <http://ewh.ieee.org/r3/enc/awards.htm>

OUTSTANDING ENGINEER

To recognize an engineer who, through technical and professional abilities, has made an outstanding contribution to the electrotechnology profession.

OUTSTANDING SERVICE

To recognize one who, by service, has made an outstanding contribution to the electrotechnology profession.

OUTSTANDING ENGINEERING EDUCATOR

To recognize an educator who has shared technical and professional abilities through teaching in industry, government, or in an institution of higher learning and in so doing has made an outstanding contribution to the electrotechnology profession.

ADDITIONAL SECTION AWARDS

Our section would also be pleased to receive nominations for the following section awards:

- Entrepreneur of the Year
- Inventor of the Year
- Author of the Year
- Star of Yesteryears
- Volunteer of the Year
- Chairman's Service

You may make a nomination for any of these awards by email to Lee Haas, eelee@ieee.org. Please choose one of the above three nomination formats and provide the information you judge appropriate for the award type. Be sure to indicate the title of award for which you are making the nomination.

IEEE-USA Awards

IEEE-USA award recipients are recognized for their professionalism and technical achievements, as well as literary contributions to public awareness and understanding of the engineering profession in the United States. IEEE-USA's distinguished awards are administered under its Awards and Recognition Committee and approved by the IEEE-USA Board of Directors. The nomination deadline for 2007 awards is 31 August, 2007. For additional information, go to <http://www.ieeeusa.org/volunteers/committees/awards/>, or contact Sandra Kim at sandra.kim@ieee.org. For more on the 2007 IEEE-USA Annual Meeting, see <http://www.ieeeusa.org/calendar/conferences/2007annualmeeting/default.asp>.

Here's the complete list of 2006 IEEE-USA award recipients:

CITATION OF HONOR

Donald C. Herres

For tireless efforts in professional activities, including career and workforce workshops

Grayson W. Randall

For leadership that inspired precollege and college engineering students in the area of robotics



REGIONAL PROFESSIONAL LEADERSHIP

Carl L. Hussey (Region 3)

For promoting PACE activities in Region 3

James Jefferies (Region 5)

For promoting the value of electrical engineering to Colorado legislators and the general public

PROFESSIONAL ACHIEVEMENT

Reza Adhami

For leadership in building collaborative relationships between industry and academia

Donald C. Loughry

For inspiring retired engineers to support science education in local schools by leadership and example

Maura Schreier-Fleming

For promoting community awareness of the practice of engineering

DISTINGUISHED LITERARY CONTRIBUTIONS FURTHERING PUBLIC UNDERSTANDING OF THE PROFESSION

*WESH-TV Channel 2 News team: Dan Billow, Travis J. Sherwin, Tom Schaad
and Claire Metz*

For accurate reporting in the “Return to Flight” series, which improved community awareness and understanding of the contributions of engineers in the space program

Paula S. Apsell

For long-term efforts in promoting the understanding of science and engineering through NOVA programs

PRECOLLEGE EDUCATION COMMITTEE TEACHER-ENGINEER PARTNERSHIP

Renato Recio and Joy Huebel

For collaborative, long-term promotion of technological education at River Oaks Elementary School

DISTINGUISHED PUBLIC SERVICE

William B. Bonvillian & David J. Goldston

For outstanding support of science and technology-related legislation and policy in the U.S. Congress

IEEE-USA advances the public good and promotes the careers and public policy interests of more than 220,000 engineers, scientists and allied professionals who are U.S. members of the IEEE. IEEE-USA is part of the IEEE, the world's largest technical professional society with 360,000 members in 150 countries. See <http://www.ieeeusa.org>.

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Contact: Chris McManes

IEEE-USA Senior Public Relations Coordinator

Phone: + 1 202 530-8356

E-Mail: c.mcmanes@ieee.org

IEEE ENCS Past-Chair, 2006-2007

Dave Ruden

Greetings to all, it's great to be able to say hello again. I've been asked to give a brief comment on the position of Past Chair, which I currently hold. After sitting as Chair for the Section, I automatically take on the role of Past-Chair for during the tenure of the next Chair.

It has been really great to be able to continue working with Roger to help with Section operations. The role of the Past-Chair is fairly light, and affords some flexibility in what to

do. The few formal responsibilities are to provide guidance and help to the current Section Chair during the course of his/her term; and towards the end of the Chair's term, I develop a recommended list for the follow-on elected leadership.

It has been highly rewarding, personally, to be able to offer my help to fill in where it was needed most, and to provide insightful input on a few occasions based on my previous experience as Chair. Roger is a

wonderfully enthusiastic individual and has given the Section great leadership over the past two years - as has everyone else on the Section's Executive-Committee. It's occasionally difficult planning and logistics, but when we meet up with you all at our meetings and picnics, it is a great satisfaction. And working with this group of volunteers has been a great satisfaction to me.

Student Activities Chair

Bart Greene

The future of our organization is in the awareness of engineering students of the IEEE and the value it holds throughout their careers. Our main activity is in raising awareness on campuses with engineering and technical programs through reinvigorating dormant Student Branches and establishing branches where none exists.

We feel participation in design contests is a great draw to students that would not other-

wise be engaged with a Student Branch and the region has made monies available for funding costs associated with IEEE design competitions such as those held at SoutheastCon every year. We have seen increased activities at Duke and NC State in SoutheastCon competition and would like to leverage that experience into other Student Branches in the region.

The IEEE has an established a Mentor program whereby IEEE members can participate in and provide guidance to IEEE Student Branches. Often Mentors can provide a sense of continuity and direction to a Student Branch that has that "practicing engineer" perspective that is so important to students. We hope to expand the mentoring program at region Student Branches in the future.

Embedded Systems Group

Steve Lund • slund-ieee "at" pobox "dot" com.

This is the last column that I will be writing as the chair of the Embedded Systems Group. After almost five years of involvement I have decided that it is time to make room for some fresh leadership and new ideas that will allow the group to

continue to grow and prosper. I am not ending my involvement with the group but will be transitioning to more of an advisory role.

I would like to take this opportunity to reflect on our accomplishments and to recog-

nize the individuals that helped to make them happen. My original vision for the group was to create a local community of embedded systems professionals in the RTP. In the years since the group has grown by continuing to add value for our members by

servicing as a focal point for networking and technical presentations on embedded system topics. By all accounts the group has been a resounding success!

This success didn't happen without a lot of hard work by dedicated volunteers. Eve Barkley was responsible for our original print publicity to spread the word about the group. She also planned and implemented a successful 8th grade education outreach project in conjunction with the Morehead Planetarium. As hospitality coordinator, Lori Harwood, made sure that we had refreshments at the meetings and that our chocolate level never got too low. Lori was also responsible for arranging and presenting several of our programs. As well as arranging programs, Mike Rollins, our facilities coordinator, always made sure that we had a place to have our meetings.

Upcoming Programs

Introduction and Overview of Rate-Monotonic Analysis and Scheduling (RMA, RMS)

Dr. James Anderson, Computer Science, UNC

DATE: Monday, January 28th

TIME: 6:00 P.M. Social, 6:30 P.M Program

LOCATION: MCNC (3021 Cornwallis Rd),

DIRECTIONS: <http://www.ieee-embedded.org/>

Refreshments supplied courtesy of Emily Vlokojan at Aerotek CE (www.aerotek.com).

Applied typically to embedded real-time software but applicable in many areas, the rate-monotonic scheduling algorithm was first studied by Liu and Layland in 1973. This algorithm is noteworthy because it is optimal among static-priority schemes

Alan Porter was responsible for our electronic publicity, procured a domain, and maintained a web site for the group. Alan also arranged and presented several programs. Bob Michael often served as secretary at our steering committee meetings and was responsible for arranging several programs. Tony McCullough has been our connection to the vendor community and as such has arranged several programs. Last but surely not least I would like to recognize Dave Ruden and Charles Lord for the continuing support of the ENC Section of IEEE without which this group would not have been possible.

This group has been able to accomplish what it has over the years because of dedicated volunteers such as these. In the coming months there may be volunteer opportunities created as some of these folks scale

back their involvement with the group. Please consider volunteering your time to your profession for the good of the group.

Come January the group will be in the very capable hands of Charles Lord. Many of you already know Charles through his many years of exemplary service to the IEEE. I am honored to have him as a successor. I am confident that his proven leadership abilities will lead the group to even greater accomplishments.

The Embedded Systems Group is always looking to expand its base. If you or if you know of anyone who might be interested in our group you can find out more information at our web page at: <http://www.ieee-embedded.org>. You can also join us at our virtual community here: <https://www.ieee-communities.org/embedded>.

for scheduling independent, periodic real-time task systems on uniprocessor platforms. Liu and Layland's work was later extended in a variety of ways, resulting in a body of analysis methods capable of handling such complexities as shared

resources and workloads subject to jitter (among many other things). The resulting collection of techniques, known as rate-monotonic analysis, has been applied in a variety of settings. In this talk, an over-

view of rate-monotonic analysis will be given.

James H. Anderson is a professor in the Department of Computer Science at the University of North Carolina at Chapel Hill. He received a B.S. degree in Computer Science from Michigan State University in 1982, an M.S. degree in Computer Science from Purdue University in 1983, and a Ph.D. degree in Computer Sciences

from the University of Texas at Austin in 1990. In 1995, Dr. Anderson received the U.S. Army Research Office Young Investigator Award, and in 1996, he was named Alfred P. Sloan Research Fellow. He won the Computer Science Department's teaching award in 1995, 2002, and 2005. He has served as program chair and general chair of both the Annual ACM Symposium on Principles

of Distributed Computing and the IEEE International Real-Time Systems Symposium. He has also served as program chair for the International Conference on Principles of Distributed Systems. Dr. Anderson's main research interests are within the areas of concurrent and distributed computing, and real-time systems.

IEEE IAS PES Section Update

Roger Lawrence

The IAS/PES welcomes Siri Varadan of KEMA as our new Vice Chair. We are in the process of planning our future chapter meetings. If you would like to be part of our organizational sessions and included on the e-mail distribution please let me know. All members are invited to attend these sessions and meeting notices are posted to the calendar. The next meeting is 29 November at NCSU.

Come along if you are able.

Watch out for your invitation to complete a survey designed to poll members for their interests. Your responses to this will help direct the content for future meetings.

We like to draw on local talent and expertise and we are always pleased to have members make presentations to the Chapter or to the Section. John Lindberg of UNC Chapel Hill gave us an

excellent presentation about his first hand knowledge of SCADA System design. Students from NCSU described their experiences in designing and operating their autonomous underwater vehicle. Please share your personal expertise and subject knowledge with us all by volunteering to speak or by recommending speakers.

Women In Engineering Affinity Group

Jana Jenkins

The IEEE Women In Engineering Affinity Group would like to encourage all IEEE and WIE members to sign up to volunteer or judge at the FIRST Lego League Tournament. The tournament will be held at Greensboro Coliseum, on Saturday, December 1st, 2007, from 8am to 6pm. Judges will be grouped into four areas: technical, teamwork, research project,

and "roaming." Currently, there are 75 FIRST Lego League Tournament teams registered - so volunteers are needed. If you are interested in volunteering, please contact WIE Affinity Group Chair, Jana Jenkins at jjenkins@synergeticdesign.com or FIRST Lego League Judge Advisor, Michelle Eichhorn at eichhorn@aol.com For more information about the FIRST

Lego League Tournament, check out their website at www.usfirst.org

Signal Processing Chapter

Joel Trussell

The Signal Processing Chapter of the Eastern NC Section was officially formed in July 2004.

The goal is to promote exchange of signal processing ideas and the interaction of people in the technology rich area of the Research Triangle. Since that time we have had several technical meetings to highlight

the work done in the Triangle Area. Local speakers included Joel Trussell, Larry Carin, Jeff Krolick, Dave Strube and Jerry Viviano. In addition, we have taken advantage of the IEEE Signal Processing Society's policy of supporting visits by distinguished lecturers. Among the visiting Distinguished Lectur-

ers are Ron Schafer, Bob Gray, Ali Sayed, Juan Cousseau and John Hansen. We welcome participation in the planning of future events and the submission of ideas for new and innovative programs. Contact Chapter Chair: Joel Trussell, hjt@ncsu.edu.

Bioinformatics, Health and Jobs Interest Group

Bioinformatics, Health and Jobs Interest Group in RDU is aimed at keeping up with science aspects of bioinformatics and trying to leverage that towards the goals of finding a job, largely through networking and meeting other attendees. Most of our meeting consisted of crashing Duke University's seminars held at Mondays, 11 am - 12pm

147 Nanaline Duke Bldg.

Duke University

Durham, NC

<http://www.genome.duke.edu/CBB/compbioseminar>

By browsing the flyers at Duke, we will learn about other meetings in RTP, NCSU and UNC.

Our primary dissemination mechanism was the listserver: ieee-bhpjobs@rtpnet.org

Employment Committee Interest Group

Harold Meder

Weekly events newsletter. If you are interested in subscribing, you can do so at

<http://rtpnet.org/mailman/listinfo/ieee-jhc>

Attention Unemployed Members

Did you know IEEE provides a 50% reduction in dues for unemployed members? Contact IEEE for more details.

Contact IEEE Member Services at:

Telephone:

+1 800 678 4333 (USA & Canada)

+1 732 981 0060 (Worldwide)

Fax:

+1 732 562 5445

Online:

IEEE Jobs Page

<http://www.ieee.org/jobs>

Mail:

445 Hoes Lane

P.O. Box 1331

Piscataway, NJ 08855-1331

IEEE Membership Development

Jim Ray

Instructions and Links for Senior Member Promotion

Thank you for embarking on your senior membership application. The IEEE Eastern North Carolina Section (ENCS) will nominate you and guide you through the process. We can connect you with senior or fellow member references once you have completed your resume and submitted it to our membership chair, Jim Ray jim@neuse.net

Read all descriptions and requirements. Ask for clarification if anything is unclear.

Be sure to document at least 10 years electrical engineering experience and at least 5 years of significant performance in your resume. Senior member applicants are given “credit” for their educational years:

- ✓ 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

To clarify, one cannot claim credit for working during the school years AND the school year criteria. Technical writers, managers, IT folks and many other professionals are eligible for IEEE Membership and Senior Membership.

The panel is looking for increasing levels of experience and responsibility. Be sure to clearly state timeframes on your significant and professional experience, as well as educational years.

Include the following in a clearly documented resume (use these subheadings as a guide):

- ✓ Name, title and position held
- ✓ Education school(s), dates, and degree level
- ✓ Professional affiliations
- ✓ Work history with dates and accomplishments
- ✓ IEEE volunteer responsibilities (if any)
- ✓ Technical articles, publications and/or patents (if any)

Links

Visit our section web site for all pertinent links.

<http://www.ieee.org/enc>

Nomination Information

- ✓ Nominator's Name: Jim Ray
- ✓ Nominator's Member#: 04609491
- ✓ Nominating Section or Society: IEEE Eastern North Carolina Section
- ✓ Nominator's Membership Grade: Senior Member
- ✓ Nominator's Email: jim@neuse.net

SAMIEEE Training Invitation

Vera Sharoff

As most of you are aware, IEEE launched a new Business Management System (BMS) in August of this year. Along with this new system comes an exciting change for the SAMIEEE program. Business Objects, the ad-hoc data query tool previously used for

SAMIEEE has been replaced with a new tool called Analytics. The existing tool will be available until 31 December 2007. Keep in mind, the most up-to-date information is only available in the new system.

In order to prepare you for the transition to SAMIEEE

Analytics we will be offering training for all users. Training will be offered in two ways. 1. Attending an online, instructor led, Internet Conference or 2. Using OnDemand, a self-paced learning tool that allows you to watch and practice in a simulated environment and even test

your knowledge. Users can go through the OnDemand lessons at their individual pace and at times that would meet their busy schedules.

You may even opt for a bit of both – join the Internet Conference for 15 or so minutes then use the OnDemand module on your own. Classes are offered at different times to accommodate

different time zones and user requests.

Register for training at:
<http://ewh.ieee.org/BMS/register-ou-bms.html>

The link for the OnDemand training module can be found on the SAMIEEE website at:

<http://www.ieee.org/organizations/vols/samieee/samieee-analytics.html>

Looking forward to your participation!

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Calendar

As always, the latest calendar information can be found on our website. <http://www.ieee.org/encs>, select "Calendar"

8 November 2007: CERSER Distinguished Lecture, Dr. Derrick Lampkin

*10 November 2007: TIME IS GETTING SHORT. TAKE ACTION NOW
to register and attend 10 November Seminar: "How to be a Successful Consultant and Get in on a Booming Market". Dr. Gary Blank*

*15 November 2007: Dr Ralph W. Wyndrum, Jr., CEO, IEEE-USA Innovation Institute and 2006 IEEE-USA President
will make a presentation at the Section Meeting.
Come along and take part in discussion.*

*29 November: PES/IAS Adcom Meeting
Committee members and members at large are welcome*

*1 December 2007: First Lego League Tournament.
Thanks to IEEE volunteers who are helping with this event in Greensboro, NC*

*6 December 2007: Planning is underway for PES/IAS Meeting on Solar Power.
Watch the calendar for developments*

*28 January 2008: Embedded Systems - Introduction and Overview of Rate-Monotonic Analysis and Scheduling (RMA, RMS)
Dr. James Anderson, Computer Science, UNC - TIME: 6:00 P.M. Social, 6:30 P.M Program - LOCATION:
MCNC (3021 Cornwallis Rd)
<http://www.ieee-embedded.org>*

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