

April 2004

Volume 39, Number 4

## The Chair's Corner

Mary Ellen Randall

Dear IEEE members,

SoutheastCon 2004 is a recent memory, but a pleasant one. Our IEEE Region 3, which includes the Southeastern USA, holds its business meeting in conjunction with that conference. It is a pleasure to report that Region 3 and the North Carolina Council have endorsed our Technology For Life Conference and have committed \$6000 in seed money at that meeting.

Tom Jepson, Conference Chair, did an outstanding job in presenting the conference plan. He demonstrated the relevant content and committee support, showing we are well prepared to host this exciting conference. Thank you Tom, and his committee for a job well done!

We also identified a number of sources of additional funding for our section for Special Projects and Distinguished Lectures.

We are one of the largest sections in our region with nearly 3400 members, 11 Chapters, 2 Affinity Groups, 2 subsections, and 2 Job Hunt Collaboration Groups. As such, we held several meetings per month last year for the benefit of our members. We welcome your input and participation.

*Best Wishes for continued success!*



Mary Ellen Randall  
Chair  
Eastern NC Section  
merandall@ieee.org

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### Election Results are In!

The votes are counted and the results are official. The officers for the IEEE Eastern NC Section are:

**Chair: Mary Ellen Randall**

**Vice Chair: David Ruden**

**Secretary: Thomas Jepsen**

**Treasurer: Roger Lawrence**

## Job Hunt Collaborations

**Harold Meder**

Job Hunt Collaboration (JHC) activity is growing. Help is needed to succeed. If you would like to help your peers succeed, please contact Harold Meder <hwm@ieee.org>.

### Networking Newsletter

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

Networking is the corner stone of hunting for job opportunities in the current economy. Towards this end, it is important to keep an eye on the regular IEEE meetings as well as other networking opportunities in the area. To help keep track of the networking opportunities coming up, a weekly email is distributed. To share information about upcoming events, please forward information to <<mailto:ieee-jhc-owner@rtpnet.org>>.

### Job Board

<[www.federal-systems.com/scrubs/discus/show.cgi?9/9](http://www.federal-systems.com/scrubs/discus/show.cgi?9/9)>

Very slowly, the ENCS IEEE Job Board is starting to have some activity. The Jobs that are getting posted here are few, but of high quality. I.E., they represent real opportunities where someone will be brought in from outside the hiring organization. If you are aware of a Job opportunity, please post it. The process is very easy. Help is needed here to communicate with the hiring organizations to ensure that they have a positive experience.

### Biotech, Health, Pharmaceuticals JHC

<<http://www.federal-systems.com/discus/messages/8/122.html>>  
<<https://www.ieeecommunities.org/encs?go=z982541>>  
<<http://rtpnet.org/mailman/listinfo/ieee-bhjobs>>

Esther Lumsdon is leading this group in seeking opportunities to transition careers into these growing industries. Meetings are scheduled for the fourth Monday of each month for networking and presentations by people already working in these industries.

### Java Software Development Workshop

<<http://www.federal-systems.com/scrubs/discus/show.cgi?8/472>>

The Software Developers JHC has started a workshop to help its members gain new skills and experience to add to their resume. Whether you are just learning Java or are trying to balance on the bleeding edge, there is a study group for you.

- Java Applications & Applets
- Servlets & JSP
- Struts & Java Server Faces

### Electrical Engineering JHC

<[http://ewh.ieee.org/r3/enc/ee\\_jhc.htm](http://ewh.ieee.org/r3/enc/ee_jhc.htm)>

We are in the process of growing an Electrical Engineering Job Hunt Collaboration group. Some people have been participating in the ENCS IEEE Embedded Systems Special Interest Group and Professional Development Institute, but we need to build a group to help our members better. Please contact Charles Lord at [c.j.lord@ieee.org](mailto:c.j.lord@ieee.org) and let him know what your challenges are, what you would like to see our section do to help, and how you can help. Ideas to get started include networking events with engineering managers and HR folks, training in new skills, and coordination with existing services and groups that our members may not know about. **Let's get started!**

## 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](http://www.ieee.org/jobs)

Mail:

445 Hoes Lane  
P.O. Box 1331  
Piscataway, NJ 08855-1331

### Stay Connected

Spend less time worrying and more time communicating with an IEEE Email Alias. An @ieee.org email address shows you're a part of a community of innovators. The IEEE Email Alias gives you an @ieee.org address while forwarding mail to your real account - and scanning for viruses at the same time. Over 380,000 virus blocked last year alone! It's free with your IEEE membership. Sign up today at [www.ieee.org/alias](http://www.ieee.org/alias)

### Local High Schoolers in Regional Robotic Challenge

*Chris Siegl, K-12 Activities Chair*

Explorer Post 350, an Engineering and Technology Career Post sponsored by Lord Corporation in Cary NC, entered the IEEE SoutheastCon 2004 pre-college robot competition about six weeks ago. They were off to a late start but made up it with a very enthusiastic team. A two legged robot had to be built from a kit of parts and had to walk 6 feet, stepping over hurdles on the way. The team was assisted by advisors Chris Siegl, Michael Siegl, Ken Boone and JP Haung.

This was a difficult change in itself. In addition the team had to write a written report on their design effort, decorate the robot with a "skin" and make an oral presentation to a group of judges on their project.

The competition was entered by 9 teams but only 5 were able to compete. One team even came from Kentucky.

The robot "Psychotic Wabbit" got quite a workout in the competition, there were some problems but they were solved.



Here is the "Wabbit" at the starting line.

The judges were very pleased with the teams performance in the oral presentation, which included a PC graphics video, and awarded them first place for that portion of the competition.



**Congratulations to Brendan, Jeffrey and David (left to right).**


  
**Mark your calendar!**  
**IEEE SoutheastCon 2005**  
 April 8-10, 2005  
 Fort Lauderdale Marina Marriott  
 Fort Lauderdale, Florida  
  
[www.southeastcon.org](http://www.southeastcon.org)

## Charles Lord Receives National Award



Charles Lord, who is our PACE chair and also holds various Region 3 IEEE positions, was recently awarded the IEEE USA Citation of Honor. The Citation of Honor is to honor members who have made exemplary contributions toward achieving the aims of professional activities in the United States. Charles was cited "For Leadership training at various forums in IEEE-USA, mentoring several young leaders and engineers, and sharing his experience by starting a Professional Development Institute." This is a prestigious national award. It was awarded at the IEEE-USA Leadership Conference in Atlanta on March 20.

We are very proud to have Charles assisting our section. Charles holds a Professional Development Workshop every month for our local membership. Great work, Charles!

## Robotics and Automation News

**Grayson Randall**

**Robotics and Automation Chapter Chair**

The recent Robotics and Automation meeting on March 25, was a survey of robotics programs in the Triangle, including a report on the local DARPA Grand Challenge Team [www.insightracing.org](http://www.insightracing.org)

### JUDGES NEEDED:

The state finals for Science Olympiad will be held at NCSU on April 23 and 24. They need 10 judges to cover 2 different robotics events on Saturday April 24th from 8:30 to 3:00. No experience required. This

is a fun competition that will allow you to see all the robots created by the high school students. We will be inspecting, timing, and scoring the events.

Please contact Grayson Randall at [g.randall@ieee.org](mailto:g.randall@ieee.org) or 919-254-4517 if you can help out. It is a lot of fun to work with the students!

## Attention Members in the Greenville / Wilson / Elizabeth City Areas

We are making an effort to re-vitalize our inactive Greenville Subsection. This includes all members in the northeast corner of the state, including the Outer Banks. If you are interested in helping with this effort and possibly taking a leadership role in this effort, please contact Charles Lord at [c.j.lord@ieee.org](mailto:c.j.lord@ieee.org). We hope to have an organizational meeting in the next month or so.

## Announcing New Training Initiative

Esther Lumsdon

IEEE Biotech/Health/Pharma Job Hunt Collaboration

Starting April 26, Manpower of NC and Greenwood CVR will offer a 5-class series to our group. There will be a fee (amount TBD). I hope to have web registration for the fees.

The fee will cover the expenses for these classes - food, handouts + binders, room rental and building security. The plan is to begin Monday, April 26 (6:30-8:30pm), and run for 5 weeks (5 consecutive Monday nights). Then take a break, and run the 5 weeks again (for people who miss some sessions). The person from Manpower and Greenwood CVR was involved in the FDA Regulations elective offered at TechEngage in August 2003, and these classes will cover some of that same material. The per-class fee will be less for people who sign up for the 5-class series than for people who sign up for fewer sessions. Class dates will be April 26, May 3, May 10, May 17, and May 24.

Courses will be taught by leading area managers or consultants. These are "real world" people with the true hands on knowledge of the FDA regulations. Great opportunity to learn more about the various industry needs and get first hands knowledge on what it will take to make this transition.

*(continued on next page)*

## Training Initiative

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The topics are introductory, geared to computer-type people with no background in Pharma. Some of these topics are available for less money (and more time in class) via the community college BioWork program. The topics are meant to target transitions into these sorts of jobs:

- Technical Writer (biotech/pharma)
- Medical device testing (software or hardware)
- Computer Validation Engineer (related to 21 CFR Part 11)
- Possibly entry-level data management job, like Clinical Data Associate II

Planned Topics:

- cGMP Overview
- Documentation/SOPs
- Part 11 overview
- Validation (computer system, not chemistry/process)
- Data management or GMP manufacturing overview

Questions for the Group (please send comments to esther\_L@ieee.org):

- Are the planned topics of interest?
- Please tell me your background. Are you [Tech writer / Programmer / Hardware engineer / Software tester]? Any ISO 9000 experience/training?
- The fee. I would like feedback on \$25/class, \$35/class, and \$50/class fees. Each class will be 2 hours.

***All of these plans are subject to change.***

Please pass this along to anyone else who might be interested in learning more about the FDA regulated industry!

Job networking opportunities weekly newsletter at:  
<http://rtpnet.org/mailman/listinfo/ieee-jhc>  
 Group mailing list: <http://rtpnet.org/mailman/listinfo/ieee-bhpjobs>

Esther Lumsdon, RAC  
 esther\_L@ieee.org  
 Chair of IEEE ENCS Biotech/Health/Pharma Job  
 Hunt Collaboration

## "Technology For Life" Conference Receives Sponsorship Approval from IEEE

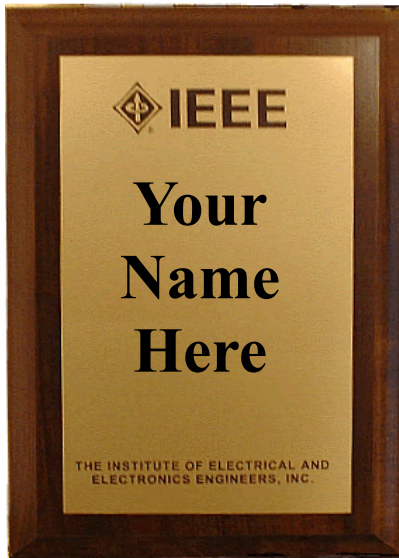
The Eastern North Carolina Section's proposed conference, "Technology For Life: North Carolina Symposium on Biotechnology and Bioinformatics," has received approval for sponsorship and funding from several IEEE entities in the last few weeks. On March 18, we received word that we had received approval for financial co-sponsorship from the IEEE Communications Society. We also received endorsements and sponsorship from the North Carolina Council and Region 3 at the Region 3 meeting held in Greensboro, NC, over the weekend of March 26-28 as part of the SoutheastCon Conference. The North Carolina Council agreed to not only endorse our conference as a North Carolina Symposium, but to provide 10 percent financial sponsorship as well. The Region 3 Conference Committee made a recommendation to the Region 3 Executive Committee to sponsor the conference, which was voted on and approved at the meeting.



***Thomas Jepsen, pictured above, presents our section's proposal to the Region 3 Committee in Greensboro***

This sponsorship, in the form of loans to help finance conference arrangements, gives us the "green light" to go ahead with conference planning. We look forward to a successful and productive "Tech4Life" symposium in October! For more information on the conference, contact the Conference Chair, Tom Jepsen, at [tjepsen@ieee.org](mailto:tjepsen@ieee.org).

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

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

**OUTSTANDING ENGINEERING EDUCATOR AWARD** 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 Award

You may make a nomination for any of these awards

by email to Lee Haas, [eelee@ieee.org](mailto: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.

## MORE News From K-12

The Regional Showcase for the Sally Ride Toy Challenge in our area will be Saturday, April 25 at the new Sigma Xi building in RTP. Visitors are strongly encouraged to bring their children and watch the competition!!

In the Toy Challenge, teams of 5th - 8th grade children design a toy with an adult coach, and build it. Famous scientist and writer C.P. Snow said that toys are a great way to learn about science, engineering, and the design process. We agree! That's why astronaut Sally Ride brought Smith College, Hasbro, Sigma Xi, and the Sally Ride Science Club™ together to launch this fun-fueled challenge! In the Regional Showcases, teams will be judged on the written entry about the toy and design process (and team), and on their visual presentations about the toy.



Dr. Kathy Sullivan, retired astronaut, will give the keynote speech at this event. Dr. Sullivan was a member of the first shuttle class. She served on three shuttle missions, the first of which was aboard the Challenger in 1984, when she became the first American woman to walk in space. In subsequent missions aboard Discovery and Atlantis, she served as an EVA (or space walk) specialist for the Hubble Telescope and a Payload Commander for the ATLAS-1 science mission. In 2002, Dr. Sullivan was one of the nation's first recipients of the Girl Scouts of the USA 'Juliette' Award for National Women of Distinction.

Volunteers are needed to judge entries, and work at registration and lunch. Call Linda Schmalbeck at 919-549-4691 or send email to [lschmalbeck@sigmaxi.org](mailto:lschmalbeck@sigmaxi.org) to ask about volunteering for a shift.

Esther Lumsdon, RAC  
Chair of IEEE ENCS Biotech/Health/Pharma Job Hunt Collaboration mailing list:  
<http://rtpnet.org/mailman/listinfo/ieee-bhjobs>

## Calendar

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

### Tuesday, April 13, 2004

EMC Chapter Meetings

The "Ground" Myth

5:30 pm - 7:30 pm ( EST )

Location: Underwriters Laboratories RTP

Tuesday April 13th at Underwriters Laboratories :

Bruce Archambeault, IBM

Stop by for pizza and drinks around 5:30PM, and the presentation will begin at 6:00PM.

Presentation title: The "Ground" Myth

Abstract: The term "ground" is probably the most misused and misunderstood term in EMC engineering, and in fact, in all of circuit design. Ground is considered to be a zero potential region with zero resistance and zero impedance at all frequencies. This is just not the case in practical high-speed designs. The one thing that should be remembered whenever the term "ground" is used, is that "Ground is a place where potatoes and carrots thrive"! By keeping this firmly in mind, many of the causes of EMC emissions problems would be eliminated.

Driving directions are noted below. Please feel free to contact Glenn Robb (Email: [robb@compliance-engineering.com](mailto:robb@compliance-engineering.com)) with any questions.

Underwriters Laboratories from I-40: Take the Davis Drive exit in RTP. Eastbound traffic turn left at Davis Drive, and Westbound traffic turn right at Davis Drive towards the IBM campus. Laboratory Drive is on the right, and UL is on the end. Follow the signs for visitor parking.

### Wednesday, April 21, 2004

April Embedded Systems Program

6:00 pm - 8:00 pm ( EST )

Location: ISA

Single Board Computers, PC104 - x86 Single Board Computers and Modules for Embedded Applications  
In 1992, PC104 was introduced to allow embedded developers to take advantage of low-cost PC architecture. This presentation will include a brief talk on x86 form factor boards from PC104 to Pentium M modules and boards. Following the talk attendees will be able to examine some working displays of the latest single board computers.

EMJ Embedded Systems is an embedded hardware distributor located in Pittsboro, NC. In addition to x86 modules, EMJ sells flash solid state drives, A/D boards, frame grabbers, firewire cards, modem mod-

ules and serial port boards.

RSVP to: Dave Ruden, [druden@ieee.org](mailto:druden@ieee.org)

### Thursday, April 22, 2004

Section Meeting - joint with Women in Engineering Chapter "Leadership through the Eyes of a Seaman"

6 PM

MCNC, Cornwallis at Alexander, RTP

Dr. Sarah Rajala will discuss leadership from the perspective and influence of Sir Ernest Shackleton, Leader of the Trans-Antarctic Expedition of 1914-1916, and her grandfather, William Lincoln Bakewell, able seaman on Shackleton's expedition.

Dr. Rajala is Assoc. Dean, Research and Graduate Programs, NC State College of Engineering

### Monday April 26, 2004

IEEE Biotech/Health/Pharma Job Hunt Collaboration meeting (begin education series)

Location: ISA bldg, 67 T.W. Alexander Dr, RTP, 27709

Time: snacks at 6pm, Class at 6:30pm

Cost: TBD. Stay tuned to <http://www.rtpnet.org/ieee/bhpjhc/> for details. Per-class fee will be lower for those who sign up for all 5 classes. Hope to have the fee in the \$25-60 per class range.

Topic: cGMP Overview (current Good Manufacturing Practices according to FDA regulations)

### Monday May 3, 2004

IEEE Biotech/Health/Pharma Job Hunt Collaboration meeting (class 2 in series)

Location: ISA bldg, 67 T.W. Alexander Dr, RTP, 27709

Time: snacks at 6pm, Class at 6:30pm

Cost: TBD. Stay tuned to <http://www.rtpnet.org/ieee/bhpjhc/> for details. Per-class fee will be lower for those who sign up for all 5 classes. Hope to have the fee in the \$25-60 per class range.

Topic: Documentation/SOPs (Standard Operating Procedures are very important in complying with FDA regulations, and change control and signoff to changes to these procedures are also important).

### Monday May 10, 2004

IEEE Biotech/Health/Pharma Job Hunt Collaboration meeting (class 3 in series)

Location: ISA bldg, 67 T.W. Alexander Dr, RTP, 27709

Time: snacks at 6pm, Class at 6:30pm

Cost: TBD. Stay tuned to <http://www.rtpnet.org/ieee/bhpjhc/> for details.

Topic: Overview of 21 CFR Part 11 (FDA regulation on Electronic Records and Signatures, which emphasizes predicate rules)

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**Calendar (Continued)**

**Monday May 17, 2004**

IEEE Biotech/Health/Pharma Job Hunt Collaboration meeting (class 4 in series)  
Location: ISA bldg, 67 T.W. Alexander Dr, RTP, 27709

Time: snacks at 6pm, Class at 6:30pm  
Cost: TBD. Stay tuned to <http://www.rtpnet.org/ieee/bhpjhc/> for details.  
Topic: Validation (computer system, not chemistry/process)

**Monday May 24, 2004**

IEEE Biotech/Health/Pharma Job Hunt Collaboration meeting (class 5 in series)  
Location: ISA bldg, 67 T.W. Alexander Dr, RTP, 27709

Time: snacks at 6pm, Class at 6:30pm  
Cost: TBD. Stay tuned to <http://www.rtpnet.org/ieee/bhpjhc/> for details.  
Topic: Data Management or GMP Manufacturing Overview

**Tuesday May 25, 2004**

IEEE Professional Development Institute "How to Think Creatively"  
Time: snacks at 6pm, Class at 6:30pm  
See <http://www.southeastcon.com/pdi> for more info or to register

**Tuesday June 8, 2004**

IEEE Professional Development Institute "Time Management"  
Time: snacks at 6pm, Class at 6:30pm  
See <http://www.southeastcon.com/pdi> for more info or to register

**SoutheastCon 2004 Photo Gallery**



For more pictures of the great times in Greensboro, as well as a preview of next year's great time in Fort Lauderdale, go to <http://www.southeastcon.com>

## Who's Who in the IEEE Eastern N.C. Section 2004 Officers and Volunteers

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Section Chair  
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www.ieeecommunities.org/encs](http://www.ieeecommunities.org/encs)

