Region 3 ◆IEEE

Message from the Region 3 Director….

Bill Harrison
Region 3 Director
2004-2005

Greetings – I hope everyone is having a great summer. IEEE activity seems to quiet down somewhat during the summer months. Kids are headed back to school. Colleges and universities will be starting classes shortly.

As for the Region, we are set for our second face-to-face Region 3 Meeting of the year. It will be held 15 – 17 October 2004 at the Hilton Atlanta Airport.

More details are located at http://ewh.ieee.org/reg/3/excom/meetings/2004-10/. Please note that the agenda will vary somewhat from a "traditional" Region 3 Meeting. We hope to spend more time letting Section Representatives and R3 Committee Members discuss problems & issues and share solutions & successes.

A major focus of the breakout and plenary sessions will be to develop plans and issues for IEEE Sections Congress 2005. The theme is "Promoting a World Class Volunteer Community". SC 2005 will be held in Region 3 at the Tampa Marriott Waterside. The dates are 14 – 17 October 2005. Visit SC 2005 at http://www.ieee.org/organizations/rab/sc/2005/ where you can see Session Descriptions and other information. There is also a web form for nominating a speaker – you may want to nominate/volunteer yourself.

There will be a Region 3 ExCom Econference prior to the Region 3 Meeting. The Econference will be held on 11 and 13 October from 9 - 11pm EST. Please submit your reports prior to the ExCom Meeting for review and discussion online, and we can devote the majority of our actual Region 3 Meeting to program and issue development for Region 3 Sections/Chapters and for SC 2005. Region 3 Secretary, Dave Green, and I will be sending out reminders, but start preparing your reports now.

Mark your calendars and make your travel plans. I hope every one of Region 3's sections will be represented at the Region 3 Meeting. It's your voice not heard and your vote not counted if your section is not there!

Mentoring – Hot Topic Within IEEE and Others

By Dick Riddle

Mentoring has recently become a hot topic within IEEE. As an example, the June 2004 issue of The Institute ran a feature story by Erica Vonderheid called "The Many Faces of Mentoring - Everyone benefits when engineers teach and counsel their younger (and older) colleagues". In this article Erica provided many instances of mentoring programs that are being used by some corporations to develop their less experienced technical professional employees. Other examples cited were IEEE volunteers mentoring high school students.

The IEEE Board of Directors now includes mentoring in the IEEE Strategies for 2004. As stated on page 4 of that document:

> ### Volunteerism -- Issues, Desired Outcomes & Actions
>
> **Issue 3:** *IEEE must improve its ability to leverage the expertise of its experienced volunteers.*
>
> **Desired Outcomes:** *A formal mentoring process or program to pass experience from experienced volunteers to new volunteers*
>
> **Recommended Actions:**
> *1. Offer/Assign significant activities to veteran volunteers.*
> *2. Charge Boards and Nominations & Appointments (N&A) committees at all*
> *levels to proactively introduce new volunteers.*
> *3. Promote mentoring as a volunteer opportunity.*

The concept of mentoring has been around for a long time. As the story goes, **Mentor** was the name of the person that Odysseus, king of Ithaca left in charge of his household and the teaching of his son while Odysseus was off fighting the Trojan War. Over the years the word "mentor" has become synonymous with trusted advisor, friend, teacher, and wise person.

Mentoring is not a new concept in Region 3. The Region 3 Strategic Planning Committee (SPC) formed in the late 1970's may be a unique group within the IEEE regional organizational structure. All members are prior Region 3 Directors and collectively have a wealth of IEEE management and organizational experience both past and present. The SPC was primarily formed to support the Region in planning for the future by providing counsel to the Region 3 Director and Executive Committee to minimize problems in the Region operation. Which also includes maintaining the currency of the Region 3 "Strategic Plan" and monitoring progress against the plan.

In 1992 many new volunteers were becoming involved at all levels, Region, Council and Area, Section and Chapter. When the Region 3 Executive Committee assembled for its first meeting in early 1992 under Director Conner, each of the officers was new to their position. Seven of the nine Area /Council chairs were new. Most of the committee chairs were in new assignments. To utilize the experience of the SPC Committee members more widely Vice Chairman (now called Director -Elect) Deborah Powers assigned each member as a mentor to one of the standing committees to provide advice and guidance as required. Over the last 12 years this policy of assigning mentors to each Standing Committee has continued within Region 3. In this application of mentoring the purpose is not primarily to help the committee chairs develop technical skills but to assist the chair in developing the management skills to successfully achieve the purpose, goals and objectives of the committee.

In 2003, Region 3 and IEEE was faced with different problems - not enough volunteers were willing to step forward to assume leadership positions within all levels of our organization - higher grade membership was declining - industry was not supporting IEEE activities as it had in the past. To focus on the cause of some of these problems and perhaps offer a solution three members of Region 3's Communications Committee Dave Green, Charles Lord, and Bill Ratcliff developed a proposal and presented at SoutheastCon 2003 in Jamaica. What they proposed was to create a project called Leadership by Developing Others (LDO). The keystone of the LDO Project is a belief that leaders can develop themselves by mentoring or developing others, and that mentoring skills can be taught regardless of the age of those involved in the partnership. This is somewhat different than the traditional mentor concept of the old experienced person helping or guiding the younger inexperienced person within their profession. The presentation was well received but some attendees voiced some reservations about mentoring skills being taught.

In the fall of 2003, a LDO Project Management team was formed that included the proposal authors Dave Green, Region 3 Secretary, Charles Lord, Leadership Development Committee Chair and Bill Ratcliff, Communications Committee Chair as well as Bob Duggan, SPC Chair, Joey Duvall, GOLD Representative, Bill Harrison, Director-Elect (now Director), and Dick Riddle, Project Manager. A project plan was developed and approved. Training materiel was selected and developed. The LDO Project Management team elected to use the IEEE REGION 3 VIRTUAL COMMUNITY (VC) as a communication tool to plan, inform, collaborate, and evaluate the project as well as the VC as a communication tool.

By February 2004, the first group to be trained (Pilot Team 1) was identified and their commitment to the project was secured. Members of Pilot Team 1 are George McClure, Director-Elect (2004-2005), Charles Hickman, Treasure, Jim Howard, Past Director (2002-2003), Lee Stogner, Membership Development Chair, Thomas Bellarmine, Florida Council Chair, John Parr, Area 8 Chair and Don Hill, Conference Committee Chair.

A joint face -to-face meeting of the Project and Pilot 1 teams was held in March 2004 in conjunction with SoutheastCon 2004 in Greensboro, NC.   This was the first formal LDO training session. Many of the team members were not able to attend the training session due to travel and other commitments. It was decided to hold follow-up training sessions using the IEEE Internet Conferencing Service. This is a live interactive web/audio product developed by PlaceWare. At the March meeting, mentors and mentees assignments were made with the goal of mentoring each mentee to assume the office or position held by the mentor. As a result, the Pilot 1 Team was expanded to include Brian Skelton, Membership Development Vice Chair, Kathy Rinehart, Florida Council Vice Chair, Tony Richardson, Area 8 Vice Chair, Steve Carroll, Conference Committee Vice Chair, and Bill Clayton, Communications Committee Vice Chair.

At 9:00 PM EDT on June 29, 2004, the first interactive web/audio LDO training session was held using former PlaceWare system now called the Microsoft Office Live Meeting.   The meeting was considered a success with 15 combined members attending. The second training session was held on July 13th. Again a few technical problems but the training material and presentation by Charles Lord, Leadership Development Committee Chair received many accolades. It is planned to continue these training sessions as long as they are of benefit to the mentors and mentees.

Will this mentoring concept encourage more volunteers to step forward and be better trained as leaders? Will it cause an increase in industry support by recognizing the value of this type of mentoring and encourage their employees to be members of IEEE? Can mentoring skills be taught?   At this point in time the answers to these questions are unknown. It is much too early to pass judgment on the success of this mentoring experiment called the LDO Project. What is known is that the future of IEEE is directly dependent on the volume and quality of the volunteers, and that Region 3 has a group of dedicated, talented, and creative volunteers who are committed to the success of this project.

Region 3 Senior Member Contest
By Lee Stogner

Becoming an IEEE Senior Member is one of the most important things that you can do as a Electrical or Computer Engineer. Senior Member status is a recognition by your peers of career achievement and contribution to the profession.

The IEEE has a special program each year to promote Senior Member upgrades. This program makes it easy to process a Senior Member application and it gives a financial incentive of a $10 rebate to the Section for every new Senior Member that is approved. Information on this program can be found at http://www.ieee.org/organizations/rab/md/smprogram.html & http://www.ieee.org/organizations/rab/md/sminitiative.html

To further provide incentives for Region 3 Senior Member growth, I would like to announce a Section Senior Member Contest. The Section that gets the most new Senior Members approved this year will win $100. Also the Section that gets the most new Senior Members approved (as a percentage of their Section Member count not including Students) will win $100. Hopefully these additional incentives will increase the challenge and the fun of this important IEEE activity. IEEE has given Region 3 a goal of 208 new Senior Members for 2004. As of August, 111 new Senior Members have been approved. That's only 53.4% of the goal.

November 15 is the absolute deadline for the submission of our nominations. Please don't wait until the last minute since there are only two more Admission & Advancement Committee meetings left this year (September 18, November 20).

Senior Member status is the way to get your Members and your Section recognized. It's also a good way to generate funds for your Section.

Let us know how we can help and I hope your Section wins.

Public Relations and Promoting Your Section

David Bower
Region 3 Public Information Officer
d.bower@ieee.org

In the last Region 3 Newsletter, promoting your section by using local print and TV/Radio media was discussed. The IEEE Publicity Guide is available both electronically, and by mail, and will be of help in this regard. Again, the URL for the electronic version of the IEEE Publicity Guide is <http://www.ieee.org/publicityguide>. With the long summer break almost over, it's time to reflect about section activities for the fall. Please include a viable publicity initiative in your planning to help promote section activities and increase attendance at your meetings. And don't forget to have plenty of IEEE materials and membership forms at the meeting.

For this issue of the newsletter, let's focus on some incremental things that can be beneficial, from a Public Relations (PR) standpoint, for promoting the image of your section and the engineering profession. Some sections begin their meeting with a short social and include beverages and snacks. This is a great time to network with others. It helps "to break the ice" by providing simple stick-on name tags for those attending. Some sections even designate a "greeter" to welcome attendees. And if, in the process, it's discovered that someone is not an IEEE member, it's a great time to promote the organization and present them with some materials (including a membership form).

In some cases, sections just pass around a legal pad or sheet of blank paper for attendance. What about taking the simple step of preparing a neatly printed and numbered attendance sheet, along with the IEEE logo (you can get it off the main IEEE Web page). This easy step, along with name tags, adds a level of professionalism. And a small 8x10 inch stand-up display welcoming people to the meeting can be displayed next to the refreshments. Don't forget to place some IEEE brochures and membership forms on the table near the display, along with the attendance sheet. Most of us have a computer and these basic, simple things can easily be accomplished and really help in the PR and image arena.

When it's time for the program, it's a good idea to have some brief opening remarks along with introductions of those present. Again, it helps "break the ice" and make people feel more welcome. Remember to pass around the attendance sheet for those who arrived late. The individual who introduces the speaker for the program should have a brief biography on the person, along with a lead-in and title for the talk. Finally, a simple "let's welcome our speaker, Dr. Smith, by giving him a big hand," results in applause and helps make him feel welcome. Pictures of the speaker add a lot of PR value, and are useful for the section newsletter or web page. One very nice touch is to send the speaker a picture, of his presentation, in the mail along with a thank you note.

Remember that attendance sheet from earlier in the meeting ? Well, it can be used for a prize drawing after the meeting. It's also a good resource for following up on guests who are not IEEE members. And be sure to close the meeting by thanking the speaker, and the people for attending.

Some of these simple and basic steps mentioned above are good "PR" for promoting your section, IEEE and the entire engineering profession. And it helps open the door for getting new members. Please send me ideas for public relations you've used in your section so I can pass them along in a future Region 3 Newsletter.

Hope you had a great summer !!!

IEEE headquarters is a great resource regarding assistance to support your section and request materials. You are encouraged to check out the URL at http://www.ieee.org/organizations/rab/scs/ and learn more about the available services to support your section. You can contact RA staff via e-mail sec-chap-support@ieee.org or by telephone 732-562-5564 for assistance. Membership services at 1-800-678-4333 is a good general contact. Dyana Barnosky in Membership Development is another resource d.barnosky@ieee.org, or by telephone at 732-562-5539. The IEEE Membership brochure (MEM APP 04) is a good document to request for distribution at your meetings. And please remind those interested in joining IEEE, that they can join online at www.ieee.org/join.

IEEE Southeast Conference 2005 (SEC 2005)

Ft. Lauderdale, Florida, April 8-10, 2005
http://sec05.nova.edu/
*** Call for Papers (Technical Program/Proceedings)***

The SoutheastCon 2005 Program Committee invites prospective authors to submit original papers on all aspects of engineering, science, and technology of current interest. Papers must not have been published or presented elsewhere. Both full-length refereed papers and abstracts of unrefereed papers are solicited. The conference's Technical Program is divided into 10 tracks:

- Electrical Engineering (1 & 2)
- Communication & Telecommunications
- Information Systems (General)
- Mobile Devices & Communications
- Education
- General Engineering
- Networking & Distributed Systems
- Information Systems (Database & ERP)
- Computing

List of tracks, potential topics, and track chair(s) is available via:
http://sec05.nova.edu/technical_program_track_list.htm

General Instructions:

- Potential authors are encouraged to submit an electronic abstract (in MS Word format) via email to the appropriate track chair(s) by October 1, 2004. This is an important step to ensure that you will submit your paper to the correct track.
- Submission of papers via the Review System by November 1, 2004. Details and link to the SEC05 Review System will be posted on the website.
- Copyright Information: Submission of a paper to the conference represents the author's agreement to allow IEEE to publish the paper in any written or electronic format for distribution to all interested parties in perpetuity with or without compensation to IEEE and without compensation to the author. The parties understand that the author is granting a nonexclusive license and all copyrights remain the property of the author.
- Final submission of all papers is required in electronic form (in MS Word format) by the "Camera-ready" deadline.
- Full formatting details, copyright and release forms will be made available to authors once the submission is accepted.
- Additional information on the SEC05 Review System will be posted in July 2004 via:
http://sec05.nova.edu/technical.htm

Program questions of a general nature should be directed to Technical Program/Proceedings Chair: Dr. Yair Levy (levyy@nova.edu).

Some important dates (Full deadlines schedule is posted on the SEC05 website):
Authors Submission Deadline: November 1, 2004
Reviews Submission Deadline: December 1, 2004
Notification to authors: December 20, 2004
Camera-ready Deadline: January 5, 2005

Tutorials and Workshops:

Proposals are also invited for tutorials and workshops. The proposal should include the tutorial objectives, a brief description (500 words), an outline, proposed length (2-hour, or 4-hour) and a short, professional resume of the instructor. Please send proposals for tutorials and workshops to the Tutorials Committee by October 1, 2004. Tutorial and workshop presentation materials (in MS PowerPoint) and handouts (MS Word or MS PowerPoint preferred, other file formats accepted on a case by case exception) will be due by November 1, 2004. For submissions and additional information regarding tutorials and workshops, please contact Dr. Shobha Gupta (shobhagupta@comcast.net).

Please feel free to forward this message and share it with colleagues. Hope to see you in Ft. Lauderdale, FL in April 2005!

FREE Admission to Exhibits

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February 16-17, 2005
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Orlando, Florida

1.

First Name _____   Last Name _____

Job Title _____   E-mail _____

Company _____

Mailing Address _____   Mail Stop _____

City _____   State ____   Zip ____   Country ____

(____) _____   (____) _____
Telephone   Fax

2. Principal Job Function
(check only one)

☐ AA Engineer - Design
☐ AB Engineer - Manufacturing
☐ AC Engineer - Quality/Test
☐ AD Engineering Services
☐ AE Engineering Management
☐ AF Corporate/General Management
☐ AG Press
☐ AH Purchasing/Procurement
☐ AJ Marketing/Sales
☐ AK Student/Educator
☐ AL Other

3. What is the Primary End Product at this Location
(check only one)

☐ CA Communication Systems
☐ CB Components/Materials/ Hardware Supplies
☐ CC Computers/Systems and Sub-systems
☐ CD Consumer Products, Automotive & Appliances

☐ CE Contract Services-Design/ Manufacturing/Test/ IC Foundry etc.
☐ CF Controls
☐ CG Military/Government/ Avionics
☐ CH Medical Electronics
☐ CJ Semiconductors/ICs
☐ CK Test/Measurement/ Inspection
☐ CL Distributors
☐ CM Other

4. Product Interest - Which of the following do you specify, recommend, approve, purchase or influence the purchase of?
(check all that apply)

☐ BA ASICs, PLDs, FPGAs
☐ BB Board Level Products
☐ BC Semiconductors/ICs
☐ BD Components other than IC's
☐ BE Computers/Peripherals/ Software

☐ BF Contract Services - Design/Manufacturing/Test
☐ BG EDA Tools & Engineering Software
☐ BH Interconnection Devices
☐ BJ Laser & Electro-Optical Devices
☐ BK Microwave Components
☐ BL Packaging Hardware/ Enclosures
☐ BM Power Sources
☐ BN Production Equipment
☐ BP Production Tools & Supplies
☐ BQ Sensors & Transducers
☐ BR System Boards
☐ BS Test & Measurement Equipment
☐ BT Other

5. Years Involved in Industry

☐ DA 1 - 2
☐ DB 3 - 5
☐ DC 6 - 9
☐ DD 10 or more

6. Size of your organization

	At Your Location	In Entire Company
1 - 49	☐ EA	☐ EB
50 - 99	☐ EC	☐ ED
100 - 499	☐ EE	☐ EF
500 - 999	☐ EG	☐ EH
1,000 or more	☐ EI	☐ EJ

☐ GA **I would like to receive show and conference updates via e-mail**

☐ GB **Send me complete Technical Program Information**

I am a member of (or referred by)	☐ IEEE ☐ ERA

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Orange County Convention Center
Orlando, Florida

Persons under 18 years of age not admitted. Students 18 or older admitted on Thursday, February 17, only.

Also, please register my colleagues: Express Registration Free Admission-Exhibits Only.

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www.southcon.org   **310-937-1006**

Section Community Service
and
Generating Public Awareness for IEEE
by David Bower, Region 3 PIO

There are many IEEE section activities, but one of the most rewarding involves local community service. It is through this effort that we, as IEEE members, can be of great value to our community while promoting the image of our organization and engineering in general. It is a good way to give back, and at the same time, demonstrate to a community the many resources provided by the engineering profession. Let's cover just a few of the many such community projects provided by sections in Region 3.

The Winston-Salem Section got involved in the "Egg Drop Contest" back in April to promote engineering and science in grades K-12. The primary objective for the young participants was to design a device that would protect an uncooked, raw egg from breaking when dropped from a height of 21 feet. Competitive efforts like this bring together subjects such as mathematics, science, engineering, creativity, and imagination in a "fun" environment and help encourage young people to pursue a career in engineering and science. Further, such projects help demonstrate to high tech businesses that organizations such as IEEE are working to help educate and stimulate more young people to pursue careers in engineering and science---an area with a shortage of technically qualified people. On the day of the contest, 45 volunteers from local schools, universities, professional societies (including IEEE) and local businesses participated. Approximately 500 people were attracted to witness and participate in this event; certainly a great way to provide community service while promoting the image of engineering to youth and the community.

Further to the west, the Central Tennessee Section teamed-up with the Local power Quality Group to organize a high quality seminar on lightning and surge protection. The group worked to locate and bring in an expert to conduct the seminar. But first, the group prepared a list of objectives to help define and organize the event. This included selecting a suitable expert to present the seminar, determining the associated cost factors and a break-even point for attendees. For a project of this type, the importance of good public relations was paramount. This included sending seminar flyers to section members and others with a possible interest in the topic. And it didn't stop here. Organizers of the event personally contacted people by telephone, and placed a notice in the Nashville area newspapers and the Nashville Business Journal. The original attendance was projected at 26, but the final number was over 52. As a result, good exposure and public relations were generated for the section to various business organizations and individuals in the Nashville area.

The East Tennessee Section worked with the local Red Cross and a volunteer amateur radio organization to design and sponsor the installation of an emergency two-way radio station in Knoxville, for the Red Cross. The facility is staffed by volunteers to support and provide emergency communication during natural disasters such as tornados. As a result, the Red Cross center can communicate with other emergency service agencies when traditional communications such as wired and cell telephone fail. The project was promoted at several local events and an engraved plaque was presented to be displayed at the Red Cross building, recognizing the Section. It was featured in the IEEE June 2004 issue of the Institute.

These local projects are examples of just a few of the many community service projects being provided by sections in Region 3. As a by-product, the IEEE sections and the engineering profession have generated good "PR" through their community service.

Mark Your Calendars!
Sections Congress 2005
is coming to Tampa, Florida
October 14-17, 2005

Awards and Recognition Committee

John R. Twitchell, P. E.

IEEE has awards programs at all levels of the Institute to recognize IEEE members who have contributed to our profession and our organization in any number of ways. Your local Section should have a comprehensive program that honors members of the section. The Region 3 Areas/Councils and Region 3 also have recognition programs. We should not overlook the Institute level programs. We still have an opportunity in 2004 to nominate candidates for the IEEE USA awards and for the Regional Activity Board (RAB) awards. For more information on IEEE USA, please go to their web site at http://www.ieeeusa.org/AWARDS/index.html . The deadline for these awards is July 31, 2004. RAB information is located at http://www.ieee.org/organizations/rab/rab/Awards/RABAWARDS.html, and the deadline is October 15, 2004. The procedures for nominating candidates are not complicated, and provide another opportunity to reward a worthy IEEE member.

SoutheastCon 2005 Update

The SoutheastCon 2005 (http://sec05.nova.edu/) organizing team is getting into high gears with the conference slogan of "Excellence in Engineering, Science, and Technology. During March, the organizing team lead by Dr. Eric S. Ackerman (esa@nova.edu) visited the SoutheastCon 2004 in Greensboro, NC and observed organization of the conference in preparations for next year's conference in Ft. Lauderdale, Florida. During April, the conference technical/proceedings chair Dr. Yair Levy (levyy@nova.edu) solicited track chairs. List of tracks, potential topics, and track chair(s) is available via: http://sec05.nova.edu/technical_program_track_list.htm.

In early May, the Call for Papers (please page 6 of this issue) and the Student Program Hardware Design Rules (i.e. 'robot competition') were released and posted on the conference site. The Call for Papers (http://sec05.nova.edu/call_for_papers.htm) sent out to all Region 3 Sections for solicitation of quality papers as well as other national and international listserves. The Graduate School of Computer and Information Sciences at Nova Southeastern University provided a team of programmers that are developing a paper review system that will enable authors' submission of papers, reviewers' comments and track chairs' decisions on technical papers. A prototype was presented to the chair, Dr. Levy, and is under minor changes before it will be fully tested during June in preparations for full opening to potential authors in early July.

Dr. Eric S. Ackerman (esa@nova.edu), the general conference chair, and the SoutheastCon 2005 (http://sec05.nova.edu/) organizing committee are excited to invite all R3 members to take part in the upcoming SoutheastCon 2005 in Ft. Lauderdale, Florida in April 2005. We would like to ask all R3 members to help solicit for quality papers for the technical/proceedings and schools for students' hardware competition. Additional information about both programs is available on the conference website (http://sec05.nova.edu/). The conference is expected to have high turnover with technical/proceedings papers, students' hardware competition, students' papers, as well as professional tutorials and mini-job fair. The technical/proceedings committee solicited over 15 track chairs and co-chairs with a list of ten (10) tracks in various areas such as EE, general engineering, Communication & Telecommunications, Networking & Distributed Systems, Information Systems, Database & ERP, Mobile Devices & Communications, Computing, as well as Education issues. The Call for Papers is posted on the conference website. We encourage all of you to forward it to your colleagues in and outside the region and help use make SoutheastCon 2005 a success!

IEEE SoutheastCon 05
Fort Lauderdale, Florida
April 8-10 2005
NSU ◆ IEEE Broward Section & Nova Southeastern University

Region 3 Organizing Global Pre-College Technology Education Program

By Ralph W. Russell

Continuing in its tradition of innovation, Region 3 is taking the lead in developing a new non-discriminatory global pre-college technology education program. Bill Harrison, Region 3 Director, made a motion, that was approved, at the June 2004 IEEE RAB meeting in Kansas City for financial support of this pre-college program. The program, titled, emeritbadges.org, will be directed globally towards pre-college boys and girls.

Emeritbadges.org has developed hands-on electricity and electronics instructional material based on the Boy Scouts merit badge requirements. Instructional material for computer education is being developed. Any student, boy or girl can use the program to enhance technical literacy and learn more about viable engineering and other technical career options. The instructional material and electronics kit were designed by Al Mouton from Bastrop, TX.

Emeritbadges.org Project Director Ralph W. Russell, II from the IEEE Richmond, VA Section said that this non-discriminatory program would be promoted globally through IEEE and youth programs such as World Organization of the Scout Movement and The World Association of Girl Guides and Girl Scouts. The next use of the new global pre-college electronics education material and hands-on kit will be at the 2005 National Scout Jamboree. Over 35,000 scouts will attend the Jamboree from the USA and several other countries.

Project leaders have started discussions with national and regional Girl Scout leaders to develop a method of incorporating the emeritbadges.org program into the Girl Scout program. The next step will be to start discussions with the global World Organization of the Scout Movement and The World Association of Girl Guides and Girl Scouts.

The 2005 Jamboree will be held at Fort A. P. Hill in Caroline, Virginia. The Jamboree will start on Monday, 25 July 2002 and end on Wednesday, 3 August 2005. Hundreds of volunteers that can serve as Assistant Instructors at the Jamboree Electronics Merit Badge booth for at least two days are needed. Additional project and volunteer information can be found at http://www.emeritbadges.org starting in early September 2004.

Eastern North Carolina Section Sponsors Biotechnology / Bioinformatics Conference

By Thomas C. Jepsen

The Eastern North Carolina Section of the Institute of Electrical and Electronics Engineers (IEEE) is sponsoring a conference, "Technology For Life: North Carolina Symposium on Biotechnology and Bioinformatics (NCSBB 2004)," to be held in Research Triangle Park, NC, on October 13-15, 2004.

We are co-sponsored by North Carolina State University, Duke University Medical Center, IEEE Region 3, the North Carolina Council, and the IEEE Communications Society. We are seeking paper submissions in the areas of bioinformatics, healthcare informatics, technology transfer in the biotechnology industry, and social implications of biotechnology. You can view our webpage and call for papers at http://ewh.ieee.org/cmte/tech4life. (still under construction)

The IEEE-ENCS is a strong supporter of biotechnology research and biomedical engineering. We believe that success in biotechnology research requires a strong bioinformatics infrastructure; bioinformatics can be defined as the discipline which applies the tools of computer science and information technology to the study of biological data. We further believe that development of a strong bioinformatics base will lead to expanded economic development, more technology-oriented jobs, and greater opportunities for professional development for IEEE members in North Carolina.

The conference will be held at the North Carolina Biotechnology Center and at the nearby Radisson Governors' Inn in Research Triangle Park, NC. For more information, contact Tom Jepsen at 919-933-0377 (voice) or tjepsen@ieee.org (e-mail).

Region 3 Employment Assistance Web Site – www.ieee.org/r3jobs

Section Congress 2005 Update

By Butch Shadwell and John Twitchell

Sections Congress 2005 is coming. For those that may be unfamiliar, it is a meeting of delegates from every section in the world done once every three years.

Sections Congress is October 14-17, 2005, in Tampa, Florida at the Tampa Marriott Waterside. The host section is the Florida West Coast Section. Having this meeting in region 3 is not only a great honor, but a great opportunity for our sections to participate at a level that is not usually possible.

Last year I sent email to all the R3 section chairs reminding them to save money in the budget to send a delegate(s) to this conference in 2005. Typically, the section ends up covering about 1/3 of the travel costs. Depending on where you are located, this may be as little as $100 or as much as $700. For those sections that can afford it, it is good to send more section members to the conference. There will still only be one primary delegate.

 The Tampa Section has a huge project to put on the world congress of the IEEE. Region 3 asks that all sections help defray the organizational costs by making a contribution to the support fund. We are suggesting that each section contribute $2 per member grade or higher as of January 1st. If your section finds this figure difficult to do, we will gratefully accept whatever you can do to help.

Contributions of any amount to the IEEE Sections Congress 2005 Funds are appreciated. We are working toward matching the Region 2, Sections Congress 2002 contributions - which were 100% of the Sections in the Region making contributions. The levels shown below are used for all contributions to Sections Congress 2005, but any amount is acceptable.

> ➢ **$ 500 - $999 Bronze Level**
> ➢ **$1000 - $4999 Silver Level**
> ➢ **$5000 - $9999 Gold Level**
> ➢ **$10,000 or more Diamond Level**

Make contributions to: Charles Hickman, Attn: Section Congress 2005 Support, 3244 Burning Tree Drive, Birmingham, AL 35226

 Butch Shadwell (b.shadwell@ieee.org) is the coordinator for all sections in Alabama, Florida, Georgia, Jamaica, and Mississippi, and Sean Haynes (s.a.haynes@ieee.org) is covering Virginia, Kentucky/Indiana, Tennessee, North and South Carolina. We will be regularly directing updates and reminders to the section chairs until we get the names of the primary delegate to Sections Congress. So if section chairs want to get less email, let us know the delegates name soon.

Here is a link to the Sections congress PowerPoint slide show that Tracy Hawkins has done at headquarters. It has lots of relevant information. http://www.ewh.ieee.org/reg/3/e-conf/sc05/R3SC05Pres0104.ppt

Sections Congress 2005 is a highly visible function, and will be hosted in our Region 3. Obtaining support from industry, who greatly benefits from employee membership in IEEE, will be critical to the success of the Congress. We need your assistance in identifying businesses in your Section's area that we could contact to solicit support. One way your Section can support Sections Congress is in providing the names of companies in your area that are associated with our electro-technology industries, and a contact inside that company. We will follow-up with your contact, hopefully with the participation of your Section. Personal contact is the best way to garner support.

Even though Sections Congress is going to be held in Region 3 (Tampa), it is an international event. If you have contacts with industries outside of your Section's area, that information would be helpful as well. Please contact us via return email with any suggestions you may have. Every contact is important.

Please work with your section as you attend functions, and solicit industry names and contacts for follow-up by our committee for support of Sections Congress 2005. Thanks.

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Region 3 Employment Assistance Web Site – www.ieee.org/r3jobs

* Denotes voting member of Region 3 Executive Committee

Brain Teaser Challenge Solution - March 2004

Butch Shadwell

Several readers have already sent in answers to the last BTC, all were correct. The West Indian robotic problem went like this, "a little machine that was driven by two large wheels on either side, and a third idler wheel in the back that kept it stable. Each wheel could be advanced one thousandth of a turn for each pulse it was fed, and the drive wheels were 5 inches in diameter and mounted 10 inches apart. …the count totalizer for each wheel showed the right wheel had been fed 1,000,000 counts and the left wheel had been fed 638,000 counts, all in the forward direction. If the robot was facing north (0 degrees on the compass) when it started these maneuvers, what direction was it facing when they ended? Assume there was no slippage of the drive wheels and that they had very small contact surfaces with the ground." Nigel wasn't his real name.

The simplest solution is to determine the difference and direction of the pulse count and then advance the higher count wheel alone to that degree. So we determine that the right has moved forward 362,000 counts. At 1000 counts per revolution, that means that the right wheel has advanced 362 turns more than the left one. Since the wheel spacing is 10", the circumference of a full turn (2*pi radians) is pi*20". One full turn of a wheel covers pi*5". From this we know that 4 revolutions of one wheel, more than the opposite wheel, will take the robot full circle. Dividing 362 by 4, we get 90.5 complete circles by our machine. The last half circle means that the robot must be facing South at the end of the course. But I bet you already knew that.

Brain Teaser Challenge - June 2004

Butch Shadwell

One of the most fun things I have ever done is design some robotic control systems for an amusement park in northern England. In the mid 80's I spent some time there installing these systems, and the robotic characters, at Alton Towers, located near Stafford, England. I got to install "Henry the Hound of the Towers" at the entrance promenade. Henry was a hound dog that stood about seven feet tall. It was very interesting to watch them building this world class amusement park from scratch.

While working there, I stayed at a B&B that was owned by a professional chef. The food was great, and I always enjoyed a little conversation with the other guests and owners in the evening. My wife and I have really enjoyed traveling around Great Britain and staying at B&Bs. We've once stayed at a Scottish castle, and in some beautiful farm country too. But I digress.

Henry was a pneumatically actuated character. That is, all of his joints were operated by air pistons. The elbow used a 1" cylinder to move his forelimb out and in again. This cylinder had a ¼" piston rod. Henry's arm extended just fine but would hesitate while retracting. The arm retraction was powered by the cylinder's retraction motion, as opposed to the extension motion. With a 90 pound air supply, how much force was the cylinder applying to the retraction function?

Reply to Butch Shadwell at b.shadwell@ieee.org (email), 904-223-4510 (fax), 904-223-4465 (v), 3308 Queen Palm Dr., Jacksonville, FL 32250-2328. (http://www.shadtechserv.com) The names of correct respondents may be mentioned in the solution column.