



Vote!

The Nominations Committee, consisting of recent past chairs, has presented the following nominees for office for 2004:

Chair:
Mary Ellen Randall

BIO: Prior to founding Ascot Technologies, Inc., President & CEO, Mary Ellen Randall, spent 22 years with IBM in New York, Montreal and Research Triangle Park, NC. She held a variety of technical and management positions in software development, hardware development, client/server services and project management on an international scale. She was instrumental in providing the first DVD movie capability in the award winning IBM ThinkPad. She holds a BA Mathematics and an MS Computer Science and is a senior member of IEEE, Chair of IEEE Women In Engineering (WIE) for Eastern North Carolina, President of Business & Professional Women(BPW)/Raleigh, President of the International Computer Consultants Association - RTP. She has authored over 15 technical papers.

Vice Chair:
David Ruden

BIO: Dave is an Embedded Systems Software Engineer, with 15 years combined experience in various areas, from Security-Access to Datacom/Telecom. He and his wife, Diana, moved to the beautiful state of North Carolina in 1998, and live in Cary. He currently works for Taproot Systems, Inc. in the area of Cellular and WiFi technologies development. Dave was Chairman of the Palm Beach Section, IEEE, in 1998 prior to moving to NC. He has been involved in the Eastern NC Section since moving to the area, holding previous positions of Public Relations Chair, Vice-Chair, and most recently, Section-Treasurer.

He earned his Bachelors in Engineering Technology from the University of South Florida in Tampa, FL; and Masters in Computer Science from Florida Atlantic University in Boca Raton, FL.

Dave finds supporting the local IEEE section to be an excellent way to meet interesting people, stay connected, keep up to date, and help the local community.

Secretary:
Thomas Jepsen

BIO: BA, University of Colorado-Boulder; graduate studies, University of Colorado-Denver, North Carolina State University. Independent IT consultant, computer science instructor; previous positions held include Marketing Manager/Systems Engineering, Fujitsu Network Communications; Member Scientific Staff, Bell-Northern Research; Documentation/Hardware Test, Storage Technology Corp. Author, Distributed Storage Networks: Architecture, Protocols, and Management (2003); editor, Java in Telecommunications: Solutions for Next Generation Networks (2001). Inventor, Method and Apparatus for Generating Permanent Virtual Connections (U.S. Patent 6,366,581). Memberships include Association for Computing Machinery, IEEE Communications Society, IEEE Computer Society, Society for the Social Implications of Technology. Chapter Chair, IEEE Communications Society. My goal is to provide opportunities for professional development for IEEE members through presentations, conferences, and active participation in chapter events.

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2004 Officer Election

(continued from Page 1)

**Treasurer:
Roger Lawrence**

BIO: Roger Lawrence PE CEM is an independent consultant offering specialized engineering services in electrical reliability, energy conservation, motors, adjustable speed drives, power electronics, power quality, energy storage and distributed generation.

He has completed work for a variety of industries including: automotive, pulp & paper, steel, cement, petroleum and petrochemical, water and waste water, textiles, rubber and plastics, and both municipal and investor owned electric utilities. He has also worked for universities, government, non-profit and commercial entities.

He graduated with a BSc(Eng) in Electrical Engineering and ACGI from Imperial College, London University in 1966. He has an MBA from Mercer University awarded in 1985. He spent 12 years with GEC in the UK and a further 15 years with GEC in the US, designing and working on

UPS and AC drives. Recently, he was the technical consultant and latterly the director of EPRI's Adjustable Speed Drive Demonstration office before opening his own consultant practice. He has written a number of IEE and IEEE technical papers for publication throughout his career. He presents technical teaching workshops. Roger Lawrence is a Senior Member of IEEE and a member of IAS, IEE, NSPE, AEE and EPE. He is a registered professional engineer in the states of Georgia, Florida, Texas and North Carolina. His education and experience has been certified by The National Council of Examiners for Engineering and Surveying (NCEES). He is a Chartered Engineer in the UK, and he holds the title Eur. Ing. in Europe.

Presently he is chairman of the Power Engineering Society Chapter of the Eastern Carolina Section of IEEE and Secretary of the Chemical Committee of IEEE Petrochemical Industry Committee. He is currently working on IEEE Standard P1566.

All officer nominees are running unopposed. You may write in votes, but per the bylaws, a minimum of 25 write-ins must be received to be accepted.

Ballot	
IEEE Eastern NC Section Officers for 2004	
Vote for one person for each position:	
<u>Chair:</u>	<u>Secretary</u>
Mary Ellen Randall	Thomas Jepsen
Write-in _____	Write-in _____
<u>Vice Chair</u>	<u>Treasurer</u>
David Ruden	Roger Lawrence
Write-in _____	Write-in _____
<p>You may send this ballot electronically to siegl@ieee.org or print and send to: Chris Siegl 1014 New Chester Court Apex, NC 27502</p>	
The following must be included to validate your ballot.	
Name _____	Member Number _____
Ballots MUST be received by December 30, 2003	

From the Desk of the Section Chair

Dear IEEE ENCS Members,

As the winter approaches and it is getting cold, let the hearts warm up with some cheers in volunteering at IEEE. Our section has achieved some major milestones within past few months, thanks to our active members and volunteers. I had written to you last that we are in the middle of several new initiatives. Our New Section website is up and running. Please start using the 'virtual community' for interaction between interest groups – you can post comments or even drop off L-31s online. If any idea runs by your mind to improve the website or virtual community, please respond to Charles at: c.j.lord@ieee.org

All those who approached our Membership Development Chair for an elevation in rank to Senior Member, they all got it. Thanks to Shobha for doing a wonderful job at coordinating members and helping them out with references. We are now planning a drive to upgrade deserving Senior Members to the Fellow rank. It can never happen without the involvement of the esteemed Fellow rank holders within our section. I invite all Fellow rank holders to kindly step forward and make a difference in the lives of their section Senior Members by volunteering to write references. If you are volunteering with writing references, please contact Shobha at: shobha@ieee.org If you were left behind last time for Senior or are now aspiring to become a Fellow, please let her know.

Other significant events are the formation of Signal Processing Chapter on Nov 18 and the launch of Entrepreneurship Development Network (EDN) on November 20, 2003. EDN is an effort at creating a collaborative framework that can only be sustained by your whole-hearted participation, involvement and support. I encourage each one of you to respond to the poll posted at:

<http://www.southeastcon.com/entrepreneur> and to keep abreast of developments in this area and/or help to develop the program by contacting Joe Hirl at: jhirl@ieee.org Together, we can all make it happen. Also, please respond to the survey given by Engineering Management Chapter Chair Subroto Bhattacharya



in this issue of our newsletter.

Our proposal for IEEE Center for Excellence in 'Vision of Technology' (ICEVT) was taken to R3 meet in Atlanta for funding as a Special Section Project. Currently, Region 3 Director is taking it up with IEEE Board of Directors. We can keep our fingers crossed and hope for the best. At the Atlanta meeting, our Section Vice-Chair Dave Ruden presented the section report that was very well received. Our Communications Chapter Chair Thomas Jepsen presented the proposal for 'Technology for Life' conference that is now under the consideration of Region Conference Committee.

The Volunteers in Philanthropy (VIP), a training program conducted by IEEE Foundation that helps us to develop skills at fund-raising for non-profit shall be held on Saturday, March 27, 2004 as part of SoutheastCon 4004. If you want to attend this program, please contact Karen Nowicki with IEEE Foundation Office at k.nowicki@ieee.org for details. A meal will be hosted by IEEE Foundation Office. Pre-registration is required. The program is free of charge for ENCS Section Members.

Between April and November, 2003, we had over 50 meetings. The details of events are posted at our section calendar at www.ieee.org/encs that we request you to keep checking regularly.

Among some of the upcoming events this month is a talk by Rick Hoffman, IBM on Program Management with Virtual Teams on Dec 09 evening at ISA, an EMS and PDI presentation. On Dec 11 evening, Greg Preston will deliver an Embedded Systems talk on Battery Technologies at ISA.

Volunteering for IEEE is like doing God's work towards creating a better and peaceful world where the environment is protected and the life is simple. Technology plays a great role towards achieving that objective as we research into newer ways of accomplishing what the humanity needs to do in struggle for human survival and growth.

Whether you realize it or not, being an active member of IEEE ENCS, you may have indeed contributed your bit towards making this world a better place to be, just

From the Desk of the Section Chair (continued)

by stepping forward to take a leadership role in affairs of the world as a volunteer, or your involvement with a technical activity. IEEE is committed towards making this world a better place to be and IEEE-USA in particular is engaged in shaping public policy while influencing the careers for our engineering community.

Our section would not be what it is today if you, the section member as an active participant and volunteer, would not have made your contribution. Just to name a few, Dave Ruden double timed as the Vice-Chair and Treasurer while his better half Diana helped us with organizing events. Charles Lord did the web-site single-handedly and created the virtual community besides the excellent newsletter and all the Region stuff, PACE, Leadership and PDI. Thomas Jepsen takes the initiative to organize 'Technology for Life' conference while Subroto pitches in to help him in a big way. Subroto also steps forward to take charge of the EMS, while Tom helps us rescue the EMBS from extinction. Roger helped with getting the ExCom meeting rooms. Prof. Chow, Dr. Dev Palmer, Prof. Joel Trussell and Prof. Linda Hayden were inspired to launch new chapters for NNS, ACME, Signal Processing and Remote Sensing. Lee Haas volunteered to Chair the Awards Committee this year while Chris continued to support the Computer Society, Roger the Power Society and Glenn Robb the EMC. Esther has been exemplary at organizing some great events and Steve has stepped forward to launch the Embedded Systems Interest group. Dave Schulman volunteered to form the steering committee. Dr. Simon Lin and Eve Berkley have volunteered involvement with our 'Technology for Life' conference program committee. Mary Ellen Randall has managed the WIE group. All of them were just a few among you, the active membership of IEEE in our section. Collectively, we all make it happen. Each one of you has the potential: just unleash the hidden leader within and step forward to make a difference in the world, while you can still do it. No time is better than now. There are several ways that you can get involved. Contact anyone in the Ex-Com (details at who's who page off the section web-site at www.ieee.org/enc) or me directly.

One last word: the ballots are out there, so please vote to elect the leadership of your section for next year and also feel free to nominate someone deserving for an award. See details off the section website.

On behalf of the Section Leadership, it is my honored privilege to convey you, family and friends our very best wishes for the upcoming holidays and great times that lie ahead. Happy IEEEing.

Sincerely,

Abhinav Aggarwal, Ph.D.

abhinav@ieee.org
www.ieee.org/enc

ENCS IEEE Job Hunt Collaboration Initiatives

Harold Meder, JHC Chair

As we bring 2003 to a close, we look forward towards economic recovery in 2004. To take the best advantage of the job opportunities that will present themselves in the new year, we must work together to leverage our efforts. Towards this end, the following initiatives have been established.

- A moderated receiver list has been established to serve as a conduit through which information, relevant to people in the triangle that are interesting in advancing their careers in 2004, can be distributed.
- A forum is in place where employers can post job opportunities to gain access to qualified candidates in Eastern North Carolina.
- A Biotech / Heath / Pharma Job Hunt Collaboration has been organized to help determine how to transition into these growing industries.
- A Workshop for Java Software Developers who wish to develop their skills

Please participate so that we can all succeed together in 2004. For more information, visit: <http://www.unc.edu/~hwm/ec/initiatives.html>.

Awards!

Award Nominations - Eastern North Carolina Section
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. 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.

News From K-12

An exciting development for high schools students statewide will be the first IEEE NC Robotics Challenge, to be held March 27, 2004 in Greensboro as part of the IEEE SoutheastCon 2004 conference. This will be open to all high schools in North Carolina. Details are available at <http://ewh.ieee.org/cmte/secon04/precollege/index.html>

SPS Chapter Formed

The Signal Processing Society, formerly part of a joint chapter with ComSoc and IT, has now been organized as a separate chapter. Joel Trussell, Professor of Electrical and Computer Engineering at NC State University, has petitioned the IEEE Signal Processing Society for formation of a local chapter to focus on signal processing activities, which include "the design and application of filtering, coding, transmitting, estimating, detecting, analyzing, recognizing, synthesizing, recording, and reproducing signals by digital or analog devices or techniques," to quote from the SPS Field of Interest Statement.

A kickoff meeting was held at Sony/Ericsson on November 18, which featured a talk by Dr. Trussell on "Digital Signal Processing for Color Fidelity." This presentation focused on techniques for describing color, measuring color coordinates, color matching and profiling, and accurate image reproduction. Use of Device Independent Color Spaces (DICS) was proposed. The new chapter plans to continue sponsoring talks and presentations on areas of interest to members. For more information, contact Joel Trussell at hjt@eos.ncsu.edu.



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. We hope to have an organizational meeting in the next month or so.

IEEE Entrepreneurs Network Update

On November 20th an introductory meeting was held for those interested in creating an Entrepreneur's Network targeted to meet the specific needs of IEEE members. Joe Hirl gave a presentation that outlined the level of activity in the State, services provided by the Council for Entrepreneurial Development (CED) and the Boston-based and IEEE-supported entrepreneur's network, E-Net. The purpose of the meeting was to begin dialogue amongst interested members on what support they require to begin or participate in entrepreneurial ventures. Approximately twenty-five people were in attendance representing existing entrepreneurs, would-be entrepreneurs and the "curious." Following the presentation, all participants were given an opportunity to explain their interest and experience with entrepreneurial activities and what type and level of support would provide the most benefit. Some of the comments are listed below.

Prior to the meeting, Joe Hirl and Abhinav Aggarwal met with representatives of the Council for Entrepreneurial Development to better understand the services they provide and their experience with professional affiliations. The meeting was very positive and they gave us some valuable insight into the types of educational and mentoring programs that they provide to entrepreneurs at different stages of business conception and development. They continue to evolve their programs to provide the greatest support to the broadest set. The programs provided by the CED are of high quality and generally of low cost. The people we met with have followed up to determine the feedback from our meeting on November 20th and ensure that our comments were being passed on to the senior management committee of the CED. Our dialogue with the CED will continue in order to determine the most appropriate interface and the formality of the

relationship.

Sampling of Comments from Entrepreneur's Network Meeting:

- I have an interesting technology, but I am uncertain on where I should begin to determine if it can be transformed into a business
- How do you accomplish the basic requirements to start a business? And who can help me do this?
- I would like to develop a network of like-minded people to bounce ideas off of and to test theories
- How can I best protect my intellectual property?
- Would it be possible to use under-utilized laboratory capacity during off hours?
- Existing local entrepreneur's networks don't cater to smaller businesses or businesses that don't have the potential for large scale. These same networks are focused in areas different from my expertise or technology.
- Making connections and identifying cost effective resources are very important

There is still much work to be done in determining the needs and the most appropriate organizational model. Within this newsletter is a questionnaire that we would ask interested members to fill out and send back in. If you did not attend the meeting, but have an interest, please do not hesitate to contact Joe Hirl (jhirl@ieee.org) or Subroto Bhattacharya (subroto@computer.org).

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

Engineering Management Society News

We are invigorating the Eastern North Carolina Chapter of IEEE Engineering Management Society (EMS). So far, the chapter has organized two seminars:

Applying new technologies to Business: Wireless Data by Ray Gilbert, CTO of Lucent Technologies Canada Bell Labs Innovations. He has shared with the business benefits, plus technology experience of end users who have been trailing Mobile High Speed Data.

Risk Management Workshop by Sanjay Murthi. The workshop covered risks that can derail software projects and provided ways to integrate more proactive risk identification and management.

The EMS chapter has also embarked to develop an **Entrepreneurs Network program.** Mr. Joseph Hirl has provided a great leadership in organizing a workshop. EMS held the workshop on November 20, 2003. If the members would like to be kept abreast of the developments in this area and / or help to develop the program, please take the online survey (<http://www.southeastcon.com/entrepreneur>). A member can also send an email to me or Mr. Hirl at jhirl@ieee.org.

Our Next Seminar is on **Program Management with Virtual Teams** on Dec 09, 2003 at ISA Training Center. We encourage you to attend.

In closing, we want to find out the needs of our members, and we cannot do so without your participation. I am inviting you participate in a member survey. Along with this EMS column, you will find a short questionnaire that asks a variety of questions about you:

- Needs as a engineering manager and/or a business/technical leader
- Interest pertaining to topics for seminars and workshops
- Passion to support the EMS Chapter and programs like **Entrepreneurs Network**

We are asking you to look over the questionnaire and, if you choose to do so, complete it and send it back to me. It should take you about 5 minutes to complete.

Through your participation, this EMS chapter hopes to better understand your needs. The results of the survey will be used to formulate and plan chapter ac-

tivities. We hope to share the results through the Eastern NC chapter web-site. Please email the survey to ems.encs@ieee.org.

Thank you,

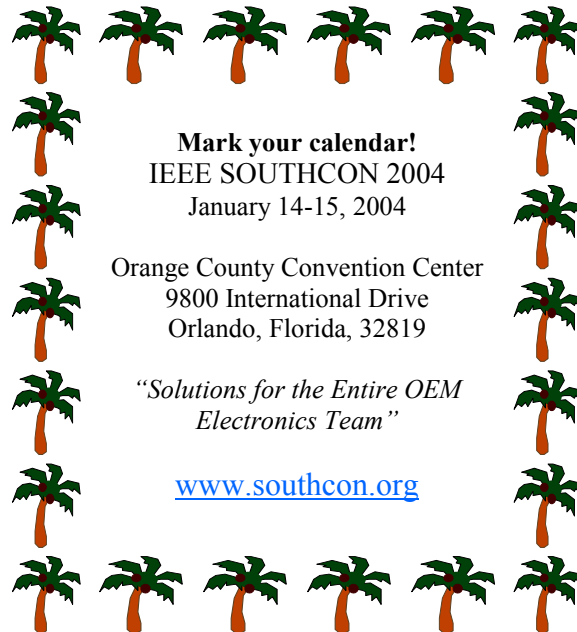
Subroto Bhattacharya, Email: subroto@computer.org

ACME News

Dev Palmer (MCNC-RDI/US Army Research Office), Chair
Brett Guenther (MRPath), Vice-chair

The ACME (AP/CPMT/MTT/EDS) Chapter in the IEEE Eastern North Carolina Section (ENCS), will hold its Winter Meeting on Wednesday, December 17th at 6:00 PM at the DuPont Microcircuit Materials facility in Research Triangle Park. The meeting will feature technical presentations by two prominent local scientists, followed by an opportunity to network over dinner. Sandwiches, sides, and drinks will be provided.

Abstracts of the two talks and directions to DuPont are included in the calendar on page 8. We welcome the participation of all interested IEEE members from government, industry, and academia. See you there!



Mark your calendar!
IEEE SOUTHCON 2004
January 14-15, 2004

Orange County Convention Center
9800 International Drive
Orlando, Florida, 32819

*“Solutions for the Entire OEM
Electronics Team”*

www.southcon.org

Calendar

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

Tuesday, December 9, 2003

EMS & PDI present: Program Management with Virtual Teams

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

Location: ISA Training Center at 67 Alexander Dr. in RTP

Speaker: Mr. Rick Hoffman, IBM

Abstract: The seminar focuses on program management in the context of today's virtual teams dispersed all over the world. Mr. Hoffman will focus on forms of communications that empower a virtual team. He will share his experience in building teams that are essential to manage the defined goals of a program, and talk about leadership and decision-making skills required in this context. If you want to attend this talk, please RSVP to Subroto Bhattacharya at: subroto@computer.org by Dec 05.

DIRECTIONS: Take I-40 to exit number 279A (NC-147 South). NC-147 dead-ends into Alexander Drive. Take a right onto Alexander. The ISA Training Center (67 T W Alexander Drive, RTP, NC 27709) is 1.3 miles on your right.

For further information contact Subroto Bhattacharya.

Thursday, December 11, 2003

Embedded Systems - Battery Technologies

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

Location: ISA, 67 Alexander Drive, RTP

Our fellow Embedded-Systems member, Greg Preston, has kindly offered to present a discussion on Battery Technologies". This is a presentation that Greg has made to numerous groups, and should be rather interesting. Further info on the topic details will be posted here soon...

ISA is located on the East side of Alexander Drive, between Cornwallis and the I-40 overpass.

Contact Dave Ruden at druden@ieee.org for RSVP and more details

Wednesday, December 17, 2003

ACME (AP/CPMT/MTT/EDS) Chapter Winter Meeting
DuPont Microcircuit Materials facility, RTP

The meeting will feature technical presentations by two prominent local scientists, followed by an opportunity to network over dinner. Sandwiches, sides, and drinks will be provided.

"High Frequency Electrical Properties of Ceramic and Printed Wiring Board Materials"

Daniel Amey

DuPont Microcircuit Materials

Research Triangle Park, NC

Low loss Green Tape™ materials are being applied in a growing number of Wireless Industry and Telecommunication Industry applications. Since 1991 DuPont Microcircuit materials has had an ongoing program for the high frequency characterization of ceramic and printed wiring materials. A wide selection of materials has been characterized for their high frequency materials properties in the 1 to 20GHz range. High frequency material characterization test methods will be summarized and Ring Resonator and "T" resonator techniques using metallized substrates for dielectric and conductor characterization will be described. High frequency data on Gold and Silver Thick Film conductors on Alumina and Gold and Silver Conductors on Low Temperature Cofired Ceramic (LTCC) with Screen Printed and Photo-defined patterning techniques will be presented. The high frequency properties of these ceramic materials will be benchmarked with high performance Printed Wiring Board (PWB) materials. Data will also be presented on the dielectric properties at 77+ GHz of Green Tape™ LTCC, 96% Alumina, 99% Alumina and three high frequency PWB laminates using different resin and glass reinforcements.

"Materials Issues in High Performance Packaging"

Glenn Rinne

Vice President, R&D

Unitive Inc.

The design of modern IC packaging requires careful selection of materials. The decision tree includes the obvious characteristics of resistance, permittivity, and permeability as well as the less common concerns of radioisotope concentration, re-crystallization temperature, and electrochemical potential. This presentation will provide an overview of the issues of concern in contemporary IC packages and their impact on product cost and reliability.

DIRECTIONS TO DUPONT FROM RALEIGH

Take I-40 West. After you pass the exit for Davis Drive the road splits - I-40 bears to the left and Route 147, the Durham Freeway, bears right toward Durham. Get on Route 147, take the 2nd exit which will be Alexander Drive. At end of the exit ramp, turn left. Go through two lights, stay to the right, then the entrance to DuPont will be on the right at the large UNC TV sign. Turn right. Proceed to the 3rd driveway and turn right to the DuPont parking lot. You will walk across a long breezeway to enter the building.

DIRECTIONS TO DUPONT FROM CHAPEL HILL/ GREENSBORO

Take I-40 East. Take the Alexander Drive exit. Turn right at the light then go straight through the next light (Davis drive) and through next light (Cornwallis Rd.). Go about 1/2 mile and DuPont will be on the left. Go past the pond to the 2nd entrance (the DuPont employee entrance). Turn left. Proceed to the 3rd driveway and turn right to the DuPont parking lot. You will walk across a long breezeway to enter the building.

Who's Who in the IEEE Eastern N.C. Section 2003 Officers and Volunteers

Section Chair
Abhinav Aggarwal
abhinav@ieee.org

Section Vice Chair
David W. Ruden
druden@ieee.org

Section Secretary
Jana L. Jenkins
jljenkin@juno.com

Section Treasurer
David W. Ruden
druden@ieee.org

Committee Chairs

Awards & Recognition
Lee C. Haas
eelee@ieee.org

Educational Activities
Open—this can be you!

Membership Development
Shobha Saraiya
shobha@ieee.org

Newsletter Editor
Professional Activities
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Steering Committee
David Schulman
capsalad@gate.net

Student Activities
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siegl@ieee.org

ElectroMagnetic Compatability
Glenn Robb
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Applications
Roger Lawrence
rogerlawrence@rglsolutions.com

Communications / Information
Technology
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Geoscience and Remote Sensing
Linda Hayden
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Engineering Management Society
Subroto Bhattacharya
subroto@computer.org

Signal Processing Society
Joel Trussell
hjt@eos.ncsu.edu

Women in Engineering Affinity
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Mary Ellen Randall
merl@ascottechnologies.com

Robotics and Automation
Grayson Randall
randallg@us.ibm.com

"ACME"
(Antennas and Propagation, Components, Packaging, and Manufacturing Technology, Microwave Theory and Techniques, and Electron Devices)
Dev Palmer
dev.palmer@us.army.mil

Neural Networks
Mo-Yuen Chow
chow@eos.ncsu.edu

Engineering in Medicine and Biology (EMBS)
Thomas Jepsen
tjepsen@mindspring.com

Special Interest / Affinity Chairs

Software Job Hunt Collaboration
Harold Meder
hwm@ieee.org

Biotech Job Hunt Collaboration
Esther Lumsdon
esther_1@ieee.org

Embedded Systems Special Interest
Group
Steve Lund
slund-ieee@pobox.com

K-12 Outreach
Chris Siegl
siegl@ieee.org

Visit Us on the Web!

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

**And come explore our
Virtual Community**

[http://
www.ieeecommunities.org/encs](http://www.ieeecommunities.org/encs)



EMS Member Survey (open to all IEEE Members)

General

What is your current occupation?

What can Engineering Management Society, Eastern NC Chapter (EMS) do to better serve your needs?

Meeting topics and seminars

How often EMS should provide seminars to IEEE members? (choose one)

- Twice a month
- Once a month
- Once in two months
- Once in a Quarter
- Never

We are envisioning these possible topics for seminars. What's your interests? Please rate your interest:

Evaluating and managing risk	5	4	3	2	1
	(Interested			Not-interested)	
Financing a project	5	4	3	2	1
	(Interested			Not-interested)	
Planning a project through a set of financial options	5	4	3	2	1
	(Interested			Not-interested)	
Fostering and managing innovation	5	4	3	2	1
	(Interested			Not-interested)	
Being an Entrepreneur	5	4	3	2	1
	(Interested			Not-interested)	
Auditing and managing small business operations	5	4	3	2	1
	(Interested			Not-interested)	

Other Areas of Interests _____

Would you like to speak at an EMS meeting or seminar?

- Yes
- No

If yes, please provide your email _____

Management Workshop

Would you like to attend IEEE sponsored Management Workshops?

- Yes
- No

Would you like to attend in a management workshop that you have to pay?

- Yes
- No

Will your Company reimburse you for an IEEE sponsored Management Workshop?

- Yes
- No

If an answer to the above questions is "Yes," then what should be the duration of a workshop?

- 1 day
- 2 days
- 3 or more days

If an answer to the above question is "Yes," then what topics will interest you to attend?

Supporting the Chapter

Are you interested in helping out this Chapter? Please check one:

- Yes - Developing Programs
- Yes - Supporting Publicity
- Yes - Providing Professional Development
- No

If you are interested, please provide the following information:

Name: _____

Email: _____

Phone: _____

***Thank you for participating in the EMS-Survey.
Please Email the Survey to ems.encs@ieee.org (preferred) or print, fill out, and mail to:
EMS Survey, c/o Charles Lord, 108 Huntington Circle, Cary, NC 27513***