

# **IEEE** *The Open Channel*

Newsletter for the Hampton Roads Section of the IEEE  
The Institute of Electrical and Electronics Engineers, Inc.

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

Volume 2 – No. 5

May 2005



## May Social: A night at the Park Pawtucket Red Sox vs. Norfolk Tides

**Date/Time:** Saturday, May 21, 2005 at 5:30 PM

**Location:** Harbor Park

150 Park Avenue **757.671.8100**

Norfolk, VA 23502

**Cost:** Members and guests \$25; Children (12 and under) \$15



As in year's past, the Hampton Roads Section has set aside May for family socials. We forego the technical talks so that our significant others can join in on the conversation. Our May Social Event will be [TIDES BASEBALL](#) the night of Saturday, May 21st, 2005. The only technical discussions here might be the game play statistics of the players, the ideal speed and arc of a baseball pitch, or how best to raise a toast to \_\_\_\_\_ (you fill in the blank). No arguing please.

Game time is 7:15pm. This coincides with Military Appreciation Night and fireworks will be displayed. We will be in either Section 118 or 214, which are behind the 1st base dugout within close proximity to the restaurant.

**Parking:** \$4/vehicle paid at time of parking. Nothing we can do about that.

**Food:** We have reserved 'Hits at the Park' (the restaurant in right field) from 5:30pm - 7:00pm. Featured will be the Harbor Park Buffet. That price does not change if the number of people change.

The price includes tickets to the game. Tickets will be handed out during the social. Get your reservations in early.

Note: The social will still be held even if the game is called due to weather.

**Reservations:** Please forward RSVP to Brent Phillips [[bphillips@ieee.org](mailto:bphillips@ieee.org)] or William LaBelle [+1 757 619 9050, +1 757 421 8695, [w.labelle@ieee.org](mailto:w.labelle@ieee.org)].

**Checks:** Checks should be made out to IEEE and brought to the meeting.

**Directions:** See page 3

### Upcoming Meetings

May 19 Social: A Night with the Tides?  
Sep 15  
Nov 24

Jun-Aug Summer break  
Oct 20  
Dec Holiday break

### Inside this Open Channel

Page 2 From the Chair

Page 3 Directions to Harbor Park

Page 3 Message from the Region 3 MDC

Page 4 From the Hampton Roads MDC

Page 4 Richmond Ch. PES, MAPQS

Page 5 Region 3 Websites

Page 7 Calendar Events

Page 8 Local Announcements

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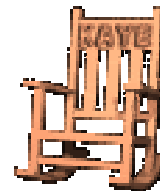
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All materials for THE OPEN CHANNEL are due by the 22<sup>th</sup> day of the month preceding the issue month. Address all correspondence to:

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## From the Chair

### HOT FUN IN THE SUMMERTIME



We are approaching our traditional summer break. This will be the last snail mail you will receive from us until September. There are a lot of good reasons for this break, but I would like to encourage you to stay in touch electronically. For most of you are receiving this newsletter electronically, but we know some of you really count on the paper copy. If for any reason, you have chosen to “opt-out” of electronic delivery, please check back on our web site, <http://www.ieee.org/hrs/>, or subscribe to our RSS feed, [http://ewh.ieee.org/r3/hampton\\_roads/rss.xml](http://ewh.ieee.org/r3/hampton_roads/rss.xml) to keep in touch with our summer activities.

What fun is it living in paradise if you don't get time to enjoy it? While for you as a member a meeting is only a few hours out of your month, collectively for the executive committee there are a significant number of hours involved in each one. Everything takes time: developing the program, booking the restaurant, arranging for the audio-visual support and publishing the newsletter. I think many of you would be surprised how the time adds up. I would like to take this opportunity to thank the whole crew for putting together an outstanding program so far this year and hope that they enjoy this time off.

I think Brent has put together a perfect family outing for our May social event. I hope you all agree. But that is not all we plan for the summer break. I will be announcing no host socials to meet the Chair, one on each side of the Roads. I also have gotten a volunteer who has promised to set up a lunch time meeting, something that has been requested by a number of members. Finally, we will be having our semi-annual executive committee meeting in August where we will plot out the meetings for the rest of the year. Anyone who would like to participate in the program development (and execution) is invited to attend. Dinner will be on us.

On another subject, some of you have asked for copies of our meeting presentations. We have been posting them on line when they are available. If you pick the link for “Meeting Archive” under the Calendar section of our homepage, the basic information on each of our meetings is available. If we have a copy of the presentation, it will be linked to the top of the page. Check out March 2005 as an example. If you don't remember the date of the presentation, try the “Search” link at the top of our homepage. It works.

So enjoy summer here in the beautiful Hampton Roads and keep in touch electronically.

Sincerely,  
Bill Clayton  
Chair  
[w.clayton@ieee.org](mailto:w.clayton@ieee.org)

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## Harbor Park, Norfolk:

### Directions from I-64 (East & West), North (Peninsula) and East (Virginia Beach):

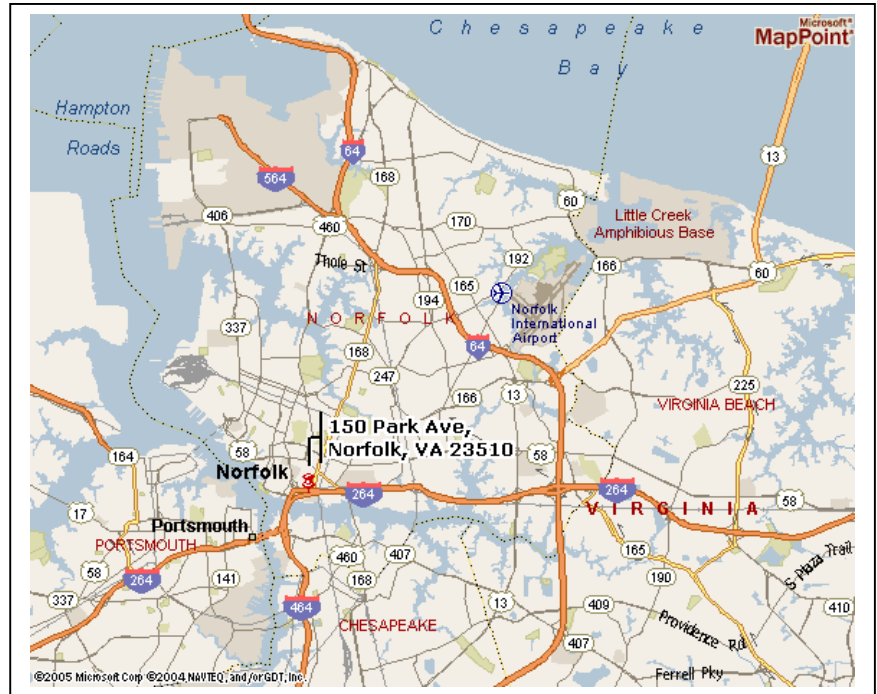
1. Follow I-264 West toward Downtown Norfolk
2. Take exit 9 (Waterside Drive)
3. At traffic light at the bottom of the ramp take a right turn onto St. Paul's Blvd.
4. Take next (immediate) right turn onto Union Street
5. Follow to stadium parking

### Directions from West (Suffolk, Smithfield, etc.):

1. Follow I-264 (East) through Downtown Tunnel into Downtown Norfolk
2. Follow signs to Waterside Drive
3. At the traffic light at the bottom of the ramp take right turn onto St. Paul's Blvd
4. Take next (immediate) right turn onto Union Street
5. Follow to stadium parking

### Directions from South (I-664):

1. Follow I-464 (East) toward Downtown Norfolk
2. Follow signs to Waterside Drive
3. At the traffic light at the bottom of the ramp take right turn onto St. Paul's Blvd
4. Take next (immediate) right turn onto Union Street
5. Follow to stadium parking



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## Message from the Region 3 Membership Development Chair

Region 3 Student IEEE Members,

For many of you, years of hard work is about to pay off as you graduate and earn your Electrical Engineering degrees. The IEEE wants you to know that we are proud of your accomplishments. We also want to say that the IEEE is a Network of people that will stand by you throughout your career as a place to meet people, learn new ideas and practice skills that are important to career growth.

If you are still looking for your first job, the IEEE has a number of resources available to assist you. A good place to start is the Region 3 Employment Assistance web site at, <http://www.ieee.org/r3jobs>.

This site has a number of links that will help you find information about companies and how to prepare yourself for an interview. Don't forget that "networking" is always the best way to find a new job. IEEE Members can use our online resources and visit local Section/Society meetings to meet people that work at prospective companies.

If you already have a job after graduation and would like to start the next phase of your IEEE Membership, the IEEE has a program called GOLD or Graduates of the Last Decade. The GOLD program has been specially designed for IEEE Members just like you that are now starting their careers. Through this program you can access a range of resources that will help you jump start your technical and professional activities that are so important to a new career. More information on GOLD, can be found at, <http://www.ieee.org/organizations/rab/gold/>.

Lastly, the IEEE can't support you unless we know where you are. Too many graduates disappear after graduation. Please make sure you let the IEEE know where your next address is by updating your information at,

<http://www.ieee.org/portal/site/membport/menuitem.6e9711bf650c868bf71381105bac26c8/index.jsp?&pName=products2col&path=membership&file=coa.xml&xsl=generic.xsl&>

Again, congratulations on completing the first step of your career. Please stay a part of the IEEE because without the IEEE Network, you are alone out there. With the IEEE, you are part of a supportive organization that will be with you for the rest of your career. All Members (including students), do you know any one interested in membership in the IEEE? Let me know. NEW applications received between now and 15 August are processed at a half-year rate.

Thanks,  
Lee Stogner  
Region 3 Membership Development Chair  
[l.stogner@ieee.org](mailto:l.stogner@ieee.org)

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### **From the Hampton Roads MDC**

Let me also congratulate the Students of the Spring 2005 graduating class on your accomplishments and successes. May they continue.

Lee Stogner, Region 3 MDC, has already expounded on the benefits of continuing your membership with the IEEE. I too would like to encourage you to continue your membership with the IEEE. To keep those IEEE publications coming to you will need to update member profile. Changing your contact information also allows the region, council, or section that you will be entering to be notified so that they may contact you. Besides the website there are several other ways to do update profile:

1. IEEE Web Contact Update <http://ieee.org/membership/coa.html>.
2. Send address changes including your name, IEEE Member number and all pertinent information to:  
IEEE  
445 Hoes Lane  
P.O. Box 1331  
Piscataway, NJ 08855-1331
3. Call (800) 678-4333
4. Fax your address changes to (732) 562-5445

Oh yeah, I should mention grade and dues. Student members transferring to a higher grade upon attaining their first professional degree pay reduced IEEE dues, assessments and society membership fees in the year following their graduation.

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All Members (including students), do you know any one interested in membership in the IEEE? Let me know. NEW applications received between now and 15 August are processed at a half-year rate.

William LaBelle  
Hampton Roads Membership Development Chair  
[w.labelle@ieee.org](mailto:w.labelle@ieee.org)

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### **Richmond Chapter of IEEE PES and Mid-Atlantic Power Quality Society**

The Richmond Chapter of IEEE PES, in conjunction with the Mid-Atlantic Power Quality Society, is pleased to announce their technical program for Tuesday evening, May 24 at Dominion's Innsbrook facility (see link below for directions).

This program is intended to introduce the attendees to the topic of arc flash hazard. You'll learn about the causes of arc flash, what the various standards and regulations say about it, what steps are required to perform an arc flash analysis and determine the personal protective equipment requirements and what the labeling requirements are.

The speaker, Conrad St. Pierre with Electric Power Consultants, LLC has extensive industrial application experience with GE and Power Technologies, Inc. and is a member of the working group on arc flash (IEEE Std. 1584). He will have a few copies of his book, A Practical Guide to Short-Circuit Calculations, available for the special meeting price of \$70.

#### **Schedule:**

Social: 5:00 – 6:00



Dinner: 6:00 – 6:45  
Business Meeting: 6:45 – 7:00  
Program: 7:00 – 8:00  
Q & A period: 8:00 – 8:30  
Meeting Cost (includes dinner): \$30

We will accept payment at the meeting but reservations should be made by May 17 by email or phone. Checks should be made payable to the Mid-Atlantic Power Quality Society or simply MAPQS and should be sent by May 17 to:

Dan Ward  
Dominion Virginia Power  
PO Box 26666, OJRP-11  
Richmond, VA 23261  
dan\_ward@dom.com  
Ph: 804 775-5328

**Directions** Go to the following link: [http://www.dom.com/contact/dir\\_itc.jsp](http://www.dom.com/contact/dir_itc.jsp)

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### Region 3 Websites

R3 Web Site:

<http://www.ewh.ieee.org/reg/3/>

ETI Web Site:

<http://ie3eti.eng.uab.edu/>

ETI Authorization: [eti-info@eng.uab.edu](mailto:eti-info@eng.uab.edu)



**IEEE**

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### May 2005 Calendar of Events

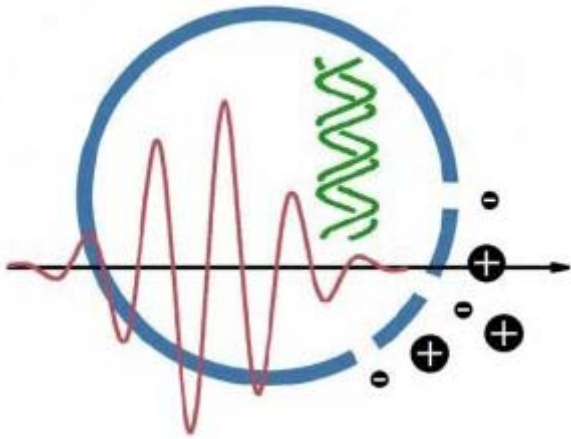
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
8 <i>Mother's Day</i>	9	10 PEC	11	12	13	14
15	16	17	18 ECHR	19	20	21 IEEE HR Social
22	23	24	25	26	27	28
29	30 <i>Memorial Day</i>	31				

### June 2005 Calendar of Events

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1 ECHR	2	3	4
5	6	7	8	9	10	11
12	13	14 <i>Flag Day</i> PEC	15	16	17	18
19 <i>Father's Day</i>	20	21	22	23	24	25
26	27	28	29	30		

### July 2005 Calendar of Events

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4 	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						



## **REGISTER NOW! ElectroMed 2005 Conference**

### ***ElectroMed 2005: The Fourth International Symposium on Nonthermal Medical/Biological Treatments Using Electromagnetic Fields and Ionized Gases***

The recent findings and technological advances in this area have previously been communicated every two years in ElectroMed '99, ElectroMed 2001, and ElectroMed 2003. A fourth international symposium on the "Non-thermal Medical and Biological Treatments using Electromagnetics Fields and Ionized Gases," ElectroMed 2005, is scheduled to take place on May 15-18, 2005 at the Marriott Portland Downtown.

Abstracts and presentations may include the following areas:

- Application of electric fields for medical diagnostics and devices
- Bioeffects of pulsed microwaves, millimeter waves, and nonthermal plasmas
- Biological decontamination by pulsed electric fields
- Plasma-based sterilization
- Biomedical application of plasmas
- Biophysical modeling and simulations
- Electrochemical and electrochemiluminescent sensing
- Electrobiomimetics
- Diagnostics and imaging techniques
- Effects of gene and protein extraction and expression
- Electroporation of cells and tissues and their application

For further conference information and to register for the conference and pre-conference tour, see [www.electromed2005.com](http://www.electromed2005.com)

Hosted by MicroET, [www.microet.com](http://www.microet.com)

Questions?

Melissa at MicroET

Email: [melissa@microet.com](mailto:melissa@microet.com)

Phone: 360-694-3704

or

Contact Rosalie at Beatty Group Int'l

Email: [rosalie@beattygroup.com](mailto:rosalie@beattygroup.com)

Phone: 503-644-3340 or 800-285-6215



## Mount St. Helens, Washington "Plume in the Evening" March 8, 2005

***A small, short-lived explosive event at Mount St. Helens volcano began at approximately 5:25 p.m. PST, March 8, 2005. Airplane pilot reports indicate that the resulting steam-and-ash plume reached an altitude of about 36,000 feet above sea level within a few minutes and drifted downwind to the northeast. The volcano's rim stands at 8,325 feet.***

*The principal event lasted about 30 minutes, with intensity gradually declining throughout. The resulting plume was mostly white or light colored as viewed in the Pacific Northwest sunset, which is the basis for our preliminary*

*assessment that steam was the predominant component. Even so, light dustings of ash are expected on the flanks of the volcano and are possible as far away as central Washington.*

*To the best of our knowledge, no lives have been at risk and no injuries sustained as part of the latest steam-and-ash ejection, one of the largest since October 2004. The U.S. Geological Survey had no crews in the field at the time. The area around the volcano is closed to public entry, owing to the hazardous conditions that have been ongoing since the eruption began in late September 2004.*

The announcement above is listed on the USGS (United States Geological Survey) website.

ElectroMed 2005, to be held in Portland, Oregon May 15-19, is offering a pre-conference day tour to Mt. St. Helens on Sunday, May 15. The Visitor Centers are still open to the public (except for Johnston Ridge, which closes each winter.) Given all the recent activity, this should be a very exciting addition to the ElectroMed 2005 Conference.



***DATE SET FOR 2005! Wednesday & Thursday, September 14-15, 2005, Crowne Plaza Williamsburg (formerly Radisson) at Fort Magruder, Williamsburg, Virginia. Put it on your calendar and plan to attend. Bookmark this page and check back frequently as we begin preparations for next year.***

This conference is an annual statewide event that is directed towards all engineers and principals of engineering firms in the state of Virginia, and is jointly sponsored by the Virginia Society of Professional Engineers (VSPE) and the American Council of Engineering Companies of Virginia (ACEC/V). An Associate Sponsor for this year's conference will be the Virginia Section of the American Society of Civil Engineers (ASCE/VA Section) who is providing the speakers for the civil track on Wednesday.

The conference will include two full days of seminars. You will be able to register for both days or you can choose to only attend one of the days. Be sure to register early to take advantage of special rates as well as reduced rates for your hotel accommodation.

On Wednesday, attend seminars of your choosing from four different tracks (professional, business, technical and civil). You will be able to earn up to a total of 13 Professional Development Hours over two days or up to 6.5 PDHs in one. A luncheon is scheduled for Wednesday as well as a reception from 5:00-6:30 p.m. This will give you an excellent opportunity to network with other attendees and guests attending the conference.

On Thursday, we continue with the three tracks (business, professional, technical) plus the fourth one will be on Project Management. Another luncheon will also be held with the conference concluding at 5 p.m.

If you have any questions, please contact Leigh Dicks, VSPE Executive Director, [VSPE@aol.com](mailto:VSPE@aol.com), 804-673-4545.

We look forward to seeing you in Williamsburg!

# SENSORS GOV

EXPO & CONFERENCE

DECEMBER 6 - 8, 2005 • HAMPTON ROADS CONVENTION CENTER • HAMPTON, VA

SensorsGOV Expo & Conference

December 6 - 8, 2005

Hampton Roads Convention Center, Hampton VA



2005 Keynote Presentation

David G. Boyd, Ph.D.

Deputy Director, Systems Engineering and Development

Science and Technology Directorate

U.S. Department of Homeland Security

The focus of the expo is to bring together sensor suppliers and government agencies that use sensors. The first expo was last year in Virginia Beach. There is an open call for papers for developers or users of sensing technology to be presented at this expo. The closing date for submission is June 30, 2005.

For more information visit the expo and website at <http://www.sensorsgov.com/sensorsgov/v42/index.cvn>.

Produced in partnership with the Hampton Roads Technology Council, the SENSORS GOV EXPO & CONFERENCE is the leading event on government and military sensing technologies. The program – which is designed for decision makers and leaders who evaluate, influence, recommend, authorize, implement and/or manage sensor-integrated technology -- examines a wide range of applications, including: homeland security; health monitoring; environmental monitoring; transportation, communications, modeling & simulation, etc. The 2005 event will address sensor technologies associated with wireless systems, optical imaging, chemical/biological/nuclear/explosives sensors, advanced technologies (electroactive devices, smart materials, etc.), and related topics.

## Mark Your Calendars!

### A call for papers (submittals no later than June 30, 2005)

#### FORMAT

Please submit a session proposal for one or more of these events if you are an end user, an industry analyst/consultant, or a solution provider with expertise in the subject areas to be covered.

All conference sessions must be educational in nature – absolutely NO company- or product-specific promotion is permitted. An objective presentation that meets the educational expectations of the audience enhances the credibility of the speaker, the speaker's employer and the event itself. Presentations should fall under one of the following presentation types:

- Case Study/Real-Life Example
- Benchmark or Industry Study
- Panel Discussion
- Lecture

#### SUBMISSION PROCEDURES

PROPOSALS WILL BE EVALUATED IN TERMS OF:

- Importance to end-users
- End-user involvement in session (either as a solo presenter or co-presenter)

- End-user content in session (use of case studies)
- Educational content
- Originality of presentation
- Speaker knowledge and experience

### **SPEAKER GUIDELINES**

All applications should be submitted electronically via our on-line form. Please complete your proposal electronically and no later than June 30, 2005. Please note that any submission received after June 30 will be considered on a back-up basis only. When completing the application, please keep in mind that the most critical parts of the application are the session title, description and bio. These two sections are meticulously reviewed when determining the most appropriate speaker for a topic, so please make it a point to be as compelling and concise as possible.

Speakers will not be compensated for presenting, but will receive complimentary admission to the show and conference. Accepted speakers will be required to sign and submit a speaker agreement and provide an electronic copy of their presentation by a specific date for the production of attendee handouts.

### **SESSION CATEGORIES (CO-SHOWS) AND DESCRIPTIONS**

**Advanced Sensors (Nanotechnology, Actuators, Smart Materials)**

**CBNRE (Chemical, Biological Nuclear, Radiation, Explosive)**

**Doing Business with the Government (SBIR Focus)**

**Energy Monitors/Detection (Particle and Radiation)**

**Environmental Monitors (Oceanographic, Air Quality, Water Quality, Remote Sensing, Chemical and Gas Sensors)**

**Health Monitoring (Structural, Machinery)**

**Homeland Security (Bridges/Tunnels/Roadways, Aviation Security, Port Security, Shipping Container Threat Protection)**

**Modeling & Simulation (Validation, Algorithms and Statistical Methods)**

**Optical & Imaging (Night Vision, Restoration, Biomedical, Aerial, Fiber Optics Sensors)**

**Sensor & Acuator Systems (Fluidic Sensors, Magnetic Based Sensors, Pressure, Ultra-Low Power Sensing Technology, Ultrasonic Sensors)**

**Sensor Networking and Interoperability (Interface Circuits, Data compilation, Miniature Sensors)**

**Transportation (Small aircraft Transportation System (SATS), Aviation Safety, Icing, Windshear, Collision Avoidance, Automotive Sensors)**

**Wireless Sensing (Networks and Communication)**

**Human Health Monitoring**

**Power Generation & Transmission Systems**

**Smart Materials**