



IEEE *The Open Channel*

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

http://www.ewh.ieee.org/r3/hampton_roads/

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January 2004

2004 Annual Student Paper Competition

Date/Time: Thursday, January 22, 2004 at 6:30 PM

Location: Webb Center Old Dominion University, Norfolk, VA

Cost: Members and guests \$20; Students \$10



The Hampton Roads Section will be sponsoring the 2004 Annual Student Paper Competition. Students from local colleges are invited to present topics on research and innovations. Prizes will be awarded to the three best presentations. Faculty and guests are welcomed to attend. Come hear what our college engineers are researching today.

Directions:

- Take I64 to Exit 276 - I564,
- Take I564 to Terminal Boulevard.
- Travel approximately 2 miles
- Make a left on Hampton Boulevard.
- Travel 6-7 miles to 43rd Street,
- Turn right onto 43rd Street, the entrance to the University.
- The Parking Garage will be on your right about 1/4 mile down 43rd Street.
- A parking pass must be obtained from Parking Services (located on the ground floor of the parking garage) to park on campus.
- Webb Center is the large glass-walled building south across Elkhorn Ave.
- Map: http://www.odu.edu/home/secondary/campusmap_enhanced.html

Reservations: None required however if you have questions about the meeting, please contact Tim Gavin [757-827-1786 x313 or tim_r_gavin@ieee.org].

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

Future meetings

February 19

March 18

April 15

May 20

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All materials for THE OPEN CHANNEL are due by the 25th day of the month preceding the issue month. Address all correspondence to:

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Editors Note

I trust all the members of the Hampton Roads Section had an enjoyable holiday break, getting together with family and friends, and carrying out old (and possible new) traditions. Don't you wish it could continue a little bit longer? Not to be, the majority of us must now get back to work to earn a living, saving for retirement and paying for all those gifts we gave.

Speaking of traditions, the Hampton Roads Section will be sponsoring the 2004 Annual Student Paper Competition. This year Old Dominion University College of Engineering and Technology Department of Electrical and Computer Engineering will host the event on January 22, 2004 in Webb Center on the university's main campus off of Hampton Boulevard in Norfolk. Presenters are expected from Old Dominion University, Hampton University, Christopher Newport University, and Norfolk State University.

Beyond the monetary value of the competition, this annual event has proved to be a staging for students preparing presentations for the Region 3 SoutheastCon. Dr. Roland Mielke, emcee and moderator, has observed that the student or student group that has won first place have gone on to place 3rd or better at SoutheastCon for most of the past decade. So come out and hear what contributions to society student engineering population are involved in.

An editor for any publication always looks for new and innovative ideas to make their product more appealing. So it is with me. I have reviewed the content and format of several sections and other engineering societies newsletters as well as spoken to some of the editors.

One thing I observed was that few used the multi-column format that has been part of this newsletter for at least the past eight years. Thus, with this edition I changed to a single column mode. Secondly, many included a mini-calendar showing meetings and events. You will find this on the last page of the issue.

I made arrangements to include the 'Brain Teaser Challenge Column.' This column written by Butch Shadwell, Florida West Coast Section, presents an engineering problem to be solved. The column includes a new problem and a solution to the prior month's teaser. Members can participate by sending their solutions to Shadwell. The January 2004 'Brain Teaser Challenge' is on page 5.

Is there something you would to see added in *The Open Channel* or removed? I am working to include other columns and features but would like to hear from you, the member, to get a feel for what I am doing right and what I should consider changing or removing. Send comments, articles, announcements, et al to William LaBelle [w.labelle@ieee.org]. Due date is for materials to be published in *The Open Channel* is the 25th day of the month preceding the issue month.

William LaBelle

IEEE HR Annual Elections

The Hampton Roads Section is holding its annual election of officers in January. Nominations are still open for all elected positions are: Chair, Vice Chair, Treasurer, and Secretary. Leadership training is available for all positions. The current slate of candidates are:

Chair: Tim Gavin
Vice-chair: Dr. Robert Dawes
Treasurer: William Clayton
Secretary: Brent Phillips

Send in your nominations now to William LaBelle [w.labelle@ieee.org] or William Edmonson [wedmonson@ieee.org]

IEEE-USA TODAY'S ENGINEER topics (December 2003):

Backscatter: Designing Junk?

Most of us probably have our own personal collections of e-waste: "dated" computers, thermal fax machines, older-model CD players and cell phones, VCRs. We can credit "planned obsolescence" at least partially for these collections. And now that we have the newest, the fastest, the latest bells and whistles, what do we do with the growing pile of yesterday's latest and greatest?

[<http://www.todaysengineer.org/Dec03/backscatter.asp>](http://www.todaysengineer.org/Dec03/backscatter.asp)

Preparing Effective Visuals

You're scheduled to give a presentation and want to get and keep your audience's attention. You know creative visuals would help support your talk. After all, a presentation without visuals is, well, just a presentation, right? Not exactly. In fact, unless they're good — which is rare — visuals can actually kill an otherwise solid presentation. What do you need to know to produce all-around, effective visuals that will stay with your audience long after your talk?

[<http://www.todaysengineer.org/Dec03/preparing.asp>](http://www.todaysengineer.org/Dec03/preparing.asp)

What Policies Does IEEE-USA Advocate?

Position statements serve as the basis for IEEE-USA's legislative agenda and represent the authority for the policies advocated on behalf of IEEE's U.S. members. How does a position become one? And should we limit policy advocacy to technology issues only or do career policy issues still deserve our voice?

[<http://www.todaysengineer.org/Dec03/policies.asp>](http://www.todaysengineer.org/Dec03/policies.asp)

Government Hops on the Smart Card Bandwagon

The ramp up of smart card technology in this country has been slow. Lately, however, government agencies and other organizations have picked up the pace, using smart cards for employee identification, payment options and fraud protection. What's more, groups are forming partnerships that allow users to use the same cards for very different purposes. Find out what and who has been behind the step up in smart card use.

[<http://www.todaysengineer.org/Dec03/smartcards.asp>](http://www.todaysengineer.org/Dec03/smartcards.asp)

Also in TE

Engineering Hall of Fame: [The "Forgotten Father of the Computer"](#)

World Bytes: [Festivals and the Global Community of Values](#)

Capitol Shavings: [Pension Tension on the Hill](#)

Read the complete articles and other at the Today's Engineer web site (<http://www.todaysengineer.org/>).

IEEE Events and Announcements

SoutheastCon 2004

SOUTHEASTCON brings together electrical, electronics, and computer engineering professionals, faculty and students to share the latest information through technical sessions, tutorials and exhibits. It is the most influential conference in the southeast for promoting awareness of the technical contributions made by the electrical and computer engineering profession to the advancement of engineering and science, education, and to the community.

This annual Region 3 conference will be held in Greensboro, North Carolina March 26 - 28, 2004. For more information visit the conference web site at:

<http://www.ewh.ieee.org/cmte/secon04/>

The call for papers has already been announced. Submittal of refereed papers are due December 19, 2003 to the SoutheastCon 2004 Program Committee. More details may be found through conference web site links.

SouthCon 2004

Southcon attendees represent companies from a major cross-section of the electronics industry including consumer, computer, medical, automotive, and more. As they search for more cost effective ways of developing products, they turn to Southcon's high quality conference sessions, in-depth technical sessions, product demonstrations and vendor exhibits to deliver answers and solutions to their current and near-future problems.

This year's conference will be held at the Orange County Convention Center in Orlando, Florida January 14-15, 2004. For more information visit the conference web site at:

<http://www.southcon.org>

SIEDS 2004

The 2004 IEEE Systems and Information Engineering Design Symposium will be held on Friday, April 16th, 2004 in downtown Charlottesville at The Omni Hotel.

Professor K. Preston White (SIEDS '04 Committee Chair) has mentioned that there is still a window of opportunity for those interested in presenting papers to submit one. The SIEDS 04 Conference is currently accepting submission of one-page abstracts for expanded presentation in a 30-minute format at the Symposium.

Those requesting further information on the 2004 IEEE Systems and Information Engineering Design Symposium are encouraged to visit our website at:

<http://www.sys.virginia.edu/sieds04>

and consider this unique opportunity. Please don't hesitate to contact us should you have questions or concerns about your paper abstract and participation in the Symposium.

Senior Member drive continues

The senior member drive elevate members from a grade of 'Member' to a grade of 'Senior Member' continues. Of the 500 of the sections active membership hold a grade of 'Member' almost 400 may be eligible for upgrade. Information on requirements for elevation from 'Member' to 'Senior Member' can be found at

<http://www.ieee.org/organizations/rab/md/smprogram.html>.

Local Engineering Announcements

NSPE Future City Competition: Sponsored by the National Engineers Week Committee, a consortium of more than 100 engineering societies and corporations, Future City is one of the most successful not-for-profit educational programs of its kind. Students design their cities first on computer, using SimCity 3000 software donated to all schools by Maxis Corporation of Walnut Creek, California, and then build large, 3-D scale models. In January, student teams working with a teacher and volunteer engineer mentor from the community, present and defend their designs to a panel of judges at one of 34 regional competitions across the country. First place teams at qualifying competitions receive all-expense-paid trips to Washington, D.C. for national finals during National Engineers Week, February 22-28, 2004.

Participating middle school students create cities of the future and write a city abstract and an essay on solving an important social need with engineering. The 2004 essay theme is how plastics can be used to help senior citizens in the future, and the teammates from Valley Middle School -- like many of the estimated 30,000 students from 1,100 schools in this year's competition -- aren't shy about pulling out all stops to get what they need. Come out and see what our middle schools students think the city of the future will look like and how plastics will play a part.

The regional competition, sponsored locally by the Engineering Club of Hampton Roads, will be held at the Virginia Air & Space Museum in Hampton on January 17th 2004 from 10 AM to 3 PM.

ASCE: The ASCE Norfolk Branch in conjunction with the Virginia Floodplain Management Association (VFMA) will host the "Floodplain Management / Water Resources Seminar" on February 11th and 12th 2004 at the Holiday Inn Executive Center, Virginia Beach. The seminar will discuss the Virginia Floodplain Management Program as it relates to local planning, zoning and building officials as well as consultants, surveyors and builders. Topics will include the National Flood Insurance Program, Map Modernization (hazard mapping), Disaster Mitigation Planning, Elevation Certificates, Coastal Construction, Success Stories, and Hurricane Isabel Recovery Efforts. Keynote address by the Honorable Meyera E. Obendorf Mayor of the City of Virginia Beach. Registration and sponsorship forms for the seminar are available on-line at:

http://branches.asce.org/norfolk/seminar/ASCE_Seminar.pdf

Please contact David Ihde, P.E. at 427-8666 or by e-mail dihde@vbgov.com for additional information.

PEC: The Peninsula Engineering Council Engineer of the Year Banquet will be held at Point Plaza Suites and Conference Ctr., (The former Ramada Inn), 950 J. Clyde Morris Bld, NN. on February 28, 2004. A flier with the details will be sent to all societies shortly.

Tickets this year will be \$25 per person. Please contact your HR Section PEC Representative William LaBelle [757-619-9050, w.labelle@ieee.org] for tickets and banquet information.

Local Engineering Events inputs

Are you are organizing or sponsoring a local event of interest to the engineering community? Do you know of one? Let us know! Send your event announcement to me, William LaBelle (w.labelle@ieee.org), for publishing in the next edition(s) of *The Open Channel*. Additionally, your event can be announced, or a link established, on the section web site. The section newsletter reaches about 1000 local IEEE members each month. It is a free resource that you can't ignore.

Hampton Roads Engineering Society Calendar

The HRES is a free website and e-mail calendar of engineering society events for the Hampton Roads area. It is open to the public and all societies are invited to advertise their events. List members receive a weekly text-only e-mail calendar of events.

Currently, HRES is maintained by Ray Walsh (SNAME), but Mr. Walsh will be unable to maintain it in the future. If you are interested in taking over Mr. Walsh's efforts, please contact the IEEE HR PEC representative William LaBelle [w.labelle@ieee.org].

The manager of the HRES is SNAME. SNAME, or The Society of Naval Architects and Marine Engineers, an internationally recognized nonprofit, technical, professional society of individual members serving the maritime and offshore industries and their suppliers.

Brain Teaser Challenge Column – January 2004

Butch Shadwell

At the U.S. Naval Academy this time of year is known as the dark ages. It is often very cloudy and cold and with the constant chill, the campus has a generally glooming look about it. One good thing about this weather was that we had fewer p-rades than in the warmer months. In the 60's and 70's we used to carry the M1 Garand with fixed bayonets for parades, about 11 pounds. With the white gloves and an oily piece, it was often challenging.

The traditions and lore of the U.S. Navy, and the Academy, help to build the esprit de corps that makes our navy the best in the world. You may not know that Albert Abraham Michelson was a Naval Academy grad and later taught physics there. In case that name doesn't ring a bell, Michelson did the first really accurate measure of the speed of light and later invented the Michelson interferometer.

So, if Fred is traveling north from Texas at 2000 mph and Jim is traveling southwest at 2000 mph from New York and then Jim shines a laser of 640 nm wavelength at Fred, what wavelength does Fred perceive?



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.

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January 2004 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 <i>NSPE Future City Competition, VASC 10am – 4pm</i>
18	19	20	21	22 <i>IEEE Section Meeting</i>	23	24
25	26	27	28	29	30	31