



# IEEE *The Open Channel*

Newsletter for the Hampton Roads Section

[http://www.ewh.ieee.org/r3/hampton\\_roads/](http://www.ewh.ieee.org/r3/hampton_roads/)

The Institute of Electrical and Electronics Engineers, Inc.

October 2003

## **Hampton Roads IEEE Meeting**

October 16, 2003

6:00 PM Exec Committee

6:30 PM Social

7:00 PM Topic for the night

### [ROM Thai Restaurant](#)

7512 Granby Street, Norfolk,  
VA 23505

757.480.7900

Meal Costs:

Members & Guests: \$20.00

Students: \$10.00

## Editor's note

First, let me say that I hope that you, your family, and friends have fared well in the aftermath of Hurricane Isabel. At the time of this writing, I know some of you may still be without power. Hopefully, it will not be much longer before the lights are back on.

Isabel did throw a bit kink into everybody's plans in September. The EXCOM did the reasonable measure of canceling the September 18<sup>th</sup> meeting with full expectations of rescheduling for the following week. That was not to be.

Did you get a chance to read the September issue of the *IEEE Spectrum*? What timing. This month we present Professor Mool C. Gupta as the guest speaker. Thanks to Isabel this is take number two.

## Nanotechnology Research at the Applied Research Center – take 2

October 2003

Professor Mool C. Gupta will describe the research work in nanotechnology carried out at the Applied Research Center (ARC) of Old Dominion University. Some of the projects carried out at the center includes in the area of carbon nanotubes and nanoparticles fabrication, characterization and their applications. Carbon nanotubes have very unique properties such as 100x higher strength than steel, very high electrical conductivity (like copper) and good thermal conductivity (like metals). The ARC has also established a National Science Foundation Center for Lasers and Plasmas for Advanced Manufacturing.

Contact Tim Gavin (757) 827-1786 x313 or email ([tim\\_r\\_gavin@ieee.org](mailto:tim_r_gavin@ieee.org)) for information.

### Speaker: Mool C. Gupta

Professor Gupta is currently Director of Old Dominion University's Applied Research Center and Research Professor in the Department of Electrical & Computer Engineering. Previously he worked at the Research Laboratories of Eastman Kodak Company for 17 years as a senior scientist and Group Leader. Before joining Kodak he was Senior Scientist at Jet Propulsion Laboratory, California Institute of Technology, Pasadena, California. His educational experience includes: Senior Research Fellow at California Institute of Technology, Pasadena, Calif. (78-79), Postdoctoral Fellow at Cornell University, Ithaca, New York, (76-78) and Ph.D. in Physics from Washington State University, Pullman, Wash. (1973). His research interest includes Photon Processing of Materials and Thin Films and Microstructures, Sensors. Other professional activities includes: Materials Research Society Short Course Instructor for Optoelectronic Materials, Processes and devices course for over six years, Adjunct Professor, Department of Materials Science and Engineering, Cornell University for over eight years, Conference Chair for 1996 SPIE Conference on Nonlinear Frequency Conversion: Materials, Devices, and Applications, editor-in-chief for CRC handbook on Photonics.

## **Hampton Roads 2003 Officers**

Chair: Dr. William Edmonson  
[wedmonson@ieee.org](mailto:wedmonson@ieee.org)

Vice Chair: Tim Gavin, P.E.  
[tim\\_r\\_gavin@ieee.org](mailto:tim_r_gavin@ieee.org)

Secretary: Dr. Robert Dawes  
[dawes@wedomath.com](mailto:dawes@wedomath.com)

Treasurer: William Clayton  
[w.clayton@ieee.org](mailto:w.clayton@ieee.org)

Newsletter & Membership:  
William LaBelle  
[w.labelle@ieee.org](mailto:w.labelle@ieee.org)

## **Committees**

Professional Development  
Student Activities  
Educational Activities  
Awards

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# Rom Thai Restaurant

Enjoy mild authentic Thai cuisine served family style. Price includes appetizers, drink and gratuity.

## Directions from the Peninsula:

- Take I-64 E to I-564/US-460 (Granby) St. exit (Exit 276), towards the Naval Base.
- Turn RIGHT on Granby Street
- Turn LEFT on Little Creek Road
- Turn RIGHT into the shopping center.
- ROM Thai is in the back corner!

## Directions from the South Side:

- Take I-64 W to VA-165 (Little Creek Rd) exit, (Exit 276C), towards US-460 W
- Turn LEFT on VA-165 Little Creek Road
- Cross the rail road tracks.
- Turn LEFT into the shopping center at Wards Corner, just before US-460 (Granby St.).
- ROM Thai is in the back corner!

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# Engineers Week 2004

William LaBelle

The celebration of the engineering profession and engineers turning ideas into reality, otherwise known as National Engineers Week, is held each year during the week of George Washington's Birthday. The IEEE is the lead sponsoring society for EWeek 2004, to be held February 22-28, 2004.

There will be activities locally and nationally held during the yearly observance. Some of the local activities are held in concert, or in addition to, with national level activities.

In this column, I will highlight one or more activities in the area that will be held in association with EWeek.

## National Engineers Week Future City Competition

The mission of the National Engineers Week Future City Competition is to provide a fun and exciting educational engineering program for seventh- and eighth-grade students that combines a stimulating engineering challenge with a "hands-on" application to present their vision of a city of the future.

This will be accomplished by:

- Fostering engineering skills, such as teamwork, communication and problem solving skills;
- Providing interaction among students, teachers, and engineer mentors;
- Informing the community about the multi-disciplines within the engineering profession;
- Inspiring students to explore futuristic concepts and careers in engineering.

The National Engineers Week Future City Competition requires:

- Problem-solving
- Team work
- Research and presentation skills
- Practical math and science applications
- Computer skills

The competition employs a team-based approach. All members of the team have an important role that is necessary for the completion of the project.

Using the game SimCity (Maxis™), students have about two months to complete create a virtual city of the future. Then they create a model of their city taking into consideration a yearly theme and a limited budget. Finally they write an essay and abstracts for presentation at regional competition.

The students receive guidance from their teacher and an engineer mentor. Each school has its own way of encouraging participation and assembling their team(s). Ultimately each school has one, or more, teams consisting of the three students, their teacher, and the engineer mentor.

The students begin the Future City project in October and end with the presentation phase in January.

By the way the essay topic for the 2003 – 2004 Future City Competition is on the 'Beneficial Uses of Plastic Products or Services in Senior Citizens Lives'. The question to be answered is "How can plastics be used to help senior citizens in the future?" How would you answer this?

Finally, a personal note about the Future City Competition for the Hampton Roads region. The SimCity game is provided and at least one teacher at each school takes on the challenge of assisting. But what the schools need most are engineer mentors. It is easy enough to do, on average the engineer makes contact with the students for about one hour a week. If you think you provide help a school, your childrens' or another, contact Mark DelSordo [mjd@nrwengineering.com].

## Old Dominion University CoET Engineers' Week Open House

Old Dominion University will hold their Engineers' Week Open House will be held February 27, 2004. Students from elementary, middle, and high school are invited to the view exhibits and laboratories at the College of Engineering and Technology.

On February 28, 2004 ODU will hold the Open House Competition. Middle and high school students are invited to compete in traditional engineering competitions. Some of the contests that the students may compete in are: Egg Drop, Boat Race, and Baby Baja Rally.

Encourage your children to participate.

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# Membership Renewal 2004

IEEE membership renewal drive is underway, the renewal notices have been mailed. Keep your IEEE membership current for 2004. Consider renewing online. This year you do not need an online account to renew, you need member number and a PIN (provided in the renewal notice). IEEE has made it easy to view/update your current membership information, add Society memberships and subscriptions to IEEE publications

For members that renew online by 14 November 2003, they will be entered in a drawing for a new Dell Inspiron™ Notebook computer. The drawing will take place on 28 November 2003.

Renew at <http://www.ieee.org/renewal>.

Members can register for a Web Account at:  
<http://www.ieee.org/web/accounts>.

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## Become a Senior Member

### 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/smpprogram.html>.

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## IEEE Annual Elections

### *IEEE President Elect, Divisions, Regions, et al.*

Its that time of year when the IEEE membership is asked to elect a new group of representatives for societies, chapters, sections and headquarters. By now most of you will have received the ballots. By now, each member should have received an election ballot in the mail. Ballots must be returned by 12:00 P.M. November 3, 2003.

Detailed information on each candidate and position statement can be found on the IEEE web site at:

<http://www.ieee.org/organizations/corporate/candidates.htm>.

### *Hampton Roads Section*

Locally, the Hampton Roads Section will be holding its annual election of officers in November. As with all sections and chapters in IEEE the elected positions are: Chair, Vice Chair, Treasurer, and Secretary.

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

### Reading, 'Riting, 'Rithmetic and... Engineering?

Several states have added pre-engineering to their K-12 curricula. Is this a good thing? And, if it is, what format should pre-college engineering coursework take?

<<http://www.todaysengineer.org/Sept03/education.asp>>

### Leadership...or Something Like It

What makes a great leader? What are some of the leadership killers? How can we be a part of the covenant that creates both leaders and results?

<<http://www.todaysengineer.org/Sept03/leadership.asp>>

### Global Issues Cloud Job Market

The employment market hasn't rebounded as quickly as unemployed and underemployed engineers have hoped, but layoffs have slowed. While professionals are looking for the upturn, they remain concerned about the impact changes in the global marketplace will have on this "jobless recovery."

<<http://www.todaysengineer.org/Sept03/job-market.asp>>

### Senate Swaps Energy Bills To Break Partisan Deadlock

In an unusual turn of events, Senate Energy and Natural Resources Committee chair Pete V. Domenici (R-N. Mex.) put the Democrats' version of the energy bill to a vote, knowing this version would have a better chance of passing before Congress' August recess. What are the differences between

this version and the Republicans' version? What happens from here?

<<http://www.todaysengineer.org/Sept03/energy.asp>>

Also in TE

[Engineering Hall of Fame: John Heysham Gibbon](#)

[World Bytes: Raise Your Sights](#)

[Capitol Shavings: How Do We Keep the Lights On?](#)

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

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## IEEE events

### IEEE 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.

### The 29<sup>th</sup> Annual Conference of the IEEE Industrial Electronics Society

The conference will be held at the Hotel Roanoke and Conference Center, Roanoke, Virginia, USA Sunday, November 2<sup>nd</sup> to Thursday, November 6<sup>th</sup>, 2003. For additional information visit the conference web site at

<http://iecon03.crts.vt.edu/>

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## Local Engineering events

### AHS – Hampton Roads Chapter

The Hampton Roads Chapter, Southeast Region of the American Helicopter Society International and the Army Aviation and Missile Command (AMCOM) will sponsor a Rotorcraft Propulsion Specialists' Meeting from October 28-30, 2003. Information on the international meeting and registration can found on the chapter's web site, <http://www.ahs-hrc.org/>. Follow the 'Current Event' link.

### 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](mailto: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 HRESC 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.

Calendar users can:

View current and past calendars and links to societies at the HRESC website <http://groups.yahoo.com/group/sname>;

Join the list by sending a blank e-mail to [sname-subscribe@yahoogroups.com](mailto:sname-subscribe@yahoogroups.com).

The manager of the HRESC 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.

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### **Region 3 Websites**

R3 Web Site: <http://www.ewh.ieee.org/reg/3/>

ETI Web Site: <http://www.ieee.org/eti>

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