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# IEEE GLOBECOM 2007 Conference

## Northern Virginia, Washington, Baltimore Sections Host 50th Anniversary

The Northern Virginia, Washington and Baltimore Sections are proud to join the IEEE Communications Society in hosting the 50th anniversary of the annual IEEE Global Telecommunications Conference (IEEE GLOBECOM 2007).

After three years of planning, it's time to welcome thousands of engineering practitioners from all branches of the telecommunications profession to Washington. The conference starts Monday, November 26 and runs through Friday, November 30, at the Washington Hilton Hotel.

"We plan an extraordinary program for the 50th anniversary with the Howard University Band and the Capitol Steps," said General Chair Jerry Gibbon. "It's one conference you will long remember!"

With more than more than 1,000 technical presentations, IEEE GLOBECOM 2007 spans the entire range of communications technologies, offering in-depth information on the latest developments in voice, data, image and multimedia.

To celebrate the 50th anniversary of the conference, several special events have been added to the program.

One is a panel discussion by past IEEE GLOBECOM chairs on Tuesday, November 27 from 6:15 to 7:15 p.m. The panel is headed by 1974 Chair Irwin Jacobs and includes Tom Rowbotham (1996), Roberto de Marca (1999) and Ann Miller (2005).

The panel follows a keynote speech delivered by Dr. Jeong Kim, president of Bell Labs at Alcatel-Lucent.

Another special event will be a commemorative lecture on Thursday, November 29 from 12:00 to 1:45 p.m. by Leonard Kleinrock on the history of the Internet.

IEEE members who want to volunteer at the conference should contact Don Rickerson at *d.rickerson@ieee.org.*

**What's New?**—*Visit the IEEE Communications EXPO to see the industry's latest products and services, network with peers, and enjoy a chance to win prizes.*

## Past Chairs Reflect on Growth of Conference

IEEE GLOBECOM turns 50 this year! This is a striking milestone few other technical conferences have equaled. It's clear that the success of this conference rests on its ability to evolve continually to meet the needs of the communications industry.

This year's theme, "Innovate, Educate, Accelerate," exemplifies the anniversary by expressing the essence of what past IEEE GLOBECOM conferences have offered.

To understand the significance of IEEE GLOBECOM, we interviewed a number of past chairs about its importance for the global communications community, for technology development, and for themselves personally.

Most past chairs see the conference as one of few truly major international communication conferences. Ross Anderson (1986 chair), for instance, said it offers an important place for the communications community worldwide to share information and get to know each other.

Rajiv Shah (2004 chair) reinforced this view by noting that IEEE GLOBECOM is successful because it is a primary forum for those in communications the world over, enabling them to meet and discuss their accomplishments.

Ross also noted that IEEE GLOBECOM led the way in moving Communications Society conferences out of North America, so those in many other nations could contribute to it.

**Evolving to Track Technology**

IEEE GLOBECOM is an essential forum

*See* **CHAIRS,** *p. 4*

## Entrepreneurship, Grid Design Sessions Added

In addition to the industry forums and expo, tutorials and workshop, and technical program, IEEE GLOBECOM 2007 will feature the following special educational sessions.

### *IEEE GOLD Session*

The IEEE Graduates of the Last Decade (GOLD) is hosting a special entrepreneurial forum on Wednesday, November 28 from 4:15 to 6:45 p.m.

Organizers are seeking entrepreneurial-oriented posters from new ventures as well as established companies. There is no entry fee to present a poster in the GOLD session. Please send proposals to *goldconference@ieee.org.*

The GOLD session will also feature keynote speaker Dr. Tao Zhang, chief scientist and director of the mobile networking research group in the Emerging Technologies and Services Research Department at Telcordia Technologies.

The idea behind the GOLD entrepreneurial forum is twofold. First, graduate students and young professionals working on innovative ideas will be inspired by seeing examples of successful entrepreneurship and the commercialization of ideas, and by talking with successful people. Second, this is a unique opportunity for entrepreneurs and entrepreneurial companies to have a high profile at one of the Communications Society's premier conferences. For more information, see *www.ieee-globecom.org/GOLDHomePage%202007.htm.*

### *DDDAS, Grids Sessions Added to Design & Developers Forum*

In addition to the nine existing Design & Developers sessions, three new sessions organized by the National Science Foundation have been added to the program on Tuesday, November 27.

The morning session, Dynamic Data Driven Applications Systems—New Drivers for Networking and Communications, moderated by Dr. Frederica Darema, will feature a panel discussing the Dynamic Data Driven Applications Systems (DDDAS) concept, which is driving novel capabilities and directions in applications, measurements, and cyber-infrastructure, with ensuing technology requirements in underlying grid infrastructure of computer systems, data systems, networks and global communications.

The two afternoon sessions, moderated by Craig Lee of The Aerospace Corp. will focus on grids and networks. The first of these two sessions, Grids and Service-Oriented Networks, will explore grid support for the emerging concept of service-oriented networks, i.e., networks that are used and managed as a set of services. The final session, Grids, Networks and Virtualization, will examine the concrete technical requirements and strategic plans for how virtualization can be exploited in networks and grids.

All 12 Design & Developers sessions are included in the full conference registration.

## UMd Invites Alumni to Campus Reception

On Monday, November 26, the University of Maryland's A. James Clark School of Engineering and its Department of Electrical and Computer Engineering are hosting an evening networking event for alumni and attendees of the IEEE GLOBECOM 2007 conference.

The evening will feature a special presentation, tours of several state of the art laboratories and a delicious hors d'oeuvres buffet.

Join Provost Nariman Farvardin; Jeong Kim, President of Bell Labs at Alcatel-Lucent; Rajiv Laroia, CTO of Qualcomm Flarion Technologies; Patrick O'Shea, Electrical and Computer Engineering Chair; and host Professor Ray Liu for a memorable evening.

For more details, see the Calendar of Events on p. 7.

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## ON THE WEB

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The calendar is available at ***www.ieee.org/escanner***. Check here for events submitted too late for print publication.

**IEEE National Capital Area Virtual Community**
Exchange ideas and participate in discussions with local IEEE members at ***www.ieeecommunities.org/nca***.

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## EDITORIAL POLICIES AND PROCEDURES

**Calendar Announcements**

Please submit calendar items in the format used in the Calendar of Events. You can send email to ***ncac-scanner@ieee.org***. If possible, include a synopsis of the event and a biographical sketch of the presenter including academic background, current position, notable achievements, and IEEE and other professional affiliations.

**Articles**

Other contributions, such as reports on chapter events and other member activities, are most welcome. Please submit articles to the managing editor at ***ncac-scanner@ieee.org***.

**Advertising**

Contact the advertising manager about ad rates and to place advertising orders. Ads must be submitted by the deadline below.

**Deadlines**

The editor reserves the right to set policies and procedures necessary to provide members with a newsletter that is informative and timely. Deadlines must be strictly observed to keep the publication on schedule. If you are planning an event and have insufficient information by the deadline, please contact the managing editor. The deadline for the upcoming issue will always be published on this page.

**January-February issue deadline: December 1, 2007**

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# calendar of events

## *Thursday, November 1, 2007*

### ♦ Radar Horizons

**Sponsors:** Signal Processing Society (Northern Virginia Chapter)

**Cosponsors:** Geoscience and Remote Sensing Society, Aerospace and Electronic Systems Society, Reliability Society, Antennas and Propagation Society, and Engineering in Medicine and Biology Society

**Speaker:** Dr. Joseph Guerci, IEEE Fellow

**Time:** Refreshments & networking 6:30 pm; seminar 7:00 pm

**Place:** Mitre Corporation, Building 2, Conference Room 1N100, 7515 Colshire Drive, McLean, VA

**Directions:** See *www.mitre.org/about/locations/mitre2_map.html.*

**More Info:** See Diamond story, p. 8. Refreshments will include pizza and soft drinks.

**Contact:** RSVP's are appreciated, but walk-ins are welcome. Contact Tim Settle at *t.settle@ieee.org.*

## *Monday-Tuesday, November 5-6, 2007*

### USB Hands-On Workshop

**Sponsor:** IEEE Washington Section

**Speaker:** Charles Lord, P.E., Triangle Advanced Design & Automation

**Time:** Monday 9:00 am - 5:00 pm (registration 8:30 am); Tuesday 1:00-5:00 pm

**Place:** University of Maryland, A.V. Williams Building, Room 2460, College Park, MD

**Directions:** From I-495, exit at Route 1 South, proceed approx. 2 miles, turn right onto Campus Drive, then immediately turn right onto Paint Branch Drive. The A.V. Williams Building will be on the right. See *www.parking.umd.edu/themap.*

**More Info:** This workshop is for embedded systems engineers and managers, and is part of the Washington Section's Continuing Education series. Day one includes Universal Serial Bus basics and device design. Day two covers host design for embedded systems. Participants may enroll in one or both days. For complete details, including prerequisites and equipment requirements, see *www.tadatraining.com/usb/dc/.*

**Cost:** See web page listed above.

**Contact:** Pre-registration required by Nov. 2. To register, see web page listed above.

## *Tuesday, November 6, 2007*

### Washington Section Administrative Committee Meeting

**Time:** Dinner at 6:00 pm; meeting at 6:30 pm; election at 7:00 pm

**Place:** American Association for the Advancement of Science (AAAS), Abelson/Haskins conference rooms (second floor), 1200 New York Avenue NW, Washington, DC

**Directions:** Use the 12th Street entrance. The AAAS building is one block from the Metro Center station (Red, Orange and Blue lines) and approx. six blocks from the Gallery Place Metro station (Red, Yellow and Green lines). Street parking is free after 6:00 pm, or there is a garage at 14th and H Streets which costs $8. See map at *www.aaas.org/dcwest.pdf.*

**More Info:** Election of the 2008 IEEE Washington Section officers will take place at this meeting. To nominate a candidate, contact the election committee: Dr. Haik Biglari at *hbiglari@comcast.net* or Jerry Gibbon at *j.t.Gibbon@ieee.org.* All interested IEEE members are welcome.

**Cost:** Dinner arrangements TBD. See *www.ieee.org/eScanner* for updates.

**Contact:** Dr. Kiki Ikossi, Washington Section Chair, at *ikossi@ieee.org.*

## *Tuesday-Thursday, November 6-8, 2007*

### IEEE-USA Innovation Forum

**Sponsor:** IEEE-USA

**Speakers:** Keynote speaker: Howard Liberman, founder, Silicon Valley Innovation Institute.
Faculty: Mike Austin, Alain Rostain, Mauro Togneri and Steve Walker.

**Place:** Marriott Fairview Park, Falls Church, VA

**More Info:** This forum exposes computer scientists, engineers, and allied professionals to all aspects of innovation including product development, navigation of corporate culture and technology/process identification and deployment. With guidance from the faculty, the participants experience innovation by developing case studies. For details and to register, see *www.innovation-institute.org/dcforum.*

**Cost:** IEEE members $795; nonmembers $950; group discounts available.

**Contact:** Tesa Leon at *t.leon@ieee.org* or 202-530-8337.

## *Wednesday, November 7, 2007*

### ♦ Developing Mentors for FIRST Robotics Competition

**Sponsor:** Education Society (Washington and Baltimore Chapter)

**Cosponsor:** Howard University Student Branch

**Speaker:** Jim Grove, Naval Research Laboratory

**Time:** Refreshments and networking 5:00 pm; seminar 5:30-7:00 pm

**Place:** L.K. Downing (Engineering) Building, Engineering Library, Howard University, Washington, DC

**Directions:** See *www.hirstbrook.com/ed/110707.html.*

**More Info:** See Diamond story, p. 8.

**Contact:** RSVP's are appreciated, but walk-ins are welcome. Contact Charles Kim at *ckim@howard.edu.*

## *Thursday, November 8, 2007*

### ♦ Biomedical Intellectual Property Challenges for Small Business and Government

**Sponsors:** Engineering in Medicine and Biology Society, Women in Engineering

**Cosponsors:** Engineering Management Society, Signal Processing Society (Northern Virginia chapter), Antennas and Propagation Society

**Speaker:** Dr. Matthew Latimer, partner, Latimer, Mayberry & Matthews IP Law

**Time:** WIE business meeting at 6:30 pm; speaker at 7:00 pm

**Place:** Mitre Corporation, Building 2, Conference Room 1N100, 7515 Colshire Drive, McLean, VA

**Directions:** See *www.mitre.org/about/locations/mitre2_map.html.*

**More Info:** For more information about the speaker, see Diamond story, p. 8. The election of WIE officers for 2008 will take place prior to Dr. Latimer's presentation. Pizza and light refreshments will be served.

**Contact:** Please RSVP by Wednesday, Nov. 7 to Paul Otto at *potto@ieee.org* or Charity Burd at *charity.burd@ieee.org.*

## *Friday, November 9, 2007*

### ♦ Professional Communications: The Broadway to Technology

**Sponsor:** Professional Communication Society

**Cosponsor:** Society for Social Implicatons of Technology

**Speaker:** Emily Sopensky, CEO, The Iris Company

**Time:** Networking at 6:30 pm, dinner and presentation at 7:00 pm

**Location:** The Front Page, 4201 Wilson Blvd, Arlington, VA

**Directions:** See *www.frontpagearlington.com/directions.* The Front Page restaurant is located one block from Ballston Metro Station (Orange line).

**Cost:** $30 per person

**More Info:** All are welcome to attend this kick-off meeting of the joint Washington, Northern Virignia and Baltimore PCS chapter. See Diamond story, p. 8.

**Contact:** RSVP to Wally Lee at *w.h.lee@ieee.org.*

## *Wednesday, November 14, 2007*

### Northern Virginia Section Administrative Committee Meeting

**Time:** 6:30 pm

**Place:** Olive Garden Restaurant, 12980 Fair Lakes Shopping Center, Fairfax, VA

**Directions:** Take I-66 to Fairfax County Pkway, Route 7100 (Exit 55B towards Reston–Herndon). Turn left onto Fair Lakes Pkwy. Turn left at Fair Lakes Shopping

*See* **CALENDAR,** *p. 7*

# IEEE GLOBECOM 2007

## MANIAC Challenge Energizes Students

By Monica Mallini

Two Virginia Tech electrical and computer engineering (ECE) faculty members have received a $450,000, three-year grant from the National Science Foundation Networking Technology and Systems (NeTS) program to develop a contest called the Mobile Ad Hoc Networking Interoperability And Cooperation (MANIAC) Challenge.

"There is currently no such competition in the wireless networking field," said Luiz DaSilva, associate professor at Virginia Tech's Advanced Research Institute in Arlington, Va. "We were inspired by open competitions in the areas of robotics, software engineering, and automotive design that are successful in energizing students to perform hands-on work while advancing the state of research."

Dr. DaSilva and ECE assistant professor Allen MacKenzie of Blacksburg hope to get answers through this wireless networking contest they have developed. It will further research in networking techniques and algorithms and provide one-of-a-kind opportunities to study actual, uncontrolled, ad hoc networks, where users make their own decisions regarding tradeoffs between self-interest and common network goals.

The competition will be held for two consecutive years, 2007 and 2008, in conjunction with a major networking conference. The team has selected IEEE GLOBECOM as the site of the 2007 competition.

The student teams have developed network designs, which they will test on Day 1 of the competition, Sunday, November 25. Entries will be judged on end-to-end performance, energy efficiency, and engineering design. During the competition, as data are collected for research, real-time results will be displayed for observers in a room designated as the MANIAC Challenge control center.

The second day of the MANIAC Challenge will feature oral presentations from the teams and will conclude with an awards ceremony.

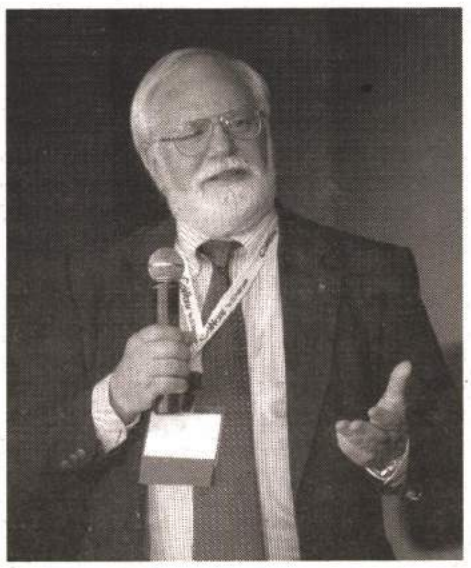
As an added feature of the MANIAC Challenge, there will be an oral presentation competition sponsored by the IEEE Professional Communication Society (PCS).

PCS executive board member Wally Lee, acting as IEEE GLOBECOM liaison, suggested the conference as an opportunity for PCS to improve its visibility by partnering with larger societies. GLOBECOM is particularly appropriate because the conference and PCS are both celebrating their 50th anniversaries in 2007.

The MANIAC Challenge seemed like the perfect opportunity for PCS to add value to IEEE GLOBECOM because oral presentations were already part of the event but were not going to be judged. PCS created guidelines for oral presentations so that participants could work on content, style, and delivery.

PCS President Luke Maki and PCS member Monica Mallini will join Wally Lee in judging the presentations. The competition will emphasize the value of professional communication skills for young engineers.

For more information about the contest, see ***www.maniacchallenge.org.***



**On the Road**—*IEEE GLOBECOM 2007 General Chair Jerry Gibbon promoted this year's conference at last year's IEEE GLOBECOM 2006 in San Francisco.*

**CHAIRS,** *from p. 1*

for information exchange on emerging technologies and the changing nature of existing ones. William Firestone, the 1961 chair, recalls that the broad discussions of microwave methods at his conference helped raise awareness and acceptance for this technology.

Irwin Jacobs said IEEE GLOBECOM distributes information quickly, often early in a technology's life. "The 1974 IEEE GLOBECOM featured a wide variety of interesting areas in their early forms and still of importance today," he said. "This included broadband applications, approaches to privacy, satellite systems, solid state amplifiers, synchronous communication systems and video compression. That meeting was one of the first to address computer networks, packet communications and high-capacity, mobile communication systems."

Allen Cherin (1984 chair) recalls a focus on optical fiber communications and quality assurance in 1984, while Ross Anderson said hot topics in 1986 included data communications networking and digital switching, as well as fiber optics in switching networks. Rajiv Shah sees the conference as a bellwether for change. He notes how many of the areas discussed at the 2004 IEEE GLOBECOM have become reality just three years later, such as the widespread use of personal area networks.

### The Personal Side

Nearly all the chairs interviewed cite the personal importance this role had for them. William Firestone, Tom Rowbotham and Ann Miller all said they got strong satisfaction from knowing that being chair helped the Communications Society, the profession and the industry. Rajiv Shah says his work as chair was a personal milestone and recalls the pleasure of collaborating on the meeting with a solid group of people.

Ross Anderson said he valued how his being a conference chair broadened his connections in the Communications Society and IEEE beyond his region and the many long-term friends he gained in other nations as a result. Being the conference chair in 1986 led to further involvement in the conference, such as serving as chair of the IEEE GLOBECOM-ICC Conference Board for several years.

Many of the past chairs took pride in the speakers their conference attracted. For instance, Rajiv Shah noted that U.S. Representative Joe L. Barton, Chairman of the House Committee on Energy and Com-

*See* **CHAIRS,** *p. 5*

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# Chapters Invited to Participate in IEEE Pavilion

The three IEEE GLOBECOM 2007 hosting sections (Northern Virginia, Washington and Baltimore) and their participating local chapters of technical societies and affinity groups will share a special IEEE Pavilion at the conference. The booth is part of the IEEE Communications Expo, which opens on Tuesday, November 27 with an evening reception.

The IEEE Pavilion is an excellent opportunity to connect with the telecommunications world. Participating chapters will be assigned tables in the 20' x 40' booth and may display posters and printed materials about their activities and accomplishments, give hands-on demonstrations, and welcome attendees.

The sections' membership development committees will supply IEEE membership materials for the Pavilion, so you can help non-IEEE members come on board and get a $15 thank-you from IEEE toward your own membership dues next year. Volunteers also receive a day admission pass to the Expo.

To participate in the IEEE Pavilion, chapters must submit several items to their Pavilion coordinator (see below) by November 15, including a commitment to participate with a brief written description of the chapter's planned display and space requirements; photos from chapter activities for inclusion in a slide show (high or medium-resolution JPEG format is preferred); volunteer names and the days each person will staff the Pavilion; and contact information for the individual who will deliver and set up the display (between noon and 4:00 p.m. on November 27).

Pavilion coordinators are Wally Lee, Washington Section, at ***w.h.lee@ieee.org***; Dave Booth, Northern Virginia Section, at ***dbooth@ieee.org***; and Neville Jacobs, Baltimore Section, at ***nevilleed@aol.com***.

**Forums, Tutorials, Workshops and More**—*Communications engineers discover current advances at the educational sessions featured at IEEE GLOBECOM.*

**CHAIRS,** *from p. 4*

merce, gave the keynote address and that Henry Samueli, the founder of Broadcom, was a session speaker. Similarly, Ann Miller mentioned how the keynotes from government, industry and academia highlighted the themes of her conference.

IEEE GLOBECOM is as relevant today as when it first began. One reason for this is that each year's meeting begins as a fresh start within the traditional conference structure, stressing content important to the industry at that time. Another reason is that IEEE GLOBECOM is growing more inclusive. For instance, the conference and its associated trade show, IEEE Communications Expo, now reach beyond technology to include software designers and developers, as well as those involved in the business of communications.

Now that IEEE GLOBECOM is at the 50-year mark, I am proud of its accomplishments and look forward to seeing how this conference will continue to serve the communication community for decades to come.

*Reprinted from The President's Page,* IEEE Communications Magazine, *October 2007.*

# IEEE 802 Wireless Standards Workshop Offered

The IEEE Educational Activities Board, in cooperation with the IEEE Standards Association, is presenting a Standards Education workshop on the IEEE 802 family of standards (local area and metropolitan area networks) on November 30 and December 1, at the Hilton Hotel in Washington following IEEE GLOBECOM 2007.

Through this two-day workshop, attendees can learn about the important role that IEEE 802 Wireless Standards play in manufacturing and production processes. This session will examine Wireless LAN Standards for Wi-Fi Solutions, WiMAX mobile broadband networks, performance requirements and verification of the IEEE 802 wireless technologies, and WPAN ecosystem standards.

The workshop will also include a panel discussion on the standards development process featuring Paul Nikolich, chair, IEEE 802 LAN/MAN Standards Executive Committee; John R. Barr, director of standards realization, Motorola; Roger B. Marks, senior vice president, NextWave Broadband Inc.; Fanny Mlinarsky, president, octoScope, Inc.; Albert Petrick, vice chair, IEEE 802.11; and Donald E. Purcell, chairman, Center for Global Standards Analysis.

For more information and to review the preliminary program, visit ***www.ieee.org/web/education/802_Workshop/***.

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# STARS Program Needs Science Fair Judges

By Paul Hazan, Senior Life Member

Last year, IEEE was a major contributor to the success of the Washington Academy of Sciences STARS (Science and Technology Aptitude Recognition for Schools) youth-in-science program.

IEEE is one of the largest of the 60 WAS affiliates. Not only did IEEE provide a grant for student awards, but it supplied many of the professionals who evaluated the scientific and technical projects by more than 1,500 students who participated in the eight major STARS events.

The program included participation in senior high school science fairs, as well as science events at elementary schools. It also included judging at the Paint Branch High School Science Expo. In addition to the large number of high school participants, younger students from three junior high schools were bused in to join in the many interactive scientific and technical demonstrations at the Science Expo.

During the 2007-08 school year, WAS and IEEE plan to give many awards (cash prizes, challenge cups, plaques, certificates, etc.) to secondary school students, as well as recognize outstanding teachers. Award winning student projects will also be recognized in the Washington Academy of Sciences *Journal* and website.

Our biggest asset is your expertise and dedication and that of your fellow professionals. No special preparation is needed to be a science fair judge. Typically this will involve about a four-hour commitment of your time at a participating school (in Washington, Maryland or Northern Virginia) sometime in the December to April time frame. The number of schools and students benefiting from the STARS program depends on your commitment to participate.

If you are interested, please send a one-line email to ***pmhazan@comcast.net*** saying that you would like to be included in the 2008 WAS Judges' Roster, and include your name, email address, affiliation, mailing address and telephone number.

I believe you will find your interaction with fellow judges, the schools, and those enthusiastic students to be a worthwhile, rewarding, and fun experience and look forward to your joining us in this exciting 2008 educational initiative.

# Washington Section to Elect Officers for 2008

The Washington Section will hold its annual election at the November 6 Administrative Committee meeting (see Calendar of Events, p. 3). All members of the section may attend and vote.

The following individuals have been nominated for officer and director positions in 2008:

***Officers:*** Gerard Christman for Chair; Richard Benjamin for Vice Chair; Tim Weil for Secretary; and Zareh Soghomonian for Treasurer. ***Directors:*** James Christian, Doug Holly, Kiki Ikossi, Harry Sauberman, Debi Siering, Mary Tobin, and Steve Weiss.

For more information about the election, contact Election Committee members Haik Biglari at ***hbiglari@comcast.net*** and Jerry Gibbon at ***j.t.gibbon@ieee.org***.

# Senior Members

Congratulations to the following new Senior Members in the Northern Virginia (NV) and Washington (W) Sections:

Dennis Bodson (NV)
Jaydev Desai (W)
Patricia Dubill (W)
Craig Feied (W)
Matthew French (NV)
Syed Kazim Zaidi (NV)
David Luginbuhl (NV)
Robert Pavlak (W)
Mark Powell (NV)
Jeffrey Solomon (W)
Suresh Subramaniam (W)
Shensheng Tang (NV)

**Teamwork**—*Wally Lee and Monica Mallini collaborate on an exercise at the Teacher In-Service Program Training Workshop in September.*

# Lee and Mallini Named Co-Chairs of IPCC 2011

At the recent IEEE Professional Communication Society (PCS) executive board meeting, held prior to the International Professional Communication Conference (IPCC) in Seattle, Wally Lee and Monica Mallini were appointed co-chairs of IPCC 2011.

IPCC is the Professional Communication Society's flagship conference, held each year to help advance written, graphical and spoken communication in the context of engineering, science and technology.

The 2011 conference venue will be the Virginia Tech Inn and Skelton Conference Center in Blacksburg, Va. The next three IPCCs will be held in Montreal, Hawaii, and the Netherlands.

Lee was also elected to a three-year term on the PCS Administrative Committee. His primary interest at the present time is to form a new PCS chapter in the Washington area.

# USB Hands-On Workshop Focuses on Design

The Washington Section is expanding its continuing education series with a two-day tutorial on the principles and design of the Universal Serial Bus (USB) in embedded systems.

The USB Hands-On workshop will be offered on Monday and Tuesday, November 5-6 on the University of Maryland's campus in College Park.

USB has become a de-facto standard for communications between computers and peripherals, and is being used in more unique and diverse applications. For this reason, more microcontroller and microprocessor-based designs are requiring the addition of a USB connection, and in most cases the drivers for Windows-based computers (as well as other operating systems). Also, more designs now require the ability to talk to peripherals such as a USB keyboard or a "thumb drive," a function that requires the embedded system to act as a USB host.

Presented from the viewpoint of a consulting embedded systems engineer, the tutorial introduces the theory and networking structure of USB as well as its practical integration into embedded systems. Students will receive $200 worth of development hardware and software and will write hands-on code to build their own example applications during the workshop.

The workshop has been divided into two sections. The first day will cover the USB standard and building a USB peripheral device. The second day will cover the additional topic of designing a USB host to communicate with peripherals, including reading a thumb drive.

The tutorial will be presented by Charles Lord, P.E., a consulting engineer with more than 25 years of experience in the embedded systems, RF, military, and medical device and pharmaceutical fields. He is a frequent speaker for IEEE, as well as quality and regulatory meetings and conferences. His company, Triangle Advanced Design and Automation, is based in Cary, N.C.

See ***http://www.tadatraining.com/usb/dc*** for more information and online registration. Also see the Calendar of Events, p. 3.

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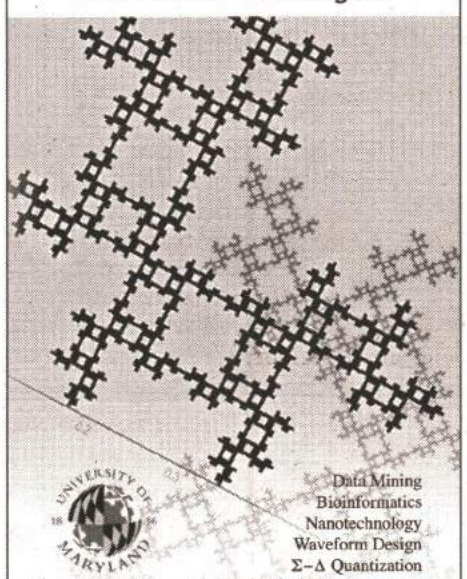

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**CALENDAR,** *from p. 3*

Center, and left again to stay on Fair Lakes Shopping Center to the Olive Garden.

**More Info:** All interested IEEE members are invited to attend.

**Contact:** Debra Meale at 703-492-0047 or *nca-admin@ieee.org*. Please include the term IEEE in your subject line.

## *Thursday, November 15, 2007*

### ♦ Aluminum Conductors Updated

**Sponsors:** Power Engineering Society, Industry Applications Society

**Speaker:** Peter Pollak, P.E.

**Time:** 6:00-8:00 pm

**Place:** Mitre Corporation, Building 2, 7515 Colshire Drive, McLean, VA

**Directions:** See *www.mitre.org/about/locations/mitre2_map.html*.

**More Info:** See Diamond story, p. 8.

**Cost:** A light dinner buffet will be offered free to IEEE members; $10 requested from non-members.

**Contact:** RSVP to Fred Pearson at *fred.pearson@unisys.com* or Jeff McWhirt at *jmcwhirt@mitre.org*.

# IEEE Members May Submit Papers to Capital Science 2008 Conference

**By Dr. Kiki Ikossi, Chair, Washington Section**

Every two years the Washington Academy of Sciences hosts a conference that brings the region's scientific and technology societies together for a weekend celebration of science. Engineers and scientists working in disciplines ranging from biology to nuclear physics will meet to present their latest research news at Capital Science 2008. The conference will be held at the National Science Foundation (NSF) on Saturday and Sunday, March 29-30, 2008.

IEEE is seeking research papers from its members for the Capital Science 2008 event. If you have new and exciting research results to share with your colleagues at the conference, please send a 500-word abstract, a page with figures and a list of references to IEEE at *nca-admin@ieee.org* by November 17. Notification of acceptance will occur by January 1 and presentations will be due by January 15.

Capital Science 2008 is the third biennial meeting and, as in 2004 and 2006, the conference will serve as an umbrella for scientific presentations, seminars, tutorials and talks presented by about 20 of the academy's affiliated societies and institutions.

Among the conference highlights will be two plenary sessions, The Ethics of Tissue Ownership, and Polar Research. Highlighted speakers are Arden Bement, director of NSF; Mario Livio, senior astrophysicist at the Hubble Space Telescope Science Institute; and Maxine Singer, former president of the Carnegie Institute.

The registration fee for the two days is $50. Students will be admitted free. Visit the academy website at *www.washacadsci.org* for information as it becomes available and, after December 1, for online registration.

## To the Editor

In the May-June 2007 issue of the *Scanner* the article titled "Biosensor Material Improves Protein Detection" omitted to include that Dr. Soumya Krishnamoorthy's work was funded by the NSF Electronics Photonics and Device Technologies Program and advised by Dr. Agis A. Iliadis, Professor of Electrical and Computer Engineering at the University of Maryland. Additional key collaborators include Dr. Thaleia Bei and Dr. George Chrousos, of NIH.

**Paul Otto**

## *Monday, November 26, 2007*

### Maryland Engineering Alumni & GLOBECOM Networking Event

**Sponsor:** University of Maryland Department of Electrical and Computer Engineering

**Time:** 6:00 pm

**Place:** University of Maryland, Kim Engineering Building, College Park, MD

**Directions:** From I-495, exit at Route 1 South, proceed approx. 2 miles, turn right onto Campus Drive, then immediately turn right onto Paint Branch Drive and the Kim Engineering Building will be on the left (after a stop sign). Free parking after 4:00 pm in Lots T and XX. See *www.parking.umd.edu/themap*.

From the College Park Metro Station (Green line), take the free UM campus shuttle, get off at the first stop, walk back a hundred yards to Paint Branch Drive and look for the Kim Engineering Building on the left. See shuttle schedule at *www.transportation.umd.edu/routes/schedules/CollegeParkMetro.pdf*.

**More Info:** See story, p. 1.

**Contact:** RSVP to Cornelia Kennedy at 301-405-2150 or *ckennedy@umd.edu*.

## *Monday-Friday, November 26-30, 2007*

### IEEE Global Telecommunications Conference

**Sponsors:** IEEE Communications Society, with the Northern Virginia, Washington and Baltimore Sections

**Place:** Hilton Hotel, 1919 Connecticut Avenue NW, Washington, DC

**More Info:** See *www.ieee-globecom.org/2007* and stories on pp. 1, 4 and 5.

**Contact:** Jerry Gibbon at *j.t.gibbon@ieee.org*.

## *Wednesday, November 28, 2007*

### Expert Witness in Construction Litigation

**Sponsor:** Life Members

**Speaker:** Barry Hickey, Assistant Director, Projects Engineering & Energy, Facilities Management Dept., Fairfax County Government

**Time:** 11:45 am to 2:00 pm

**Place:** Dolley Madison Library, 1244 Oak Ridge Ave., McLean, VA

**Directions:** Take Exit 46 from the Beltway and proceed on Route 123 North to McLean, VA, about 2 miles. After crossing Old Dominion Dr., turn left at the next street, Ingleside Ave., and then left on Oak Ridge Ave. The library is on the left.

**More Info:** Refreshments will be served.

**Contact:** Amarjeet Basra at 703-324-2821 or *amarjeet.basra@ieee.org*.

## *Tuesday, December 4, 2007*

### Washington Section Executive Committee Meeting

**Time:** Dinner at 6:00 pm; meeting at 6:30 pm

**Place:** TBD

**More Info:** *This meeting is for officers only.*

**Contact:** Dr. Kiki Ikossi, Washington Section Chair, at *ikossi@ieee.org*.

## *Saturday, December 8, 2007*

### National Capital Area Consultants' Network Annual Awards Banquet

**Time:** Meeting and officer elections at 6:00 pm; dinner at 7:00 pm

**Place:** Agio, Bethesda Marriott, 5151 Pooks Hill Rd., Bethesda, MD

**Directions:** From the north, take I-270 south to Route 355 and exit at Wisconsin Ave. From I-495, take exit 34 (Wisconsin Ave.) to Pooks Hill Rd. Validated parking.

**More Info:** Members are invited to bring a spouse or guest.

**Cost:** $35 per person

**Contact:** RSVP by Monday, Dec. 3 to Monica Mallini at *m.a.mallini@ieee.org*.

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# diamond stories

## *Thursday, November 1, 2007*

### ♦ Radar Horizons

This talk provides a comprehensive survey of major new developments in radar research and development, from next generation intelligent signal processing to "super antennas" and radars that detect through buildings and around corners. The talk is designed to be of value to both the practicing radar engineer as well as non-specialists interested in advanced signal processing and systems engineering. Much of the material is drawn from Dr. Guerci's own research—particularly from his recent seven-year term at the Defense Advanced Research Projects Agency (DARPA). Specific topics covered include advanced STAP and knowledge-aided processing; waveform diversity and optimal MIMO radar; low-power density apertures for airship, space, and ground-based applications; and building penetration radar.

**Dr. Joseph Guerci** has more than 23 years of experience in advanced technology research and development in government, industrial and academic settings. He worked at the Defense Advanced Research Projects Agency (DARPA) for seven years as program manager, deputy office director and finally office director of the Special Projects Office. He was involved in the inception, research, development, execution and ultimately transition of next generation defense technologies for surveillance and reconnaissance, protection against weapons of mass destruction, tactical missile defense, space defense and assured urban operations.

Dr. Guerci is an internationally recognized leader in the research and development of next generation sensor systems and adaptive signal processing. He has pioneered several major radar technologies including Robust and Knowledge-Aided Space-Time Adaptive Processing, and Optimal MIMO Waveform Optimization. In addition to authoring over 80 peer reviewed articles, he has two book chapters and is the author of *Space-Time Adaptive Processing for Radar* (Artech House, 2003). He received the 2007 IEEE Warren D. White Award for "contributions to space-time adaptive processing and waveform optimization."

A graduate of Polytechnic University with a Ph.D. in electrical engineering (system engineering), Dr. Guerci has held adjunct professorships in engineering and applied mathematics at The City University of New York, Polytechnic University, The Cooper Union for Advancement of Art and Science, and Virginia Tech. He has held senior engineer and scientist positions in industry and was recently chief technology officer for SAIC's research, development, test and evaluation group. A member of the IEEE Radar Systems panel, he is a Fellow of the IEEE for "contributions to advanced radar theory and its embodiment in real-world systems," and holds eight U.S. patents.

## *Wednesday, November 7, 2007*

### ♦ Developing Mentors for FIRST Robotics Competition

The FIRST Robotics Competition is the key component of the non-profit organization, For Inspiration and Recognition of Science and Technology (FIRST), founded in 1989 by Segway inventor Dean Kamen. The annual competition engages pre-college students and volunteer mentors in hands-on collaborative problem solving, and encourages development and growth of lasting partnerships between schools, universities, business and communities.

FIRST participants in Washington, D.C. include eight local high schools: McKinley, Bannekar, Cardozo, Roosevelt, Ballou, Friendship, Bell Multicultural, and Patriot Center. A scrimmage takes place during National Engineers Week in February with a regional competition in Annapolis.

**Jim Grove** will describe his role as a volunteer mentor with the FIRST Robotics program at McKinley Technical High School, and his efforts to develop new mentors from his co-workers at the U.S. Naval Research Laboratory. His talk will center on plans to quickly develop new mentors into contributing members of a growing team. The McKinley robotics teacher and students will demonstrate their robot with a 38x28 inch footprint.

Grove is an engineer with the U.S. Naval Research Laboratory in Washington, D.C., and a naval aviator and commander in the U.S. Navy Reserves. He has a master's degree in chemical engineering from the University of Tennessee.

## *Thursday, November 8, 2007*

### ♦ Biomedical Intellectual Property Challenges for Small Business and Government

Drawing from a wealth of experience in private practice, government work and scientific research, **Dr. Matthew Latimer** will discuss the challenges of business and government involved in biomedical intellection property (IP). These challenges follow the life cycle of initial IP protection to the concluding FDA approval process. He will also discuss the future issues and directions of biomedical IP and conclude with a short question and answer session.

Dr. Latimer is a partner at Latimer, Mayberry & Matthews IP Law LLP, where he focuses on the areas of biotechnology, nanotechnology, pharmaceuticals, chemistry, and Internet communications. Until 2004, he worked as an associate attorney at the intellectual property law firm of Finnegan, Henderson, Farabow, Garrett & Dunner in their Washington, D.C. and Reston, Va. offices, and as a law clerk at the intellectual property law firm of Oliff and Berridge in Northern Virginia. Preceding his career in the private sector, Dr. Latimer was a patent examiner in the biotechnology group at the U.S. Patent and Trademark Office, where he examined patent applications directed to gene expression technology.

Dr. Latimer's scientific background includes work in prokaryotic gene expression and protein biochemistry, as well as human immune system regulation. As a graduate student, Dr. Latimer investigated the molecular organization and structure of genes involved in activation of the carbon and energy source acetate by a methanogenic Archaea. His studies also focused on identifying the biochemical properties of enzymes involved in the activation pathway. As a post-doctoral fellow at the National Cancer Institute's Frederick Research Center, he investigated structure-function relationships in the regulation of activity of the immune response transcription factor NFKB.

## *Friday, November 9, 2007*

### ♦ Professional Communications: The Broadway to Technology

**Emily Sopensky,** a business consultant specializing in technology, explains how professional communication is just a broad avenue for those who want to delve into the many wonders of technologies and be rewarded for purposeful, professional curiosity. A forward-thinker, Sopensky spills the beans on where her own professional curiosity has led her.

Sopensky has written on a broad range of technologies, from the Internet to the semiconductor industry. She began her relationship with IEEE while pursuing an assignment for a Fortune 500 company. *Spectrum,* IEEE's flagship magazine, was her resource of choice. After her recent IEEE Fellowship at the U.S. State Department, she once again is deeply embedded in the RFID industry. For more about Sopensky, go to ***www.iriscompany.com***.

## *Thursday, November 15, 2007*

### ♦ Aluminum Conductors Updated

**Pete Pollak, P.E.,** is manager of product standards and electrical services for Aluminum Association, Inc. He will share his insight into the present trend in aluminum usage for electrical applications, based on more than 40 years of professional experience as an electrical engineer. He will review the basic physical and electrical characteristics of specific alloys, the significance of the parallel history of the aluminum and electrical industries, global production statistics and current economics of conductor materials.

Pollak received his bachelor's and master's degrees from NYU. He is an IEEE Senior Member and a past chair of the Power Engineering Society chapter. Prior to working for the Aluminum Association, where he is in charge of electrical activities, he worked for Westinghouse Electric and General Cable Corp.

He is a pragmatic educator who explains standard practice in addition to theory. He has taught electrical engineering at RCA Institutes, George Washington University and Northern Virginia Community College (where he is currently an adjunct professor). He also does technical training at the NECA/IBEW NJATC National Training Institute.

He is a member of National Electrical Code Panels 7 and 12, NFPA Electrical Section, IAEI, ASTM, ANSI/NEMA C119 and C80 Committees (Electrical Utility Connectors and Electrical Conduit, respectively) and is a registered professional engineer licensed in N.Y., N.J., Va. and D.C.

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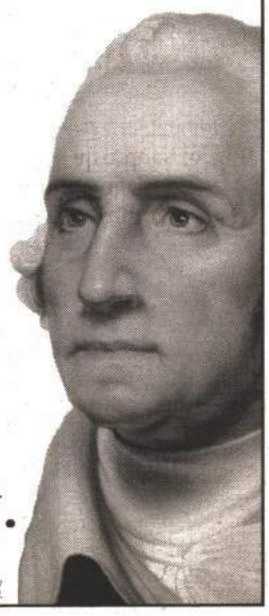

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