



**Celebrating 125 Years**  
of Engineering the Future

# Scanner

A Joint Publication of the Washington and Northern Virginia Sections  
www.ieee.org/escanner

Volume 24, No. 1  
January–February 2009

## 'Art of Consulting' Series Returns with Tips for Going Solo

By Monica A. Mallini, P.E.  
Chair, National Capital Area  
Consultants' Network

The National Capital Area Consultants' Network is pleased to present an encore of a series that was very popular a few years ago, "The Art of Consulting." Developed by local members, the series combines presentations with a roundtable discussion forum to help you determine how consulting fits into your career plan in the current economic climate.

If you've been thinking about becoming a consultant, or thinking that you might *have* to, here's something you won't want to miss. We'll show you what works, what doesn't work, and what it takes to make it in business.

The first installment of the series, "Lifestyles," on Tuesday, February 17, will give you an overview of several different consulting styles, ranging from working the "job shop" circuit, to running a completely independent consulting corporation. You'll hear the real life experiences of seasoned consultants, with valuable tips you won't find anywhere else. You'll also hear from some consultants who have obtained business as a result of their activity in the IEEE Consultants' Network.

In part two of the series, "Designing Your Own Career," in March, you'll consider the nitty-gritty details of consulting. What services should you offer? How much should you charge? (Is it always the same rate?) What business form (sole proprietorship, S-corporation, etc.) should you set up? How do

you actually *do* that? In the roundtable discussions, experienced consultants will describe the choices they made, the reasons why, and how they worked out. In the process, we'll also talk about how you can determine your target market, for example, getting commercial business vs. bidding on government contracts.

In the third installment, "Getting Business (Without Getting the Business)," we'll discuss finding new clients

*...what works,  
what doesn't work,  
what it takes to make it...*

and generating repeat business. We'll start with basic promotional materials like brochures and business cards, and progress to portfolios and websites. Having advertising materials is only part of the story. You also have to decide who you are trying to reach, how to find them, and what to do and say when you have found them. We'll show some guerrilla techniques for marketing, and we'll talk about marketing individually and in teams, at trade shows and commercial associations like technology councils and professional associations. Bidding the job and closing the sale are vital skills. We'll show you things to look out for, like the 5/8th's Rule, and why you should multiply your initial estimate by three.

The fourth presentation, "Getting Paid (and Other Legal Hassles)," will cover an often neglected aspect of

doing business: getting paid. More specifically, we'll talk about why that might not happen, and defensive strategies you can use to make sure that you do get paid. Contracts are important, but a contract cannot protect you completely. There are simple but vital steps you need to take from the very beginning to avoid problems. Relax—we'll show you how.

Don't miss this important series! In case you can't wait for all of this information to unfold over several months, we have a special package just for you. The Consultants' Network will host an abridged version of all four topics combined into one workshop on Saturday, January 31 at the National Electronics Museum near BWI Airport.

All IEEE members and guests are welcome to attend the one-day workshop, the series, or both. For registration information, see the Calendar announcements for January 31 (p. 3) and February 17 (p. 4).

## IEEE Nanotechnology Council to Form Local Chapter

The IEEE Nanotechnology Council is a multi-disciplinary group whose purpose is to advance and coordinate work in the field of nanotechnology throughout IEEE in scientific, literary and educational areas.

Twenty-one IEEE technical societies constitute the Nanotechnology Council. For more information, visit [www.ieee.org/ntc](http://www.ieee.org/ntc).

We are currently in the formation stage of a local chapter of the council.



**Fiesta Prizes**—Laura Black (left) and Tyler Sullivan are pleased with their door prizes at the Fall Power Fiesta Networking Event on November 14. Seddik Benhamida (not pictured) won the grand prize, a Trader Joe's gift basket valued at \$80, for sponsoring several new student members at DeVry University. The theme of the event was welcoming new members.

The chapter will hold technical meetings focusing on nanotechnology and will promote networking and collaboration.

We are seeking energetic volunteers who can take leadership roles in this chapter. If you are interested, please contact Murty Polavarapu at [murtyp@ieee.org](mailto:murtyp@ieee.org). We hope to have a planning meeting in late January or February. All meetings will be posted at [www.ieee.org/escanner](http://www.ieee.org/escanner).

## Leadership Seminar for Officers, Volunteers Planned for Saturday, February 7



**"Love What You Do"**—At last year's seminar, Fred Seelig, former chair of the Northern Virginia Chapter of the Communications Society, talked about planning successful technical meetings.

An overview of IEEE's new web-based system for meeting management will be the highlight of this year's Volunteer Leadership Development Seminar on February 7.

The vTools Meeting software is designed to help chapter and section officers announce and report meetings. Features include online registration, calendar feeds, and automated completion of reports. Information entered in the vTools database for a meeting announcement is available to use for the L-31 report after the meeting.

The first vTools modules are in beta testing and can be used by section and chapter officers. User feedback will be incorporated into future development efforts. (See "What is vTools?" on p. 5.)

The Volunteer Leadership Development Seminar, also known as officer training, is sponsored by the Northern Virginia and Washington sections.

The annual half-day of presentations is designed to help newly-elected chapter officers learn the ropes from those who are more experienced. Current and past officers from the Northern Virginia and Washington sections as well as IEEE Region 2 will share their expertise.

In addition to the vTools presentation, attendees will learn best practices for planning, publicizing, implementing and reporting chapter meetings. Topics range from membership development ideas to the proper way to conduct business meetings.

There will be opportunities to ask questions, and time for networking with other IEEE members and officers during breaks.

Officers from the Baltimore and West Virginia sections are being invited to join National Capital Area participants. Every chapter and affinity group should send at least one officer. Student branch officers are also encouraged to attend.

Registration is free and a continental breakfast and lunch are included. The seminar is being held at MITRE Corp. in McLean, Virginia, and will conclude in the early afternoon.

Preregistration is required for food and materials planning. For details, see the Calendar announcement on p. 3.

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**ON THE WEB****eScanner Calendar of Events**

The calendar is available at [www.ieee.org/escanner](http://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](http://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](mailto:ncac-scanner@ieee.org). Events must have an IEEE or affiliate sponsor.

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](mailto: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.

**March–April issue deadline:**  
**February 1, 2009**

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# calendar of events

## Tuesday, January 6, 2009

### Washington Section Administrative Committee Meeting

**Time:** 6:45 pm  
**Place:** American Association for the Advancement of Science (AAAS), 1200 New York Avenue NW, Washington, DC  
**Directions:** Use the 12th Street entrance. The AAAS building is one block from Metro Center (Red, Orange and Blue lines). Street parking is free after 6:30 pm (no parking 4:00–6:30 pm). There is a pay parking lot at the intersection of 9th St. and New York Ave., and an underground parking garage at 14th St. and New York Ave.  
 See map at [www.aaas.org/dcwest.pdf](http://www.aaas.org/dcwest.pdf).  
**More Info:** All interested IEEE members are welcome.  
**Contact:** RSVP to Monica Taysing-Lara at [m.taysinglara@ieee.org](mailto:m.taysinglara@ieee.org) or 202-725-2225.

## Tuesday, January 13, 2009

### ◆ An Overview of Trends, Tools, and Technologies in Software User Assistance

**Sponsors:** Professional Communication Society, Computer Society, Society for Technical Communication  
**Speaker:** Joe Welinske, WritersUA  
**Time:** 6:30–8:30 pm  
**Place:** NRECA Conference Center, 4301 Wilson Blvd., Rm. CC1, Arlington, VA  
**More Info:** See Diamond story, p. 5.  
**Cost:** \$15 for dinner.  
**Contact:** Preregister by Friday, Jan. 9 at [http://meetings.vtools.ieee.org/meeting\\_view/list\\_meeting/337](http://meetings.vtools.ieee.org/meeting_view/list_meeting/337).

## Tuesday, January 13, 2009

### Women in Engineering Election Meeting

**Sponsor:** Women in Engineering  
**Time:** 6:30 pm  
**Place:** Chevy's Fresh Mex Restaurant, Ballston Common Mall, 4238 Wilson Blvd., Arlington, VA  
**Directions:** Ballston Common is two blocks south of Ballston Metro station (Orange line). Turn right at top of Metro escalator, then left on the street, proceed two blocks toward Macy's, turn left and walk toward Ballston Commons Mall. Look for Chevy's on the right. Street parking is limited, and garage parking typically costs \$1 for 3 hours. See [www.ballston-common.com/info/map.cfm](http://www.ballston-common.com/info/map.cfm).  
**More Info:** Meet other Women in Engineering while enjoying chips with salsa and maybe a frozen drink! WIE will be holding elections at 7:00 pm. If you are interested in running for an office, please send an email to Katie Schaffold.  
**Contact:** Please RSVP by Jan. 12 to Katie Schaffold at [katie.schaffold@ieee.org](mailto:katie.schaffold@ieee.org).

## Wednesday, January 14, 2009

### Northern Virginia Section Administrative Committee Meeting

**Time:** Dinner 6:00, business meeting 7:00–8:00 pm  
**Place:** Fairfax County Government Center, 12000 Government Center Parkway, Conference Room 8, Fairfax, VA  
**Directions:** See [www.fairfaxcounty.gov/maps/locatMap.htm](http://www.fairfaxcounty.gov/maps/locatMap.htm). From I-495, take I-66 West to Exit 55B Fairfax County Pkwy North (Route 7100). Turn right onto Fair Lakes Pkwy East. Turn right at light onto Monument Dr. Turn right at light onto Government Center Pkwy. The Government Center is on the left.  
**More Info:** All interested IEEE members are invited to attend.  
**Contact:** Preregister at [http://meetings.vtools.ieee.org/meeting\\_view/list\\_meeting/315](http://meetings.vtools.ieee.org/meeting_view/list_meeting/315) or contact Jeff Poston at [poston@ieee.org](mailto:poston@ieee.org) or 703-983-7020.

## Wednesday, January 21, 2009 (Tentative)

### ◆ Extending the Landsat Legacy Progress Towards a Landsat Data Continuity Mission Launch

**Sponsor:** Geoscience and Remote Sensing Society  
**Speaker:** Dr. James R. Irons, LDCM Project Scientist, NASA Goddard Space Flight Center  
**Time:** Refreshments & networking 3:00 pm, presentation 3:30 pm  
**Place:** (Tentative) Visitor Center, NASA Goddard Space Flight Center, Greenbelt, MD  
**Directions:** See [www.nasa.gov/centers/goddard/visitor/directions/index.html](http://www.nasa.gov/centers/goddard/visitor/directions/index.html).  
**More Info:** See Diamond story, p. 5. For confirmation of date and location, see [http://ewh.ieee.org/r2/no\\_virginia/grss](http://ewh.ieee.org/r2/no_virginia/grss) or [www.ieee.org/escanner](http://www.ieee.org/escanner).  
**Contact:** James C. Tilton at [j.tilton@ieee.org](mailto:j.tilton@ieee.org).

## Thursday, January 22, 2009

### Antennas and Propagation Society Election Meeting

**Time:** 6:30 pm  
**Place:** Chevy's Fresh Mex Restaurant, Ballston Common Mall, 4238 Wilson Blvd., Arlington, VA  
**Directions:** Ballston Common is two blocks south of Ballston Metro station (Orange line). Turn right at top of Metro escalator, then left on the street, proceed two blocks toward Macy's, turn left and walk toward Ballston Commons Mall. Look for Chevy's on the right. Street parking is limited, and garage parking typically costs \$1 for 3 hours.

See [www.ballston-common.com/info/map.cfm](http://www.ballston-common.com/info/map.cfm).

**More Info:** All APS members may participate in the officer election. If you are interested in running for an office, send an email to Monica Taysing-Lara.  
**Contact:** Please RSVP by Jan. 20 to Monica Taysing-Lara at [m.taysinglara@ieee.org](mailto:m.taysinglara@ieee.org).

## Tuesday, January 27, 2009

### Forensic Software

**Sponsors:** Computer Society, American Society for Quality (ASQ) Section 509 Software SIG, Society for Software Quality (SSQ)  
**Time:** 6:30 pm  
**Speaker:** Brian Fitzgerald  
**Place:** Video teleconference with sites in McLean and Silver Spring. Addresses are provided at the registration link below.  
**More Info:** Mr. Fitzgerald will speak on the U.S. Food and Drug Administration, Center for Devices and Radiological Health Forensic Software Program. All interested IEEE members and guests are invited. Pizza and soda will be served.  
**Cost:** Free  
**Contact:** Advance registration is required to enter the facilities. Please register online at [www.asq509.org/ht/d/sp/i/2499/pid/2499](http://www.asq509.org/ht/d/sp/i/2499/pid/2499). If your plans change, please email [ankums@mitre.org](mailto:ankums@mitre.org) to cancel your reservation.

## Wednesday, January 28, 2009

### ◆ Microsoft Software + Services

**Sponsor:** Computer Society  
**Speakers:** Ashish Jaiman and Zhiming Xue  
**Time:** 6:00–9:00 pm  
**Place:** Microsoft, 12012 Sunset Hills Rd., Reston, VA  
**Directions:** From the Capital Beltway, take Exit 45A (Rte. 267 West) towards Dulles Airport. After approx. 8 miles, take Exit 12 Reston Pkwy (Rte. 602) and turn right to go North on Reston Pkwy, then turn left onto Sunset Hills Rd.  
**More Info:** See Diamond story, p. 5.  
**Contact:** Tom Starai at [starai@ieee.org](mailto:starai@ieee.org).

## Saturday, January 31, 2009

### The Art of Consulting Workshop

**Sponsor:** National Capital Area Consultants' Network  
**Time:** 10:00 am to 2:00 pm  
**Place:** National Electronics Museum, 1745 W. Nursery Rd., Linthicum, MD  
**Directions:** From the Washington Beltway, take Rte. 295 (Baltimore–Washington Pkwy.) north to the West Nursery Rd. exit and stay right on the ramp. Go through

See CALENDAR, p. 4

## CALENDAR, from p. 3

three stoplights. The museum is on the left, next to the Marriott Hotel. Please park in the large lot at the far end of the building, *not* in a visitor's space. See [www.hem-usa.org](http://www.hem-usa.org).

**More Info:** See story, p. 1. All IEEE members, student members and guests are welcome. Sandwiches will be served.

**Cost:** \$20 cash at the door.

**Contact:** Please register by 12:00 noon on Jan. 30 at [http://meetings.vtools.ieee.org/meeting\\_view/list\\_meeting/329](http://meetings.vtools.ieee.org/meeting_view/list_meeting/329). For additional information about the workshop, contact Monica Mallini at [m.a.mallini@ieee.org](mailto:m.a.mallini@ieee.org).

**Tuesday, February 3, 2009**

### Washington Section Administrative Committee Meeting

**Time:** 6:45 pm

**Place:** American Association for the Advancement of Science (AAAS), 1200 New York Avenue NW, Washington, DC

**Directions:** Use the 12th Street entrance. The AAAS building is one block from Metro Center (Red, Orange and Blue lines). Street parking is free after 6:30 pm (no parking 4:00–6:30 pm). There is a pay parking lot at the intersection of 9th St. and New York Ave., and an underground parking garage at 14th St. and New York Ave. See map at [www.aaas.org/dcwest.pdf](http://www.aaas.org/dcwest.pdf).

**More Info:** All interested IEEE members are welcome.

**Contact:** RSVP to Monica Taysing-Lara at [m.taysinglara@ieee.org](mailto:m.taysinglara@ieee.org) or 202-725-2225.

**Saturday, February 7, 2009**

### Volunteer Leadership Development Seminar (Officer Training)

**Sponsors:** Northern Virginia Section, Washington Section

**Time:** 8:30 am to 1:30 pm

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

**Directions:** See [www.mitre.org/about/locations/mitre2\\_map.html](http://www.mitre.org/about/locations/mitre2_map.html).

**More Info:** Each chapter should send at least one officer to this seminar. All members, student branch leaders and non-members who volunteer at IEEE events are invited to learn and share our best practices to *Inspire–Enable–Empower–Engage* one another and our IEEE member constituents.

**Cost:** Free, including continental breakfast and lunch.

**Contact:** Please register by 12:00 noon on Friday, Feb. 6 by sending an email to Elsie Grant at [ncac-scanner@ieee.org](mailto:ncac-scanner@ieee.org) with the subject line, "IEEE Leadership Registration."

**Tuesday, February 10, 2009**

### ◆ High-efficiency RF Power Amplifiers and Transmitters

**Sponsor:** Microwave Theory and Techniques Society

**Speaker:** Dr. Frederick Raab, Green Mountain Radio Research Co.

**Time:** Social period 5:30 pm, dinner 6:00 pm, lecture 7:00 pm

**Place:** American Center for Physics, One Physics Ellipse, College Park, MD

**Directions:** See [www.acp.org/map.html](http://www.acp.org/map.html). Free parking. Ten-minute walk from College Park Metro station (Green line).

**More Info:** See Diamond story, p. 6, or [www.ieee.org/mtt-wnva](http://www.ieee.org/mtt-wnva). This is the second lecture in the MTT-S series for 2008–09. All are welcome to attend.

**Cost:** Lecture free; \$15 for dinner (reservation required, cash payment preferred).

**Contact:** Please RSVP for dinner only by COB Friday, Feb. 6 to Roger Kaul at [r.kaul@ieee.org](mailto:r.kaul@ieee.org) or 301-394-4775.

**Wednesday, February 11, 2009**

### Northern Virginia Section Administrative Committee Meeting

**Time:** Dinner 6:00, business meeting 7:00–8:00 pm

**Place:** Fairfax County Government Center, 12000 Government Center Parkway, Conference Room 8, Fairfax, VA

**Directions:** See [www.fairfaxcounty.gov/maps/locatMap.htm](http://www.fairfaxcounty.gov/maps/locatMap.htm). From I-495, take I-66 West to Exit 55B Fairfax County Pkwy North (Route 7100). Turn right onto Fair Lakes Pkwy East. Turn right at light onto Monument Dr. Turn right at light onto Government Center Pkwy. The Government Center is on the left.

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

**Contact:** Preregister at [http://meetings.vtools.ieee.org/meeting\\_view/list\\_meeting/317](http://meetings.vtools.ieee.org/meeting_view/list_meeting/317) or contact Jeff Poston at [poston@ieee.org](mailto:poston@ieee.org) or 703-983-7020.

**Tuesday, February 17, 2009**

### The Art of Consulting, Part 1

**Sponsor:** National Capital Area Consultants' Network

**Time:** 6:00–8:30 pm

**Location:** Community Business Partnership, 7001 Loisdale Rd., Suite C, Springfield, VA

**Directions:** From I-495, take Exit 57A toward Richmond. Stay to the right to continue toward Franconia Rd. Take exit 169A on the left for Franconia Rd. (Rte. 644 East) toward Franconia. Merge onto Franconia Rd. then turn right on Loisdale Rd. CBP is on the left after 1 mile. Free parking.

**More Info:** See story, p. 1. All IEEE members, student members and guests are welcome. Sandwiches will be served.

**Cost:** \$20 cash at the door.

**Contact:** Please register by 12:00 noon on Feb. 16 at [http://meetings.vtools.ieee.org/meeting\\_view/list\\_meeting/327](http://meetings.vtools.ieee.org/meeting_view/list_meeting/327).

For additional information about the workshop, contact Monica Mallini at [m.a.mallini@ieee.org](mailto:m.a.mallini@ieee.org).

**Saturday, February 21, 2009**

### Discover Engineering Family Day

**Sponsor:** IEEE-USA

**Time:** 10:00 am to 4:30 pm

**Place:** National Building Museum, 401 F Street NW, Washington, DC

**Directions:** Use the Judiciary Square Metro station (Red line).

**More Info:** This event introduces children of all ages to the excitement of engineering. Dozens of hands-on activities are provided by local engineering chapters and national organizations including IEEE. See [www.eweekdcfamilyday.org](http://www.eweekdcfamilyday.org).

**Cost:** Free

**Saturday, February 21, 2009**

### ◆ NIST Technical Tour of Neutron Reactor Complex

**Sponsors:** Nuclear and Plasma Sciences Society, Engineering in Medicine and Biology Society, Computer Society

**Time:** 10:30 am

**Place:** NIST Research Reactor Complex, National Institute of Standards and Technology (NIST), 100 Bureau Drive, Gaithersburg, MD

**Directions:** From the Capital Beltway (I-495), take I-270 North to Exit 10 (Quince Orchard and Clopper Rd.). Turn right at the light; then left at the next light.

**More Info:** See Diamond story, p. 6. This site visit will include a tour of the reactor facility, a history, and an overview of the neutron research activities conducted at NIST. All IEEE members and their guests are welcome, however space is limited. A luncheon at a local restaurant will follow the site visit.

**Contact:** To meet security requirements, advance registration is required by Tuesday, Feb. 10, and all attendees must bring a photo ID. To register, send an email to Harry Sauberman at [hsauberman@ieee.org](mailto:hsauberman@ieee.org) with your (and your guest's) full name, gender and nationality.

**Tuesday, February 24, 2009**

### ◆ Building Survivable Systems in Engineering and Business Systems

**Sponsors:** Computer Society, Information Theory Society, Reliability Society, American Society for Quality (ASQ) Section 509 Software SIG, Society for Software Quality (SSQ)

**Time:** 6:30 pm

**Speaker:** Jidé B. Odubiyi, Ph.D.

**Place:** Video teleconference with sites in McLean and Silver Spring. Addresses are provided at the registration link below.

**More Info:** See Diamond story, p. 6. All interested IEEE members and guests are invited to attend. Pizza and soda will be served.

**Cost:** Free  
**Contact:** Advance registration is required to enter the facilities. Please register online at [www.asq509.org/ht/d/sp/i/2499/pid/2499](http://www.asq509.org/ht/d/sp/i/2499/pid/2499). If your plans change, please email [ankums@mitre.org](mailto:ankums@mitre.org) to cancel your reservation.

### Wednesday, February 25, 2009

#### Engineers and Architects Day Luncheon

**Sponsor:** District of Columbia Council of Engineering and Architectural Societies  
**Speaker:** TBA  
**Time:** 11:30 am  
**Place:** Pier 7 Restaurant, 650 Water Street SW, Washington, DC  
**Directions:** Complimentary 3 hours of parking, or walk from the Waterfront Metro Station (Green line).  
**Cost:** TBA  
**Contact:** Reservations are required. See [http://meetings.vtools.ieee.org/meeting\\_view/list\\_meeting/333](http://meetings.vtools.ieee.org/meeting_view/list_meeting/333) or [www.dceas.org](http://www.dceas.org) for more information.

### Saturday, February 28, 2009

#### DCCEAS Awards Banquet

**Sponsor:** District of Columbia Council of Engineering and Architectural Societies  
**Speaker:** TBA  
**Time:** 6:30 pm  
**Place:** Crowne Plaza Hotel, 8777 Georgia Avenue, Silver Spring, MD  
**Directions:** The hotel is 4 blocks from the Silver Spring Metro Station (Red line). Free parking behind the hotel.  
**Cost:** TBA  
**Contact:** Reservations are required. See [http://meetings.vtools.ieee.org/meeting\\_view/list\\_meeting/335](http://meetings.vtools.ieee.org/meeting_view/list_meeting/335) or [www.dceas.org](http://www.dceas.org) for more information.

## What is vTools?

Several meeting announcements in the Calendar include a URL for online registration using the new IEEE vTools Meeting System. When you go to the vTools page for a meeting, you can register online by clicking a link for a registration form, copy the event data to your electronic calendar (if you have compatible software), and download any documents that may be available for the event, such as an agenda or poster file.

Section and chapter officers may use vTools to create new meeting notices and generate L-31 reports for meetings not listed.

The vTools home page is located at <http://meetings.vtools.ieee.org/main>. From here, you can search for and view information about scheduled meetings.

To avoid typing a long URL, you can view the eScanner announcement at [www.ieee.org/escanner](http://www.ieee.org/escanner) and click the vTools link in the Contact paragraph. The eScanner website will continue to list all IEEE meetings in the National Capital Area. Always check the eScanner if a meeting is not listed in vTools.

The vTools software is currently in the beta testing stage and additional features are being developed. Your comments and suggestions are welcome and should be sent to [vtools@ieee.org](mailto:vtools@ieee.org).

# ◆◆ diamond stories ◆◆

Tuesday, January 13, 2009

## ◆ An Overview of Trends, Tools, and Technologies in Software User Assistance

The application of technical communication skills to the development of software user assistance has grown immensely in the past 20 years. This specialization is very fulfilling and challenging and technical communicators are finding their role in the software development process to be increasingly valued. User assistance is much more than "Help." It encompasses a wide range of skills and technologies that are combined to improve the software user's experience, including wizards, tutorials, web-based training, knowledge bases, and content management systems, as well as printed manuals and their PDF equivalents.

Helpful content is now embedded directly into the user interface, and technical communicators are involved with usability testing, localization, testing, quality assurance, and branding. This presentation provides a cutting-edge overview of the latest trends in software user assistance, defines the key terminology, highlights the most important technologies, and offers predictions on future directions in technical communication.

**Joe Welinske** is President of WritersUA, formerly known as WinWriters, a company devoted to providing training and information for user assistance professionals. The WritersUA/WinWriters Conference draws hundreds of attendees each year from around the world to share the latest in user assistance design and implementation. The free content on the WritersUA website attracts over 20,000 visitors each month.

Welinske has been involved with software documentation development since 1984. Together with Scott Boggan and David Farkas, he authored two editions of the book, *Developing Online Help for Windows*. He has also taught online Help courses at the University of Washington, University of California Santa Cruz, and Bellevue Community College.

Welinske received a B.S. in industrial engineering from the University of Illinois in 1981, and a M.S. in adult instructional management from Loyola University in 1987. He was president of the Society for Technical Communication's Puget Sound Chapter from 2006 to 2008 and is now vice president in charge of sponsorships.

Wednesday, January 21, 2009  
(Tentative)

## ◆ Extending the Landsat Legacy Progress Towards a Landsat Data Continuity Mission Launch

This presentation will provide an overview of the Landsat Data Continuity Mission (LDCM), which has advanced to the preliminary design stage, Phase B, of mission development. The mission is being implemented as a free-flyer satellite through an inter-agency partnership between NASA and the U.S. Geological Survey (USGS). Launch will be no earlier than December 2012.

Progress to date includes selection of Ball Aerospace and Technologies Corp. to build the primary LDCM earth sensor, the Operational Land Imager (OLI); selection of General Dynamics Advanced Information Systems to develop the LDCM spacecraft; initiation of ground system development at the USGS Center for Earth Resources Observations and Science in Sioux Falls, SD; and consideration of the possible addition of a thermal imaging sensor to the LDCM payload. At the same time, a new era in Landsat data

access has begun with the USGS decision to distribute Landsat data from its 36-year archive at no cost to those requesting images, a policy that will include LDCM data.

**James R. Irons** is the Associate Chief of the Laboratory for Atmospheres, NASA Goddard Space Flight Center (GSFC). He is also the NASA Landsat Data Continuity Mission (LDCM) Project Scientist and in that capacity ensures that the design and implementation of the mission meet science requirements. Prior to 2007, Dr. Irons worked 28 years as a physical scientist in the Biospheric Sciences Branch at GSFC, where he served as the Landsat 7 Deputy Project Scientist beginning in 1992.

Dr. Irons received his B.S. in environmental resources management in 1976 and an M.S. degree in agronomy in 1979 from Pennsylvania State University. He received his Ph.D. degree in agronomy in 1993 from the University of Maryland.

Wednesday, January 28, 2009

## ◆ Microsoft Software + Services

Software + Services is Microsoft's approach for the next generation of computing. Central to the strategy is bringing together the best of cloud-based services and the software that resides on a world of devices. The power of local client or on-premises server software combined with the reach and always up-to-date nature of services in the cloud will be more compelling than software *or* service only approaches. The Software + Service approach is a confluence of multiple industry phenomena including SaaS, SOA, and Web 2.0. While different vendors are evolving their offerings from different starting points, the entire industry is converging on the Software + Service approach.

The speakers will share their views on Microsoft's Software + Services, review Microsoft Azure Services Platform and applications with demonstrations, and discuss services requirements common to the services platform such as interoperability, identity, data management, and service management.

**Ashish Jaiman** works as ISV Architect Evangelist with Microsoft, managing ISVs in the mid-Atlantic area. In his role he drives and accelerates the adoption of new (mostly pre-release) technologies and tools within the ISV community. His current focus is SQL 2008, VS 2008, Win2008, Net3.5 and web-based technologies.

Jaiman has over 12 years of experience in designing and developing enterprise software, bringing technical solutions to business problems and consistently delivering high quality software on time and on budget. Before joining Microsoft he worked with small startups. His blogs can be found at <http://blogs.msdn.com/usisvde> and <http://blogs.msdn.com/ajaiman>.

**Zhiming ("Z") Xue** is a Microsoft Architect Evangelist based in the mid-Atlantic area. He has more than 12 years of software development, consulting and IT experience, specializing in enterprise application architecture, development and integration. While with Microsoft Services he played technical and architectural roles on many consulting projects for large enterprise customers in both the commercial sector and the public sector.

Through his blogs and publications he has reached readers in the U.S., China and other countries and regions. He holds a Ph.D. in management science from the Isenberg School of Management at the University of Massachusetts at Amherst, a professional certification from American Production and Inventory Control Society, as well as several Microsoft certifications. His blog is located at <http://blogs.msdn.com/zxue>.

See DIAMOND STORIES, p. 6

DIAMOND STORIES, from p. 5

Tuesday, February 10, 2009

### ◆ High-efficiency RF Power Amplifiers and Transmitters

This talk is an overview of techniques for high-efficiency RF-power amplification. First, some basic concepts about transistors and the concept of average efficiency are introduced. The characteristics of conventional amplifiers (classes A, B, and C) are then reviewed. The principles, demonstrated achievements, and practical limitations of RF-power amplifiers operating in class D, class E, and class F are discussed, followed by techniques for high-efficiency linear amplification. These include the Kahn EER technique, envelope tracking, Doherty, and Chireix outphasing, as well as high-level amplitude modulators. Finally some speculation on emerging techniques is offered.

**Frederick ("Fritz") H. Raab** is Chief Engineer and owner of Green Mountain Radio Research, a consulting firm which he founded in 1980. He received his B.S., M.S. and Ph.D. degrees in electrical engineering from Iowa State University (ISU) in 1968, 1970 and 1972. He received the ISU Professional Achievement Citation in Engineering in 1995 and was named an IEEE fellow in 2006.

*Solid State Radio Engineering*, a textbook coauthored by Dr. Raab, is widely used by both academics and practicing engineers. His other professional achievements include publication of over 100 technical papers and award of 12 patents. He served as technical program chair for RF Expo East '90 and on the founding technical committee that expanded the IEEE MTT Society to include HF/VHF/UHF engineers. Dr. Raab is a member of Eta Kappa Nu, Sigma Xi, AOC, AFCEA, RCA, and ARRL. He is extra-class amateur-radio operator W1FR, licensed since 1961.

Saturday, February 21, 2009

### ◆ NIST Technical Tour of Neutron Reactor Complex

The National Institute of Standards and Technology (NIST), through its Center for Neutron Research (NCNR), operates a 20 MW nuclear research reactor at its Gaithersburg, MD facility. The device is the second largest research reactor in the U.S. It has been in routine use since 1969 and supports a broad range of neutron research activities including diffraction analysis, inelastic scattering analysis, activation analysis, depth profiling, interferometry and fundamental physics measurements.

Additional information can be found at [www.ncnr.nist.gov/whatwedo.html](http://www.ncnr.nist.gov/whatwedo.html).

Tuesday, February 24, 2009

### ◆ Building Survivable Systems in Engineering and Business Systems

A survivable system is one that will deliver essential services on time; even when significant elements of the system become disabled. A survivable system's quality attributes include fault tolerance, performance, availability, reliability, security and affordability. One of the most effective means for building these systems is to employ tools that aid in investigating a variety of design and operational scenarios and selecting the most viable option. Organizations may fail to meet their mission objectives due to their inability to successfully innovate three critical change drivers essential to their survival—product, process, and business systems. Unless an organization innovates, it cannot adapt to changes in its environment and consequently, it cannot survive.

**Jidé B. Odubiyi** will present technological approaches for using these change drivers to achieve an organization's mission objectives. He will discuss the principles and applications of finite element modeling for product innovation; modeling and simulation science for process innovation; and complex and nonlinear systems theory and multi-agent technology for business process innovation. Employing real life examples, he will present measures of system survivability for engineering structures (automobile and airplanes); telecommunication networks, computer and network security; and software engineering.

Dr. Odubiyi is president and CTO of SEGMA, LLC. He has over 30 years of industrial and research experience in researching and generating products from concepts to market with a current focus on developing business intelligence software for corporate governance, computer and network security, and intelligent tutoring systems. He serves as a research consultant on intelligent systems engineering and grid computing for NASA Goddard Space Flight Center.

He has served as an associate professor of computer science at Bowie State University; principal AI researcher and R&D manager at British Telecom North America Concert Global Communications; principal engineer and AI technologist at Lockheed Martin Space Mission Systems; product design engineer for Boeing Company and Ford Motor Company; and member of the technical staff at MITRE Corp. and Battelle Columbus Laboratories.

Dr. Odubiyi received his B.S. and M.S. in mechanical engineering from the University of Washington, and a Ph.D. in applied management and decision sciences from Walden University. He has authored over 40 articles and two books, *Blueprint for a Crooked House*, about mergers and acquisitions, and *Building Survivable Systems*. He is a member of AAAI, ACM and IEEE.



#### Northern Virginia Section Chair's Column

### 'Inspire-Enable-Empower-Engage' will Make This Year the Best Ever

By Monica A. Mallini, P.E.  
2009 Chair,  
Northern  
Virginia  
Section

As hierarchical computing and technology platforms are eclipsed by peer-to-peer structures, IEEE is undergoing a similar transformation.

**Inspire-Enable-Empower-Engage.** This is IEEE's mission statement and our grassroots call to action as IEEE members and volunteers.

As IEEE celebrates its 125th anniversary, the Northern Virginia Section enters its 33rd year. I am certain that this will be our best year ever, because in 2009 vTools (volunteer tools) will enter our vocabulary. IEEE volunteers, including our Section's own Marc Apter, have led a team initiative to develop a suite of software tools designed to help us do our volunteer jobs more efficiently.

The Northern Virginia Section will beta test each vTool as it is rolled out, and we will enjoy immediate benefits from these remarkable tools.

Have you heard of the L-31 report? This is how IEEE tracks section and chapter activity to calculate section rebates. Unfortunately, the information is generated through an unwieldy report that requires our volunteers to recon-

struct meeting data after the fact. Not anymore, thanks to vTools Meeting System. Now we have a tool that publishes meeting notice information in a searchable database, manages meeting reservations, and automatically generates the L-31 report. There is even an option to attach documents, so all attendees can receive a copy of the agenda with their reservation. vTools is truly a revolutionary development, the best thing that has happened to IEEE since self-adhesive stamps.

Did you know that approximately half of our IEEE volunteers are not IEEE members? They are members of our families. Joe Lillie, IEEE Vice President for Member and Geographic Activities, pointed this out at the 2008 Sections Congress in Quebec City.

In recognition of their collective contributions, and to tap into that vast resource, I have appointed Betsy Gibbon to the position of IEEE Family Liaison for the Northern Virginia Section. Her mission will be to help the Section engage and support the family members whose support and assistance is invaluable to our member volunteers. Betsy is a partner with her husband Jerry in J&BG Consultants, and she has an impressive portfolio of IEEE volunteer experience which includes support of the past three GLOBECOM conferences.

Her dedication reminds me of some

other famous IEEE spouses. Katie Dentler, the First Lady of Region 2 for the past two years, designed and ordered blue thermal vests with an IEEE logo for Region 2 committee members at the Sections Congress. Joe Lillie's wife Debbie is the only member of the Lillie family who is not an IEEE member. They have traveled extensively in support of his IEEE volunteer roles, which include five years on the IEEE Board of Directors.

The 1997 IEEE President, Dr. Charles Alexander, often spoke about traveling for IEEE accompanied by his wife.

My late husband Jay was my silent partner in the IEEE Beaumont (Texas) Section, and he accompanied me to the 1996 Sections Congress.

My first IEEE volunteer position was Newsletter Editor for the Beaumont Section. Each month, I spent four days writing articles and meeting announcements for the *Bayou Circuit News*, laying out the issue in WordPerfect, having it printed, producing mailing labels, then folding, stamping, and labeling the newsletters and delivering them to the post office.

I could not have done all this without help from my family. On mailing day, all available IEEE volunteers were drafted—children, mother-in-law, anyone who came around. Often, my children stamped and labeled the newslet-

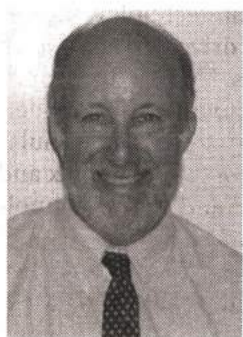
ters in the car on the way to the post office. One evening, faced with a tight deadline, I met Jay at the front door with this grim pronouncement: "You have to stuff all these letters in these envelopes right now while I print mailing labels." "What if I say no?" he teased. "You have to. You just have to." Our family did not eat dinner that night.

The newsletter postcard was soon invented to reduce the workload two out of every three months. My son Robert, who at age four was the only child home with me all day, was tasked with putting stamps on the postcards. Yuck! Thank goodness we now have self adhesive stamps and modern technology tools.

Outside of my family, two individuals whose steadfast support was invaluable to my volunteer efforts were my Section Chair, Dr. Wendell Bean, whom I succeeded as Chair, and our Area Chair, Bob Scollie.

This year, I am very fortunate to have the help and support of their counterparts, our Past Chair Syed Ahmed, and Murty Polavarapu, who at this writing is Region 2 South Area Chair. We have a strong team of volunteers, many of whom are listed on page 2.

I invite each of you to join us in inspiring, enabling, empowering, and engaging one another as we make 2009 our best year yet.



## Washington Section Chair's Column

# Let's Celebrate Our 125th Anniversary & 'Engineer the Future'

By Tim Weil  
2009 Chair,  
Washington  
Section

Our IEEE membership in the Washington Section represents an impressive community of talent, innovation, education, opportunity, achievement and fun among the 35 chapters, societies and affiliated organizations in our area. Over the past few years our Administrative Committee (AdCom) has promoted career fairs, science education, international conferences, distinguished speaker events, technical tours, grant writing, a virtual community intranet and university outreach programs.

With the success of the 2007 IEEE GLOBECOM conference in Washington, we have revived our Section's fiscal health and begin the coming year with a renewed sense of purpose and opportunity. In this context, it is my honor and privilege to serve the membership of the IEEE Washington Section as the 2009 chair. On behalf of our officers, directors and IEEE Region 2 leadership, I would like to welcome our members to the coming year's program.

Our Section has a fantastic history to build upon. A fast-forward through the first 100 years has been assembled on the Section's website at <http://ewh.ieee.org/r2/washsec/history.html>.

In 2009 we will link our story with the 125th anniversary of our IEEE parent organization, whose official anni-

versary date is May 13, 2009.

I invite our membership to join us throughout the year as we celebrate 125 years of IEEE's innovation and ingenuity with special events here in the Washington Section and Region 2 area. Whether you participate in a local celebration, or contribute to our online message boards and contests, everyone can be a part of IEEE's anniversary celebration.

Over the years, my membership in IEEE has been an important part of my professional life. I joined as a communications engineer to gain access to industry resources. As the IEEE journals kept coming, I was able to participate as a peer reviewer for *Computer, Security and Privacy*, and *Internet Computing* magazine articles.

As a Senior Member applicant, I was introduced to the Washington AdCom and became an active volunteer after attending a committee meeting which featured the Engineers Without Borders program from the University of Maryland.

I have also participated in local Computer Society and Communication Society chapter events as a active member and speaker, served as the *Scanner* Washington Section Editor and worked with the GLOBECOM Conference Committee as the Patron Chair.

I will be working this year to share the benefits of my own volunteer efforts to enhance the opportunities available to our members.

This year I am pleased to have the

enthusiastic support of our Past Chair Gerard Christman, Vice Chair Raj Madhavan, Treasurer Mary Tobin and Secretary Monica Taysing-Lara. We also enjoy the counsel of our Directors James Christian, Roger Hardwicke, Doug Holly, Harry Sauberman, Fari Schlake, Debi Siering, and Tom Starai. Together this team represents an experienced group of engineers from government, industry and academia working together to 'Engineer the Future' for our 2009 IEEE program.

Our 2009 goals will focus on collaboration with Region 2's 125th year anniversary events, building our relationships with area colleges and universities through IEEE student branches, grant writing workshops for PACE and IEEE-USA proposals, and activities that have been successful in the past such as robotics, science fairs, the Future City competition and the Washington Academy of Sciences' Science and Technology Aptitude Recognition (STAR) program. We will continue our efforts to recruit the next generation of scientists and engineers and to support them in developing lifelong careers in electrical and electronics engineering. Our section will work with IEEE-USA to help young engineers remain professionally active and engaged throughout their lives. I would also like to add to the visibility of our local technical writers, journal and book authors, by providing recognition with publicity from our *Scanner* and eScanner media.

Especially in these challenging times,

the IEEE Washington Section is fortunate to serve an area where technology flourishes. Our AdCom meets the first Tuesday of each month at the American Association for the Advancement of Science, 1200 New York Avenue NW, Washington, DC. See the eScanner calendar for our next program ([www.ieee.org/escanner](http://www.ieee.org/escanner)). Take the time to attend one of our meetings. I encourage each member to be active in your profession with the technical society of your choice. Keep in mind that 'Engineering the Future' will be a theme throughout 2009 in which all members are encouraged to participate.

I look forward to meeting you at one of our upcoming meetings and can be reached at [trweil@ieee.org](mailto:trweil@ieee.org).

## Senior Members

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

W. Nick D. Adasi-Efuya (W)  
Michael Glasgow (W)  
Penny Hix (NV)  
Brian Mark (NV)  
Wilfredo Tirado (NV)  
Wen-Bin Yang (NV)

If you are interested in becoming a Senior Member, please see [www.ieee.org/seniormember](http://www.ieee.org/seniormember) for qualification requirements. For help with references, contact Monica Mallini at [m.a.mallini@ieee.org](mailto:m.a.mallini@ieee.org) for Northern Virginia Section members, or Tim Weil at [trweil@ieee.org](mailto:trweil@ieee.org) for Washington Section members.

## Washington Section Outgoing Chair's Column

# Thank You to the Volunteers Who Made So Much Possible

By Gerard Christman  
2008 Chair, Washington Section

I will break with tradition and not recap every activity the Washington Section has engaged in over my tenure as Section Chair. I want to focus instead on thanking those individuals that have stepped up and made a tremendous difference in the life and direction of this Section. We will have another opportunity to express our gratitude to these fine engineers at our annual awards banquet, but I want to pay special attention here to their actions.

First, to the IEEE GLOBECOM 2007 team, the Section remains in your debt for the great publicity and remuneration you have afforded us. You continue to be asked to travel to other venues to discuss the model for your success. Jerry Gibbon, Tim Weil, Doug Holly, Monica Mallini and others who were involved, we are deeply grateful for your untiring efforts.

To Paul Hazan, a long-time IEEE member and Vice President for the Junior Academy of the Washington Academy of Sciences; we thank you for your unceasing efforts to reach out to school-age children and instill an in-

terest in science, technology, engineering, and math. Mr. Hazan continues to engage more schools every year by recruiting judges and then executing science and engineering fairs.

Similarly, Shyam Bajpai, Haik Biglari, and now Raj Madhavan have reached out to area schools with science and robotics competitions all with a view towards creating positive associations in children with activities that are sometimes negatively stereotyped. Every year, their work continues to impress all involved.

The *Scanner* and the website continue to be the voice of the Section. Pete Sypher, Wally Lee, and Elsie Grant work hard to keep members informed. This newspaper and its electronic version continue to be lauded and held up as an exemplar at regional and national meetings. Well done and thank you.

We have formed some new society chapters and forums this year and I thank all who had a hand in that, especially Raj Madhavan, Monica Mallini, Wally Lee, and Murty Polavarapu.

We have had some world-class events this year, especially the symposium on technology and the aging organized by

Debi Siering and Jeff Poston.

At the University of Maryland, the Terrapins Racing team won top honors in one category and third in another and we can take pride in the fact that we helped sponsor the team. The team has asked for IEEE support for cars to be built during the next academic year and I am certain we will support them in any way we can. Harry Sauberman continues to build bridges to the students and faculty in College Park. This year will be very exciting with the next Solar Decathlon competition on the National Mall.

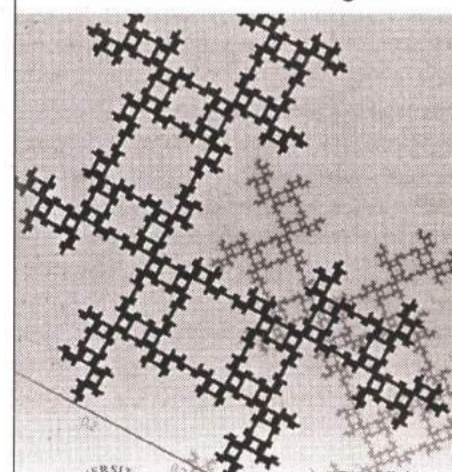
Although Murty Polavarapu did not win the Region 2 election, we all know what an outstanding officer, engineer, and friend of the IEEE he is. Murty helped plan the December seminar, "Focusing on the Member," and arranged to have Joe Lillie, IEEE Vice President for Member and Geographic Activities, make a special presentation. We wish Murty well in his new role in IEEE-USA.

To all of my fellow officers at the section, society chapter, and affinity group levels, I thank you for your hard

See CHRISTMAN, p. 8

## Norbert Wiener Center

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**Collaboration**—Participants in Roboteka, a summer program for 10- to 16-year-olds in Macedonia and the Balkans, adjust their robot. Aleksandar Stefanovski, Project Manager for Roboteka, is a member of the IEEE Student Branch at George Washington University.

#### CHRISTMAN, from p. 7

work, your time, your efforts, and your friendship. You have helped make this past year one of the most successful years of the Washington Section's existence. Your actions made all the dif-

ference in the world. I now turn over the reins to Tim Weil. Tim, congratulations on your election and I sincerely wish you and the Section the very best for your tenure.

### Discover Engineering Family Day

For many children in the National Capital Area, the highlight of Engineers Week is Discover Engineering Family Day at the National Building Museum in Washington. This year's Family Day is Saturday, February 21 (see Calendar, p. 4).

Every year the main hall of the museum is filled with displays and interactive activities that bring the

excitement of engineering to an enthusiastic audience of more than 6,000 visitors.

Local engineering society chapters and national engineering organizations provide the hands-on exhibits. To volunteer at the IEEE-USA exhibit for two or more hours, contact Monica Mallini at [m.a.mallini@ieee.org](mailto:m.a.mallini@ieee.org) by February 14.

## Peter A. Soltész

Peter A. Soltész, the 1999 Chair of the National Capital Area Consultants' Network, died of cancer on August 28, 2008 at his home in Rockville. He organized and chaired the IEEE-USA Alliance of IEEE Consultants' Networks (AICN) National Conference and Workshop on Consulting in Arlington in 1996. His IEEE service also included active membership on the IEEE 802.16 Broadband Wireless Access Working Group as a standards author.

Soltész also held the office of 2007-2008 Secretary of the Hungarian American Coalition, an organization which promotes cultural and educational exchanges between the U.S. and Hungary. He was a contributor to the Freedom Fighter 56 Oral History Project, a collection of 56 stories about the 1956 Hungarian Revolution, as told by eyewitnesses, to commemorate the 50th anniversary of that event.

His story, "They never did give the shooter up," is an account of the Russian occupation in Budapest and his family's escape from Hungary to Austria and subsequent emigration to the U.S. At the age of 10, he was instrumental in the peaceful end to a tense episode in which his mother was held at gunpoint by Russian officers who were searching their residential building for a sniper. When the searchers arrived at his bedroom, they found Wel-

come signs in Cyrillic with a display of Russian and Hungarian flags, which he had arranged to aid his study of languages in school. During the family's escape a few weeks later, they overcame great odds to arrive safely at a refugee camp. The story can be found at [www.freedomfighter56.com](http://www.freedomfighter56.com).



**Peter A. Soltész**  
(Photo courtesy of Hungarian American Coalition)

Soltész earned an engineering degree at City College of the University of New York and an M.S. in electrical engineering from New York University in 1970. Soon after Hungary's one party system ended in 1989, he returned to Hungary to perform telecommunications feasibility studies for the Office of the Prime Minister and the Hungarian Parliament. He was a consultant for a project proposal for a rural fiber optic and microwave telephony project for MATAV, the Hungarian telecommunications company.

Soltész held senior executive positions with several companies, including WinStar Telecommunications, before forming his own consulting company, PAS-COM, Inc., which provided general and litigation-related consulting for international clients in telecommunications, computers and microwave technology.

Soltész is survived by his wife, Barbara, and their two children, Erik and Andrea.

## Get Your Eyes Checked for Glaucoma

By Wally Lee  
Washington Section Editor

Glaucoma, the second leading cause of blindness, is called the "silent thief of sight." During a recent visit to an optometrist for new glasses, I was surprised to learn that I have glaucoma. Evidently, a prior exam just a year ago had missed the diagnosis.

The chronic form of glaucoma, called open angle glaucoma, causes elevated pressure in the eye, leading to progressive narrowing of the field of vision and permanent damage to the optic nerve. The disease is insidious because the gradual loss of vision is not noticeable until the irreversible damage has progressed to an advanced stage.

Another variation of the disease is called narrow angle glaucoma. The geometry of the far-sighted eye provides a close spacing between the cornea, iris, and lens. Sometimes, these structures can become pressed together, and the natural exit path of aqueous fluid is obstructed. This event is called narrow angle closure. Following a trigger as simple as entering a dark room, pressure inside the eye can rapidly increase to dangerous levels, and blindness will follow within hours if the pressure is not relieved. The symptoms, which may include severe headache,

eye pain, blurred vision, and perception of halos of light, can be mistaken for life threatening events by emergency medical personnel. As a result, the condition may not be diagnosed immediately, and total, irreversible blindness can occur during the critical hours following onset of symptoms.

Follow-up exams revealed that I have both forms of glaucoma, with measurable atrophy of one optic nerve and reduced visual field in that eye. Fortunately, although the damage is irreversible, the disease responds to simple, inexpensive treatments.

The first line of defense is eye drops, which reduce fluid volume and increase fluid outflow. A surgical treatment, laser iridectomy, involves creating a tiny hole in the iris, as sort of a relief valve to prevent pressure from reaching a dangerous level. I have received the laser iridectomy to both eyes, and I will have to follow a regimen of daily eye drops for the rest of my life. Annual visits to the optometrist and ophthalmologist to monitor my eye pressures will ensure that these treatments are still working.

Get your eyes checked for glaucoma every year, especially if you are far-sighted or over age 50. Your vision may depend on it.

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