



"Microsystems Technology: Fulfilling the Promise" Spring Symposium Delivers



Members of the Mid-Atlantic Micro/Nano Alliance Steering Committee congratulate the student poster prize winner at the MAMNA Spring Symposium. Pictured from left are Joan Hoffman (Johns Hopkins University Applied Physics Lab), Craig McGray (NIST), Samara Firebaugh (US Naval Academy), poster prize winner Pedro Anacleto (Johns Hopkins University), keynote speaker Jason Kroh (CardioMEMS), and IEEE Member Andrew Dehennis (Senseonics Incorporated).

NIST Gaithersburg campus was the place to be on May 14 for researchers, entrepreneurs, and students interested in emerging nano- and microsystems technologies. Seventy-five participants explored the cutting edge of systems-on-a-chip, with nano-scale sensors enabling applications such as medical management of chronic conditions. The one-day 2013 Spring Symposium was sponsored by the Mid-Atlantic Micro/Nano Alliance (MAMNA) with technical cosponsorship of the IEEE Nanotechnology Council's Northern Virginia/Washington Chapter. A poster contest brought local undergraduate and graduate students into the nanotechnology dialogue. Students and researchers from NIST, NIH, University of Maryland, Johns Hopkins University, Rutgers University, the George Washington University, Georgetown University, and United States Naval Academy, among others, exhibited posters. A poster by Pedro Anacleto of Johns Hopkins University on 3D self-folding microantennas won first place in the contest. Engineering students from Montgomery College in nearby Germantown attended the symposium for exposure to the discipline before they advance to upper level coursework.

MAMNA is a non-profit alliance of companies, universities, and government laboratories in the Washington-Baltimore metro area. In addition to hosting the annual Symposium, the Alliance holds individual workshops and social events to provide its members with opportunities to network, share research, and stimulate new ideas in the local nanotechnology community. MAMNA also publishes a newsletter and hosts a website at <http://www.midatlanticmana.com/>.

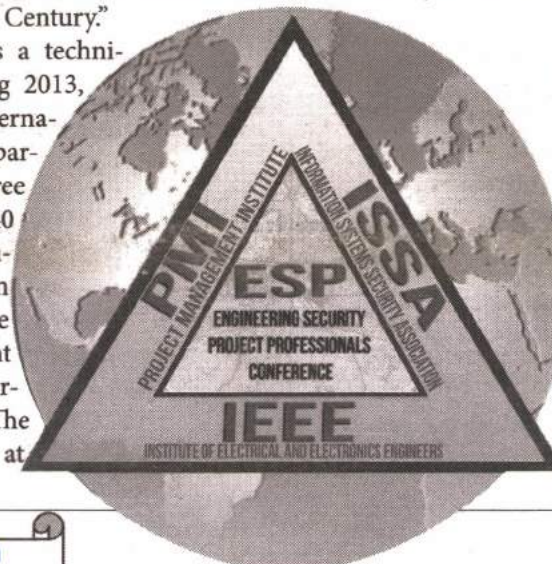
September 10-12, 2013

ESP Achieves International Status Engineering, Security, and Project Professionals Conference

When Northern Virginia Section was founded in January 1977, one of the Section's first actions was to create its own local conference. The result was the Symposium on Computer Applications in Medical Care, held in October 1977, co-hosted by the Medical College of Virginia and the George Washington University School of Medicine and Health Sciences. The annual event had a successful run of several years.

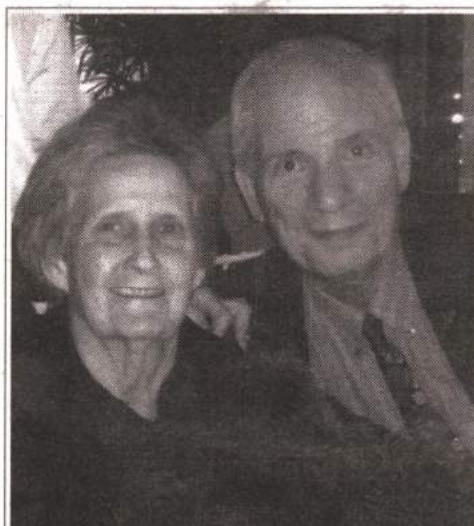
In 2013, Northern Virginia Section has reprised the role by founding the IEEE Engineering, Security, and Project Professionals Conference, a product of the vision of Section Chair Mithun Banerjee to create a professional development conference to meet the needs of professionals in the Washington-Baltimore metro area. ESP is on track for September 10-12, 2013, with the College Park venue hosted by the University of Maryland IEEE Student Branch. The ESP conference, a first-rate example of cross-organization collaboration, will promote the disciplines of engineering, information systems security, and project management. The technical program is organized into three parallel tracks, offered respectively by IEEE and two partnering organizations, the Information Systems Security Association (ISSA) and the Project Management Institute (PMI). The theme of this year's conference is "Challenges in the 21st Century."

IEEE-USA has signed on as a technical co-sponsor. In early spring 2013, the ESP conference achieved International status, with confirmed participation of delegates from three or more countries. With over 40 volunteers from the three sponsoring societies, ESP is well on its way to becoming the premiere professional development event for local practitioners of engineering and project management. The conference website is now open at www.iespconference.org.



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Dr. Stan Klein poses with Roslyn, his wife of 53 years, in a recent photo. Photo credit: Margie Billian.

Between 1967 and 1995, Stan was employed at Computer Sciences Corporation (CSC) and at other companies later acquired by CSC, where he developed and implemented models and tools using a variety of computer languages, databases, and computer operating systems. After retiring from employment, Dr. Klein harnessed his experience with electric power system SCADA and control center issues and information security by founding Stan Klein Associates LLC. In that capacity he was principal investigator on a Small Business Innovation Research project to develop an open source toolkit for secure,

See Dr. Stanley A. Klein, p. 11

IN MEMORIAM

Remembering Dr. Stanley Alan Klein

Dr. Stanley Alan Klein of Rockville, IEEE member for 56 years, passed away on January 21, 2013 at the age of 74. The firstborn of four children, Stan was born in Baltimore on May 21, 1938 to Hilda Klein, an IRS clerk, and Milton Klein, a postal worker. Stan attended high school at Baltimore Polytechnic Institute, which was one of the country's outstanding engineering high schools and the first public school in Baltimore city to racially integrate (in 1952).

By completing a year of college courses at Baltimore Polytechnic, Stan was able to earn his Bachelor of Engineering Science degree in electrical engineering at Johns Hopkins University in three years. He graduated from Johns Hopkins in June 1959 and married Roslyn the same year. Stan and Roslyn had two children, Margie (Billian) and Ed. Stan earned his masters degree in electrical engineering from Johns Hopkins in 1965 with the thesis, "The grid-controlled, secondary emission, electron multiplier tube." In 1975, Stan earned his D.Sc degree from George Washington University with the dissertation, "Monte Carlo estimation in complex optimization problems."

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ON THE WEB**eScanner Calendar of Events**

The calendar is available at www.ieee.org/escanner. Check there often for
eschedule changes and 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.ieee-communities.org/nca.

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calendar of events

For the latest calendar information, go to www.ieee.org/escanner.

SECTION ADMINISTRATIVE MEETINGS

Mondays: no meetings scheduled

Baltimore Section Executive Committee Meetings

Time: 6:00 p.m.
Place: Conference Room, National Electronics Museum, 1745 W. Nursery Rd, Linthicum, MD (410) 785-0230
Website: <http://www.ieee.org/baltimore>
More Info: After a summer hiatus, the next scheduled Baltimore Section ExCom meeting will be in September.

Saturday July 6, 2013

NoVA Section Limited Agenda Administrative Committee Meeting

Time: 12:00 p.m.
Place: Hamburger Hamlet, 10400 Old Georgetown Rd Bethesda, MD 20814.
Directions: From I-270, take Exit 1 (Democracy). Follow signs for Democracy Blvd E/ Maryland 187/Old Georgetown Rd and merge onto Democracy. Before reaching Old Georgetown Rd, turn left into shopping center.
More Info: Limited agenda meeting to discuss expense reimbursement for Monica Mallini and Wally Lee, motion to fund Rhonda Farrell's attendance at the IEEE-USA annual meeting, and final slate for 2014 Officer election ballot.
Contact: Please RSVP to the Section Secretary at nova.secretary@yahoo.com by Noon on Friday, July 5, 2013.

Tuesdays: August 6, 2013

Washington Section Administrative Committee Meetings

Time: 6:30 p.m.
Place: American Association for the Advancement of Science (AAAS), 2nd Floor Conference Room, 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). Parking is available in the garage on 12th Street directly across from the AAAS building.
More Info: All interested IEEE members welcome.
Contact: Carolyn Carroll at carrollca@yahoo.com.

Wednesdays: August 14, 2013

NoVA Section Administrative Committee Meetings

Time: 6:30 p.m.
Place: TBA
More Info: All interested IEEE members welcome.
Contact: Please RSVP to the Section Secretary at nova.secretary@yahoo.com by Noon on Tuesday, August 13, 2013.

COMMUNITY INTEREST

Saturday July 13, 2013

IEEE Summer Picnic

Place: Damascus Recreational Park Shelter "B" 23723 Kings Valley Road, Damascus, Maryland 20872
Sponsor: IEEE Northern Virginia Section
Co-sponsor: National Capital Area Consultants Network
Registration: www.nca-scanner.org/vtools/19231
Map: http://www.montgomeryparks.org/parks_facilities_directory/parkday_jan4.shtm
More Info: All IEEE members and guests are invited to join us for summer fun. Bring drinks and side dishes. No alcohol allowed in the park. Please register for an accurate food count.
Important: Don't forget your guitar, banjo, harmonica, or washboard to participate in the folk music revival.
Contact: nova@ieee.org



July 15-24, 2013

2013 National Scout Jamboree Electricity and Electronics Merit Badge Booths

Place: Bechtel Scouting Reserve, Beckley, WV
Sponsor: IEEE emeritbadges.org Project
More Info: Volunteers are needed to staff the IEEE booths. Fifteen (15) staff positions are still open. The Jamboree is usually attended by 40,000 scouts from the USA and several other countries. Boy Scouts and Venturing Scouts, which includes girls, will be participating in the event.
Website: <http://emeritbadges.org>
Contact: Ralph W. Russell, II, emeritbadges@ieee.org

CONFERENCES

Thursday-Sunday August 1-4, 2013

IEEE-USA Annual Meeting & Sustainability Conference

Place: Doubletree Hotel Portland, 1000 NE Multnomah Street Portland, OR 97232
Website: <http://sites.ieee.org/ieeecsusa2013/>
More Info: Thursday and Friday's program will feature the inaugural IEEE Conference on Technologies for Sustainability with both academic and application-oriented presentations. Friday afternoon through Sunday morning the program will provide basic volunteer training and interactive workshops. Early registration extended to July 6.

CHAPTER EVENTS

Thursday July 11, 2013

"Hook them at Hello" with Intentional Networking and Memorable Interviewing Skills

Sponsor: ASQ 509 Biomed/Biotech SSQ
Co-Sponsor: IEEE NCA Consultants Network
Speaker: Claire L. Tse, MGA, Tse Solutions LLC
Time: 6:00PM networking and pizza, 6:20 - 8:45PM program, 8:45 - 9:00PM door-prizes drawing
Cost: \$5.00 for pizza (payable at the door)
Place: Kelly's Deli Conference Center, next to 7519 Standish Drive (FDA/CVM), Rockville, Maryland 20855
Website: www.nca-scanner.org/asq/biosig/
Registration: www.nca-scanner.org/vtools/19335
Contact: Wally Lee, w.h.lee@ieee.org
More Info: See Diamond Story, p.8.

Friday July 12, 2013

Computational Electromagnetics: Two Distinguished Lectures

Sponsor: Antennas and Propagation Society
Speaker: Dr. Roberto Graglia, Politecnico di Torino
Time: 6:00 PM - 8:00PM
Place: University of Maryland, A.V. Williams Building Room 2460 (ECE Conf. Room)
Registration: www.nca-scanner.org/vtools/19327
Contact: Dr. Brian Riely at brian.riely@ieee.org
More Info: See Diamond Story, p.8.

Friday July 12, 2013

Consultants Network Business Meeting

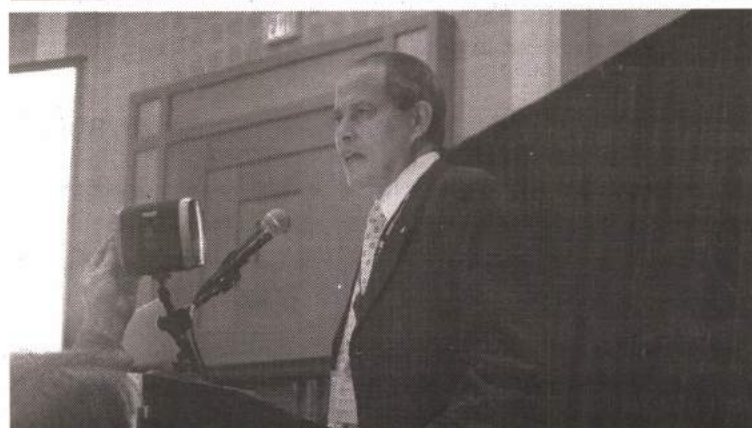
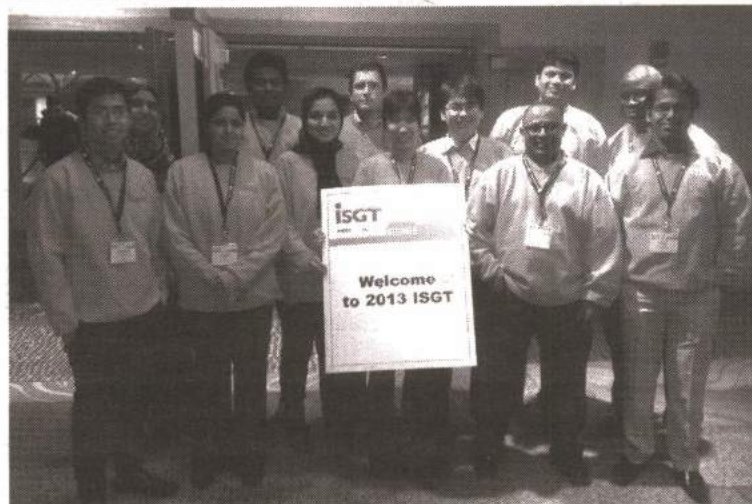
Sponsor: National Capital Area Consultants Network
Time: 6:30 PM - 8:00 PM
Place: Wellington's Pub, Westfields Marriott, 14750 Conference Center Drive, Chantilly, Virginia
Contact: RSVP by July 10 to Chapter Chair Wally Lee at w.h.lee@ieee.org.
Registration: www.nca-scanner.org/vtools/19237

Wednesday July 17, 2013

Electromagnetic Metamaterials: A New Paradigm for the 21st Century

Sponsor: Baltimore Section
Speaker: Dr. Christophe Caloz, École Polytechnique de Montréal
Time: 11:30AM - 1:00PM
Place: National Electronics Museum, Pioneer Hall, 1745 W. Nursery Road, Linthicum, MD 21090
Cost: Free for IEEE members; lunch will be provided.
Map: <http://www.nca-scanner.org/r2/nem.html>
Registration: Email to imad.ahmad@ngc.com
More Info: See Diamond Story, p.8.

See more Calendar of Events, p. 10



Top: Tang Yi, Southeast University, China and Lina Bertling Tjernberg, Chalmers University, Sweden conduct a panel session. Second: Conference volunteers from Virginia Tech provide a warm welcome to ISGT goers. Third: A full auditorium takes in a plenary session. Bottom: Dr. Saifur Rahman, Conference General Chair, delivers opening remarks. Photos by Virginia Tech.

Innovative Smart Grid Technologies Conference Challenges for Tomorrow's Grid

2013
ISGT

The Innovative Smart Grid Technologies Conference (IEEE PES ISGT) returned to Washington, DC for the second year in a row, making Washington the place to be for anyone – not just IEEE Power and Energy Society members – interested in grid modernization.

Against the contrast of cold, wet Washington February weather, the four-day affair had a global flavor and a lively, warm atmosphere as conferees from 32 countries gathered to renew friendships, make new acquaintances, and exchange information and perspectives on global progress in grid modernization. Participants included IEEE PES officers, U.S. Department of Energy officials, and executives from leading utilities, along with technology vendors, scientists from national laboratories, trade organization representatives, and academicians from around the world.

Attendees were welcomed on opening day by current PES President Dr. Noel Schulz and Dr. Saifur Rahman, General Chair of the conference. Dr. Rahman serves as Director of the Virginia Tech Advanced Research Institute, which supplied many volunteers to the conference (pictured in the second photo). During her address, Dr. Shultz announced a new PES publication, *Electrification*, a quarterly magazine dedicated to off-grid applications and microgrids in the transportation sector.

Patricia Hoffman, assistant secretary at the U.S. DOE in the office of Electricity Delivery and Energy Reliability, delivered the opening keynote talk on "Grid Modernization and Resiliency," after being introduced by George Arnold of the National Institute of Standards and Technology, who also served as technical program chair of the conference.

Hoffman emphasized the importance of viewing the grid in its totality, not just its parts, and urged infrastructure investment today for "tomorrow's grid," the basis for economic vitality in an increasingly digital economy. She touched on critical issues ranging from workforce development to customers to resiliency in the face of natural disasters and potential cyber attacks.

In a plenary panel that followed, Hank Kenchington, a deputy assistant secretary at U.S. DOE, underscored the magnitude of the investment challenge when he pointed out that the American Recovery and Reinvestment Act's 50 percent share of demonstration projects and investment

grants pumped nearly \$8 billion into grid modernization – while estimates of the investments needed over the next two decades range from \$338 billion to \$476 billion (EPRI) to as high as \$880 billion (Brattle Group).

The investment challenge, of course, is intimately linked to the technology challenge, which was the primary focus of the ISGT conference. Many panels at the event were devoted to the lessons learned so far from ARRA-funded demonstration projects and investment grants, with utilities and their technology partners providing updates on their work, which is scheduled for completion over the next two years.

Mark Wyatt, vice president of smart grid and energy systems for Duke Energy, provided the second day's keynote address, on Duke's progress in implementing advanced metering infra-

structure and integrating distributed energy resources to improve revenue, defer capital expenditures and cut operations and maintenance costs. One theme that emerged: technology drives changes in business practices and the way people work.

"Don't underestimate the need for change management," Wyatt told the PES audience. "The requirements are just phenomenal."

Danielle Merfeld, technology director for electrical technologies and systems at GE Global Research, delivered the final day's keynote, and described the process by which GE develops solutions to real-world challenges, "a process often informed by its customers," she said.

Resilience is becoming more critical for the grid, not only due to extreme weather events related to climate change, but because modern humans live in a more "built environment" susceptible to damage, according to Merfeld. Increases in computing power over time and shrinking costs for semiconductors offer great promise for power electronics that can enable automation and its role in aiding resiliency.

While the "three pillars" of smart grid technology development are technology, standards work and policy, Merfeld said, the big challenges lie in integrating distributed generation and accommodating two-way power flows in a system traditionally designed for a one-way flow of electrons.

See Challenges, this page

**"Don't underestimate
the need for change
management.
The requirements are
just phenomenal."**

- MARK WYATT, DUKE ENERGY

Challenges, continued

Slides from the 27 panel sessions and dozens of papers presented during 18 poster sessions are available on the IEEE PES ISGT 2013 website at <http://ieee-isgt.org/>, where papers may also be submitted for the 2014 ISGT.

Good news for the local area: 2014 will be a big year for power and energy in Washington, DC. Save the dates of February 18-21, 2014, when the 5th annual ISGT will take place at the Grand Hyatt in Washington, DC. The paper submission deadline is August 16! National Harbor, Maryland will host the 2014 IEEE Power and Energy Society General Meeting during July 27-31, 2014. If you can't wait, the 2013 IEEE PES General Meeting will be held in Vancouver, British Columbia, July 21-25, and registration for that meeting is currently open.

There is no substitute for the value of being there in person!

IEEE NCA Digital and Print Advertising Opportunities

The National Capital Area Scanner is accepting advertising reservations for its Autumn 2013 issue. We are pleased to announce the introduction of new sponsored event listings on the eScanner website! Publicize your conference or symposium to 16,000 Scanner subscribers in Virginia, Maryland, and Washington, DC. Sponsored events will be posted on the eScanner index page, calendar, and in multimedia format and distributed to subscribers by email and in the printed Scanner. Electronic button and banner ads may also be reserved for placement on the eScanner website. With subscribers in Washington, Baltimore, and Northern Virginia Sections, the Scanner is your best outreach tool to the electrotechnology community. Additional information and deadlines can be found in the Scanner's media kit, which may be downloaded at www.nca-scanner.org/ad. Discounts are available for multiple insertions, and IEEE members and entities may claim an additional 10% courtesy discount. Custom ad sizes and layout assistance are available. Scanner advertising is designed to fit every budget, with ad opportunities starting at less than \$100. Please contact the Scanner's Advertising Manager, Jerome "Jerry" Gibbon, IEEE LSM, for a personal consultation and to place your ad. The deadline for the Autumn 2013 issue is August 15, and eScanner placement is subscribed on a month-to-month basis.

Rockville Science Day – Fun and Science Combined

by Dr. Carolyn Carroll,
Women in Engineering Chair

On Sunday, April 28, the IEEE Women in Engineering affinity group of Washington/Northern Virginia participated with professional/technical groups in showing school-aged students that science and math can be FUN. Visitors to the exhibit learned about careers, raced magnet-powered matchbox cars, tested tracks and bridges on the model railroad, and had fun with their friends.



The annual event, held at Montgomery College's Rockville campus, hosted 72 exhibits, each offering another facet of hands-on science fun to visitors of all ages. There is something for everyone, whether your interests are alchemy, elephant toothpaste, burning gas bubbles, rockets, homing pigeons, fossils, ecology, electric cars, or something else!

More about the event and the 20+ year history of Rockville Science Day can be found at <http://www.rockvillescience.org/rcsday.html>.

For a glimpse at fun in action, check out this video:

<http://www.youtube.com/watch?v=VBIB5XVIUg0&feature=youtu.be>



O'Brien

2013 Region 2 Student Conference Highlights WVU - Morgantown

April 19-20, 2013

The 21st Century Energy Revolution: Challenges and Opportunities in the Electric Power and Energy Sector

by Dr. Gregory Reed, Associate Professor,
Electrical & Computer Engineering, University of Pittsburgh

Energy resources and the supply of electricity are significant defining global issues of the 21st century, and play a critical role in our society on many levels. The industries, utilities, educational institutes, government organizations, and other entities that comprise the entire energy and electric power sector are a vital aspect of advancing our nation's economic growth and productivity, while at the same time being responsible stewards of the environment. The confluence of engineering practices, technology, resources, and policy that impact this critical sector offer unprecedented challenges and opportunities alike. The need for modernizing and up-dating our vast electric power system and developing new and sustainable forms of environmentally-responsible energy resources has never been greater.

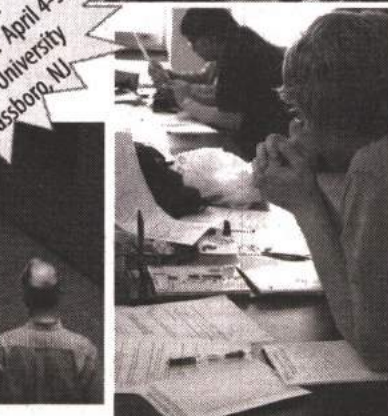
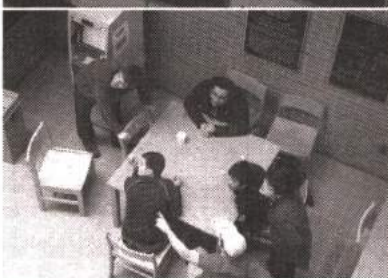
However, over the past quarter of the 20th century, our nation had under-invested in technology, infrastructure, research and development, and education in these important areas. The result today is a tremendous need not only for technology and infrastructure advancement, but also in the area of workforce development. With nearly 50% of our entire power and energy sector's technical workforce eligible for retirement within the next 5 to 10 years, the 'next generation' of electric power and energy professionals is urgently needed to meet the immense challenges ahead.

This discussion will provide an overview of the electric power and energy sector, along with opportunities for education, training, and future employment in these exciting and dynamic fields. An understanding of the region's position in today's energy revolution will also be discussed, centering on how our local industry, university, and community organizations can collaboratively play a lead role in America's overall national security and economic development efforts.

Dr. Reed delivered the keynote presentation at the IEEE Region 2 Student Conference banquet on April 20, 2013.



Reed



Student Conference Photos from Region 2

SAC Facebook page: <https://www.facebook.com/IEEER2Students>

Polished Executive Presence is Key to Career Success

by Richard Swerdlow, PMP

Northern Virginia Employment Network Chair

The Employment network got off to a strong start April 17 when Jean O'Brien, our speaker, put networking in a framework that she calls Executive Presence. She defines Executive Presence as "The confident ability to consistently engage and listen to others while being at ease presenting your strengths, personality traits, polished appearance, coherent verbal and nonverbal communication skills and an excellent social presence."

Individuals network for a variety of reasons, such as seeking a new career opportunity, growing a list of clients, gaining visibility within a new environment, representing the strengths of their organization or networking internally to be viewed for promotions. So even if you are currently focused on finding a new position, the skills you will learn and hone by being a member of the Employment Network will be useful to you in your new position.

Jean went into detail about how you should plan for a networking event, how to deal with food during a standup event, and how to develop a script to inform people on who you are and what you can do for them in an efficient, confident manner. Jean also provided a handout briefly summarizing her ideas; and in it, she even covered the etiquette for a sit-down meal, down to the proper placement of the 15 items on a place setting for a formal dinner! She also included ideas on follow up and debriefing yourself.

Networking, the art of working a room, requires that we know ourselves, our strengths and can succinctly present information quickly that other people can understand and value. It also requires a polished, fabulous first impression including excellent body language, with a genuine smile and hand shake, that conveys being approachable and confident. She demonstrated these ideas by her presentation: the words she used, the clothes she wore, her expressions and body language.

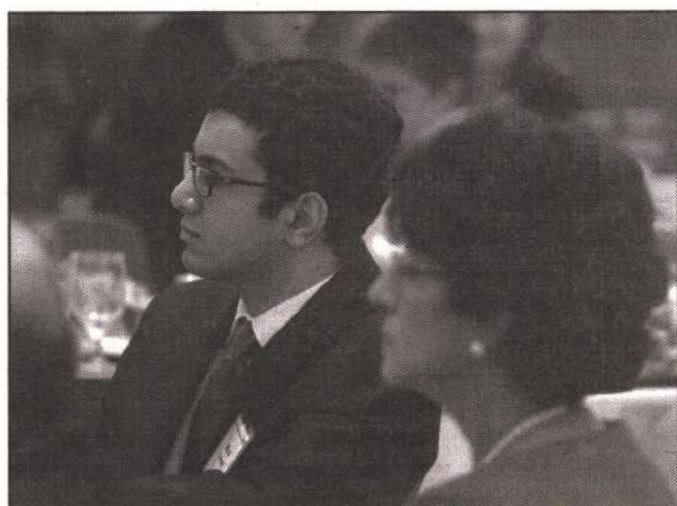
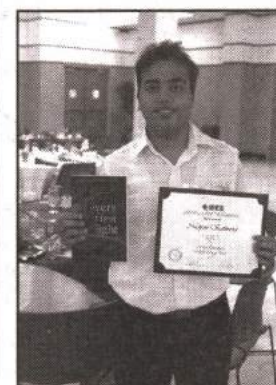
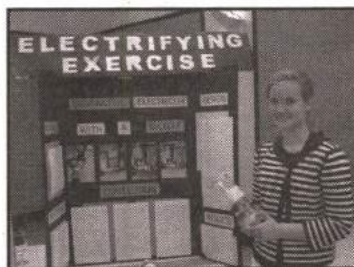
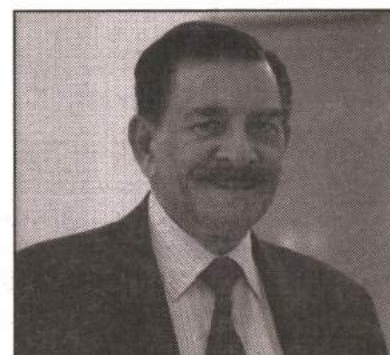
Our verbal communication skills are an essential part of Networking, speaking articulately with a pleasant voice. Choosing the correct words to provide valuable information, as well as excellent listening skills, will quickly work towards developing a positive business relationship.

Putting all of our Executive Presence skills together to network enables us to confidently survey a crowd, approach strangers, break into a group and comfortably disengage. Networking is the most efficient, productive and ultimately cost-effective method of getting in front of decision makers who can open doors to establishing business interactions. Networking is effective across a broad spectrum of professional capabilities and for everyone from CEOs and our emerging leaders.

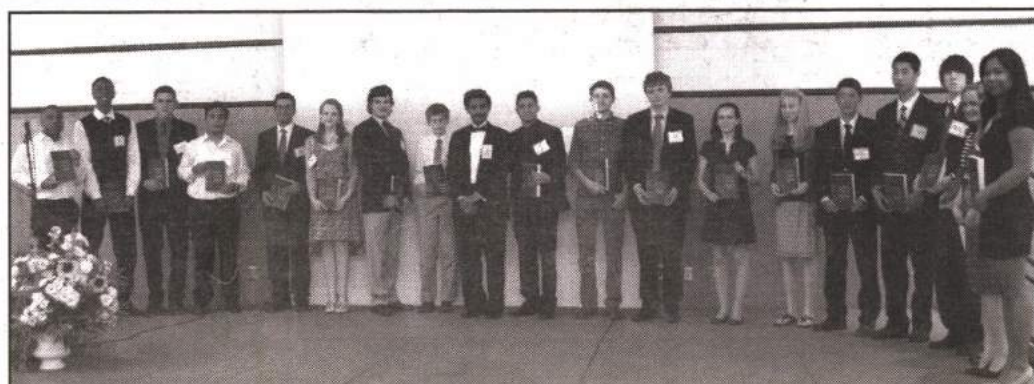
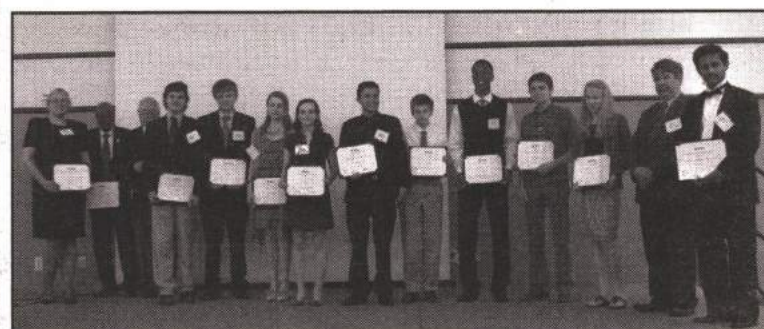
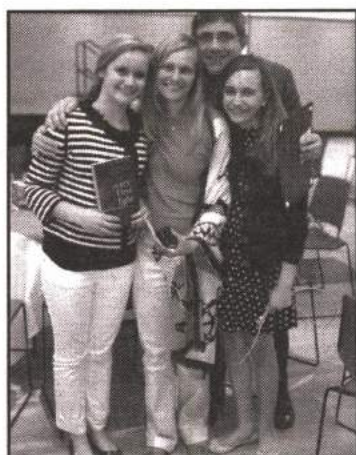
Jean O'Brien is an Executive Presence coach, trainer, speaker working with individual professionals, groups and presenting at conferences. You are invited to view her website www.jean-obrien.com, connect by email jean@jean-obrien.com or call 703-978-3396.

MAY 25, 2013 at George Mason University

National Capital Area Awards Banquet

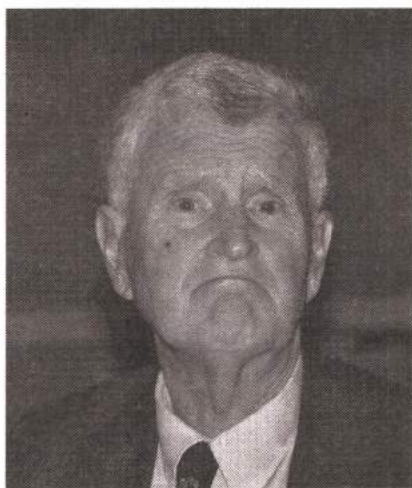


By all accounts, the 2013 National Capital Area awards banquet, in this 30th anniversary year of the Scanner and 50th anniversary year of the merger that created IEEE, was a smashing success. These photos tell the story: science fair winners presenting their projects to Nobel Laureates, first class entertainment, two outstanding speakers extrapolating the history of science backward and forward through time and space, saying hello (and goodbye) to dear friends, even Wally throwing back a cool one. Who knew? Then there was the surprise ending... We don't want to spoil the surprise for next year, but let's say that each of the 30 students who attended the banquet took home a nice prize.



More Banquet, p. 7

77th Anniversary DC Council of Engineering and Architectural Societies Engineers Week Awards Banquet, February 2013 Certifications are the New Coin of the Realm



Dr. William E. Kelly, PE, Director of External Affairs, American Society for Engineering Education. Photo by Dr. Ahmet Zeytinci

We affect the future. Each of us, as engineers, is responsible for making the world a better place. Society, in general, places its trust in the engineering profession; engineering is the third most trusted profession (medicine is first). Like other professions whose practice affects public health and safety, engineers pursue licensure (PE or PEng, for instance), regulated by government entities.

For a variety of reasons, the majority of practicing engineers are not licensed. Relatively new graduates are unable to obtain a professional engineering license until they have satisfied the requisite testing and responsible-charge experience requirements. These individuals may obtain the Engineer-in-Training (EIT) credential, which is not renewable and is intended only as a path toward full licensure. Many engineering disciplines do not place an emphasis on licensure. Some practicing engineers come from an academic discipline such as engineering technology, or an unaccredited program of study, and that makes it more difficult for its graduates to obtain a PE license. Others practice in specialties where specialized knowledge and skills are acknowledged through a credential other than licensure. There is a growing demand for continuing education no matter which credentialing path the engineer chooses. Even after the credential is earned, maintenance of any certificate or license requires recertification and evidence of ongoing professional development.

In his keynote address at the Engineers Week awards banquet, Dr. Kelly raised an interesting point for educators. Where will practitioners obtain their continuing education on the path toward certification or licensure in their respective fields? There is surely an opportunity for professional societies and community colleges to serve their constituencies by anticipating the needs and offering training that will fit the bill. Our IEEE Sections have ongoing continuing education initiatives. What professional development seminar do you need to obtain and maintain credentials that will make you competitive? Your IEEE Section Continuing Education Chair wants to know. Contact Dr. Boris Gramatikov in the Baltimore Section at Bgramat@jhmi.edu or Wally Lee in Washington Section at w.h.lee@ieee.org. See you in class!

Banquet, from p. 6



Graphic images by John Bulmer/Dorling Kindersley/Universal Images Group

Maryland Hosts First Ethics Invitational

by Barry McMnamin, IEEE UMD Student Branch Secretary
and Benjamin Walsh, IEEE UMD Student Branch President

The University of Maryland's IEEE Student Branch was delighted to host the first Ethics Invitational for the student branches of the Washington Section on Saturday, March 2nd at the Reckord Armory on the University of Maryland campus. The competition included students from the IEEE student branches at George Washington University (GW), Capitol College (CC) and, of course, the University of Maryland (UMD).

The competition began by the participants being broken up into three teams of four. Each team consisted of one student from CC, one from UMD and two from GW. The intention was to get students who didn't know one another prior to the competition to work together.

After being broken up into teams, the teams were then given a packet of materials containing, among other things, the IEEE code of ethics and the case study to be analyzed. Then, the teams were given two hours to analyze the case study and create a PowerPoint to present to the judges' panel.

All the teams worked extremely well together and developed very professional presentations. The level of analysis of the case study was impressive. While we feel that all who participated in the competition were deserving, the judges had the unenviable task of determining which team presented the most convincing arguments. The judges unanimously decided that the winning team was Lauren DeCorte (GWU), Justin Lee (GWU), Amanda Shields (CC), and Emily Hitz (UMD). We would like to extend congratulations not only to the winning team, but to all of the participants of the competition.

We were honored to have Mónica Taysing-Lara and Mithun Banerjee, Chairs of IEEE Washington and Northern Virginia Sections, respectively. We would like to thank Dr. Nicholas Kyriakopoulos (GW) and Dr. Charles Conner (CC) for serving on the judges panel. We also thank Dr. Vincent Brannigan (UMD) for his presentation on ethics. Additionally we would like to thank IEEE Washington Section's Treasurer Christopher Magnan, a graduate of UMD's electrical engineering masters program, for speaking and judging. We would like to thank all the participants from George Washington University and Capitol College for travelling to College Park and for their enthusiastic efforts.



From left to right, Barry McMnamin, Mithun Banerjee, and winning team Justin Lee (GW), Emily Hitz (UMD), Lauren DeCorte (GW) and Amanda Shields (CC).

Happy Birthday IEEE!

From the Washington Bulletin, July-August 1973

IEEE celebrates its tenth anniversary in 1973. The AIEE was founded on May 13, 1884, and the IRE was founded on May 13, 1912. As early as 1922 the first talks began on a possible merger of the two organizations, but these attempts failed.

Finally in 1961, after seven subsequent tries, the two societies appointed a joint committee to study the feasibility of merging. The affirmative recommendations were concurred on by membership vote in 1962. It took one year and seven drafts to adopt the new By-Laws. The merger officially took place in 1963.

diamond ♦ stories

Thursday, July 11, 2013

"Hook them at Hello" with Intentional Networking and Memorable Interviewing Skills

Abstract: Can you count the number of missed opportunities because you failed to employ intentional networking techniques? In today's workplace, it is critical for you to be able to eloquently share your value proposition to key people who can be positively influential in your career growth. Networking requires skills encompassing political savvy, cultural dexterity combined with creating intriguing dialogue to "hook" select individuals to find out more from you about you. Attendees will develop their draft "elevator speech" and have the opportunity to test drive it with other attendees. When intentional networking is successful, job interviews should follow. With increased competition for fewer jobs today, being prepared to deliver a memorable interview can increase your chances of being the choice candidate. Proven interview preparation strategies will be presented in terms of mind, body and spirit. Discussion will include "above the line" methodologies to balance your needs with the needs of your new employer. Attendees will learn polarity skills and have the opportunity to apply polarity mapping to their current and future interview situations. Delivering a memorable interview should compel your future employer to ask "why aren't you working for us now, we need you."

Biography: Ms. Claire Tse is renowned for her memorable workshop experiences in the areas of intercultural communication skills linked with leadership presence augmentation. Her workshops successfully aid in creating and reinforcing a culture of inclusion with both federal government and private industry clients. With over twenty years of master facilitation expertise, she has helped organizational leaders; managers and individual contributors handle business dilemmas to authentically and effectively communicate with multiple audiences. Claire's successes include coaching managers and leaders to alter ingrained corporate cultures into relevant needed new paradigms with noteworthy engagement outcomes. Ms. Tse is a Master Facilitator and Co-Author of "The SOLVE Communication Method": Working Out of the Bamboo Box with Asian Pacific Americans and African, European, Hispanic, and Native Americans." She accelerates learning on how intentional, intercultural, sensitive communication helps to create efficient and effective trusting relationships. Her international focus areas include China, Brazil, Angola, and Colombia with domestic work throughout the United States. Claire is a certified instructor of numerous leadership assessment instruments. She combines Polarity Mapping with SOLVE Communication™ skills as the core content of her presentations. As Mobil Oil Corporation's first Asian woman Marketing Representative, she enjoyed a 15-year tenure working in Sales, Marketing, Operations and Information Technology. She holds a B.A. in Psychology from Barnard College, Columbia University and M.G.A. in Business from University of Maryland University College. Claire is an adjunct faculty of Howard Community College, was adjunct faculty for Georgetown University Center for Professional Development, and instructed at both Eastern and Western Management Development Centers for Office of Personnel Management.



Friday, July 12, 2013

Antennas & Propagation Society -

Two Distinguished Lectures by Professor Roberto Graglia

Lecture 1 - Computational Electromagnetics in the Frequency Domain

Finite methods are widely used for the analysis and design of complex electromagnetic structures. Among these methods, the Method of Moments is the most popular numerical technique for solving electromagnetic problems formulated in terms of integral equations, whereas the Finite Element and the Finite Difference methods are used to model problems in terms of differential equations. These methods share common features, have complementary advantages and are often used in combination, possibly enriched by exact or asymptotic solutions of appropriate canonical problems. These numerical techniques have applications to many practical problems, including EMC and EMP; shielding radiation from printed circuits; microwave hazards; electromagnetic radiation from and penetration into vehicles, aircraft, ships; antennas near ground; design of frequency selective surfaces; radar scattering. This presentation will provide in-depth coverage of the Moment Method and the Finite Element and Finite Difference Methods, with discussion of absorbing boundary conditions and hybrid methods. Applications include problems involving nonlinear and/or anisotropic materials, as well as complex geometries.

Lecture 2 - Higher-Order Modeling for Computational Electromagnetics

The progress in the area of Computational Electromagnetics, with the cost reductions and continuous increase of the computational speed and power of modern computers, have contributed to the development and broad diffusion of numerical software for the analysis and design of complex electromagnetic structures and systems. The geometry and materials of these structures can be modeled by powerful pre-processor codes able to provide high order description of the problem to the electromagnetic "solver-software." To take advantage of high quality models available by using modern pre-processors, several researchers have developed in the last decade high order basis functions for finite electromagnetic solver codes. This presentation will provide an overview of the most recent developments in this special area. After an overview of the fundamentals of finite methods, an in-depth coverage of higher order models for Moment Method and Finite Element Method applications is provided, considering interpolatory and hierarchical higher order vector bases with a detailed discussion of the implementation problems and of the advantages provided by use of higher-order models.

Biography: Roberto D. Graglia was born in Turin, Italy, in 1955. He received the Laurea degree (summa cum laude) in electronic engineering from the Politecnico di Torino in 1979, and the Ph.D. degree in electrical engineering and computer science from the University of Illinois at Chicago in 1983. From 1980 to 1981, he was a Research Engineer at CSELT, Italy, where he conducted research on microstrip circuits. From 1981 to 1983, he was a Teaching and Research Assistant at the University of Illinois at Chicago. From 1985 to 1992, he was a Researcher with the Italian National Research Council. In 1991 and 1993, he was Associate Visiting Professor at the University of Illinois at Chicago. In 1992, he joined the Department of Electronics, Politecnico di Torino, as an Associate Professor. He has been a Professor of Electrical Engineering at that Department since 1999. He has authored over 150 publications in international scientific journals and proceedings. His areas of interest are numerical methods for electromagnetics, theoretical and computational aspects of scattering and interactions with complex media, waveguides, antennas, electromagnetic compatibility, and low-frequency phenomena. Prof. Graglia has been a Member of the editorial board of *Electromagnetics* since 1997. He is currently an associate editor of the *IEEE Antennas and Wireless Propagation Letters*. Dr. Graglia served the IEEE Antennas and Propagation Society as a member of its AdCom for 2006-2008. Since 1999, he has been the General Chairperson of the biennial International Conference on Electromagnetics in Advanced Applications (ICEAA), held in Turin. Prof. Graglia was elected Fellow of the IEEE in 1998 for his contributions in the application of numerical techniques in the studies of electromagnetic structures.



Wednesday, July 17, 2013

Electromagnetic Metamaterials: A New Paradigm for the 21st Century

Biography: Christophe Caloz received the Diplôme d'Ingénieur en Électricité and the Ph.D. degree from École Polytechnique Fédérale de Lausanne, Switzerland, in 1995 and 2000, respectively. From 2001 to 2004, he was a Postdoctoral Research Fellow at the UCLA Microwave Electronics Laboratory. In June 2004, Dr. Caloz joined École Polytechnique de Montréal, where he is now a Full Professor, the holder of a Canada Research Chair, and head of the Electromagnetics Research Group. He has authored and co-authored over 500 technical conference, letter and journal papers, 12 books and book chapters, and he holds several patents. Dr. Caloz is a Member of the Microwave Theory and Techniques Society (MTT-S) Technical Committees on Microwave Field Theory and RF Nanotechnology and represents MTT-S on the IEEE Nanotechnology Council. He Chairs Commission D (Electronics and Photonics) of the Canadian Union de Radio Science Internationale. In 2009, he co-founded the company ScisWave, which develops CRLH smart antenna solutions for WiFi. Dr. Caloz received the UCLA Chancellor's Award for Post-doctoral Research in 2004 and the MTT-S Outstanding Young Engineer Award in 2007. He is an IEEE Fellow. His research interests include all fields of theoretical, computational and technological electromagnetics, with strong emphasis on emergent and multidisciplinary topics, including particularly metamaterials, nanoelectromagnetics, exotic antenna systems and real-time radio.

See more Diamond Stories, p. 10



News and Oids

From the Washington Bulletin, July 1963

"Experimental Character Recognition System Reads and Interprets Arabic Numerals," according to G. U. Uyehara of Farrington Electronics, Inc., Alexandria, Virginia

From the Washington Bulletin, June 1978

Gustave Shapiro (A '43, SM '56, F '61) has retired from Federal service after 36 years, 30 of which were with the National Bureau of Standards. He recently joined the staff of the Electronic Industries Association as their International Standards Administrator. Shapiro was elected to the grade of Fellow in 1961 "For contributions to the development of electronic miniaturization techniques and components."

IEEE Merger Complete in Washington Section

From the Washington Bulletin, August 1963

Says Chairman Swift, "The new Section of our society became a reality on July 1, in spite of the fact that no trumpets or whistles announced its coming. Except for the auditing of the former Sections' financial records and altering of names, titles, etc., on the respective bank accounts, the merger is now accomplished."

"The Name Again"

From the Northern Virginia Bulletin, March 1980

Dear George Welti,

Glad to hear from Leesburg, glad to hear from you. Our bulletin with a small "b" goes to press once again without a formally adopted name. So NVI TRIPOLI made you groan. The NOVA BURST also bombed. Your suggestion, NOVAGRAM, is awaiting the jury Some might say that NOVA isn't NEW anymore, having been widely adopted by commercial enterprises, that the GRAM, in addition to signifying a piece of writing, could also be a plug for the metric system, or (see your dictionary), a chick-pea or a mung bean.

Leguminously yours,
BBM (Beverley B. Moeller)

Inkjet-printed fluidic paper SERS devices for chemical and biological analytics

by Dr. Jurgen Daniel

Chair, Washington / Northern Virginia Sensors Council Chapter

Paper diagnostics has become an emerging field in microfluidics with the goal to develop versatile chemical and biomedical disposable tests, e.g. for infectious diseases, pathogens or water contamination.

On May 23, the Washington, DC, and Northern Virginia chapter of the IEEE Sensors Council hosted in Arlington an invited seminar by Prof. Ian White from the Fischell Department of Bioengineering of the University of Maryland. In his talk he described the research of his group on Surface Enhanced Raman Spectroscopy (SERS) using paper substrates. SERS is a highly sensitive optical spectroscopy method that enables the detection of single molecules. It relies on the plasmon interaction of metallic surface structures with absorbed molecules.

Current commercially available glass substrates for SERS are expensive because the metal film is structured into a regular nanostructure by means such as electron beam lithography. Prof. White's group works

with paper (cellulose) substrates onto which silver nano-particles are deposited by inkjet-printing. The SERS signal enhancement is typically high enough to acquire the optical spectrum with the emerging class of small-size, portable optical spectrometers, despite their lower performance. This enables rapid and inexpensive field tests.

One advantage of paper is that micro-pumps are not required to move liquids around because its porous fiber structure enables liquids to be soaked up by capillary force. Another benefit of paper substrates is the low cost and the fact that a paper test strip can be readily disposed of after a test has been completed.

Paper also enables liquid chromatography and fluidic concentration. In lateral flow concentration a substance accumulates in a certain region on the paper due to liquid flow that is driven by the evaporation of liquid at one end of the paper and the supply of liquid at the other end. This is shown in Fig. 1 for the de-

tection of trace residues on a surface with a paper SERS swab.

Prof. White mentioned that real-world samples are often complex and need to be 'cleaned up' before SERS detection is possible. In paper substrates, the molecular separation capability of paper, which is used in liquid chromatography, is leveraged to separate different analytes. In two examples, the detection of melamine in infant formula and the identification of narcotics in street samples were described.

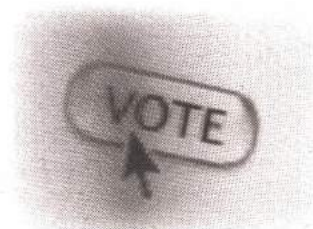
While small molecules can be sensed directly by SERS, the detection of biomolecules, such as proteins or nucleic acid sequences, for medical diagnostics requires an indirect method. In this case, the presence of a Raman reporter small-molecule is detected. As an example, the development of novel SERS arrays for the multiplexed detection of polymerase chain reaction (PCR) products was described.

Prof. White concluded with pointing out future research directions.

Northern Virginia Section Announces 2014 Officer Election

IEEE Northern Virginia Section is seeking candidates for the following positions:

1. Chair
2. Vice-Chair
3. Treasurer
4. Secretary
5. 3 Directors (2 year terms)



Terms for positions 1 - 4 run from 01/01/2014 - 12/31/2014. Terms for the three Director positions run from 01/01/2014 - 12/31/2015.

Nominations will be taken on a first come, first serve basis. Northern Virginia Section Adcom Members will decide how many names will go on the ballot for each open Officer and Director position. Nominations are due immediately and can be emailed to James "Jim" Magee (jwmagee@ieee.org).

Once the number of candidates per office has been officially decided and the ballot created, volunteers can still run for election and include their name in the ballot by collecting 25 signatures of IEEE Member Grade or higher and submitting proper documentation to the Election Committee via James "Jim" Magee (jwmagee@ieee.org). Nomination, petition, and voting instructions are published on the Section's Website at http://ewh.ieee.org/r2/no_virginia/election.html.

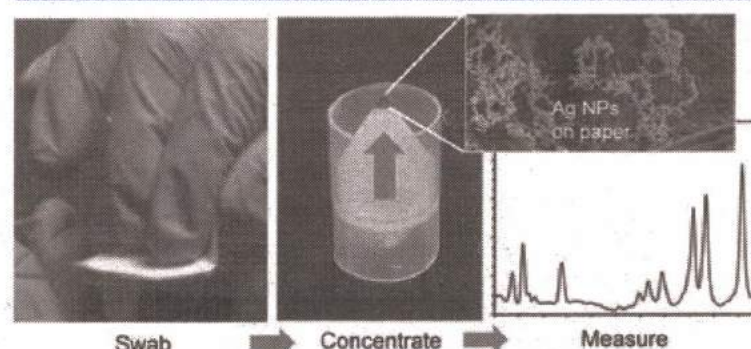


Figure 1: Paper-based surface swab and lateral-flow dipstick that includes an inkjet-printed surface-enhanced Raman spectroscopy (SERS) region [2].

One goal is to utilize the entire depth of the paper substrate as sensor surface by developing optically transparent paper. Currently, only the paper surface contributes to the sensor signal because of light absorption or scattering in paper. Another challenge lies in the 'on-paper sample preparation' by cell filtering and DNA extraction which is essential, for example, when analyzing whole blood.

References to Prof. Ian White's research:
[1] W. Yu, I. White, "Inkjet Printed Surface Enhanced Raman Spectroscopy Array on Cellulose Paper", *Anal. Chem.*, 2010, 82 (23), pp 9626-9630.
[2] W. Yu, I. White, "Inkjet-printed paper-based SERS dipsticks and swabs for trace chemical detection", *Analyst*, 2013, 138, 1020-1025.
[3] Ian White's website: <http://bioe.umd.edu/~ianwhite/>

The goal of the Wash/NoVA IEEE Sensors Council Chapter is to build a strong community around sensor technologies, and suggestions for future speakers or topics are welcome.

- ◆ Sensors Council Chapter website: <http://sites.ieee.org/wmv-sensors/>
- ◆ E-mail distribution list: <http://listserv.ieee.org/cgi-bin/wa?A0=DC-NOVA-SENSOR>

calendar of events

IEEE Computer Society and ASQ 509 Software SIG Meetings

Tuesday July 23, 2013

Risk Management 102

Speaker: Mike Helton (see abstract and biography, right column)
Register: After July 1 (see below)

Save the Dates: Aug. 27, Sept. 24, Oct. 29, Nov. 19

Topics: TBA
Sponsor: IEEE-CS N. VA & DC, ASQ 509 N. VA, SSQ
Time: 6:30 PM Networking and Pizza; 7:00 to 8:00 PM (Program)
Place: MITRE, room 1N100 7515 Colshire Drive McLean, VA 22102; and via videoconference at FDA, Bld 66, room G512 10903 New Hampshire Ave Silver Spring, MD 20993 (other locations: see website)
Cost: FREE
Registration: www.nca-scanner.org/asq/softsig.html
Website: www.nca-scanner.org/asq/softsig/
Contact: Scott Ankrum, ankrums@mitre.org

diamond stories

Tuesday July 23, 2013

Risk Management 102

Abstract: This talk begins with a brief review of the Risk Management Process in conjunction with a previous talk on February 26, 2013 by Al Florence who covered the basics of Risk Management. Some follow-on ingredients in doing effective Risk Management are presented including the following:

- Key preparations for doing effective Risk Management in any project.
- Brief guidelines for identifying the right risks in any project.
- Skills needed to do successful Risk Management.
- Proportionalizing Risk Management.
- A Success Story using Risk Management.
- Risks of doing Risk Management.
- Other items that would be of interest (Risk vs. Opportunity Management)

Biography: Mike Helton is a senior Risk Management consultant and has practiced Risk Management for over 17 years on very large to very small programs and projects. These included the Air Traffic Control DSR Program, an NSA Process Improvement Program, and many smaller group projects within larger programs, such as various groups within NASA's Landsat Program. He was the instructor for the Risk Management Process for the National Security Administration where he trained over 350 NSA professionals on Risk Management. This included tailoring aspects of industry standard risk management processes documented by the PMBOK, SEI Carnegie Mellon Institute, and several other sources of risk management to fit various kinds of programs and projects. His prior endeavors included integration manager on a key stage of the NASA's International Space Station, integration manager on a commercial satellite communications system for the American Satellite Company, and mission & science sequence design engineer on various interplanetary space missions at the Jet Propulsion Laboratory.



Congratulations!

The following local members were elevated to Senior Member grade recently:

Baltimore Section:

Luke Currano, Thomas Matusiak, James Ngeru, Juan Pelaez, Yang Ran

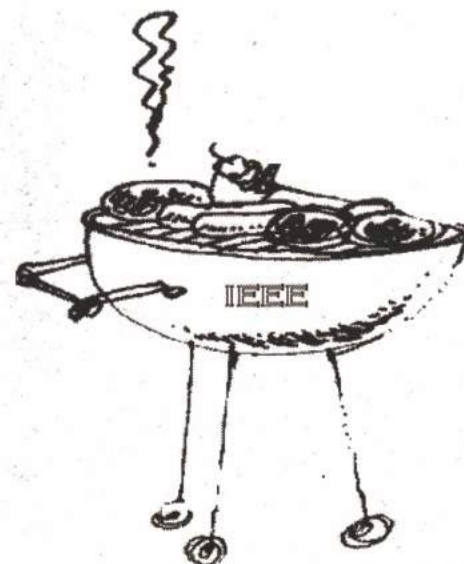
Northern Virginia Section:

Mayowa Kassim Aregbesola, Bassem Beidas, Josh Conway, Avinash Kane, Richard Sackett, William Scheible, Matthew Vepraskas

Washington Section:

Bruce Campbell, Carter Eltzroth, Bin Hu, Steven Keller, Samuel Lakeou, Abby Robinson, Norman Wereley

All members with 10 years of professional experience are invited to apply for elevation to IEEE Senior Member. For assistance with this process, please contact your Section Chair.



It's picnic season!
See Calendar, page 3

Stay tuned to **scanner**
for the latest picnics news
as the summer unfolds...



To celebrate the 50th anniversary year, the Scanner is sharing its archive of 50-year old Bulletins with our readers. Go to the Interactive Digital Scanner edition to download the complete issues. Enjoy!

Scanner to Change Publication Schedule

Scanner is changing its publication schedule, starting with the Autumn 2013 issue. The 4-issue schedule will be:

Issue - Published (coverage)

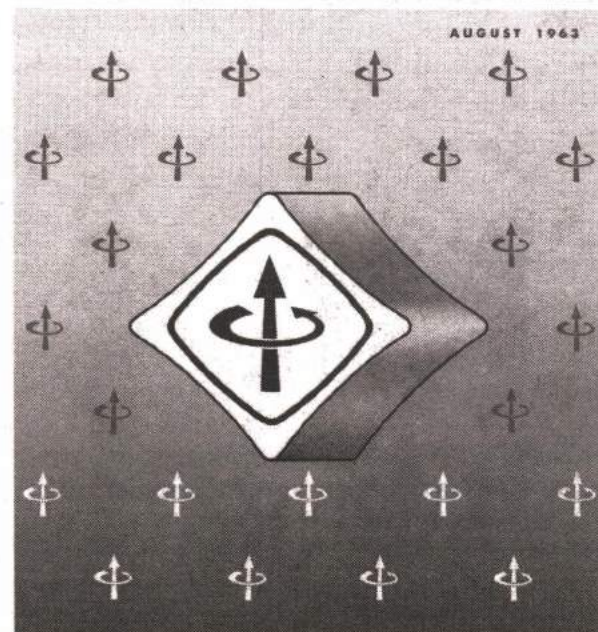
Spring - March (Mar-May)

Summer - June (June-Aug)

Autumn - Sept (Sep-Nov)

Winter - Dec (Dec-Feb)

Submission deadlines will continue to follow the published schedule. The next deadline for content and advertising, for the Autumn issue (Sept-Nov), is August 15. Please submit to nca-scanner@ieee.org.



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From the desk of Stanley A. Klein
3810 Millford Mill Road
Baltimore, Maryland 21207



September 12, 1963

Sir -

Mr. Fierson (Letters, 4 July) suggests that Mr. Manning's new style ladies' shoes would defeat the purpose of having such shoes. He goes on to explain the reason for high-heeled shoes' existence but only in terms of appearance.

I would like to suggest another possible reason for the existence of this style of ladies' shoe. Mr. Manning indicates that in order to overcome the discomfort of walking in high-heeled shoes, it is necessary that the wearer adopt a seductive walk. This, I submit, is the *raison d'être* of high-heeled shoes. By providing an unstable platform, high-heeled shoes force the wearer to walk in a manner which is relatively more seductive than it would be if she were wearing low-heeled shoes. When comfort becomes an important consideration, women do wear low-heeled or "flat-heeled" shoes.

Stanley A. Klein

Shoe art courtesy of <http://www.antiqueimages.blogspot.com>.

Dr. Stanley A. Klein, from p. 1

next-generation, electric power SCADA. He was also a principal in Open Secure Energy Control Systems LLC, formed to continue efforts on the toolkit.

Well known for decades of contributions as an innovative thinker to the body of knowledge and standards that informed the creation of the "smart grid," Stan's early activity included preparation of a guideline for the Electric Power Research Institute on information security protection of electric power transmission and distribution control systems. He was a team member on a government-sponsored assessment of Year 2000 readiness of municipal electric departments, rural electric cooperatives, and small investor owned utilities. He self-published a report on information security implications of the electric utility restructuring and contributed to a 1996 Navy study of information security in electric utility systems that was used as input to early efforts on critical infrastructure protection.

Dr. Klein maintained active involvement in a variety of professional society and standards committees relevant to SCADA protocols and their information security protection. He was a member of the IEEE Computer Society and the IEEE Power and Energy Society and an active participant and leader in several committees and subcommittees, including PES representative on the IEEE-USA Committee on Communications and Information Policy, where he drafted the position statement on information security for electric power. He was an active member of International Electrotechnical Commission Techni-

cal Committee 57 Working Group 15 (on power grid cybersecurity) and of the North American Electric Reliability Council's Control System Security Working Group.

Stan's volunteerism was not limited to electrotechnology. Stan helped establish the Rockville Community Network (RockNet) in 1996 and served on its board for many years. As a civic advocate, he was active in Democratic politics and also served as president of the Alliance of Rockville Citizens.

He presented a yearly budget analysis of the City of Rockville, pointing out areas for improvement. He conducted a study of the reliability and efficacy of voting machines in Maryland and presented his findings to the nationwide Election Assessment Project in 2005. Stan was a founder of Rockville's Congregation Bet Chesed in 2001. Stan was also a long-time member of the IEEE National Capital Area Consultants Network.

Stan's reputation in the local community and in the larger technology community was as a caring and compassionate man, patient and detail-oriented, always ready with cogent questions and observations, and generous with his time, talent, and treasure. We in IEEE have lost a mentor, teacher, friend, and advocate, and we are better for having known him.

For conspicuous service as a prolific IEEE volunteer, embracing the spirit of Jim Strother, who was one of Northern Virginia Section's founding fathers, Dr. Stanley A. Klein is the posthumous recipient of the 2013 James F. Strother Meritorious Service Award, Northern Virginia Section's highest honor.

**"Stan was unerringly graceful
and helpful in sharing his
expertise and insight."**

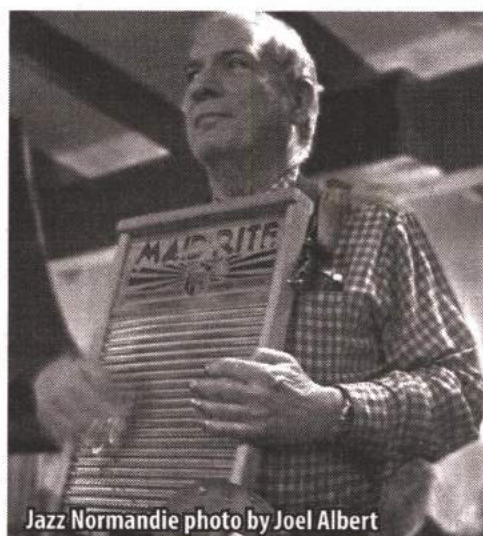
- ALEX DELY, TUSCON, ARIZONA

**"You were going at the speed
of light, and, like a shooting
star, have fallen while moving
at full speed."**

- PROFESSOR MARIJA ILIC,
CARNEGIE MELLON UNIVERSITY

**"An era has passed.
We will miss you Stan."**

- W. THOMAS CURTIS,
ROCKVILLE, MARYLAND



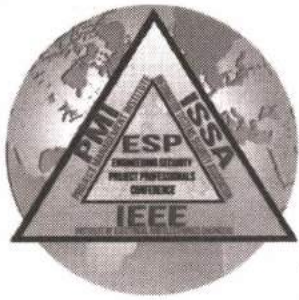
Jazz Normandie photo by Joel Albert



IEEE photo by Debi Siering and Elsie Grant



Stan Klein, Rockville community activist, 2nd from left



2013 IEEE International Engineering, Security and Project Professionals (ESP) Conference

University of Maryland, College Park, September 10th, 11th and 12th, 2013

Dear IEEE Members of Northern Virginia, Washington DC and Baltimore Sections,

As Conference Chair of 2013 IEEE International Engineering, Security and Project Professionals (ESP) Conference, it's my great pleasure to invite you all. This is a very unique International Conference happening first time in the world where three biggest organizations, IEEE, PMI & ISSA, will come under one umbrella to offer the best professional development program ever to their combined membership. The conference will be held on September 10th, 11th and 12th, 2013 at the University of Maryland, College Park, Maryland.

The general theme of the Conference is "Challenges in the 21st Century." The conference program will consist of Keynote talks and Sessions featuring famous speakers from around the world. For more information, please visit our website, <http://www.iespconference.org>.

Maryland Governor Martin O'Malley (*tentative*) is expected to inaugurate the Conference, and the closing Keynote Speaker is Energy Secretary Dr. Ernest Moniz (*tentative*). Selected Keynote Speakers are 2006 Nobel Prize Winner Dr. John Mather, Dr. Tariq Durrani from the UK, Charles Synder, House Subcommittee on Cyber Security staff member, and Carl Pritchard, world-renowned risk management expert.

I am more than happy to provide any additional information needed and can be contacted by email mithun@ieee.org or by phone 1-409-466-2431.

Looking forward to your participation to 2013 IEEE International Engineering, Security and Project (ESP) Professionals Conference.

Sincerely,

Mithun Banerjee

Conference Chair,
2013 IEEE International Engineering, Security and Project (ESP) Professionals Conference
Chair, IEEE Northern Virginia Section 2013



Northern Virginia Section's original technical symposium, in October 1977, began a tradition that drives the Section's engagement with the engineering and professional community today.

Always Accepting Submissions

Please submit calendar items in the format used in the Calendar of Events. You can send an email to nca-scanner@ieee.org. Events must have an IEEE or affiliate sponsor. Other contributions, such as reports on chapter events and other member activities, are most welcome. Please submit to the Section Editors or to nca-scanner@ieee.org.

Late Breaking News

WASHINGTON (21 June 2013) – Organizers of the IEEE NewNEB DC Power Utility Conference & Exhibition (Ronkonkoma, N.Y., 7-8 October) are seeking technical papers and panels focused on the DC power systems associated with electricity reliability and the influence of NERC requirements in shaping these DC utility systems.

* Paper submission deadline – 8 July 2013

For more information on submitting papers, see <http://www.newneb.org/id53.html>

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Announcements & Articles

Please submit calendar items to nca-scanner@ieee.org. Events must have an IEEE or affiliate sponsor or be of compelling interest to the membership. Please 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. Other contributions, such as reports on chapter events and other member activities, are most welcome. Please submit articles to the content editor at nca-scanner@ieee.org.

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 content editor. The deadline for the upcoming issue is August 15, 2013.