First Transistor IEEE Milestone Dedication

The North Jersey Section will be dedicating a fourth IEEE Milestone in Electrical Engineering and Computing on Tuesday, December 8th, 2009, at Alcatel-Lucent Bell Labs, Murray Hill, NJ, for the 'Invention of the First Transistor at Bell Telephone Laboratories, Inc., 1947.' The citation will read as follows:

At this site, in Building 1, Room 1E455, from 17 November to 23 December 1947, Walter H. Brattain and John A. Bardeen -- under the direction of William B. Shockley -- discovered the transistor effect, and developed and demonstrated a point-contact germanium transistor. This led directly to developments in solid-state devices that revolutionized the electronics industry and changed the way people around the world lived, learned, worked, and played.

The dedication ceremony will take place on December 8th, 12:00 to 1:30 PM, in Bldg 6, the main building, in the conference dining room followed by a luncheon provided by host, Rod C. Alferness, Chief Scientist, at Bell Labs. IEEE attendees and guests are requested to arrive between 11:30 - 11:45 AM and to park in the reserved parking off the main entrance, 600 Mountain Ave, Murray Hill, NJ.

Featured speakers include former Bell Labs researchers Dr. Alfred U. Mac Rae, IEEE Life Fellow, NAE, EDS Past Pres., and Dr. Morris Tanenbaum, IEEE Life Fellow. Dr. Mac Rae knew Walter Brattain and has met both Bardeen and Shockley and talked about the inventors recently at the Life Grade Luncheon.

Dr. Tanenbaum has had a distinguished career starting at Bell Labs where he worked under Shockley and made the first silicon transistor. For more about him go the IEEE Global History Network, click on ‘First-Hand Histories’, scroll down to and click on ‘Beginning of the Silicon Age’ or go to: http://www.ieeechn.org/wiki/index.php/First-Hand:Beginning_of_the_Silicon_Age .

Reservations are required through Howard Leach at h.leach “AT” ieee.org or 973-540-1283 for security badges. Those that requested to be notified of the dedication time will automatically be put on the reservation list. Reservation cut off is Friday, December 4th at noon.

Currently, the Section has dedicated three other Milestones.

The first, dedicated in 1987 was for the first: ‘Two-Way Police Radio Communication, 1933.’ The citation reads as follows.

‘In March 1933, the first two-way AM mobile radio was installed in a patrol car of the Bayonne Police Department. The system was designed by Lieutenant Vincent J. Doyle of the Bayonne Police and radio engineer Frank Gunther. Through the use of a combined transmitter and receiver in the patrol car, the two-way system allowed communication between patrol cars and with the police station.’

The second, dedicated in 1988 at a building in Historic Speedwell, Morristown, NJ, and part of the Morris County Park System, is for: ‘Demonstration of Practical Telegraphy, 1838.’ The citation reads as follows.

‘In this building in January 1838, Samuel F. B. Morse and Alfred Vail first demonstrated publicly crucial elements of their telegraph system, using instruments that Vail had constructed during the previous months. Electrical pulses, transmitted through two miles of wire, caused an electromagnet to ink dots and dashes (grouped to represent letters and words) on a strip of paper. Commercialization began in 1844 when funding became available.’

The third, dedicated in 2008 and located in front of the West Orange Municipal Building is for: ‘Thomas A. Edison West Orange Laboratories and Factories, 1887.’ The citation reads as follows.

‘Thomas Alva Edison, a West Orange resident from 1886 until his death in 1931, established his final and most comprehensive laboratory and factory complex about one-half mile (0.8 km) north of here in 1887. Edison’s visionary combination in one organization of basic and applied research, development, and manufacturing became the prototype for industrial enterprises worldwide. Work here resulted in more than half of Edison’s 1,093 patents.’

For further information on other milestones, see the IEEE History Center list of Milestones worldwide at http://www.ieeechn.org/wiki/index.php/Milestones:List_of_IEEE_Milestones.
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Deadline for receipt of material is the 1st of the month preceding the month of publication. All communications concerning editorial and business matters, including advertising, should be sent to the Business Manager via e-mail at k.saracinello “AT” ieee.org or to The IEEE Newsletter, c/o Keith Saracinello, 25 Messenger Ln, Ringoes, NJ 08551, (302) 683-7162.

IEEE NJ SECTION HOME PAGE
http://web.njit.edu/~ieeenj/
IEEE NJ SECTION NEWSLETTER HOME PAGE
http://web.njit.edu/~ieeenj/NEWSLETTER.html

REPORT ADDRESS CHANGES TO:
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The North Jersey Section Executive Committee usually meets the first Wednesday (except holidays and December) of each month at 7:00 PM. Meetings are open to all members. For information on meeting agenda contact Secretary Russell Pepe at (201) 960-6796, rcpepe “AT” ieee.org.

NJ Section PACE, GOLD, WIE: Engineers Meet:
IEEE’s Engineering Career Alternative – Patent Law

On Wednesday, December 9, 2009 the North Jersey Section Professional Activities Committee, Graduates of the Last Decade and Women in Engineering will host a meeting to discuss alternative engineering career paths. Our guest speakers will be Brian Myers and Stan Tso.

About the Meeting
Have you ever wondered what potential career alternatives might lie ahead? Many individuals have entered the field of patent law after a satisfying career in Electrical and Electronics Engineering. These individuals often become some of the best patent attorneys and agents, perhaps because they have already developed superior technical and analytical capabilities while working as an Electrical and Electronics Engineer.

The two primary speakers, Brian Myers and Stan Tso, will offer views on patent law as a career alternative for Electrical and Electronics Engineers. Brian and Stan will take you through the requirements for becoming a patent agent or attorney and describe the patent process, including drafting applications and interacting with the United States Patent and Trademark Office. In addition, Brian and Stan will offer a glimpse of what it might be like to work in a law firm or as an “in-house” patent agent or attorney.

You are encouraged to attend and invite your associates.

About the Speakers
Brian Myers and Stan Tso both moved to the field of patent law after each having worked as an engineer for over 14 years. Brian Myers is a founding partner of the Myers Wolin LLC law firm. Brian holds a MSEE, a BSEE both from Fairleigh Dickinson University, a EET diploma from DeVry Technical Institute and a law degree (Juris Doctor) from Seton Hall University. Stan received a BSEE from Cornell University, an MBA from Duke University and a law degree (Juris Doctor) from Rutgers University School of Law. Brian and Stan are both members of the IEEE.

All Welcome!
Members and students from all professional societies and engineering disciplines are welcome.

RSVP Required!
Please RSVP by December 7 to Dora Sharps, (973) 401-7157 or dora.sharps@myerswolin.com.

Time: 6:30 PM to 9:00 PM, Wednesday, December 9, 2009. Pizza and refreshments will be served.

Place: Clifton Memorial Library, 292 Piaget Ave, Clifton, NJ, (973) 772-5500.


North Jersey Section Seeks Committee Chairs and Volunteers

The North Section is seeking new volunteers to help conduct business for the benefit of its membership. There are a variety of volunteer positions open and available. They range from technical to non-technical, leadership or just participatory. For Society Chapter Chairs, you must be a member of the corresponding IEEE Society.

If you would like to become involved with volunteering in some of these efforts or positions or just become more informed about what is happening at the North Jersey Section, please contact Dr. Chandra Gupta at c.gupta “AT” ieee.org. You are welcome to attend the Section business meeting held the first Wednesday of every month to find out more and other volunteer activities that require some help.

Some committees needing volunteers include the following. Please contact the person indicated for additional information.

• Power Electronics Society Chapter Chair - contact c.gupta below.
• GOLD (Graduates of the Last Decade) Affinity Group Volunteers and Committee members needed - contact northjerseygold “AT” ieee.org
• WIE (Women in Engineering) Affinity Group Volunteers and Committee members needed - contact kduncan “AT” ieee.org
• EMBS (Engineering in Medicine and Biology Society) is seeking a chair and active committee volunteers - contact c.gupta “AT” ieee.org
• Membership Development Committee Chair and Volunteers - contact c.gupta below.

Additionally, if interested volunteers would like to get more general information about the Section, including a complete listing of all chapters and committees, visit the North Jersey Section website http://web.njit.edu/~ieeenj/, or contact Dr. Chandra Gupta c.gupta “AT” ieee.org.
IEEE North Jersey Section Activities
December 2009

Dec. 2 – “Volunteer Open House, Officer Training Workshop and Senior Membership Info Session”, NJ Section, 6:00-9:00 PM, New Jersey Institute of Technology (NJIT), Room 202, ECE Center (Intersection between Warren & Summit Streets), Newark, NJ. RSVP required. Amit Patel, Section Chair, a.j.patel AT ieee.com.

Dec. 3 – “Annual Planning Dinner-Meeting”, NJ Consultants' Network, Dinner 7:00 PM, Meeting 8:15 PM, Olive Restaurant, Parsippany Hilton, One Hilton Court, Parsippany, NJ 07054. Contact Robert Walker for registration and information at r.d.walker AT ieee.org or (973) 728-0344.

Dec. 8 – “First Transistor IEEE Milestone Dedication”, NJ Section, 12:00 to 1:30 PM, Alcatel-Lucent Bell Labs, Bldg 6, the main building, in the conference dining room, Murray Hill, NJ. RSVP by 12 noon on 12/4 through Howard Leach, h.leach AT ieee.org, or (973) 540-1283.


Upcoming Meetings

Jan. 5 – Jan. 14 – “Software Testing and Quality Assurance” by Dr. Piyu Tripathy, 6:30 PM to 9:00 PM, Room: ECEC 202, NJIT, 161 Warren Street, Newark, NJ. Donald Hsu, yanyou AT hotmail.com.

Jan. 6 – “NJ Section Meeting”, 6:30 PM, “Executive Committee Meeting” - 7:00 PM, ITT, 77 River Rd, Clifton, NJ. Russell Pepe at rcpepe AT ieee.org.

Mar. 13 - May 15 – “C# .NET Programming” by Donald Hsu, PhD, 9:00 AM to 12:00 PM, Room: ECEC 202, NJIT, 161 Warren Street, Newark, NJ. Donald Hsu, yanyou AT hotmail.com.

Apr. 6 - May 25 – “Project Management” by George Sierchio, 6:30 PM to 9:00 PM, Room: ECEC 202, NJIT, 161 Warren Street, Newark, NJ. Donald Hsu, yanyou AT hotmail.com.

Members and Non-Members Welcome

PLEASE POST
Volunteer Open House, Officer Training Workshop and Senior Membership Info Session at NJIT
December 2, 2009

The IEEE North Jersey Section is proud to announce it annual end of the year executive committee meeting and updated workshop agenda. Each year, the election results for new officers for the North Jersey Section for the following year are announced by the tellers committee at the December executive committee meeting. The new officers are then installed and take office in the coming January. This year's agenda has been expanded to address a number of key topics in response to member requests.

A number of section IEEE members and non-members have been inquiring how they can become more informed about and involved with the section and different IEEE activities being held throughout the year. Some from increased attendance and others from increased active participation and volunteering for different events.

From those who are already active volunteers, many have inquired how they can take on leadership roles in the section and beyond and what is exactly involved and expected with officer positions. Lastly, many members have inquired how they can apply for a senior-member grade elevation and go about obtaining required elements of their senior member application.

To help the membership, the December executive committee meeting will host a volunteer open house which will give all attendees the opportunity to meet North Jersey Section chapter and committee officers, as well as a chance to talk and explore individually, potential volunteering opportunities with their areas of interest. Current vacant positions will also be reviewed.

There will also be an officer training session for the newly elected officers to educate them and committee members on their responsibilities and basic required operations of the section. Lastly, there will be an information session on the senior member grade elevation process for those seeking senior membership with an active application in process.

All section members are invited to attend, especially those who are interested in learning how to stay better informed of section and area wide IEEE activities that are occurring. For those interested in becoming more active in general IEEE activities, in becoming actual volunteers, officers or seeking senior member grade elevation. Student and Graduate Student members are encouraged to attend and learn how they can continue their IEEE participation beyond the university.

The event will be held on Wednesday, December 2, 2009, 6-9PM at NJIT in the ECE Building, Lecture Room 202. There is free parking in the enclosed parking deck next to the ECE building and a free buffet dinner will be served for all attendees. RSVP is required on-line at the following address

http://meetings.vtools.ieee.org/meeting_view/list_meeting/1073
or contact Amit Patel, Section Chair, a.j.patel "AT" ieee.com.

IEEE and North Jersey Section Going Web 2.0, Facebook & Linked-In
If you are reading this article, there is a good chance you are reading this either on a paper newsletter or on a static webpage. Some of that will be changing to provide the reader alternative channels of accessing important information.

This article tries to provide a brief introduction to RSS, Really Simple Syndication, which is the core technology behind Web 2.0 features, applications, and how IEEE is now using it.

There are many detailed descriptions of RSS and how it works (see Wikipedia for a good introduction to RSS and XML), but in the context of Web 2.0, it is an XML (eXtensible markup language) based push technology that allows for moving information from the content producer to the appropriate client software being used to aggregate data from many sources to present to the user.

Many people are already using such client software without actually knowing that it is RSS and XML driving it under the hood. For example, news portal sites like Yahoo utilize RSS, Google Reader is an aggregator that also collects subscribed feeds as diverse as news stories, daily blogs, to audio and video podcasts. Popular social networking sites like Facebook and Linked-In are also powered by this technology and push member’s status changes and postings out to email, twitter and SMS.

So what does this have to do with the IEEE? One great example of how the IEEE currently uses Web 2.0 is the individualized myIEEE (http://www.ieee.org/web/membership/myieee.html) portal that every single member has as part of their membership. It allows for customization of products and services of interest to the member as well as notification of IEEE wide events of interest in different categories.

Additionally, a little over a year ago the IEEE introduced a new meeting and event announcement system which allows for publishing feeds of these events to the public. This data is then collected using the subscriber's favorite client aggregator software.

Many people make use of one or more of such technologies and can now integrate their access to local IEEE event notifications. Over the course of the next year the North Jersey Section will roll out all meeting and event notifications using RSS. You can begin to participate now using the following URL:

meetings.vtools.ieee.org/meetings/rss/1/NORTH%20JERSEY

Paste this address into your RSS reader or aggregator software of choice. You can even use Microsoft Outlook 2007 to collect notifications. Just go to the tools, account settings, RSS feeds tab and paste this URL into the dialog box.

Additionally, if you use Facebook or Linkedin, the North Jersey Section now has a Facebook fan page that you can become a fan of and all these meeting postings will be notified via the fan page which you can join here:

www.facebook.com/pages/IEEE-North-Jersey-Section/

If you use LinkedIn, you can join the IEEE North Jersey Section Group to receive the same event notifications as well. Just go to

www.linkedin.com

and search for IEEE North Jersey Section under the groups menu.

Click through links for both the fan page and group will be available off the main North Jersey Section website at web.njit.edu/~ieeenj. As the process of rolling out better integrated Web 2.0 functionality continues via myIEEE and our Facebook fan page and Linked-In group, the updates will be publicized in future articles. For now, try out RSS feeds and our Fan Page and or Group to see how you can make better use of this information using your notification channel of choice.

NJ Consultants’ Network:

Annual Planning Dinner-Meeting


About the Topic

The combined November/December meeting of the IEEE Consultants’ Network is intended as a strategic planning event for Network members and for consultants who are considering membership in the Network.

The main purpose of the meeting will be to discuss ideas and expectations for the various Network functions in the upcoming year. Results of the annual election of officers will be announced at the time.

This Working Session is traditionally an open, informal forum to determine what the IEEE-CNNNJ is doing right or wrong. The floor will be open to suggestions for improvements, recommendations of new Network directions and activities and proposals of new feature topics for the general meetings.

This year we continued implementing changes in our organization and in the scope of its activities. The discussion will evaluate the effect of these changes and will chart the course for 2010.

Certain major functions performed by the IEEE Consultants’ Network are always open to reconsideration and to continuing input. These include:

• Focus of our group: publicity efforts and member networking.
• Group Marketing & Image Building - CNNNJ Website and alternate publicity methods.
• Monthly General Meetings - Suggested feature topics.
• Alternate general meeting formats.
• The December meeting is open to all. Non-members, who are interested in our activities or who are considering joining the group are strongly encouraged to participate in the planning session to gain in-depth insight into our organization.

The meeting will commence with a dinner, which is open to all as well. Please see more details about our venue, schedule and dinner cost, below.

About the Consultants’ Network

Founded in 1992, the IEEE Consultants Network of Northern NJ encourages and promotes the use of independent technical consultants by business and industry.

CNNNJ Invites You To Join the Network

The IEEE Consultants’ Network of Northern NJ invites all engineers engaged in independent practice to join its ranks.

For more details on member benefits and on sign-on requirements, please visit our website at (www.TechnologyOnTap.org).

December 2009 Meeting Venue

The CNNNJ continues to vary venues and organizational approaches for its monthly events. This December, we will meet for dinner, followed by our feature presentation, in the Olive Restaurant at the Parsippany Hilton, located off Route 10 West in Parsippany, NJ. The restaurant is situated in the south side of main atrium.

Although not required, all attendees are strongly encouraged to participate in the pre-meeting networking dinner, to avail themselves of the opportunity to socialize and acquaint with members of our organization. Your presence at the dinner will help ensure Network’s ability to continue holding future events at the Hilton. Depending on expected number of participants, the restaurant will provide either a dinner buffet for only $30 per person or menu selections at similar prices.

Since seating is limited, we ask that you contact us as soon as possible to reserve a seat, even if not participating in the dinner.

All Welcome!

Dinner: 7:00-8:15 PM. Thursday, December 3, 2009.
Meeting: 8:15-9:30 PM.
Registration and Information: RSVP by Tuesday, December 1, will be appreciated. Contact Robert Walker at r.d.walker “AT” ieee.org or 973-728-0344.

TCF-2010

The 35th Annual Trenton Computer Festival (TCF) will be held Saturday & Sunday, April 24th & 25th, 2010 http://www.tcf-nj.org.

The TCF IT Professional Conference is Friday April 23rd.

New this year, the ARRL NJ Amateur Radio Convention is being held coincident with the festival, on Sunday April 25th, all at The College of New Jersey, Ewing, New Jersey.

This year we are focusing on Open Source Software, but we are still interested in covering all topics relating to computers and digital technology. As 2010 is our 35th year, we are also seeking talks that deal with the history of PCs and their impact on society. We are looking for talks (50 minutes) and tutorials/workshop (100 minutes) on all forms of computer, digital electronics, information, communications technology, robotics, home/environmental control, Vid/Podcasting, gaming and digital home entertainment, digital photography, wireless technology, networking.

If you have an idea for a talk or workshop/tutorial for TCF, please fill out a Speaker Application form at http://tcf-nj.org/speaker_registration.html.

If you are interested in more information, or in speaking at the other related events. For the IT Professional Conference contact David Soll at dsoll@Omicron.com. For the Amateur Radio Conference contact Gary Wilson at k2gw@optonline.net. For TCF in general, contact Allen Katz, TCF Program Chairperson, a.katz@ieee.org, telephone: 609-771-2666, fax: 609-631-0177, US Mail: Dr. Allen Katz, School of Engineering, The College of New Jersey, PO Box 7718, Ewing, NJ 08628-0718.
LEGO Robotics Judges Needed

The FIRST Lego League http://www.usfirst.org needs judges for the Montclair Qualifying Tournament, which will be held on Friday, December 4th from 4:30 to 9:00 at Union Congregational Church in Montclair. The teams are made up of middle school student who design and program autonomous LEGO-based robots to compete in performing various tasks. They will also present a research project, which this year is on transportation. Three groups of judges will interview the teams and rate them on either robot design, teamwork or the project. For more information or to volunteer contact Pete Donegan, doneganp "AT" ieee.org.

A New Program For Life Members

Starting in 2010, the IEEE Life Members Committee (LMC) will be sponsoring a Technical Tour Program. The focus of these tours will be IEEE Historical Milestones or similar attractions of interest to IEEE Life Members.

The benefits of conducting these tours include:

- An opportunity to engage IEEE Life Members in a program which satisfies their interest in a technical field of interest;
- An opportunity to increase the awareness of the IEEE Life Members Fund (LMF) and the projects supported by the LMF;
- An opportunity to contribute a portion of the cost of the tour to the LMF;
- Promotion of the IEEE Historical Milestone Program.

The first tour will be conducted as a pilot program and will be held from 3-10 March 2010 in Panama. The 8 night / 7 day itinerary will include a tour of the Panama Canal, the Miraflores Visitors Center, and a special visit to the ordinarily restricted Control House at the Miraflores Locks. Additionally, participants will have further opportunities to experience the environment and culture of Panama itself. Information on the tour will be available on the LMC Web Page: http://www.ieee.org/lmc.

As more information is available it will be reported in the North Jersey Newsletter.

Life Members Invited to the December 2nd North Jersey Section's Volunteer Open House

Life Members who are interested in getting involved with North Jersey Life Member activities in 2010 are invited to the North Jersey Section's Volunteer Open House.

The Volunteer Open House will be held on Wednesday, December 2, 2009, 6-9PM at NJIT in the ECE Building, Lecture Room 202. There is free parking in the enclosed parking deck next to the ECE building and a free buffet dinner will be served for all attendees.

We will be discussing volunteer opportunities for members of the North Jersey Life Member Affinity Group Committee, ideas for meetings that would interest the many Life Members, Senior Life Members and Life Fellows in the section.

As of October 2009 the North Jersey has a total of 582 Life Members with active IEEE memberships plus and additional 26 who are in "arrears" by not having renewed their 2009 Life Member memberships either by mail or internet renewal plus another 63 Life Members who have not renewed their (free) Life Membership for two or more years.

Please note: An RSVP is required online for the December 2nd Meeting at the following address:

http://meetings.vtools.ieee.org/meeting_views/list_meeting/1073

or contact Amit Patel, Section Chair, a.j.patel "AT" ieee.org.

Alan H. Stolpen Chair, NJ Life Members Affinity Group a.stolpen "AT" ieee.org
908-575-8288

North Jersey Section Seeks Volunteers to Conduct Business at the Section Level

The NNJ IEEE Section ExCom is seeking new volunteers to help conduct business at the section level for an elected or nominated position for the benefit of its membership in the North Jersey section and surrounding areas. You must be an active IEEE member to hold an elected office at the section level. There are a variety of volunteer positions open and available. They range from long-term to short-term, technical to non-technical, leadership or just participatory. All activities have varying levels of time commitment. For Chapter Chairs, you must be a member of the corresponding IEEE Society.

If you would like to become involved with volunteering in some of these efforts or positions or just become more informed about what is happening at the NNJ IEEE Section, please contact Dr. Chandra Gupta at c.gupta "AT" ieee.org or Har Dayal at har.dayal "AT" baesystems.com. You can even attend the section business meeting held the first Wednesday of every month to find out more and other volunteer activities that require some help.

Additionally, if interested volunteers would like to get more general information about other activities in our section, visit the North Jersey Section website for newsletter information http://web.njit.edu/~ieeenj/ or contact Dr. Chandra Gupta, c.gupta "AT" ieee.org.

No job? Take a hot course to get a job!

IEEE North Jersey Education Committee ran programming and management courses since 1993. 229 IEEE members and non-members completed these courses. Proven benefits: They got jobs at AT&T and Microsoft Corporation.

We need hot courses, instructors and classrooms. If you can teach a hot course (the course that people can get jobs), email your one-page abstract and your resume. If your NJ firm can provide a conference room, evening or Saturday morning, contact Donald Hsu, Chair, yanyou "AT" hotmail.com. Thank you and act NOW!
former presidential science adviser to speak on relationship between stem R&D funding and job growth, innovation at IEEE-USA-sponsored event

Washington (20 October 2009) - Dr. John Marburger, who served as science adviser to former President George W. Bush, will discuss the relationship between money spent on research and development in the STEM enterprise and job growth and innovation during his keynote address at George Washington University on Wednesday.

"We need to understand the relation between inputs like research funding, scholarships, tax incentives and training programs, and outputs like job creation, productivity and GDP growth," said Marburger, who served as director of the White House Office of Science and Technology Policy from 2001-09. "Those high-level outputs are being measured now, but to evaluate specific policies or programs we need intermediate measures that can be assessed in the short term to let us know if we're on the right track, and to get these right, we need better understanding of the whole innovation system.

"So first we need data, and conceptual frameworks, then we can choose measures that mean something and collect or refine data on those measures."

"STEM Enterprise: Measures for Innovation and Competitiveness" is designed to assess the effectiveness of all federal, state, private and academic money spent on R&D in the STEM -- science, technology, engineering and math -- enterprise. Work in this area serves as a driving force for economic and social advancement throughout the world.

The event will be at George Washington's Marvin Center on Wednesday from 9 a.m. to 5:30 p.m. On-site registration will be taken. For more on the program and additional speakers, see http://www.ieeusea.org/calendar/conferences/stem/.

Marburger is a university professor in the departments of Physics and Electrical Engineering at Stony Brook (N.Y.) University, where he served as president from 1980-84. His tenure as the president's science advisor began soon after the 9/11 terrorist attacks and was the longest in history. Marburger helped to formulate major policy initiatives associated with the establishment of the Department of Homeland Security, re-orientation of the nation's space policy following the 2003 Space Shuttle Columbia disaster, the nation's re-entry in the international nuclear fusion program ITER, and the American Competitiveness Initiative that sought to double federal funding for the physical sciences and engineering.

Wednesday's event will also look at the link between STEM R&D and quality of life in the United States and abroad, a link Marburger says is poorly understood.

"There is pretty obviously a link because technology pervades everything we do, but exactly how is a very big question," he said. "As a scientist and an educator, I love it when Congress funds more research in universities -- any research. But as a policy adviser, I have to ask if we really understand what we're doing when we fund particular fields and programs at the particular levels that we do. In many cases we're just responding to, more or less, random advocacy."

Marburger thinks the U.S. STEM enterprise is so big -- the federal government alone has an R&D portfolio of $147.3 billion in FY 2009 -- that no single organization can create unbiased reports and recommendations for policymakers.

"No one entity can provide the understanding needed for rational policymaking to enhance competitiveness. You need an entire profession doing this all the time," Marburger said. "It's not a disadvantage to have multiple sources of reports and recommendations, especially when our state of knowledge about cause and effect is so weak. An unbiased report today would be one that says we don't understand how all this works. There are certainly entities like the National Academies that produce good, relatively unbiased reports. But broad policy recommendations are nearly always highly subjective and intuitive.

"The best we can do in the current environment of ignorance is to assemble groups of experts and ask their opinion. I would like to see us spend more on providing better tools for those experts, and on training professionals who can improve on these intuitive judgments."

IEEE-USA advances the public good and promotes the careers and public policy interests of more than 210,000 engineers, scientists and allied professionals who are U.S. members of IEEE. IEEE-USA is part of IEEE, the world's largest technical professional society with 375,000 members in 160 countries. See http://www.ieeeusa.org.

Contact: Chris McManes
IEEE-USA Public Relations Manager
(202) 530 8356
c.mcmanes@ieee.org

news from IEEE USA:
IEEE-USA Releases Second E-Book in Innovation Series

Washington (16 October 2009) - IEEE-USA has just released the second e-book in its new innovation series on "Doing Innovation: Creating Economic Value."

Gerard H. (Gus) Gaynor, a retired 3M director of engineering, brings you "Book 2: Developing a Workable Innovation Process."

Gaynor writes that his new book "teaches the fundamentals related to the innovation process, presents various models with their limitations, describes the innovation design process, considers the issues in developing a process model, suggests a generic model and describes organizing for innovation."

Topics in the e-book include:
- Status of Innovation
- Innovation Process Models
- Summary of Process Models
- Working Toward an Innovation
- Innovating by Design
- Generic Innovation Process Model

You can purchase your copy of "Doing Innovation: Creating Economic Value - Book 2: Developing a Workable Innovation Process" at www.ieeeusa.org/communications/ebook s for the IEEE member price: $9.95. The nonmember price is $19.95.

IEEE members can purchase other IEEE-USA E-Books at deeply discounted member prices -- and download some free e-books.

To purchase IEEE members-only products and to receive the member discount on eligible products, members must log in with their IEEE Web account.

IEEE-USA advances the public good and promotes the careers and public policy interests of more than 210,000 engineers, scientists and allied professionals who are U.S. members of IEEE. IEEE-USA is part of IEEE, the world's largest technical professional society with 375,000 members in 160 countries. See http://www.ieeeusa.org.

Contact: Sharon Richardson
IEEE-USA Communications Assistant
(202) 530 8363
s.richardson@ieee.org

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8th Annual Life Grades Luncheon

The eighth Annual Life Grades Luncheon sponsored jointly by the Power Engineering Society Chapter and the Section Life Grade Affinity Group was held on October 29th at the Hamilton Park Conference Center, Florham Park, NJ.

As a prelude to the First Transistor IEEE Milestone dedication at Alcatel-Lucent Bell Labs on Dec 8th, Dr. Alfred U. Mac Rae, IEEE Life Fellow, NAE, gave some recollections about the inventors of the first transistor while he was at Bell Labs. He knew Walter Brattain quite well and related about how he grew up on a ranch in Washington State and the contrast between Brattain’s and Bardeen’s backgrounds. He along with his friend and former colleague at Bell Labs, Dr. Morris Tanenbaum, will be the featured speakers at the Dec 8th First Transistor IEEE Milestone dedication.
Left to right: Al Stolpen, Ken Oexle, Hinz Winter, Joe Salko, Harry Roman, Won Kim, Dr. Alfred Mac Rae, Dr. James Flanagan.

Left to right: Ron Quade, PES Chapter Chair, John Baka, and Dr. Michael Liechtenstein, SMC Chapter Chair

Left to right: Richard Schmidt, Mrs. & Mr. Max Schindler, Dr. Richard Snyder, EDS President Elect, Kirit Dixit and Har Dayal, MTT/AP Co-Chairs, Dr. Chandra Gupta, and Gar Kam
MTT Minishow Pictures

The MTT Minishow was held on October 1, 2009. Below are pictures from the event.

Volunteers (L-R): Howard Leach, Har Dayal, Dr. Kate Duncan, Tomislav Lucin, Dr. Fred Chichester, Kirit Dixit, Mario, Ken Oexle, Pete Donegan, George Kannell.

Richar Lisco (Alcatel Lucent), Kirit Dixit (Co-Chair), Nalin Patel (Herley-CTI), Jonathan Jackson (Microcom Sales), Bruce D’Adamo (Microcom), Alan Egger (Technical Marketing Consultants).

Custom Calibration Inc. Exhibit

Russell Pepe (ATM), Jasmine (Princeton Microwave), Pete Donegan (Treasurer)
Exhibit Hall with Ken Oexle (IAS Chair) and Pete Donegan (Treasurer)

Ken Oexle (IAS Chair), Sam Simione (Contech) and Gentlemen from Lambda

Art Greenberg (VTS Chair) presenting Plaque to Christian Brinton (TCNJ)

George Kannell (technical Chair) presenting plaque to David Bail (Vectron)
LISAT2010
Sixth Annual IEEE Long Island Systems, Applications and Technology Conference
Friday, May 7, 2010
The Institute for Research & Technology Transfer at Farmingdale State College
State University of New York - Farmingdale, NY

CALL FOR PAPERS, PRESENTATIONS, EXHIBITORS and STUDENT PAPERS

The Long Island Systems, Applications and Technology (LISAT) Conference features several parallel professional tracks including topics in Systems, Applications, and Technology, along with an Exhibit Hall. We are currently soliciting submissions for participation in both the Technical Program and the Exhibit Hall, and are interested in papers, presentations, and exhibits that showcase the development and use of technology by local organizations. LISAT 2010 will also provide the opportunity for select student papers to be presented. Undergraduate and graduate students are encouraged to submit papers in an area of their interest or current work.

Preliminary acceptance to the Technical Program will be based on a 300-to-500-word abstract. Authors of accepted abstracts will be required to provide a six (6) page IEEE standard manuscript (in MS Word format) for publication in IEEE Xplore, and will be required to make a power point presentation at the conference. Manuscripts are subject to the LISAT Technical Program Committee’s peer review and may require revision prior to final acceptance. Important dates for the Technical Program are:

- Oct 31, 2009: Abstracts due (300-to-500 words)
- Nov 15, 2009: Notification of accepted abstracts
- Nov 30, 2009: Biographies of authors and 1-page presentation outlines due
- Jan 15, 2010: Manuscripts for publication (MS Word) and copyright releases due
- Jan 30, 2010: Notification of final acceptance of manuscripts
- Feb 15, 2010: Presenter Registration Fee and two (2) sentence presentation descriptions due
- Apr 1, 2010: Power Point slide presentation due
- May 7, 2010: LISAT2010 Conference

All submissions must include the author’s full names, affiliations, postal addresses, phone numbers, and email addresses. Submissions should be emailed to the LISAT Technical Program Committee at LISATprogram@ieee.org. Detailed instructions on submission, manuscript and presentation templates, and information on the conference, is available on the LISAT web site at http://iewh.ieee.org/conf/lisat

At least one author of each paper/presentation must register for the Conference and will be expected to provide a 20-minute presentation at the conference followed by 5 minutes of Q&A. Longer presentations will be considered. One presenting author will be allowed to register at a discounted rate. A limited number of tutorial and application presentations which will not be published by the IEEE may also be accepted.

While LISAT welcomes a wide variety of papers in systems, applications, and technology, some examples of topics of particular interest are: Homeland Defense, Alternate Energy Sources, Green Building Technologies, Mobile Communications, Microwave Technology, Electromagnetic Compatibility, Mobile Ad Hoc Networking, Network Security, Sensor Fusion, Antenna Systems and Processing, Radio Locationing, Radar Systems and Techniques, and Medical Electronics.

For information on Exhibiting at LISAT, please contact: Fred Kruger at f.m.kruger@ieee.org
For all other information contact LISAT2010 Conference Chair: Dave Mesecher at d.mesecher@ieee.org or Conference Co-Chair Charles Rubenstein at c.rubenstein@ieee.org

LISAT is sponsored by the IEEE Long Island Section and its Technical Society Chapters and IEEE Region 1, in cooperation with the Institute for Research & Technology Transfer (IRT) at the Farmingdale State College (SUNY).

Releases and Approvals: This conference will be unclassified and attended by both US and non-US persons. It is the author’s responsibility to obtain all required company and government releases and approvals prior to making a paper submission. A statement that such releases and approvals have been obtained as well as a completed IEEE Copyright Form (signed by the submitting author) must accompany the manuscript of each accepted paper.
Call for Papers

The 33rd IEEE Sarnoff Symposium 2010

Sponsor
IEEE Princeton/Central Jersey Section

Co-Sponsors (approved and pending)

Conference Chairs: Nicholas Madanopulos (City College of CUNY)
Ajay Rajkumar (Alcatel-Lucent)
Edwin Hou (NJIT)
Pantelis Monogioudis (Alcatel-Lucent)
Sweta Jain (WinLab, Rutgers Univ.)
Christian Makaya (Teldordia)
Maria Fresia (Princeton Univ.)
Pravin Raghuwanshi (DeVry)
Elias Kpodzo (NetS-Stevens Institute of Techn.)
D. Deng (API Nanofabrication and Research Corp.)
Malay Ganai (NEC)
Joe Stack (DSI RF Systems, Inc.)
Matthew Zieniewicz (CERDEC)
Narayan Gehlot
Komlan Egoh (NJIT)

Since 1978 the IEEE Sarnoff Symposium has been bringing together a tremendous and rich diversity of telecom experts from industry, universities, and government. The popularity of the Sarnoff Symposium, again being held in the historic Nassau Inn located in the heart of downtown Princeton, NJ, continues to grow as the premier forum for researchers, engineers, and business executives in the North East drawing an attendance from all over the world. Besides the technical paper presentations, the Symposium will include tutorials, student paper poster presentations, executive panels, and exhibit.

Prospective authors are encouraged to submit a full paper for review. Only original papers that have not been published or submitted for publication elsewhere will be considered. The submission process is carried through the EDAS conference management system (http://edas.info). The manuscripts must follow the IEEE two-column format with single-spaced, 10-point font in the text. The maximum paper length is of five (5) pages. A sixth page may be accepted after an additional fee. Submission of a regular paper implies that at least one of the authors will have a full registration to the Conference and present the paper upon the acceptance of the submission. Manuscript template available at: www.sarnoffsymposium.org.

All accepted papers (after review by experts in the field) will be presented in oral sessions, included in the 33rd IEEE Sarnoff Symposium Proceedings and published through IEEE Xplore. Student papers should be submitted to the Student Papers Chair (praghuwanshi@devry.edu). Prospective tutorial presenters should contact the Tutorials Chair (ekpodzo@msn.com).

IMPORTANT DATES
Papers, Panel and Tutorial Proposals Due: Nov. 15, 2009
Student Papers Due: Dec. 5, 2009
Notification of Tutorials Acceptance: Jan. 7, 2010
Notification of Papers Acceptance: Jan. 30, 2010
Final Version Due: Mar. 1, 2010

CONFERENCE SCHEDULE
Tutorials: Apr. 12, 2010
Paper Sessions and Panels: Apr. 13-14, 2010
Exhibits: Apr. 13, 2010
Poster Presentations: Apr. 14, 2010

The Symposium is soliciting state-of-the-art research papers, panels and tutorial proposals in the following areas of interest.

Wireline Communication Systems
• Triple / Quad Play Architectures
• Broadband Access Networks
• IPTV

Optical Communications & Networking
• WDM Systems and Devices
• Broadband Access Communications
• Radio over Fiber (RoF)

Wireless Communications Systems
• 4G Cellular and Wireless LAN Systems
• MIMO Transmission Schemes
• Hierarchical Networks (Femto, Pico, Relays)
• Radio Resource and Interference Management
• Self-Configuring and/or Optimizing Networks (SON)
• Sensor, Mesh and Ad Hoc Networks
• Free Space Optics (FSO) Wireless Systems
• Ultra Wideband (UWB) Communications
• Power Management for Green Communication
• Satellite Communication Systems
• Military Communication Systems
• Disruption Tolerant Networks

Communications and Information Theory
• Network Information Theory
• Cross-Layer Optimization Schemes

Applications
• Multimedia Applications for Mobile and Tethered Users
• Mobile Payment Applications
• Trust, Security, and Privacy
• Business Models for Mobile Applications

Wireless Communications Components
• Power Amplifiers
• Microwave Devices
• Antennas Design
• RF Repeaters
• Transceivers

For more information www.sarnoffsymposium.org or sarnoff.symposium@ieee.org

IEEE North Jersey Section Course
Software Testing and Quality Assurance

Evenings, January 5, 2010 through January 14, 2010
Eight classes (January 5, 6, 7, 8, 11, 12, 13, 14, 2010)
Room: ECEC 202, New Jersey Institute Technology, 161 Warren Street,
Newark, NJ 07102 (Checks should not be mailed to this address)

IEEE North Jersey Section appreciates NJIT for sponsoring this course at its site

The North Jersey Section IEEE is offering an evening course entitled "Software Testing and Quality Assurance". No prior experience in the software testing and QA is assumed. The course covers:

- **Fundamental concepts** with particular emphasis on the practical aspects of software testing
- Includes process, and managerial topics
- In a **step-by-step** manner, with course material contains a large number of examples from real systems

The IEEE certificate of completion will be given to you when you complete the course. You may wish to take ISTQB certification examination.

**Instructor:** Piyu Tripathy, Ph.D., has 16 years of experience in software testing and maintenance at Eicon networks, Nortel Networks, Cisco Systems, Airvana and NEC Laboratories America.

**Software Testing and Quality Assurance:** Theory and Practice by Authors: Sagar Naik and Piyu Tripathy, Publisher: Wiley, 2008 – This book is included with the registration fee.

This is not an exclusive ISTQB examination prep course. Software testing, quality assurance processes and concepts will be discussed in the class.

**TOPICS**

1. Fundamentals of testing theory and concepts
2. Practices that support production of quality software
3. Software testing techniques
4. Life-cycle models of requirements, defects, test cases, and test results
5. Process models for unit, integration, system, and acceptance testing
6. Test Automation
7. Building test teams, including recruiting and retaining test engineers
8. Quality Models and Capability Maturity Model
9. Testing Maturity Model and Test Process Improvement Model

**WHERE:**
Room: ECEC 202, NJIT, 161 Warren Street, Newark, NJ. (Checks **should not** be mailed to this address)

**WHEN:**
January 5, 6, 7, 8, 11, 12, 13, 14, 2010, 6:30-9:00 PM.

**COST:**
IEEE (& affiliate) members $600; Non-IEEE members $680.

**CONTACT:** Donald Hsu - email yanyou “AT” hotmail.com

**REGISTRATION:** Software Testing and Quality Assurance
Please mail the registration form with the check (Checks payable to “North Jersey Section IEEE”) to Mengchu Zhou, 37 Honeyman Road, Basking Ridge, NJ 07920 and notify Donald Hsu, Chair Education Committee, IEEE North Jersey Section, yanyou “AT” hotmail.com.

Name: ____________________________________________ _________________________________

☐ Non-member ☐ IEEE Member ☐ Member #:_________________________ Member of _____________________________ technical society

Employer:___________________________________________________________________________________________________

Employer Address:____________________________________________________________________________________________

___________________________________________________________________________________________________________

Home Address:______________________________________________________________________________________________

___________________________________________________________________________________________________________

Business (day) telephone #:___________________________________ Home telephone #:________________________________

☐ I wish to receive IEEE completion certificate Signature:___________________________________________

"The IEEE Newsletter" – December 2009 - Page 14 NJ
IEEE North Jersey Section Course
C# .NET Programming

Saturday, March 13, 2010 through May 15, 2010
Eight weekly classes (March 13, 20, 27, April 3, 10, May 1, 8, 15, 2010)
Place: Room ECEC 202, New Jersey Institute of Technology, 161 Warren Street, Newark, New Jersey 07102
(Checks should not be mailed to this address)

IEEE North Jersey Section thanks New Jersey Institute of Technology, for sponsoring this course.

The IEEE North Jersey Section is offering a course entitled “C# .NET Programming”. Since 2004, C# .NET has generated significant headway in Fortune 1000 enterprise development systems. Dice.com lists 700+ C# .NET jobs in the New York tri-state area daily! This course will cover the fundamentals of C# language, the .NET framework, window and web-based applications, ADO.NET, ASP.NET, and XML. It will be useful for anyone to develop applications based upon these tools.

You will receive the IEEE Certificate of Completion when you finish the course. Microsoft Corp. has MCAD and MCSD certifications. You may wish to get certified by taking the necessary Microsoft exams with the knowledge gained from this course.

Instructor: Donald Hsu, Ph.D., has been a corporate manager for 11 years and is an experienced trainer. Since 2004, he has trained 700+ people in database, Java, WebLogic, XML, and C# .NET courses in 7 organizations.

TOPICS
1. Compare the enterprise development tools using Java to C# .NET
3. Identify C# syntax, data type, control structures and common language runtime
4. Distinguish methods, arrays, object-oriented programming
5. Build graphical user interface, multithreading, files and streams
6. Explain the benefit of using extensible markup language (XML)
7. Select database, SQL server, and ADO .NET
8. Choose ASP .NET, web forms, web services, advanced topics
9. Present student Projects

WHERE: Room ECEC 202, New Jersey Institute of Technology, 161 Warren Street, Newark, NJ
WHEN: Eight Saturdays, March 13, 20, 27, April 3, 10, May 1, 8, 15, 2010, 9:30 am to 12:00 noon.
COST: IEEE (& affiliate) members $500; Non-IEEE members $550.
CONTACT: Donald Hsu, yanyou "AT" hotmail.com

REGISTRATION: C# .NET Programming

Please mail the completed registration with a check (payable to “North Jersey Section IEEE”) to:
Donald Hsu, Chair Education Committee, IEEE North Jersey Section, P.O. Box 2093, Fort Lee, New Jersey 07024.

Name: ___________________________________________ Email address _________________________________
☐ Non-member
☐ IEEE Member Member #:_________________________ Member of ________________________ technical society

Employer:___________________________________________________________________________________________________

Employer Address:____________________________________________________________________________________________
___________________________________________________________________________________________________________

Home Address:______________________________________________________________________________________________
___________________________________________________________________________________________________________

Business (day) telephone #:___________________________________ Home telephone #:___________________________________

Please enclose required fee payable to: North Jersey Section IEEE

As soon as the completed registration form and the payment are received, you are officially registered for this course. Registration status will be confirmed by email.

☐ I wish to receive IEEE Completion Certificate Signature:___________________________________________

“The IEEE Newsletter” – December 2009 - Page 15 NJ
IEEE North Jersey Section Course
Project Management

Tuesday Evenings, April 6, through May 25, 2010
Eight weekly classes (April 6, 13, 20, 27, May 4, 11, 18, 25, 2010)
New Jersey Institute Technology, 161 Warren Street,
Newark, New Jersey (Checks should not be mailed to this address)

IEEE North Jersey Section thanks New Jersey Institute Technology for sponsoring this course

The North Jersey Section IEEE is offering an evening course entitled "Project Management". Dice.com lists 5800+ Project related jobs in the New York tri-state area daily! This course will help you to break down a master project into manageable tasks, pinpoint possible solutions, and provide information to keep the project under control. Using Microsoft Project software, you will learn to accomplish various project plans. In addition, it will greatly enhance your business, communications and interpersonal skills.

You will receive the IEEE certificate of completion when you finish the course. You may wish to take two Certification exams, one in Project Management administered by Project Management Institute from the knowledge that you learned in this course. (This is not an exclusive PMP-PMI examination prep course. No PDUs are issued for PMP eligibility. CEU credits would be given by IEEE)

Instructor: George Sierchio, business owner with 16 years of experience. He did technical consulting, training, and managed over 30 projects. He trained 500+ adult students in the last 10 years.

TOPICS

1. Explain the need for a project manager
2. Define SOW, PERT, GANTT, CPM, and Scope of the project
3. Identify the team members, resources and plan for the strategy
4. Calculate schedule, budget variances, and monitor project progress
5. Manage changes, estimates, and communications
6. Set a baseline, import tasks from MS Excel, export Project files to MS Word
7. Create and modify custom reports, templates and combination views
8. Share resources and create a master plan loaded to Project Server
9. Approve updates and conclude a project plan
10. Analyze global E-Commerce and present student Projects

WHERE: New Jersey Inst Technology, 161 Warren Street, Newark, NJ.
WHEN: 8 Tuesdays, April 6, 13, 20, 27, May 4, 11, 18, 25, 2010, 6:30-9:00 PM.
COST: IEEE (& affiliate) members $500; Non-IEEE members $550.
CONTACT: Donald Hsu: yanyou "AT" hotmail.com

REGISTRATION: Project Management

Please mail the registration form with the check (Checks payable to “North Jersey Section IEEE”) to Donald Hsu, Chair Education Committee, IEEE North Jersey Section, P. O. Box 2093, Fort Lee, NJ 07024

Name: _____________________________________________ Email address _____________________________________________

☐ Non-member
☐ IEEE Member Member #: ___________________________ Member of _____________________________ technical society

Employer: ______________________________________________________________________________________________

Employer Address: ________________________________________________________________________________________

Home Address: ___________________________________________________________________________________________

___________________________________________________________________________________________________________

Business (day) telephone #: ___________________________ Home telephone #: _________________________________

Please enclose required fee payable to: North Jersey Section IEEE

As soon as a completed registration form and the payment are received, you are officially registered for this course. Registration status will be notified by email.

☐ I wish to receive the IEEE Completion Certificate

Signature: _______________________________________________________