

THE IEEE NORTH JERSEY SECTION NEWSLETTER

Vol. 62, No. 8

SEPTEMBER 2015

In this Issue

- IEEE North Jersey Section Seeks Committee Members and Section Volunteers
- Schedule of 2015 EXCOM Meetings
- IEEE Pre-College activities present: Air Force Association's CyberPatriot VIII Competition
- IEEE Communications Society WCET 2015 Exam Applications September Due Date
- North Jersey Section Employment Network Announcement
- New Members of the IEEE North Jersey Section
- How to subscribe to this Newsletter if you are not an IEEE North Jersey Member?
- Monthly Article by Harry Roman
- Promote STEM
- About Senior Membership
- Taylor's World Conference - Call for Papers
- Calendar of Events
- Meeting Announcements
- MTT/AP 30th Annual Symposium and Mini-Show
- Big Data Market Research in Seven Saturdays
- C# .NET Programming in Seven Saturdays
- 2015 IEEE North Jersey Section Volunteers

IEEE North Jersey Section Seeks Committee Chairs and Section Volunteers

The IEEE North Jersey 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. A list of IEEE North Jersey Societies, Chapters, Groups and Committees are published at the end of the newsletter for those interested in participating. 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 Adriaan van Wijngaarden (avw@ieee.org) and Naresh Chand, the Section's Nominations Committee Chair (chandnaresh@gmail.com) and/or any other volunteer (see the last page of this Newsletter for a list of the current volunteers, their contact information and positions. The Section's Executive Committee meeting is generally held the first Wednesday of every month (see the schedule and locations above, as well as more detailed information in the calendar). These meetings are a good opportunity to learn more about the Section's activities, and which volunteer activities

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

IEEE North Jersey Section's Affinity Groups

- **Consultants Network**
The Consultants Network is very active and holds monthly meetings. Please consider attending the presentations, and contact Robert Walker, Secretary (r.d.walker@ieee.org) if you would like to give a presentation or become a volunteer.
- **Professional Activity Committee for Engineers (PACE)**
PACE organizes monthly meetings (every second Wednesday of the month). Currently, most meetings are held at the library in Clifton, NJ. PACE is looking for speakers and volunteers to help organize events, also at other locations. For more information, please contact Richard Tax (rtax@verizon.net) and Adriaan J. van Wijngaarden (avw@ieee.org).
- **Women in Engineering (WIE)**
IEEE Women in Engineering is the largest international professional organization dedicated to promoting women engineers and scientists, and to inspire girls around the world to follow their academic interests to a career in engineering. The IEEE North Jersey Section currently has 36 WIE members, 14 of which are student members. Please consider volunteering and organizing WIE activities. Contact: Jyoti Bali (jyoti.bali@alcatel-lucent.com).
- **Young Professionals (YP)**
Young Professionals is an international community of enthusiastic, dynamic and innovative members and volunteers. Recent graduates automatically become a YP member. The IEEE North Jersey Section currently has 509 YP members. Please consider becoming involved in the organization of social and networking events. For more information, please contact John Taylor (john.taylor1204@gmail.com), Adriaan van Wijngaarden (avw@ieee.org), and/or Daniel Cerone (d.a.c@ieee.org).

IEEE North Jersey Section Society Chapters

- **Aerospace and Electronic Systems (AES)**
The North Jersey Section has 27 AES members. If you are interested in giving a presentation or to volunteer, please contact Goran Djuknic (gd@ieee.org) and/or Adriaan van Wijngaarden (avw@ieee.org).
- **Engineering in Medicine and Biology (EMBS)**
The North Jersey Section has 58 EMBS members. If you are interested in giving a presentation or to volunteer, please contact Russell Pepe (rcpepe@ieee.org) and/or Adriaan van Wijngaarden (avw@ieee.org).

Computer Society (C)

Vol. 62, No. 8



SEPTEMBER 2015

The IEEE Computer Society has 545 members in North Jersey. If you are interested in giving a presentation or to volunteer, please contact Hanna Zhao (zhao@fdu.edu) and/or Howard Leach (h.leach@ieee.org).

IEEE North Jersey Section Committees

• Awards Committee

The Awards Committee has several important tasks, including the nomination of candidates for IEEE Region 1 and IEEE MGA Awards, and the co-organization of the Annual Awards Banquet. If you are interested in volunteering, or if you would like to nominate a candidate, please contact Ken Oexle (k.oexle@ieee.org) and/or Adriaan van Wijngaarden (avw@ieee.org).

• Membership Development Committee

Membership development is very important for the IEEE and for the Section. If you are interested to help, please contact Kai T. Chen (k.t.chen@ieee.org) and/or Adriaan van Wijngaarden (avw@ieee.org).

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://sites.ieee.org/northjersey> or contact anyone listed above.

IEEE Pre-College activities present: Air Force Association's CyberPatriot VIII Competition.

The Air Force Association's Cyber-Patriot high and now middle school Cyber defense Competition is now registering teams for its eighth competition, see:

www.uscyberpatriot.org.

The "Shooting Star" Chapter 195 of the Air Force Association will be sponsoring the registrations for four high schools and four middle schools Open Division CyberPatriot VIII teams. CyberPatriot was created to help motivate students to pursue science, technology, engineering, and mathematics (STEM) through a cyber-defense competition and is patterned after the National Collegiate Cyber Defense Competition.

Each team consists of a teacher/coach, and two to six students. The All Service Division (Jr ROTC units) and the Open Division (regular high and middle school) team enrollment deadline is Oct 9th. The final in person all-expense paid National competition will be held in Baltimore, MD, April 10-14, 2016.

The Open Division enrollment high and middle school fee per team respectively is \$195.00 and \$155.00. However, for the first four high schools within Morris or Somerset Counties to fully enroll, the "Shooting Star" Chapter 195 will pay the enrollment fee. For more details and to enroll, see:

<http://www.uscyberpatriot.org/>.

For AFA Chapter 195 info, contact Howard Leach, at h.leach@ieee.org, or 973 - 540 -1283.

IEEE Communications Society WCET 2015 Exam Applications September Due Date

The IEEE Communications Society's Wireless Communication Engineering Technologies (IEEE WCET) Certification Exam will be proctored 27 September to 24 October at more than 4600 Pearson VUE testing centers located in nearly 200 countries around the world.

The IEEE WCET Certification Exam is a leading global credential for the certification of real-world expertise across multiple wireless engineering disciplines and was developed by global wireless industry experts to provide a vendor-neutral and transnational method to quantify wireless knowledge.

In preparation for the exam, a 4 Day Intensive Wireless Training package is available now through 11 September 2015. The course package includes admission to the current WCET exam test, a free online practice exam, a copy of the instructor's slides and A Guide to the Wireless Engineering Body of Knowledge (WEBOK), 2nd Edition.

Led by Alan Bensky, an IEEE certified Wireless Communication Professional with over 30 years of experience, the 4 Day Intensive Wireless Training Course will cover all seven areas of the WCET Certification exam: RF engineering, propagation and antennas; access technologies; network and service architecture; network management and security; facilities infrastructure; agreements, standards, policies and regulations; as well as fundamental knowledge.

Individuals completing the course will receive two IEEE Continuing Education Units (CEUs), the equivalent of 20 Professional Development Hours. Registration, deadlines and information available at

www.ieee-wcet.org

2015 EXCOM Meeting Schedule

The new 2015 EXCOM meeting schedule is now in vTools. The events start at 6 pm with a buffet, and the EXCOM meeting starts at 7 pm. The meeting locations are:

Wed	Sep.2	Clifton Library, Clifton
Wed	Oct.7	NJIT, Newark
Wed	Nov.4	Bell Labs, Murray Hill

North Jersey Section Employment Network Announcement

Join the North Jersey Employment Network for assistance with your job search. By joining our network, you will have access to our LinkedIn group and to seminars in a variety of emerging technologies such as Hadoop, Big Data, Python, Cloud, Analytics, Java, etc.

For additional information or to join the LinkedIn group, please email the Employment Network Chair, Vaseem Ahmed (vas201@gmail.com)

What Characterizes Inventors?

Companies and educators try to define creativity and inventiveness, hoping for a perfect set of parameters that will tell them exactly what it is. Perhaps they feel if they can determine the perfect combination of characteristics they can hire the job applicants that will optimize their organization's inventive capabilities.

Business gurus and motivational speakers earn lucrative fees by likening it to a series of traits that can be easily identified and exploited. They know that, like Edison, inventors are agents of change and great economic growth; moving the world in new directions, creating wealth and new infrastructure. They are the ones who shift the paradigms, causing earthquakes in the fabric of civilization. Inventors often create disruptive technologies—step changes in the traditional way of doing things.

I have been intrigued by this subject for years; always on the hunt for new articles and books about it. I would like you to consider these characteristics of inventors [not in any rank/priority order]:

- *Not easily shaken by detractors—persistent in their work*
- *Passionate about what they do*
- *Willing to go against accepted thinking*
- *Visionary and intuitive*
- *Quantitative and analytical - facile with math*
- *Not afraid of risk*
- *Tolerant of ambiguity*
- *Well-developed sense of humor*
- *Know-how to unleash own creative spirit*
- *Not afraid of failure - willing to learn from it*
- *Can see the creative links to the arts*
- *Focused on the future*
- *See the whole problem and key parts simultaneously*
- *Can sell their ideas to others*
- *Builds teams with multi-disciplinary skills to accomplish goals*
- *Document and protect inventive work*
- *Solve problems from a multi-dimensional viewpoint.*

Edison had his own defining characteristics, but those enumerated above tend to capture most of them. For the great inventor, it was largely the thrill of running to ground the problem at hand, to do something useful for mankind, and to constantly learn new things. These motivations fascinated the man throughout his incredibly productive 84-year life; and probably accounted for why, no matter what field he decided to work in, he was a success – and radically changed that field.

Most often forgotten in today's rush-to-market world is all the defining characteristics of an inventor do not mean anything if the world they are made to work in is not conducive to creativity and inventing. Great inventive seeds planted in poor soil will not yield. Inventors thrive when they can work for someone:

- *They respect for their own accomplishments*
- *Who leads, more than manages them*
- *Connects them to the larger corporate picture*

- *Supports their work*
- *Removes corporate roadblocks to accomplishment*
- *Treats them fairly.*

Creativity and invention is a delicate bloom. It must be nurtured. It's the leadership thing.

Talk to you again soon.....

Harry

Harry T. Roman

Life Senior Member

North Jersey Section

Taylor's World Conference – Call for Papers

On September 24-25, 2015, Stevens Institute of Technology will be hosting a conference on the life and legacy of Frederick Winslow Taylor, a graduate of Stevens who is widely recognized as the father of scientific management. The event marks the centennial of Taylor's death in 1915, and will explore both Taylor's place in history and his legacy in the 21st century. We welcome proposals for either individual papers or full panels.

For details about the event please visit
<http://www.stevens.edu/library/taylorworld>

Please submit proposals for papers or panels by March 1, 2015, by filling out submission proposal form. Paper proposals should be 250–500 words; panel proposals should collect individual paper abstracts of that same length and also include a brief description of the panel's overarching theme. Panel proposals may also suggest possible commentators.

All other inquiries about the conference can be sent to Leah Loscutoff (lloscuto@stevens.edu).

Promote STEM

Russell C. Pepe, Pre-University Co-Chair

Hi all. I hope you still remember me. This is Russell Pepe, your former North Jersey Section Chair for 2013-2014. I am now the Co-Chair of the Pre-University Committee. My focus in this position is to introduce our High School and Elementary School children to the world of technology. I strongly believe that a life steeped in technology is exciting, important and beneficial to the world. I have a great video which was prepared by the IEEE Headquarters. I spice this presentation with anecdotes from my own career. My mission is to first expose our children to the world of technology, educate them about Science, Technology, Engineering and Math (STEM), and then encourage them to consider a STEM education and career.

I am available to speak at a school in your area. If you are interested in having me make a presentation, please contact me at: rcpepe@ieee.org

Calendar of Events

- **September 2, 6:00 PM to 8:45 PM: IEEE North Jersey Section EXCOM Meeting – Clifton NJ**
Location: Clifton Public Library (Allwood Branch, 44 Lyall Road, Clifton, NJ 07012 [Getting to Clifton Public Library](#))
Contact: Adriaan J. van Wijngaarden (avw@ieee.org) or Kai T. Chen (k.t.chen@ieee.org) [Read More...](#)
- **September 18, 9:00 PM to 2:00 PM: IEEE PES/IAS - Microgrids by Eaton: A Worldwide Power Management Company**
Location: 4000 Hadley Road, South Plainfield, NJ 07080-1192 [Getting to Hadley Center](#)
Contact: Ken Oexle (k.oexle@ieee.org), Ronald W. Quade (rwquade@ieee.org) [Read More...](#)
- **October 6, 10:00 AM to 5:00 PM: IEEE Day - Intrepid Museum**
Location: Intrepid Museum, 46 St & 12th Ave, New York, NY 10036 [Getting to Intrepid Museum, NY](#)
Contact: Adriaan J. van Wijngaarden (avw@ieee.org) [Read More...](#)
- **October 7, 6:00 PM to 8:45 PM: IEEE North Jersey Section EXCOM Meeting – Newark NJ**
Location: NJIT - ECE 202, 161 Warren Street, Newark, NJ 07102 [Getting to NJIT](#)
Contact: Adriaan J. van Wijngaarden (avw@ieee.org) or Kai T. Chen (k.t.chen@ieee.org) [Read More...](#)
- **October 17, 8:00 AM to 4:00 PM: IEEE - SAC Makes Habitat for Humanity– Newark NJ**
Location: Exact address will be given to participants only, Newark, NJ 07102
Contact: Daniel Cerone (dcer@dcerone.com) [Read More...](#)
- **October 29, 11:30 PM to 2:30 PM: IEEE Life Member and PES/IAS Luncheon**
Location: 16 Eagle Rock Avenue, East Hanover, NJ 07936 [Getting to Hanover Manor](#)
Contact: Ken Oexle (k.oexle@ieee.org) [Read More...](#)

IEEE North Jersey Section IT and FDU - 3rd Annual Cybersecurity Symposium: – September 30, 2015, Fairleigh Dickinson University Florham Campus 285 Madison Avenue Madison, New Jersey 07940 - See more at: [Student Poster Competition information](#), <http://tinyurl.com/fducyberpostercompetition>

IEEE NORTH JERSEY SECTION – Short Courses

- **IEEE North Jersey Section Course: Big Data Market Research in Seven Saturdays** - Seven weekly classes (Oct 10, 17, 24, 31, Nov 7, 14, 21, 2015) 9:00 am - 12:00 noon, New Jersey Institute of Technology, Newark, New Jersey
- **IEEE North Jersey Section Course: C# .NET Programming in Seven Saturdays** - Seven weekly classes (Oct 10, 17, 24, 31, Nov 7, 14, 21, 2015) 12:30 pm - 3:30 pm, New Jersey Institute of Technology, Newark, New Jersey

Important information – Buyer's Edge Shopping

IEEE - North Jersey Group # 1431

The IEEE North Jersey Section is now a Member of the Buyer's Edge Shopping Service. The Buyer's Edge is a buying service that guarantees the lowest prices on major purchases for its 4 million members in the tri-state area of NY, NJ, CT and greater Philadelphia. They offer a Buy-By-Phone, Buy-Online and, in certain benefit categories and areas, Buy-In-Person. Many member benefits are available nationally, like Cars, Furniture and Kitchens; whereas, some benefits, like Appliances, are for the tri-state area only.

It is easy to use the services of the Buyer's Club. Visit the Web Site at: <http://www.buyersedgeinc.com>

Then, enter the following login information: Username: 1431, Password: member1 ; **Happy shopping!**

- **Prior registration is encouraged and appreciated. You do not have to be an IEEE member to attend any event.**
- **For up to date information, visit our website: [IEEE North Jersey Section](#) Visit: [vTools Registration](#) to register for a meeting or event**

Meeting Announcements

September 2, 2015

IEEE North Jersey Section EXCOM Meeting – Clifton, NJ

Meeting Agenda: This executive committee (EXCOM) meeting of the IEEE North Jersey Section will be held in the Activity Room of the Clifton Public Library (Allwood Branch, 44 Lyall Road, Clifton, NJ 07012, T: (973) 471 0555).

There will be a get-together with a buffet starting at 6 pm.

The meeting starts at 7 pm EST and typically ends at 8:45 pm, when the library closes. The meeting is meant to discuss and coordinate the section's activities and new initiatives.

Everyone is welcome to attend this meeting.

Please register in advance for this meeting using VTOOLS to provide the meeting organizers an accurate head count. You can change/cancel the registration if your plans change.

For more information, please contact Adriaan van Wijngaarden (avw@ieee.org) and/or Kai Chen (k.t.chen@ieee.org).

Location: Clifton Public Library (Allwood Branch), 44 Lyall Road, Clifton, NJ 07012 [Getting to Clifton Public Library](#)

Time: 06:00 PM to 08:45 PM

Contact: Adriaan van Wijngaarden (avw@ieee.org) or Kai T. Chen (k.t.chen@ieee.org)

[For Updates and Registration: Click Here](#)

September 9, 2015

Lunch & Learn Electronics Seminar Series: Robust Antenna Design Using ANSYS HFSS with Analytic Derivatives

Agenda: ANSYS HFSS uses finite element analysis to simulate the electrical performance of complicated 3-D structures such as transitions, filters, couplers and antennas. This hands-on workshop examines several capabilities unique to HFSS that enable designers to optimize antenna performance through more comprehensive design exploration. Features such as analytic derivatives provide a highly efficient and accurate procedure to evaluate the derivatives of S-parameters with respect to geometric and material model parameters. This technique provides sensitivity information for use in device tuning, tolerance evaluation and optimization.

Combined with the distributed solve option, users can efficiently distribute parametric sweeps to explore variations in geometry, materials, boundaries and excitations. Additionally, users can distribute frequency sweeps to generate responses over a broad frequency band of interest. This time-saving capability splits multiple predefined parametric design variations and/or frequency points, solves each simulation instance on a separate machine, and then reassembles the data.

Join us to learn more about ANSYS HFSS and the benefits it can provide in the design of complicated electronic 3-D structures.

Location: Pine Brook Office Center, 330 Changebridge Road, Pine Brook, NJ 07058

Time: 11:00 AM - 2:00 PM

Costs: Free (**Space is limited**)

Contact: David Vye (david.vye@ansys.com) 978.884.2971

[Register: Robust Antenna Design Using Ansys HFSS with Analytic Derivatives](#)

September 18, 2015

IEEE PES/IAS present: Microgrids by Eaton: a worldwide power management company

Agenda: The PES and IAS Chapters will sponsor a technical seminar on the topic of Microgrids. The session will be held on: Friday, September 18, 2015 at PSE&G's Hadley Road Facility, 4000 Hadley Road, South Plainfield, NJ 07080-1192

Speaker 1: Mr. Jim Dankowski of Eaton

Topic:

- 1) Market Forces & Drivers
- 2) Microgrid Technical concepts
- 3) Product Considerations
 - a) Inverter considerations
 - b) Battery Technology
 - c) Power Supplies: DG, CHP, Fuel Cells, Solar, and Wind
- 4) Government & State Programs
- 5) NY REV review
- 6) Local DG Considerations
- 7) Using the SMP in a Microgrid Solution (Hardware considerations)
- 8) Overview of our Microgrid solution architecture (SG 4250 communicating with SMP4/DP units at each component using 61850)
- 9) Overview of IEC 61850
- 10) Hardware Considerations - list of items they should consider when choosing a Microgrid controller
- 11) Cybersecurity Considerations
- 12) General utility industry Cybersecurity

Biography: In his current role as Eaton's Government Segment Marketing Manager, Jim Dankowski is in charge of the strategic planning, value proposition development and customer engagement for the government segment. With 35 years of experience in the electrical power distribution and control industry, his knowledge has delivered unique and creative solutions that support Eaton's clients with their energy initiatives and facility/systems optimization efforts.

In 2007, Jim was charged with the development of a “new” team to engage and increase the involvement of Eaton’s national sales organization and operations business in the federal government segment. In the span of six years his leadership was instrumental in tripling the business. He has also negotiated a five year extension of the GSA contract with the addition of over 250 products and services. In addition, Jim developed Eaton’s Small Business Partnership initiative during that time.

Speaker 2: Gabriel J Paoletti of Eaton

Topic: 1) Market Forces & Drivers

2) Microgrid Technical concepts

3) Product Considerations

a) Inverter considerations

b) Battery Technology)

c) Power Supplies: DG, CHP, Fuel Cells, Solar, a Wind

Biography: Gabriel J. Paoletti, P.E. received a B.S.E.E degree from Drexel University, Philadelphia, Pa. in 1976 and an MBA from Rutgers University, Camden, NJ in 2009. He received the IEEE Engineer of the Year Award for 2009 (Northern New Jersey Chapter) for new product and service innovation which improved the efficient distribution of electrical power.

Mr. Paoletti has over thirty-three years of engineering service experience with Westinghouse, ABB and Eaton Electrical (Cutler-Hammer) Engineering Service. He started as a field service engineer for Westinghouse in 1976, holding various positions over is 15 years at Westinghouse in engineering, operations, sales, marketing and sales management. Gabe then spent 7 years at ABB in Operations, sales and consulting. Gabe joined Eaton in December of 1997, during the formation of the Eaton Electrical Services & Systems Business (CHESS) working for Division Marketing Manager, Jack O’Neil. His electrical distribution equipment experience includes field-testing, predictive and preventive maintenance, partial discharge technologies, RCM programs, applications engineering, failure analysis, power systems studies and renewable energy solutions. He has design experience with vacuum circuit breaker modernization, low voltage circuit breaker cell-retrofits and motor and transformer repair experience. He is also a patent participant for a switchgear partial discharge sensor and he received Patent # 7,646,308 for “System for Monitoring Electrical Equipment and Providing Predictive Diagnostics”, January 12, 2010.

Mr. Paoletti is a Senior Member of IEEE and a Registered Professional Engineer in the States of Pennsylvania and Delaware. Mr. Paoletti has had technical papers published in the IEEE-IAS concerning microprocessor-based protective relays (1990), vacuum modernization of MV circuit breakers (1997), partial discharge technology related to MV motors and MV switchgear (2001 & 2004), condition-based maintenance of MV switchgear (2002) failure indicators of electrical equipment (2005) and safety and environmental evaluation of insulating materials in MV (2009) and Past, Present and Future Maintenance Practices (2011). Mr. Paoletti is currently Division Applications Engineering Manager for the Eaton Engineering Services and Systems Division. He also was a

contributing author to the IEEE-Buff Book regarding topics on maintenance, testing and calibration (2002).

Location: PSE&G’s Hadley Road Facility, 4000 Hadley Road, South Plainfield, NJ 07080-1192 [Getting to Hadley Center](#)

Time: 9:00 AM - 2:00 PM

Costs: The seminar fee includes lunch, refreshments and handouts. Non-members joining IEEE within 30 days of the seminar will be rebated 50% of the IEEE registration charge.

Four hours of instruction will be provided. If desired, IEEE Continuing Education Units (0.4 CEUs) will be offered for this course - a small fee of \$45 will be required for processing.

Please pay attention to the “**Registration Fee**” and choose the appropriate choice either with or without CEUs.

Contact: Ken Oexle (k.oexle@ieee.org),
Ronald W. Quade (rwquade@ieee.org)

[For Updates and Registration: Click Here](#)

October 6, 2015

IEEE Day - Intrepid Museum

Meeting Agenda: The IEEE North Jersey Section is organizing a visit to the Intrepid Sea, Air, and Space Museum on IEEE Day (Tuesday Oct. 6, 2015). It is our intention to coordinate with the six Sections in the IEEE New York Metropolitan Area (IEEE METSAC: New York, Long Island, Connecticut, North Jersey, Central Jersey/Princeton, New Jersey Coast) The IEEE Foundation offers free entry to this museum that day for the first 500 IEEE members (and one guest each). Please register using the IEEE Intrepid Day link below to qualify for free entry.

[IEEE Intrepid Registration](#)

Registration closes on Oct. 4, 2015 or when 500 members have registered. An additional fee is required to enter the Space Shuttle Pavilion (\$7 for adults and \$5 for children).

Please note that IEEE members receive complementary admission for themselves and for one guest (for the first 500 registered participants). Additional guests may purchase admission tickets upon arrival (adults: \$24, seniors/students: \$20; youth \$19; children: \$12). The museum is open from 10:00 am until 05:00 pm. The last tickets are issued at 04:00 pm. Access to the Space Shuttle Pavillion is \$7 for adults and \$5 for children.

Please register also using the vTools registration link

[IEEE vTools Registration](#)

such that we can coordinate the visit for IEEE North Jersey members and their guests. Please enter your names and contact information (e-mail and phone number) for each of the participants such that we have an accurate headcount. Please indicate when you intend to arrive in the comment section of the registration form, and whether or not you are interested in coordinating transportation from New Jersey. The IEEE North Jersey Section will try to coordinate with the other sections in the New York Metropolitan Area and IEEE METSAC.

General information on the Intrepid Museum can be found at
<http://www.intrepidmuseum.org>.

This exclusive IEEE Day event is made possible by an ongoing relationship between IEEE Foundation and The Intrepid Sea, Air, and Space Museum. More information on the IEEE Foundation can be found at

<http://www.ieeefoundation.org>.

Location: Intrepid Museum, W 46 St & 12th Ave, New York, NY 10036 [Getting to Intrepid Museum, NY](#)

Time: 10:00 AM to 05:00 PM

Contact: Adriaan van Wijngaarden (avw@ieee.org)

[For Updates and Registration: Click Here](#)

October 7, 2015

IEEE North Jersey Section EXCOM Meeting – Newark, NJ

Meeting Agenda: This executive committee (EXCOM) meeting of the IEEE North Jersey Section will be held in the Activity Room of the Clifton Public Library (Allwood Branch, 44 Lyall Road, Clifton, NJ 07012, T: (973) 471 0555).

There will be a get-together with a buffet starting at 6 pm.

The meeting starts at 7 pm EST and typically ends at 8:45 pm, when the library closes. The meeting is meant to discuss and coordinate the section's activities and new initiatives.

Everyone is welcome to attend this meeting.

Please register in advance for this meeting using VTOOLS to provide the meeting organizers an accurate head count. You can change/cancel the registration if your plans change.

For more information, please contact Adriaan van Wijngaarden (avw@ieee.org) and/or Kai Chen (k.t.chen@ieee.org).

Location: NJIT - ECE 202, 161 Warren Street, Newark, NJ 07102 [Getting to NJIT](#)

Time: 06:00 PM to 08:45 PM

Contact: Adriaan van Wijngaarden (avw@ieee.org) or Kai T. Chen (k.t.chen@ieee.org)

[For Updates and Registration: Click Here](#)

October 17, 2015

IEEE North Jersey Section – SAC Makes Habitats 4 Humanity

Meeting Agenda: WHAT WE WILL BE DOING:

You will be assisting Habitat for Humanity Newark in the building of homes for our low and moderate income partner families in Newark, NJ. You will be working under the guidance of our professional construction staff and/or trained professional volunteers. The work on any given day depends solely on what the project calls for on that day and can vary, including: framing, insulation, and sheet rocking, siding, painting, installation of flooring, landscaping, and more. All

tools and materials will be supplied by Habitat. However, you may bring personal tools if you wish. If you choose to do so, please make sure they are well marked. You will be shown the proper way to do the job and the correct handling of the required tools for the job. You will never be made to do something that makes you uncomfortable.

Come join The MOSFETs for a day of building stuff, getting dirty, and doing some good all at the same time!

Exact address of event to be given to participants only; A maximum of 10 people can register for this event.

Check out our Facebook at:

<https://www.facebook.com/events/1470376043289562/>

Agenda

AVERAGE WORK DAY SCHEDULE:

- 8-8:30 AM– Arrive at Building Site (locations vary), registration, orientation, and on site safety briefing.
- 8:30 AM – Work day begins.
- 12:00 Noon – Lunch.
- 3:00 – 3:30 PM – Cleanup work site and storage of tools.
- 3:30 PM – Head for home. At most of the work sites, a Porto-toilet is available for your use.

Location: Exact address of event to be given to participants

Time: 08:00 AM to 04:00 PM

Contact: Daniel Cerone (dcer@dcerone.com)

[For Updates and Registration: Click Here](#)

October 29, 2015

IEEE Life Member and PES/IAS Luncheon

Speaker: Harry Roman

Topic: The popular paradigm of STEM education and how having a STEM-savvy workforce matters in the global economy.

Biography: Throughout his 45-year engineering career, Life Senior Member Harry Roman has worked with schools to bring the excitement of engineering, technology and invention into the classroom. At the life member's luncheon in October, Harry will discuss the popular paradigm of STEM education, and how having a STEM-savvy workforce matters in the global economy. Harry co-teaches graduate level STEM courses at Montclair State University, Montclair, NJ. His most recent resource book is, *How an Engineer Uses Math* (Gifted Education Press, 2015). To date, Harry has published 35 STEM-related books, over 100 feature magazine articles, and 12 math card games. Every month, approximately 250,000 educators read his articles in national magazines and newsletters. He is an educational advisor for the Edison Innovation Foundation; and an avid e-book publisher for IEEE.

Location: 16 Eagle Rock Avenue, East Hanover,, NJ 07936
[Getting to Hanover Manor](#)

Time: 11:30 PM to 2:30 PM

Contact: Ken Oexle (k.oexle@ieee.org)

For Updates and Registration: [Click Here](#)

Consultants Network

The Consultants Network of Northern New Jersey (C>NNJ) encourages and promotes the use of independent technical consultants. We hold meetings from 6:30 - 8:45 PM the second Thursday of every month except July and August at the Morris County Library, 30 East Hanover Avenue, Whippany, NJ. All meetings are free and open to the public. We encourage you to attend.

Almost every engineer considers starting their own company at some time in their career □ C>NNJ can be a resource.

Like previous years, our meetings cover a wide range of subjects. In January I gave a seminar on Writing Winning Proposals and while I was unsuccessful in the SBIR proposal I was writing at that time the debriefing was probably the nicest thing anyone ever wrote about me. In February, C>NNJ members Jim Boyd, Tom Russell and Robert Walker gave presentations on setting rates, and on getting the right price for your services. In March, C>NNJ member Aldo Cugnini gave a very interesting presentation on digital video and compression techniques. In April, Kevin Lu presented on the Internet of Things. In May, C>NNJ member Brent Horine and his students gave presentations on their project on Side Scan Sonar.

Here is our meeting plan through the end of 2015:

- June 11, Mark Annett, Patent Agent, "Patent Law Changes for Technical Professionals"
- Sep. 10, Networking Event. Light snacks will be served.
- Oct. 8, Kathy Schwartzstein of Smith and Schwartzstein Legal Services will give a presentation on Business Formation and Structure. A question and answer period will follow. Light snacks will be served.
- Nov. 12, Vincent J. Vicari the Regional Director at The Small Business Development Center at Bergen County will make a presentation on Funding Sources for Business Start Up and Growth. A question and answer period will follow. Light snacks will be served.
- Dec. 10, Planning and Election. Pizza will be served.

Please mark our meetings on your calendar.

Steven R. Garfinkel (sgarfinkel@ellipsah.com)

Chair, IEEE C>NNJ

How to subscribe to this Newsletter if you are not an IEEE North Jersey Member?

To subscribe, send an email to: listserv@listserv.ieee.org, with the body containing "subscribe northjerseypublic".

To unsubscribe, send an email to: listserv@listserv.ieee.org, with the body containing "signoff northjerseypublic"

Additionally, you can join the IEEE North Jersey Section Facebook Fan Page at:

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

Follow us on Twitter at: twitter.com/ieeenorthjersey

Or join the IEEE North Jersey Section LinkedIn Group at:

[LinkedIn Group Invitation](#)

About Senior Membership

Do you know an outstanding IEEE member who is not yet an IEEE Senior Member? Do you feel that you are qualified for such recognition? If you are interested in becoming a Senior Member or nominating a fellow IEEE member please see http://www.ieee.org/membership_services/membership/senior for an application and for qualification requirements.

Assistance with references is found on the Senior Member Web page and within the application form. You can also contact any of the IEEE North Jersey Section Executive Committee members including the Membership Development Chair or Society Chapter Chairs at the local level or attend an IEEE North Jersey Section meeting or upcoming Senior Member Drive, where qualified attendees will be happy to actively support you in the nomination process. If you would like to join the Pre-University forces of the IEEE North Jersey Section, I can provide you with my presentations. Again, please contact me by e-mail.

New IEEE North Jersey Section Members

The IEEE North Jersey Section welcomes 20 new members who joined in May 2015, i.e., four student members (S), nine graduate student members (GSM), seven members (M), and one associate member (A):

Name	Date	Type	Societies
Danny Hong	May 1	M	CAS, COM, SP
Philip J. Thurakal	May 1	M	
YitianGu	May 4	GSM	
Zack Jiang	May 4	M	
Rahul S. Nair	May 5	GSM	PES
Christian Reyes	May 8	S	
Yuan Jiang	May 9	GSM	
Knut Stamnes	May 9	M	
SwethaPisipati	May 15	GSM	
MarziehAzarderakhsh	May 18	M	
Dolphy A. Gilpin	May 18	M	
Purti V. Anjaria	May 19	GSM	
Elhadji C. Dia	May 19	GSM	
Susan Angelo	May 21	M	
Sravan K. Bachu	May 22	GSM	
Valerie C. Drew	May 23	GSM	C
Kyle Goltsch	May 27	S	
Kaila B. Trawitzki	May 27	S	



THE INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS, INC.

IEEE

NORTH JERSEY SECTION

MTT-Society and AP-Society Joint Chapter

PRESENTS

30th ANNUAL SYMPOSIUM AND MINI-SHOW

FOCUS:

**SELECTED TOPICS IN RF AND MICROWAVE TECHNOLOGIES FOR
COMMERCIAL AND MILITARY APPLICATIONS**

DATE: THURSDAY OCTOBER 1, 2015

PLACE: Hanover Manor, 16 Eagle Rock Ave., E. Hanover, NJ07936. Ph#973-992-7425

SCHEDULE OF EVENTS

9:00 AM TO 4:30 PM

TECHNICAL SESSIONS

**10 –12 LECTURES FEATURING SPEAKERS FROM LEADING
COMPANIES, WITH EMPHASIS ON MILITARY ELECTRONICS,
WIRELESS TECHNOLOGIES AND MICROWAVE COMMUNICATIONS.**

**MINI SHOW FEATURING LATEST PRODUCTS
(APPX. 30-40 EXHIBITORS)**

(COMPLIMENTARY LUNCH SERVED)

Details of the schedule and speakers and the topics will be posted on the IEEE North Jersey Section Home page
<http://www.ieee.org/go/njsection> by September 2015.

Registration: https://meetings.vtools.ieee.org/meeting_view/list_meeting/26953

For further information contact:

CHAIR-EXHIBITION: KIRIT DIXIT (201-669-7599), kdixit@ieee.org

CHAIR – TECHNICAL PROGRAMS: GEORGE KANNELL(973-437-9990), gkk@lgsinnovations.com

PUBLICITY: ARTHUR GREENBERG (gardner1@optonline.net)

EVENT/ LOCATION CO-ORDINATOR: KEN OEXLE (973-386-1156) k.oexle@verizon.net

CO-CHAIR– TECHNICAL PROGRAMS : HAR DAYAL , dayalhar@gmail.com

APS/MTTS CHAPTER CHAIR : Dr. AJAY PODDAR , akpoddar@synergymwave.com

APS/MTTS CHAPTER Vice -CHAIR: Dr. EDIP NIVER , edip.niver@njit.edu

SECTION CHAIR: Adriaan J. de Lind van Wijngaarden, alw@research.bell-labs.com

THERE IS NO CHARGE TO ATTEND THE SYMPOSIUM OR SHOW.

IEEE North Jersey Section Course

Big Data Market Research in Seven Saturdays

Saturdays, (Oct 10, 17, 24, 31, Nov 7, 14, 21, 2015)

Seven weekly classes ((Oct 10, 17, 24, 31, Nov 7, 14, 21, 2015))

New Jersey Institute of Technology (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 "Big Data Market Research" course. Careerbuilder.com lists 7252 Marketing, 4192 Data, and 1736 Analyst positions in the New York tri-state area daily! As an engineer, you never did marketing. Getting the MBA takes two years. This is a better alternative to learn marketing and how you work as Data Analyst or Market Researcher.

This course deals with the collection, evaluation and analysis of market-related big data. Topics are: market research industry, problem definition, research process, focus group, secondary database, quantitative research, questionnaire design, sampling techniques, statistical testing, bivariate and multivariate correlation, communicating results and management reports. Using IBM SPSS software, you will perform detailed big data analysis and get jobs in healthcare, finance, social sciences, and marketing research firms, at private or public sectors, or in government.

You will receive the IEEE completion certificate. You may work as a market researcher in any organization that needs your quantitative skills.

Instructor: Donald Hsu, Ph.D., has been a corporate manager for 20+ years and is an experienced trainer. Since 2009, he has trained 750 people in Big Data, Data Warehouse, Management, Global Marketing, and Marketing Research courses in seven organizations. He is the top rank 1% all star- most view profile on LinkedIn, with 5300+ partners and clients in 75 countries. Past attendees work at AT&T, Goldman Sachs, IBM, GE, Microsoft, Morgan Stanley, and Verizon.

TOPICS

1. Describe the big data market research industry, problems and research process
2. Understand the importance of primary data collection, secondary database, and survey
3. Define quantitative research, measurement technique and sampling methods
4. Explain the questionnaire design, data processing and statistical testing
5. Build the knowledge of bivariate regression and multivariate data analysis
6. Communicate results, manage ethical issues, and prepare reports
7. Employ IBM SPSS software for frequency analysis, ANOVA, T-test and others
8. Review real-world marketing research using Harvard Business School cases
9. Present Final Project in Big Data Market Research

WHERE: New Jersey Institute Technology, Newark, New Jersey

WHEN: 7 Saturdays, ((Oct 10, 17, 24, 31, Nov 7, 14, 21, 2015)) 9:00 am to 12:00 pm

COST: IEEE (& affiliate) members \$500; Non-IEEE members \$550.

CONTACT: Donald Hsu, yanyou@hotmail.com

REGISTRATION: **Big Data Market Research in Seven Wednesdays**

Please mail the completed registration form with a check (**Checks payable to "North Jersey Section IEEE"**) to

Dr. 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**

☐ I wish to receive the IEEE Completion Certificate Signature: _____

IEEE North Jersey Section Course

C#.NET Programming in Seven Saturdays

Saturdays, (Oct 10, 17, 24, 31, Nov 7, 14, 21, 2015)

Seven weekly classes ((Oct 10, 17, 24, 31, Nov 7, 14, 21, 2015))

New Jersey Institute of Technology (Checks should not be mailed to this address)

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

The IEEE North Jersey Section is offering a course entitled "C# .NET Programming". Since 2009, C# .NET has generated significant headway in Fortune 1000 enterprise development systems. Dice.com lists 800+ C# .NET jobs (up from 620 last year) 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 MCS D certifications. You may wish to get certified by taking the necessary Microsoft exams with the knowledge gained from this course.

Past attendees got jobs at AT&T, Bank America, Goldman Sachs, IBM, Microsoft, Morgan Stanley, Verizon, and other Fortune 500 firms

Instructor: Donald Hsu, PhD., has been a corporate manager for 20 years and is an experienced trainer. Since 2009, he has trained 700+ people in Android, C++, Java, Oracle, WebLogic, XML, and C# .NET in 8 different organizations.

TOPICS

1. Compare the enterprise development tools using Java to C# .NET
2. Define Visual Studio .NET Version 2008 to latest
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: New Jersey Institute Technology, Newark, New Jersey

WHEN: 7 Saturdays, ((Oct 10, 17, 24, 31, Nov 7, 14, 21, 2015) 12:30 pm to 3:30 pm

COST: IEEE (& affiliate) members \$500; Non-IEEE members \$550.

CONTACT: Donald Hsu, yanyou@hotmail.com,

REGISTRATION: C#.NET Programming in Seven Saturdays

Please mail the completed registration form with a check (Checks payable to "North Jersey Section IEEE") to

Dr. 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**

☐ I wish to receive the IEEE Completion Certificate

Signature: _____

2015 IEEE North Jersey Section Volunteers

Executive Committee

Chair –Adriaan J. van Wijngaarden
avw@ieee.org

First Vice-Chair – Ajay K. Poddar
akpoddar@synergymwave.com

Second Vice-Chair – Kalyan Mondal
mondal@fdu.edu

Secretary–Kai T. Chen
k.t.chen@ieee.org

Treasurer–Mani Iyer
mani.iyer@ieee.org

Member-at-Large
Mengchu Zhou
zhou@njit.edu
Yu-Dong Yao
yu-dong.yao@stevens.edu
John C Taylor
john.taylor1204@gmail.com

Junior Past Chair – Russell C. Pepe
rcpepe@ieee.org

Senior Past Chair – Naresh Chand
chandnaresh@gmail.com

Society Chapters

Aerospace Electronic Systems Society
Chair – Goran Djuknic
gd@ieee.org
Vice-Chair – Naresh Chand
chandnaresh@gmail.com

Antennas and Propagation/Microwave Theory and Techniques Society
Chair– Ajay Poddar
akpoddar@synergymwave.com
Vice-Chair – Edip Niver
niver@adm.njit.edu

Circuits and Systems Society / Electron Devices Society
Chair–DurgaMisra
dmisra@njit.edu

Communications Society
Chair– Amit Patel
a.j.patel@ieee.org

Computer Society
Chair– Hanna (Hong) Zhao
zhao@fdu.edu

Controls Society
Chair– David Haessig
davidhaessig@ieee.org

Electromagnetic Compatibility/Product Safety Engineering Society
Chair – Dan Roman
danpses@verizon.net

Engineering in Medicine and Biology Society
Chair–Abdallah Khreishah
abdallah@njit.edu

Industrial Applications Society

Chair– Ken Oexle
k.oexle@ieee.org

Information Theory Society
Chair– Adriaan J. van Wijngaarden
avw@ieee.org

Instrumentation Measurement Society
Chair – EmadFarag
enfarag@ieee.org

Photonics Society
Chair – Naresh Chand
chandnaresh@gmail.com

Power & Energy Society
Chair– Ronald W. Quade
rwquade@ieee.org

Signal Processing Society
Chair– Alfredo Tan
tan@fdu.edu

Systems, Man, and Cybernetics Society
Chair – Mengchu Zhou
zhou@njit.edu

Vehicular Technology Society
Chair– Mani Iyer
mani.iyer@ieee.org

Technical Councils

Technology Management Council
Co-Chair–ApratimRajendra,
apratim.rajendra@nomura.com
Co-Chair– Vaseem Ahmed,
vas201@gmail.com

Affinity Groups

Consultants Network
Chair–Steven Garfinkel
sgarfinkel@ellipsah.com

Young Professionals
Chair–John Taylor
john.taylor1204@gmail.com

Women in Engineering
Chair–Jyoti Bali
jyoti.bali@alcatel-lucent.com

LIFE Members
Chair– Art Greenberg
a.h.greenberg@ieee.org

Committees

Awards/Recognition
Chair– Ken Oexle
k.oexle@ieee.org

Audit Committee
Chair– Fred Chichester
fdchichester@gmail.com

Education
Co-Chairs
Donald Hsu –yanyou@hotmail.com
Kalyan Mondal – mondal@fdu.edu

Mengchu Zhou – zhou@njit.edu

Employment Network
Chair –Vaseem Ahmed
vas201@gmail.com

Government and Industry Relations Committee
Co-Chair – Art Greenberg
a.h.greenberg@ieee.org
Co-Chair – Russell C. Pepe
rcpepe@ieee.org

Group coordinator / History
Chair– Howard Leach
h.leach@ieee.org

Membership Development
Chair–Kai T. Chen
k.t.chen@ieee.org
Vice-Chair–Ajay Poddar
akpoddar@synergymwave.com

MTT/AP Trade Show and Symposium
Chair–Kirit Dixit
kdixit@ieee.org
Vice-Chair – HarDayal
dayalhar@gmail.com
TPC Co-Chair – George Kennall
gkk@lgsinnovations.com

TPC Co-Chair – Ajay Poddar
akpoddar@synergymwave.com

Newsletter
Chair– Anisha Apte
anisha_apte@ieee.org

Nominations
Chair – Naresh Chand
chandnaresh@gmail.com

PACE
Chair– Richard Tax
rtax@verizon.net
Co-Chair – Paul E. Ward
peward@ieee.org

Pre-University Activities
Co-Chair – Russell C. Pepe
rcpepe@ieee.org
Co-Chair – Steve Majkowski
steve.majkowski@alcatel-lucent.com

Student Activities
Chair – Daniel Cerone
dcer@dcerone.com

Webmaster
Chair – Adriaan J. van Wijngaarden
avw@ieee.org

Industrial Liaison
Chair– Kirit Dixit
kdixit@ieee.org

Intersection activities
Chair–Naresh Chand
chandnaresh@gmail.com

Legal Activities
Chair– Joel Miller
jm@joelmillerlaw.com