PUBLICATION OF THE NORTH JERSEY SECTION OF THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

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THE IEEE NORTH JERSEY SECTION NEWSLETTER

Vol. 60, No. 6   JUNE-JULY 2013

In this Issue:

- **A Note from the Chair**
- **Calendar of Events**
- **Meeting Announcements**
- **North Jersey Section Employment Network Announcement**
- **Welcome! New Members of the IEEE North Jersey Section**
- **How to subscribe to this newsletter if you are not a North Jersey IEEE Member**
- **North Jersey Section Seeks Committee Chairs and Section Volunteers**
- **Job Postings**
- **A course on: Model-Based Design**
- **Project Management in Seven Wednesdays**
- **Java Programming in Seven Nights**
- **Wireless Communications Symposium**
- **IEEE MTT/AP-S: 28th ANNUAL SYMPOSIUM AND MINI-SHOW**

A Note from the Chair
Russell C. Pepe

The IEEE North Jersey Section is operating in high gear.

The Awards Banquet in May was a big hit. We honored the IEEE Fellows and Region 1 Award Recipients. We also provided Certificates of Appreciation to three North Jersey Section Members from the IEEE MGA for their contributions and service at the IEEE Smart Tech Metro Area Workshop.

Remember, 2014 is the 60th Anniversary of the North Jersey Section. We hope to see you at the Awards Banquet next year to celebrate this special occasion with us. Details about the 2014 IEEE North Jersey Section Awards Banquet will be provided in the months to come

L-R: Russell Pepe, Ron Quade, Peter Balma, Bruce Fardanesh, Ken Oexle, and, Michael Miller

MGA Cert - L-R: Region 1 Southern Area Chair Bob Pellegrino, Naresh Chand, Adriaan van Wijngaarden and Kirit Dixit

L-R: Section Chair – Russell Pepe, Fellows – Enrico Bocchieri, Peter Balma, Bruce Fardanesh, Harish Vishwanathan, and Region 1 Director Peter Eckstein

L-R: Peter Eckstein, Adriaan van Wijngaarden, Anisha Apte, and Russell Pepe (Region 1 Award)

PUBLICATION OF THE NORTH JERSEY SECTION OF THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

L-R: Peter Eckstein, Russell Pepe, Paul Ward, Richard Tax (PACE Award)

L-R: Richard Tax, Art Greenberg, Peter Donegan, Ken Oexle, Michael Liechenstein and their family and friends

The first Career Advancement Workshop was held in the North Jersey Section on Saturday, May 18 at Fairleigh Dickinson University in Teaneck. The speakers focused on ways to get a job and advance at your current career. Experts in the field discussed varied topics, ranging from self-improvement to interviewing techniques. The Workshop was well attended and well received. The Volunteers worked hard in organizing this session. The results were admirable. I hope to see a similar Workshop next year in another Section within our Region.

The IEEE North Jersey Section is organizing a social event and membership drive. We want to get everyone together for a fun night at a baseball game with fireworks. All are welcome - members, non-members, and those who are interested to become members. Bring your family and friends — this is a great event for family fun! We have reserved a box for a Somerset Patriots Baseball Game in Bridgewater, NJ, on Saturday, June 8, 2013. The game, Somerset Patriots vs. Sugarland Skeeters, will start at 7:05 pm, and there will be fireworks at the end of the game. According to the Somerset Patriots' website, the first 1,500 people to arrive at the game will receive a Somerset Patriots baseball hat. Please register using the following link: https://meetings.vtools.ieee.org/meeting_view/list_meeting/18

523 . The cost for this event is only $10, and includes a seat in our special IEEE box, plus a $10 food and beverage voucher. Children of 3 years and under are free and do not need an entry ticket. Please use the comment field of your own registration to indicate whether you are bringing any children of 3 years and under. If you have been thinking about becoming an IEEE Member, but have not done so yet, this would be a great place to make up your mind. There will be many Members from the IEEE North Jersey Section available to talk to you about IEEE Membership and the IEEE North Jersey activities. Note that IEEE Membership for 2013 is now half price (regular member: $94, student member: $16. Refer to: http://www.ieee.org/join . Plus, we will offer a partial refund ($10) for anyone who signs up to become an IEEE Member at the game. If you are already an IEEE Member, and would like to elevate to Senior Member Grade, we can also help get you started at the game. Whatever may be your reason for coming, just come to the game and have a good time.

Our activities to aid unemployed engineers in finding jobs are ongoing. We are posting job opportunities in the Newsletter. The North Jersey Section has now joined forces with the Jersey Coast and Princeton Section to work with State and Federal Politicians to bring technical jobs back to NJ. We have drafted a letter, currently under review, which will be sent to our Political Leaders. The IEEE has many Members; we want the political powers in Trenton and Washington DC to hear the voices of our Membership loud and clear in support of Engineering in NJ.

Our Pre-University activities are also gaining momentum, in conjunction with the IEEE Women in Engineering (WEI), Student Activities Committee (SAC) and Graduates of the Last Decade (GOLD). We are getting more involved with high schools to promote Engineering as a career for our young people. Furthermore, we are specifically talking to young women to show them the future for women in the Engineering Profession. The IEEE is getting involved with other Professional Societies in the state to promote STEM education and technical careers.

As a Member of the Engineering Profession and especially as a Member of the IEEE, we encourage you to get involved. Read through the Newsletter to plan out your technical growth by attending Technical Talks, Seminar, Workshops, etc. Expand your professional growth by attending a PACE (Professional Activities Committees for Engineers) meeting. Contact me if you would like to help with a Technical Society, Committee of Affinity Group within the IEEE. We want to help our fellow Members. We need your help to achieve our aggressive goals. We are always seeking Volunteers to assist with our North Jersey Section activities. If you want to see change for the betterment of our Engineering Profession, get involved. Contact me to find out how.

Please feel free to contact me. My e-mail is always open.
Sincerely,
Russell C. Pepe
Chair, IEEE North Jersey Section
rcpepe@ieee.org

PUBLICATION OF THE NORTH JERSEY SECTION OF THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

Calendar of Events

- **June 5, 5:30 PM to 6:30 PM: IEEE North Jersey Section Senior Member Drive 2013**
  Location: Bell Laboratories, Alcatel-Lucent, Main Building, Room Number: 6A-106, 600 Mountain Avenue, Murray Hill, NJ 07974,   Getting to Bell Labs
  Contact: Mani Iyer mani.iyer@ieee.org, Dr. Ajay K. Poddar (201)-560-3806 (akpoddar@synergymwave.com);
  Read More...

- **June 5, 6:00 PM to 8:45 PM: IEEE North Jersey Section EXCOM meeting – Bell Labs, Murray Hill, NJ**
  Location: Bell Laboratories, Alcatel-Lucent, Main Building, Room Number: 6A-106, 600 Mountain Avenue, Murray Hill, NJ 07974,   Getting to Bell Labs
  Contact: Russell Pepe (rcpepe@ieee.org), Chris Peckham cdp@ieee.org and/or Adriaan J. van Wijngaarden, (avw@ieee.org)
  Read More…

- **June 8, 6:30 PM to 11:00 PM: IEEE North Jersey Section GOLD, MD, SAC, PACE, WIE - Social Event and Membership Drive – Somerset Patriots Game and Fireworks**
  Location: TD Bank Ballpark, 1 Patriots Park, Bridgewater, NJ 08807
  Contact: Russell Pepe (rcpepe@ieee.org), John C Taylor (john.taylor1204@gmail.com), Adriaan J. van Wijngaarden, (avw@ieee.org)   Read More…

- **June 12, 6:30 PM to 8:45 PM: PACE - ENGINEERS MEET**
  Location: Clifton Memorial Library, 292 Piaget Ave, Clifton, NJ 07011 Getting to Clifton Library
  Contact: Paul Ward, (973)-790-1625, (peward@ieee.org) Richard F. Tax, (201)-664-6954 (rtax@aea.net)

- **June 13, 6:30 PM to 9:00 PM: IEEE Consultants Network – Patenting After the 'America Invents Act' -** Richard Gearhart, Registered Patent Attorney
  Location: Morris County Library, 30 East Hanover Avenue, Whippany, NJ,   Getting to Morris County Library
  Contact: Robert Walker, 973-728-0344, or visit our website, www.TechnologyOnTap.org Read More…

- **June 24, 4:30 PM to 6:15 PM: IEEE EDS/CS – A Complete NBTI DC/AC Model for SiON and HKMG p-MOSFETs –** Souvik Mahapatra, IIT Bombay, India
  Location: NJIT - ECE 202, 161 Warren Street, Newark, NJ 07102 Getting to NJIT
  Contact: Durga Misra (dmisra@njit.edu); Edip Niver niver@adm.njit.edu   Read More...

- **June 26, 6:00 PM to 8:30 PM: IEEE COMSOC – Distributed Mobility for Future Mobile Internet–**Dr. Anthony Chan, distinguished lecturer
  Location: Bell Laboratories, Alcatel-Lucent, Main Building, Room Number: 6A-106, 600 Mountain Avenue, Murray Hill, NJ 07974,   Getting to Bell Labs
  Contact: Amit Patel (a.j.patel@ieee.org);   Read More...

- **July 10, 6:30 PM to 8:45 PM: PACE - ENGINEERS MEET**
  Location: Clifton Memorial Library, 292 Piaget Ave, Clifton, NJ 07011 Getting to Clifton Library
  Contact: Paul Ward, (973)-790-1625, (peward@ieee.org) Richard F. Tax, (201)-664-6954 (rtax@aea.net)

- **August 7, 6:00 PM to 8:45 PM: IEEE North Jersey Section EXCOM meeting – Bell Labs, Murray Hill, NJ**
  Location: Clifton Bell Laboratories, Alcatel-Lucent, Main Building, Room Number: 6A-106, 600 Mountain Avenue, Murray Hill, NJ 07974,   Getting to Bell Labs
  Contact: Russell Pepe (rcpepe@ieee.org), Chris Peckham cdp@ieee.org and/or Adriaan J. van Wijngaarden, (avw@ieee.org)
  Read More…

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 or visit Webinabox.vTools

Meeting Announcements

June 5, 2013

IEEE North Jersey Section Senior Member Drive 2013

Meeting Agenda: Facilitate completion of the application process to be elevated to Senior Member of the IEEE.

If you have not started your senior membership application yet, start now and have your references completed by mid-June to be ready for review by the IEEE Senior Member selection-review-panel, by the end of June 2013
For senior member requirements please visit:

http://www.ieee.org/membership_services/membership/senior/senior_requirements.html

For the application please visit:

http://www.ieee.org/membership_services/membership/senior/senior_application.html

If you are having trouble finding that last senior member reference, bring printed out hardcopies of your full resume and senior member application portfolio with you to the meeting for review by other senior members and to find that last reference. Registration link is below.

All section members are invited to attend, especially those who are current senior members and are willing to volunteer as references, and any of those interested in becoming more active in general IEEE activities, volunteering, or those seeking senior membership. If you are interested in serving as a reference contact our membership development chair at this address: northjerseymembership@yahoo.com or mani.iyer@ieee.org and register below in VTOOLS.

The event will be held on Wednesday, June 5, 2013, 5:30-6:30PM, there will be a free buffet dinner and an opportunity to network with section members. Seating is limited and registration is required for all.

The meeting will take place at Bell Laboratories, Alcatel-Lucent, in Murray Hill, NJ. in Room 6A-106, which is located near the main entrance behind the Bell Labs Showcase exhibition area. It is not necessary to sign in to access this area.
Location: Bell Laboratories, Alcatel-Lucent, Main Building
Room Number: 6A-106, 600 Mountain Avenue, Murray Hill, NJ 07974, Getting to Bell Labs

Time: 05:30PM to 06:30PM

Contact: Mani Iyer mani.iyer@ieee.org
Dr. Ajay K. Poddar poddar_ajay@yahoo.com
No Admission Charge.

For Updates and Registration - Click Here

Back to Calendar of Events

June 5, 2013

IEEE North Jersey Section EXCOM meeting – Murray Hill, NJ

This executive committee (EXCOM) meeting of the IEEE North Jersey Section will be held at Bell Laboratories, Alcatel-Lucent, in Murray Hill, NJ, in Room 6A-106, which is located near the main entrance behind the Bell Labs Showcase exhibition area. It is not necessary to sign in to access this area.

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.

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.

The meeting agenda typically includes reports from the Secretary and Treasurer, reports from the Chapter and Affinity Group Chairs and Representatives, Committee Chairs, news related to the IEEE and the North Jersey Section, planning and new initiatives.
Location: Bell Laboratories, Alcatel-Lucent, Main Building, Room Number: 6A-106, 600 Mountain Avenue, Murray Hill, NJ 07974, Getting to Bell Labs
Time: 06:00PM to 08:45PM
6:00 pm - 7:00 pm - Get-together and Buffet
7:00 pm - 8:45 pm - Meeting
No Admission Charge
Contact: Russell Pepe (rcpepe@ieee.org),
Chris Peckham (cdp@ieee.org)
Adriaan J. van Wijngaarden, (avw@ieee.org)

For Updates and Registration - Click Here

Back to Calendar of Events

June 8, 2013
IEEE North Jersey Section GOLD, MD, SAC, PACE, WIE present:
Social Event and Membership Drive – Somerset Patriots Game and Fireworks

The IEEE North Jersey Section is organizing a social event and membership drive. We want to get everyone together for a fun night at a baseball game with fireworks. All are welcome — members, non-members, and those who are interested to become members. We have reserved a box for a Somerset Patriots Baseball Game in Bridgewater, NJ, on Saturday, June 8, 2013. The game, Somerset Patriots vs. Sugarland Skeeters, will start at 7:05 pm, and there will be fireworks afterwards. Please register using the link below if you would like to join us for the game.
The fee for this event is only $10, and includes a seat in our special IEEE box, plus a $10 food and beverage voucher.
If you have been thinking about becoming an IEEE Member, but have not done so yet, this would be a great place to make

up your mind. There will be many Members from the IEEE North Jersey Section available to talk to you about IEEE Membership and the IEEE North Jersey activities. Note that IEEE Membership for 2013 is now half price (regular member: $94, student member: $16, see http://www.ieee.org/join. Plus, we will offer a partial refund ($10) for anyone who signs up to become an IEEE Member at the game. If you are already an IEEE Member, and would like to elevate to Senior Member Grade, we can also help get you started, at the game. Whatever may be your reason for coming, just come to the game and have a good time.

Location: TD Bank Ballpark, 1 Patriots Park, Bridgewater, NJ 08807

Time: 6:30PM to 11:00PM

Contact: Russell Pepe (rcpepe@ieee.org), John C Taylor (john.taylor1204@gmail.com), Adriaan J. van Wijngaarden, (avw@ieee.org)

Admission fee applies

For Updates and Registration: Click Here

Back to Calendar of Events

June 12, 2013

PACE presents: ENGINEERS MEET - Conversation and Hospitality

Agenda: This meeting is to invite members of the Section for an evening of conversation, hospitality and refreshments. Our PACE meetings offer opportunities for lively discussions. Historically, once members get started they just do not want to leave. Our meetings are entertaining, thought provoking and provide opportunities to network.

Job Notices: Bring any job notices or employment information to the meeting. Employment Opportunities are always welcome. For more thought and discussion about the **"Employment Network":** Contact: Sue McIntosh (chair) [Email: skranjacmcintosh@yahoo.com].

All are invited. We encourage North Jersey Section Ex-Com officers to attend. When they do, our Section membership can meet with them on a first name basis.

Bring your associates, friends and spouses and we will talk about the Profession.

Location: Clifton Memorial Library, 292 Piaget Ave, Clifton, NJ 07011 Getting to Clifton Library

Time: 06:30PM to 9:00PM

Contact: Paul Ward, (973)-790-1625, (peward@ieee.org) Richard F. Tax, (201)-664-6954 (rtax@aea.net)

Back to Calendar of Events

June 13, 2013

IEEE CNNNJ presents:

Patenting After the 'America Invents Act'

Speaker: Richard Gearhart

Abstract: The America Invents Act: Better or Worse for Innovation?

The US patent system underwent a drastic change in 2011, with the passing of the Leahy-Smith America Invents Act. Harmonizing patent-granting principles with those of many developed countries, the legislation converts from a "first to invent" to a "first inventor to file" system, eliminates interference proceedings, and develops post-grant opposition.

Engineering consultants may be developing their own patents or may be called to assist their clients in the process. America Invents Act deeply affects strategies of securing patents and their validity. The presentation will highlight significant issues raised by the new legislation.

Biography: Richard Gearhart is a Registered Patent Attorney and principal Gearhart Law, LLC, a law firm specializing in patent services. The firm provides an array of services in the mechanical, software and chemical arts, and includes patent application drafting, domestic and international patent prosecution, opinion rendering, agreement and transactional work, and litigation support.

Richard has garnered extensive breadth of experience in the patent field during his fifteen years of practice. He is the former Head of the US Patent and Trademark group for Novartis Pharmaceuticals Corporation and served previously as General Patent Counsel at CIBA Vision Corporation, where he actively managed US and global patent litigation, as well as patent prosecution and opinions.

Prior to taking the helm at CIBA Vision, Richard worked at Dow Corning Corporation, as Senior Managing Counsel, and prior to that worked in private practice at the Geneva, Switzerland office of the international law firm of Jones, Day.

Richard graduated from Knox College with a BA in Chemistry. He received his J.D. from Case Western Reserve University, and subsequently obtained a DES in International Law from the Graduate Institute of International Studies, in Geneva, Switzerland. He is registered to practice at the U.S. Patent and Trademark Office, and admitted to practice in the states of New Jersey, Illinois, Michigan and Massachusetts.

Richard can be reached at 973.410.4005 or at Gearhart@Gearhartlaw.com

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

ALL ARE WELCOME!

No fees or registration required.

Location: Morris County Library, 30 East Hanover Avenue, Whippany, NJ, Getting to Morris County Library

Time: 6:30PM to 8:30PM

Contact: Robert Walker, 973-728-0344, or visit our website, www.TechnologyOnTap.org.

For Updates and Registration: Click Here

Back to Calendar of Events

June 26, 2013

IEEE COMSOC presents:

Distributed Mobility for Future Mobile Internet

Speaker: Dr. Anthony Chan, distinguished lecturer

Abstract: The cellular networks, which are currently serving 6 billion cellular phones and mobile devices globally, have employed centralized control with different network functions arranged in a hierarchy.

Standardization of Internet mobility management in the Internet Engineering Task Force (IETF) has been primarily in centralized mobility management including Mobile IPv6 (MIPv6) and its extensions, and the deployments have primarily been in a centralized manner for the hierarchical cellular networks. Yet there are already numerous variants and extensions of MIPv6 including Proxy Mobile IPv6 (PMIPv6), Hierarchical MIPv6 (HMIPv6), and Network Mobility (NEMO), which have been developed over the years owing to the different needs that are found afterwards. Deployment of Internet mobility mechanisms can then become complicated, especially when interoperability with different deployments is an issue.

The Internet has employed distributed control functions and is more flattened, i.e., less hierarchical. As the cellular networks converge with the Internet and may become more flattened, the needed mobility management functions are expected to be distributed rather than centralized. Despite the large amount of standards work in Internet mobility in IETF primarily with centralized mobility, the deployment in the Internet is still slow. Such a fundamental change to distributed mobility is needed in the mobile Internet.

Mobility management with centralized mobility anchoring in existing hierarchical mobile networks is quite prone to suboptimal routing and issues related to scalability. Centralized functions present a single point of failure, and inevitably introduce longer delays and higher signaling loads for network operations related to mobility management. To make matters worse, there are numerous variants of Mobile IP in addition to other protocols standardized outside the IETF, making it much more challenging to create economical and interoperable solutions. The existing mobility management standards in IETF, the issues of mobility management for the future mobile Internet, the trend of the mobile Internet and the proposed distributed mobility at IETF are explained.

Biography: H. Anthony Chan (www.eee.hku.hk/~hhachan/hanthonychan.html, www.eie.polyu.edu.hk/~hachan/) received his PhD in physics at University of Maryland, College Park in 1982 and then continued post-doctorate research there in basic science. After joining the former AT&T Bell Labs in 1986, his work moved to industry-oriented research in areas of interconnection, electronic packaging, reliability, assembly in manufacturing, and then moved again to network management, network architecture and standards for both wireless and Wireline networks. He moved to academia as professor at University of Cape Town in 2004, and moved again to industry research as he joined Huawei Technologies in Dallas in 2007. His current research is in emerging broadband wireless network technologies.

Anthony is a Fellow of IEEE, chair of IEEE Standard 802.21c Task Group on Single Radio Handover Optimization, Vice-chair of IEEE standard 802.21 Working Group on Media Independent Handover, and a honorary professor at The University of Hong Kong. He has authored/co-authored over 200 conference and journal papers, a research handbook, and several book chapters. He is a Distinguished Lecturer/Speaker of IEEE Communication Society and of IEEE Reliability Society, and had delivered 40 conference tutorials and short courses and 6 keynotes.

Location: Bell Laboratories, Alcatel-Lucent, Main Building, Room Number: 6A-106, 600 Mountain Avenue, Murray Hill, NJ 07974, Getting to Bell Labs

Time: 6:00 PM to 8:30 PM

Contact: Amit Patel (a.j.patel@ieee.org);

For Updates and Registration: Click Here

Back to Calendar of Events

July 10, 2013

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Job Notices: Bring any job notices or employment information to the meeting. Employment Opportunities are always welcome. For more thought and discussion about the **"Employment Network":** Contact: Sue McIntosh (chair) [Email: skranjacmcintosh@yahoo.com].

All are invited. We encourage North Jersey Section Ex-Com officers to attend. When they do, our Section membership can meet with them on a first name basis.

Bring your associates, friends and spouses and we will talk about the Profession.

Location: Clifton Memorial Library, 292 Piaget Ave, Clifton, NJ 07011 Getting to Clifton Library

Time: 06:30PM to 9:00PM

Contact: Paul Ward, (973)-790-1625, (peward@ieee.org) Richard F. Tax, (201)-664-6954 (rtax@aea.net)

Back to Calendar of Events

August 7, 2013

IEEE North Jersey Section EXCOM meeting - Murray Hill, NJ

This executive committee (EXCOM) meeting of the IEEE North Jersey Section will be held at Bell Laboratories, Alcatel-Lucent, in Murray Hill, NJ. The meeting will take place in Room 6A-106, which is located near the main entrance behind the Bell Labs Showcase exhibition area. It is not necessary to sign in to access this area.

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. 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 Russell Pepe (rcpepe@ieee.org) or Adriaan van Wijngaarden (avw@ieee.org).

Location: Bell Laboratories, Alcatel-Lucent, Main Building, Room Number: 6A-106, 600 Mountain Avenue, Murray Hill, NJ 07974,   Getting to Bell Labs

Time: 06:00PM to 08:45PM

6:00 pm - 7:00 pm - Get-together and Buffet

7:00 pm - 8:45 pm - Meeting

No Admission Charge

Contact: Russell Pepe (rcpepe@ieee.org),

Chris Peckham (cdp@ieee.org)

Adriaan J. van Wijngaarden, (avw@ieee.org)

For Updates and Registration - Click Here

Back to Calendar of Events

North Jersey Section Employment Network Announcement

Unemployed members can contact Suzanne McIntosh (skranjac@us.ibm.com) for assistance with their job search. The Employment Network's LinkedIn group is available for exchange of job leads and discussion of emerging technologies. Low-cost educational opportunities are available throughout the summer months on current high-demand technologies such as cloud computing, Hadoop, and analytics. Educational opportunities are flexible and can be expanded to address additional topics of interest. Please contact the chair for additional information.

Join our network by sending an email to Suzanne McIntosh (chair), at skranjac@us.ibm.com

Suzanne will be happy to add you to our LinkedIn group, "IEEE North Jersey Section Employment Network".

Back to Calendar of Events

How to subscribe to this newsletter if you are not a North Jersey IEEE 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 LinkedIn IEEE North Jersey Section Group at: LinkedIn Group Invitation

Back to Calendar of Events

Welcome! New Members of the IEEE North Jersey Section

Name	IEEE Current Grade Description
Anthony Abreu	Student Member
Nicholas Anane-Agyei	Member
Ennio Bozzetti	Member
Matt Burlick	Graduate Student Member
Corey H. Cheung	Student Member
Alan E. Delahoy	Member
Michael V. Fitzpatrick	Member
Francis J. Goffredo	Student Member
Robert Karpinski	Student Member
David H. Kim	Graduate Student Member
Spencer Kordecki	Student Member
Shankar Krishnan	Member
Roger K. Kwadzogah	Graduate Student Member
Ryan Mohr Student	Member
Akhil Reddy Student	Member
Alex Soto Student	Member
Mugur F. Tolea	Member
Gerald E. Tourgee	Member
Jaideep S. Vaidya	Member
Haifeng Xiao	Member
Joseph Zavodny	Graduate Student Member
Huaiyu Zhan	Graduate Student Member
Shahriar Chowdhury	Graduate Student Member
Colin Crosby	Graduate Student Member
Simerdeep Kaur	Graduate Student Member

Back to Calendar of Events

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 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 Nominations Committee chair, Amit Patel at a.j.patel@ieee.org. You are welcome to attend the section business meeting held the first Wednesday of every month to learn more about volunteer activities that require some help. Please check out the website below for published meeting times and locations. Some committees needing volunteers include the following.

Please contact the person indicated for additional information.

GOLD (Graduates of the Last Decade) Affinity Group Volunteers and Committee members needed –

Contact: sean.kennedy@alcatel-lucent.com

WIE (Women in Engineering) Affinity Group Volunteers and Committee members needed –

Contact: zmao@fdu.edu

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EMBS (Engineering in Medicine and Biology Society) is seeking active committee volunteers –
Contact: raquelpc@njit.edu
Computer Society Chapter Committee Volunteers –
Contact zhao@fdu.edu-
Technical Management Council Committee Volunteers –
Contact: almeida@synergymwave.com
North Jersey Section Awards Committee Volunteers –
Contact k.oexle@ieee.org
Membership Development Committee Volunteers –
Contact miyer108@gmail.com
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.

Job Posting

ELECTRICAL ENGINEER / P.E.: Frank R. Holtaway & Son, Inc., seeks a full-time electrical engineer to perform design/engineering duties for large and small power projects (medium voltage, substations, switchgear, paralleling systems, central utility plants, co-generation, solar/PV, protection & controls, generators, UPS systems, power distribution, lighting, fire alarm, etc.). **Required:** BSEE, at least 10 years of design experience, strong work ethic, NJ Professional Engineer license is preferred
E-mail resumés to customerservice@holtaway.com, or call 908-781-9000 (ext. 210) for more information.

Back to Calendar of Events

Model-Based Design

David Haessig

The term Model-Based Design (MBD) refers to a design process involving models developed not only for the purpose of dynamic simulation, but also for generation of executable code. The model therefore includes the embedded algorithm being developed, and a dynamic model governing the behavior of the system containing the algorithm. In this way, that part of the model surrounding the algorithm acts as a test bench -- providing stimulus and reacting to outputs. MBD is supported to different degrees by several tool vendors, including Agilent's SystemVue, National Instrument's LabVIEW, VisSim, Python, MathWorks, and others.

A course entitled 'Model-based DSP on FPGAs' will be offered by the IEEE North Jersey Chapter. This will be a course on the use of Altera's DSP Builder for the design of algorithms and firmware for Field Programmable Gate Arrays (FPGAs). It provides an introduction to the MathWorks product Simulink, and to the Altera tools Quartus II and DSP Builder. Lab exercises will be performed using the Terasic DE0-Nano development board and will include development of a MAC, FFT, DDC and NCO. After completing the class attendees will be able to (1) develop complete FPGA designs for stand-alone operation on target platforms, (2) produce VHDL sub-modules for integration into larger FPGA designs, and (3) perform Hardware in the Loop (HIL) cosimulation.

The course also provides a brief description of several projects that have benefited by the use of MBD. These projects, spanning a wide range of application areas including software defined radio, antenna pointing while on-the-move, and radar cable detection, are further described for those interested in a recorded virtual conference accessible here (see right panel).

The outline of the course is as follows:

- *Intro to model-based design*
- *Intro to Simulink for dynamic system simulation*
- *Quartus II*
- *Altera DSP Builder Standard Blockset*
  - *Design flow*
  - *In class labs (MAC, Pin constraints, FFT)*
  - *Designing with IP library blocks*
  - *HIL cosimulation*
- *Altera DSP Builder Advanced Blockset*
  - *Advanced vs. Standard Blocksets*
  - *Build of multichannel/multirate systems (vectorization)*
  - *Latency management*
  - *Combined Standard & Advanced Blockset models*
  - *In class labs (DDC, NCO)*

Familiarity with Matlab is assumed. Students come with their own laptop running Windows XP or 7, with the 64-bit or 32-bit versions of Matlab and Simulink installed. Acceptable versions include 2010a, 2010b, 2011a, 2011b, and 2012a. Although not required but recommended to take full advantage of the course -- Simulink Fixed Point is required to use the Advanced Blockset, and the Communications Blockset is used on some Simulink examples.

The course consists of three 3-hour sessions that are best held over a 3 week span. A potential schedule is 6 to 9 PM, on June 12th, 19th, and 26th, Wednesday evening. We are currently looking for a suitable venue and convenient location. Individuals interested in taking this class should contact David Haessig (davehaessig@ieee.org) with venue and schedule suggestions at the earliest.

IEEE North Jersey Section and NJIT sponsored Course

Project Management in Seven Wednesdays

Wednesday evenings, July 10, 2013 through August 21, 2013, 6:00PM – 9:00PM
Seven weekly classes (July 10, 17, 24, 31, August 7, 14, 21, 2013)
NJIT, Newark, New Jersey
(Checks should not be mailed to this address)

IEEE North Jersey Section thanks NJIT for sponsoring this course

The North Jersey Section IEEE is offering a course entitled "Project Management". Dice.com lists 5000+ 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 2010 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 Achievement and earn 2 IEEE Continuing Education Units (CEUs) when you complete the course. You may wish to take the Certification exam 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. However, past attendees did successfully get the PMP certifications!

Instructor: Marilyn Moux, PMP, ITILv3, Cloud Essentials, CAP and Security+., has been a corporate manager for 20+ years and an IT security professional with experience within the entire Software Development Life Cycle Project Management.

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 MS Project files to MS Word
7. Approve updates and conclude a project plan
8. Analyze Cloud Computing, Service Level Agreements, IT Security
9. Present student Projects

WHERE: NJIT, Newark, New Jersey
WHEN: 7 Saturdays, July 10, 17, 24, 31, August 7, 14, 21, 2013, 6:00 PM - 9:00 PM
COST: IEEE (& affiliate) members $500; Non-IEEE members $550. Unemployed IEEE members $250.
CONTACT: Donald Hsu: yanyou@hotmail.com

REGISTRATION: Project Management

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 or
click here:
Please contact Donald Hsu, Chair IEEE Education Committee, yanyou@hotmail.com for any questions

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: _____

PUBLICATION OF THE NORTH JERSEY SECTION OF THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

IEEE North Jersey Section and NJIT sponsored Course

Java Programming in Seven Nights

Wednesday evenings, July 10, 2013 through August 21, 2013, 6:00PM – 9:00PM
Seven weekly classes (July 10, 17, 24, 31, August 7, 14, 21, 2013)
NJIT, Newark, New Jersey
(Checks should not be mailed to this address)

IEEE North Jersey Section thanks NJIT for sponsoring this course

The North Jersey Section IEEE offers an evening course "Java Programming". Ten million Java Programmers are currently working on commercial projects in the world, ranging from 3 billion mobile phone apps, web design, search engine database, to big data on supercomputers. Dice.com lists 2283 jobs in Java, in New York City daily! This course will cover the basic concept of coding in Java. You will receive IEEE Certificate, when you complete this course. You do not need any prior programming to take this course.

Instructor: Donald Hsu, Ph.D., has been a corporate manager for 11 years and is an experienced trainer. Since 1997, he trained 600+ people in Java, Advanced Java, C++, C#, WebLogic Server, in nine organizations. Past attendees are working at AT&T, Goldman Sachs, IBM, Microsoft, Mercedes Benz, Oracle, Sony, Verizon and other Global 100 firms.

TOPICS

1. Explain the Java features -- portable, secure, high-performance
2. Install the Java development environment
3. Define the fundamental programming structures
4. Identify objects, classes and inheritance
5. Construct interfaces and inner classes
6. Analyze graphics programming and event handling
7. Learn the user interface components with Swing
8. Build applications, applets and generic programming
9. Handle exceptions, logging, assertions, and debugging
10. Perform collection and multithreading
11. Present student projects

WHERE: NJIT, Newark, New Jersey
WHEN: 7 Saturdays, July 10, 17, 24, 31, August 7, 14, 21, 2013, 6:00 PM - 9:00 PM
COST: IEEE (& affiliate) members $500; Non-IEEE members $550. Unemployed IEEE members $250.
CONTACT: Donald Hsu: yanyou@hotmail.com

REGISTRATION: Java Programming

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
Please contact Donald Hsu, Chair IEEE Education Committee, yanyou@hotmail.com for any questions

Name _____

Email Address _____

☐ Non-member

☐ IEEE Member #_____ or

Member of _____ technical society

Employer_____

Employer Address_____

HomeAddress_____

Business telephone _____

Home telephone _____

Please enclose required fee payable to: IEEE North Jersey Section

☐ I wish to receive IEEE Certificate

Signature: _____

Location: - ECE 202, 161 Warren Street, Newark, NJ 07102 Getting to NJIT

Time: 6:00PM - 9:00PM

Contact: Donald Hsu, (yanyou@hotmail.com)

September 21, 2013

The IEEE North Jersey Section, ComSoc, Computer and VTS Chapters present:

Wireless Communications Symposium: A one-day technical symposium covering wireless communication topics.

This fall, the Section's and Chapters' primary goal is to provide a local event that is focused on bringing value to local engineers working in the field and local graduate students doing research. With increasing pressure on time and travel, budgets for conference attendance, this activity will be hosted at a local venue within easy reach. It will also give advanced students a chance to showcase their work and all participants an opportunity to learn what is happening now.

The event will be held on Saturday, September 21, 2013 at the Babbio Center, Stevens Institute of Technology in Hoboken, NJ. The full-day program consists of invited talks given by distinguished speakers and it will also include a parallel poster session by invited graduate students. There will be plenty of opportunities to interact with presenters and network with peers at any of the breaks, during lunch and the closing reception.

The organizing committee is currently inviting speakers who would like to give a 45-minute presentation followed by question and answers on recent work, recent research results, and cutting edge developing technologies in wireless communications. If interested, please reach out to the speaker coordinator Mani Iyer (mani.iyer@ieee.org).

The organizing committee is currently inviting graduate students who would like to present a poster on recent work, recent research results, and cutting edge developing technologies in wireless communications or other communication topics. Master students working on a thesis, PhD candidates, and post docs are encouraged to participate. There will be time-slots reserved for poster review by all attendees. If interested, please reach out to the poster session coordinator Hong Man (hong.man@stevens.edu).

General audience members are invited to participate and register online to save their seats. Registration information will be posted as it becomes available.

PUBLICATION OF THE NORTH JERSEY SECTION OF THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

THE INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS, INC.

IEEE NORTH JERSEY SECTION MTT-Society and AP-Society Joint Chapter

PRESENTS:

28th ANNUAL SYMPOSIUM AND MINI-SHOW

FOCUS:
SELECTED TOPICS IN RF AND MICROWAVE TECHNOLOGIES FOR COMMERCIAL AND MILITARY APPLICATIONS

DATE: THURSDAY OCTOBER 3, 2013

PLACE: Hanover Manor, 16 Eagle Rock Ave., E. Hanover, NJ 07936. 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://sites.ieee.org/northjersey/ **by September 2013.**

For further information contact:

CHAIR-EXHIBITION: KIRIT DIXIT (201-669-7599), kdixit@ieee.org
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)
CO-CHAIR - TECHNICAL PROGRAM: GEORGE KANNELL (973-437-9990), (gkk@lgsinnovations.com)
CHAPTER CHAIR: Dr. AJAY KUMAR PODDAR (201-560-3806), (akpoddar@synergymwave.com)
CHAPTER CO-CHAIR: Dr. EDIP NIVER (niver@adm.njit.edu)
SECTION CHAIR: RUSSELL PEPE, rpepe@att.net

THERE IS NO CHARGE TO ATTEND THE SYMPOSIUM OR SHOW.

PUBLICATION OF THE NORTH JERSEY SECTION OF THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

2013 IEEE North Jersey Section Volunteers

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