

THE IEEE NORTH JERSEY SECTION NEWSLETTER

Vol. 60, No. 2

FEBRUARY 2013

Calendar of Events

- February 6, 10:30 AM to 4:30 PM: FCC Workshop on Network Resiliency Read More... Location: Brooklyn Law School, 22nd floor, Forchelli Center, Feil Hall, 205 State Street, Brooklyn, NY 11201, Getting to Brooklyn Law School NY Contact: Prof. Henning Schulzrinne, CTO, FCC and/or Adriaan J. van Wijngaarden, (avw@ieee.org)
- February 6, 5:00 PM to 7:00 PM: AP/MTT The Evolution of Low Noise Devices and Amplifiers Dr. Edward Niehenke of Niehenke Consulting Read More... Location: NJIT - ECE 202, 161 Warren Street, Newark, NJ 07102 Getting to NJIT

Contact: Dr. Ajay Kumar Poddar (201)-560-3806, (akpoddar@synergymwave.com), Prof. Edip Niver (973)596-3542, (niver@njit.edu)

- February 6, 6:00 PM to 8:45 PM: IEEE North Jersey Section EXCOM meeting Clifton, NJ Read More... Location: Clifton Public Library - Allwood Branch, Activity Room, 44 Lyall Road, Clifton, NJ 07012, Getting to Clifton Library Contact: Russell Pepe (rcpepe@ieee.org), Chris Peckham cdp@ieee.org and/or Adriaan J. van Wijngaarden, (avw@ieee.org)
- February 8, 9:00 AM to 2:00 PM: The PES and IAS Chapters: Batteries Andrew Sagl of Megger Read More... Location: PSE&G - Hadley Road Facility, Auditorium, 4000 Hadley Road, South Plainfield, NJ 07080 Getting to PSE&G Contact: Ronald W. Quade, P.E (rwquade@ieee.org), Ken Oexle (k.oexle@ieee.org)
- February 12, 6:00 PM to 7:30 PM IEEE Control System Society Feedback, Control and Dynamic Networks Prof. Zhong-Ping Jiang, Department of Electrical and Computer Engineering, Polytechnic Institute of NYU-Poly, Brooklyn, NY Read More... Location: NJIT - ECE 202, 161 Warren Street, Newark, NJ 07102 Getting to NJIT Contact: David Haessig, (david.haessig@baesystems.com) (973-305-2583)
- February 13, 3:00 PM to 4:00 PM: IEEE VTS and Stevens Institute of Technology: Evolution to 4G Wireless the dominant role of LTE Dr. Vijay K. Varma, Applied Communication Sciences (formerly Telcordia Advanced Technology Solutions), Red Bank, NJ Read More...
 Location: Babbio Center, Room: 319, Steven Institute of Technology, Hoboken, NJ 07030

Getting to Stevens Institute of Technology Contact: Yingying (Jennifer) Chen, vingying.chen@stevens.edu, Dr. Mani Iyer, mani.iyer@ieee.org

- February 13, 6:30 PM to 8:45 PM: ENGINEERS MEET: How to Succeed as a Sales Engineer Tips from a Seasoned Professional Russell Pepe, Advanced Technical Marketing (ATM) Read More... Location: Clifton Memorial Library, 292 Piaget Ave, Clifton, NJ 07011 Getting to Clifton Memorial Library Contact: Richard Tax (rtax@verizon.net), Paul E. Ward (peward@ieee.org)
- February 20, 5:00 PM to 7:00 PM IEEE TMC and AP/MTT IT ROI Dr. Todd W. Kolb of Verizon Wireless Read More... Location: NJIT - ECE 202, 161 Warren Street, Newark, NJ 07102 Getting to NJIT Contact: Tony Almeida, (201)-723-3162 (almeida@synergymwave.com), Dr. Ajay Kumar Poddar (201) -560-3806, (akpoddar@synergymwave.com), Prof. Edip Niver (973)596-3542, (niver@njit.edu)
- February 21, 6:30 PM to 8:30 PM: IEEE CNNNJ: Setting Your Consulting Rate Is there a Right Way? Read More... 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
- February 21, 6:30 PM to 8:30 PM: IEEE Computer Society: Energy Efficiency for Data centers Read More... Location: Auditorium M105, Muscarelle Center, Fairleigh Dickinson University, Teaneck, NJ 07666 Getting to FDU Contact: Hong Zhao (201)-692-2350, zhao@fdu.edu; Howard Leach h.leach@ieee.org
- March 6, 6:00 PM to 8:45 PM: IEEE North Jersey Section EXCOM meeting Newark, NJ Read More... Location: NJIT - ECE 202, 161 Warren Street, Newark, NJ 07102 Getting to NJIT Contact: Russell Pepe (rcpepe@ieee.org), Chris Peckham cdp@ieee.org and/or Adriaan J. van Wijngaarden, (avw@ieee.org)





Reminders and Announcements:

- Section Meeting and Milestone Status by Howard Leach
- ✤ Welcome! New Members of the IEEE North Jersey Section
- * North Jersey Section Seeks Committee Chairs and Section Volunteers
- ✤ North Jersey Section Employment Network Announcement
- * How to subscribe to this newsletter if you are not a North Jersey IEEE Member?
- Project Management Course in Five Saturdays
- C# .NET Programming in Five Saturdays

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

Section Meeting and Milestone Status by Howard Leach

As your Group Coordinator and Historian, it might be helpful to see where we've been last year with respect to a couple of items.

For 2012, 129 L-31 Meeting Reports have been filed for: 23 Section meetings including EXCOM, PACE, and Student Activities; 23 Affinity Group meetings including Consultants Network, GOLD, Life Members, and Women in Engineering; and 83 Technical Society chapter meetings for 17 different technical societies. Those Affinity Groups that qualify for the additional \$75.00 rebate for holding at least six meetings include: Consultants Network - 9, and GOLD for 6. Those technical society chapters that qualify for an additional rebate of \$75.00 for holding at least six meetings include: AP03/MTT - 17, CAS04/ED15 - 8, IA34 - 6, PE31 - 7, SMC28 - 7, and VT06 for 7. Congratulations – our Section holds the most meetings of all other Sections within Region 1 per Naresh.

For the Section's IEEE Milestone status, we currently have four as follows and a fifth awaiting approval.

The first, dedicated in 1987, Bayonne Police Department, was for: 'Two-Way Police Radio Communication, 1933.'

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

The second, dedicated in 1988 at a building in Speedwell Village, now Historic Speedwell, part of the Morris County Park System, is located at 333 Speedwell Avenue, Morristown, NJ, for: 'Demonstration of Practical Telegraphy, 1838.'

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

The third, dedicated in 2008, on a granite stone in front of the West Orange Municipal Building, West Orange, NJ, for: 'Thomas A Edison West Orange Laboratories and Factories, 1887'.

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

The fourth, dedicated in 2009, at Alcatel-Lucent Bell Labs, Murray Hill, NJ, for: 'Invention of the First Transistor at Bell Telephone Laboratories, Inc., 1947.'

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

With the help of Dr. Alfred Mac Rae, who joined Bell Labs in 1960 within integrated circuit research and later in transmission systems, we have a **fifth milestone proposal waiting for approval**. Specifically, it's awaiting advocate approval. The link to Milestone-Proposal: 'Bell Telephone Laboratories, Inc., the First 60 Years, 1925-1984':

http://www.ieeeghn.org/wiki/index.php/Milestone-Proposal:Bell_Telephone_Laboratories%2C_Inc.%2C_the_First_60_Years%2C_1925-1984





Meeting Announcements

February 6, 2013

FCC Workshop on Network Resiliency

This meeting is being organized by Prof. Henning Schulzrinne, CTO, FCC

Meeting Agenda:

The workshop program consists of three sessions:

10:30 am - 12:00 pm Infrastructure and Measurements

01:00 pm - 02:30 pm Backbone and Wireline Access

03:00 pm - 04:30 pm Wireless Networks, First Responders, Social Networks

The detailed program is as follows:

10:30 AM - 12:00 PM: Infrastructure and Measurements

Third-Party Measurement of Network Outages in Hurricane Sandy - John Heidemann (University of Southern California, USA)

Lessons from Field Damage Assessments about Communication Networks Power Supply and Infrastructure Performance during Natural Disasters with a focus on Hurricane Sandy

Alexis Kwasinski (The University of Texas at Austin, USA)

Lessons learned by "measuring" the Internet during/after the Sandy storm

Emile Aben (RIPE NCC, The Netherlands); Alistair King (CAIDA, UCSD, USA); Karyn Benson (CAIDA/UCSD, USA);

Young S. Hyun (CAIDA/University of California, San Diego, USA);

Alberto Dainotti (CAIDA, UCSD, USA); Kimberly Claffy (CAIDA, USA)

TSCOPE: Real-time Mobile Data Collection Technology Using Spatiotemporal Data Casting

Kang-Won Lee (IBM Research, USA); Ho Yin Starsky Wong (IBM T.J. Watson Research Center, USA)

Lessons Learned from the 9/11 Attacks

Jennifer Rexford (Princeton University, USA)

Smart grid, Doug Riecken (Columbia University, USA)

1:00 PM - 2:30 PM Backbone and Wireline Access

Network Adaptability from Disaster Disruptions and Cascading Failures, Biswanath Mukherjee (- University of California Davis, USA)

The Vulnerability of Fiber Networks and Power Grids to Geographically Correlated Failures, Gil Zussman (Columbia University, USA)

Diverse Network Infrastructure for Resilience and Rapid Recovery from Large-Scale Disasters, James P. G. Sterbenz (University of Kansas & Lancaster University (UK), USA)

Building Robust Cellular Networks, Shivendra Panwar (Polytechnic Institute of New York University, USA)

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Network transformation (copper to fiber, legacy to IP), David Young (Verizon, USA); Tim Schmidt (Verizon, USA)

FTTH technology in the Aftermath of Sandy, Peter Vetter (Alcatel-Lucent, USA)

3:00 PM - 4:30 PM Wireless Networks, First Responders, Social Networks Managing Interoperability: What Happens When We Succeed?, Art Botterell (Carnegie Mellon University Silicon Valley, USA)

Survivable Social Network, Bob Iannucci (Carnegie Mellon University & RAI Laboratory LLC, USA)

To be submitted, Theodore Rappaport (NYU-Poly and NYU, USA)

Minimizing the Risk of Communication Failure, John Thomas (Sprint, USA)

Leveraging Diversity for Resiliency, Roch Guérin (University of Pennsylvania, USA)

Climate projections, Klaus Jacob (Columbia University, USA)

For a detailed program, as well as program updates, please check https://edas.info/web/fcc-nr2013/program.html

Location: Brooklyn Law School, 22nd floor, Forchelli Center, Feil Hall, 205 State Street, Brooklyn, NY 11201

Getting to Brooklyn Law School NY

A campus description can be found at:

http://www.brooklaw.edu/Admissions/Visit% 20 Us/campusma panddirections.aspx

Time: 10:30AM to 04:30PM

For Updates and Registration - Click Here

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February 6, 2013

IEEE AP/MTT Society presents:

The Evolution of Low Noise Devices and Amplifiers

Speaker: Dr. Edward Niehenke of Niehenke Consulting

Abstract: The low noise amplifier (LNA) is a critical element in modern receivers boosting small signals without adding significant noise. This presentation will trace the development of devices and amplifier types providing performance data. The device technology changed significantly over time starting with the vacuum tube, then varactor diode parametric amplifiers, and evolving to the three terminal solid state transistors. Technological transistor innovations lowered the LNA's noise figure and raised the frequency of operation. Devices described include the bipolar transistor, CMOS transistor, field effect transistor (FET), high electron mobility transistor (HEMP), pseudomorphic high electron transistor (PHEMT), and metamorphic high electron mobility transistor (MHEMT). Details of LNA semiconductors including Silicon,

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

SiGe, GaAs, and InP will be presented as well as the amplifier types: standard three terminal, feedback, cascode, and travelling wave. LNA noise figure measurement techniques will be shown as well as the LNA design procedures with a step-by-step design example.

Biography: Edward C. Niehenke was born in Abington, PA, in 1937. He received his BS (1961), MS (1965), and PhD (1997) degrees in electrical engineering from Drexel University, Philadelphia, PA.

From 1961 to 1963 he was with Martin Marietta where he developed microwave transitions for superconducting delay lines and investigated behavior of semiconductor devices at 1963 1997 770K. From to he was with Westinghouse/Northrop Grumman in Baltimore, MD, where he was responsible for the development of state of the art RF/microwave/millimeter wave circuits, miniature integrated assemblies, and subsystems. He retired from Northrop Grumman in 1997 as a senior advisory engineer and is now a consultant and lectures on nonlinear circuits and transceiver design.

Niehenke has pioneered the development of innovative RF/microwave/millimeter wave circuits including: super lownoise amplifiers, PIN and Schottky barrier limiters, efficient linear power amplifiers, voltage tunable high Q VCO resonators, electrostatic switch and phase shifters, high power bipolar amplifier with internal matching and subharmonic suppression, silicon carbide wideband frequency multipliers, active PHEMT multiplies, receiver protectors with multi-level STC attenuator, low-noise microstrip voltage controlled and dielectric resonator stabilized oscillators, subharmonic image rejection and image enhanced mixers, planar millimeter wave two axis monopulse transceiver with switchable polarization, and low-phase noise millimeter wave fiber optical links . He recently led the development of state-of-the-art 94 GHz solidstate transmitter and transceiver miniature modules reducing the cost of millimeter wave systems and making them practical. Niehenke's innovations can be found in over 15 operational production systems.

Niehenke holds nine patents, three Westinghouse Trade Secret Awards, one Westinghouse Value Engineering Merit Award, and one George Westinghouse Innovation Award. He has given over 120 presentations at symposia, workshops, IEEE chapter/section meetings, and keynote addresses at conferences. He has authored over 30 papers on RF/microwave/millimeter wave circuits. He was on the faculty of the Johns Hopkins University, teaching electricity and magnetism for three years. As the IEEE Microwave Theory and Techniques Society 1986/87 Distinguished Microwave Lecturer, he gave his lecture "Gallium Arsenide-Key to Modern Microwave Technology" to 70 groups throughout the world. Since 1983 he has been actively teaching linear, nonlinear, and transceiver circuit design for wireless communications to over 3000 professionals throughout the world.

Niehenke is a member of the Microwave and Millimeter Wave Integrated Circuits, Microwave Systems, and Wireless Communications MTT-S Technical Committees. He was the advisor (2010), technical program chairman (1998) and chairman (1986) of the International Microwave Symposia held in Baltimore. He serves as a member of the MTT-S Technical Program Committee since 1983 and is the MTT-S Ombudsman. Niehenke was a member of MTT-S ADCOM for 9 years, was a recipient of the IEEE Centennial and Millennium Medals, is a fellow of the IEEE, and is a registered professional engineer in the State of Maryland.

Email: e.niehenke@ieee.org

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

(Free parking on Parking Deck across from ECE Building) **Time:** 5:00 PM to 7:00 PM Buffet dinner at 5:30 PM)

Contact: Dr. Ajay Kumar Poddar (201)-560-3806, (akpoddar@synergymwave.com)

Prof. Edip Niver (973)596-3542, (niver@njit.edu)

No Admission Charge.

For Updates and Registration - Click Here Back to Calendar of Events

February 06, 2013

IEEE North Jersey Section EXCOM meeting - Clifton, NJ

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 Russell Pepe (rcpepe@ieee.org), Adriaan van Wijngaarden (avw@ieee.org) and/or Chris Peckham cdp@ieee.org

Location: Clifton Public Library - Allwood Branch Activity Room, 44 Lyall Road, Clifton, NJ 07012

Getting to Clifton Library

Time: 6:00 PM to 8:45 PM

Contact: Russell Pepe (rcpepe@ieee.org), Chris Peckham cdp@ieee.org and/or Adriaan J. van Wijngaarden, (avw@ieee.org)

For Updates and Registration - Click Here

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February 8th, 2013

IEEE PES and AES presents:

Batteries

Speaker: Andrew Sagl of Megger

Abstract: The seminar will cover Batteries including:

- Battery Types
- Battery Construction
- Battery Applications
- Battery Failure Modes
- Why Perform Maintenance
- Safety
- Battery Tests
- IEEE Recommendations
- NERC Requirements
- Ohmic Testing
- Discharge Testing

Biography: Andrew Sagl has worked with Megger for 12 years. He is a specialist in power quality and battery testing technology and application. He develops and supports power quality and battery equipment in addition to writing power quality and battery publications and teaching training and seminars courses. He has a degree in Electronics and is a member of the IEEE Power & Energy Society and Battery Standards Group.

Email: andrew.sagl@megger.com

Location: PSE&G - Hadley Road Facility, Auditorium, 4000 Hadley Road, South Plainfield, NJ 07080 Getting to PSE&G

Time: 9:00 AM to 2:00 PM

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

Admission Charges Apply

For Updates and Registration - Click Here Back to Calendar of Events:

February 12th, 2013

IEEE Control System Society presents:

Feedback, Control and Dynamic Networks

Speaker: Prof. Zhong-Ping Jiang, Department of Electrical and Computer Engineering Polytechnic Institute of New York University (NYU-Poly), Brooklyn, NY

Abstract: Feedback is ubiquitous in man-made and natural systems and is vital for the functioning of many systems in engineering and the life sciences. This talk will begin with a review of the crucial role played by feedback in the early development of control theory and practice. Then, some challenges arising from various application areas of network

science, ranging from transportation systems, smart grid, telecommunication networks to unmanned vehicle systems, to name a few, will be outlined. Due to the sheer size and complexity of these dynamic networks, tools for stability analysis and controller design are desperately needed. Restricted exchange of information and the presence of communication constraints prevent conventional feedback control theory from being applied directly. In this talk, some observations will be drawn based on the speakers work with co-workers on various projects in ship control, networked control systems, Internet congestion control, systems physiology, and smart grid. Time permitting, some of the recent work on quantized control for nonlinear systems and distributed control design for autonomous multi-agent systems with a fixed structure or with time-variable topology will be discussed.

Biography: Zhong-Ping JIANG (M'94, SM'02, F'08) received the B.Sc. degree in mathematics from the University of Wuhan, Wuhan, China, in 1988, the M.Sc. degree in statistics from the University of Paris XI, France, in 1989, and the Ph.D. degree in automatic control and mathematics from the Ecole des Mines de Paris, France, in 1993.

Currently, he is a Full Professor of Electrical and Computer Engineering at the Polytechnic Institute of New York University, and an affiliated Changjiang Chair Professor at Beijing University. His main research interests include stability theory, robust and adaptive nonlinear control, adaptive dynamic programming and their applications to under actuated mechanical systems, communication networks, multiagent systems, smart grid and systems physiology. He is coauthor of the book Stability and Stabilization of Nonlinear Systems (with Dr. I. Karafyllis, Springer 2011).

An IEEE Fellow, Dr. Jiang is a Subject Editor for the International Journal of Robust and Nonlinear Control and has served as an Associate Editor for several journals including Mathematics of Control, Signals and Systems (MCSS), Systems & Control Letters, IEEE Transactions on Automatic Control, European Journal of Control and J. Control Theory and Applications. Dr. Jiang is a recipient of the prestigious Queen Elizabeth II Fellowship Award from the Australian Research Council, the CAREER Award from the U.S. National Science Foundation, and the Young Investigator Award from the NSF of China. He received the Best Theory Paper Award (with Y. Wang) at the 2008 World Congress on Intelligent Control and Automation, and with T. Liu and D.J. Hill, the Guan Zhao Zhi Best Paper Award at the 2011 Chinese Control Conference.

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

(Free parking in Parking Deck across from ECE Building) No Admission Charge

Time: 6:30PM to 7:30PM (pizza and soft drinks at 6:00 PM) **Contact:** David Haessig, (david.haessig@baesystems.com) (973-305-2583)

For Updates and Registration - Click Here Back to Calendar of Events:







February 13, 2013

IEEE North Jersey VTS and Stevens Institute of Technology present:

Evolution to 4G Wireless – the dominant role of LTE

Speaker: Dr. Vijay K. Varma, Applied Communication Sciences (formerly Telcordia Advanced Technology Solutions), Red Bank, NJ.

Abstract: The trend towards All-IP networks and the increased demand for multimedia services prompted the wireless industry to adopt a packet based radio-access technology and an optimized packet core network. Evolved Packet System (EPS), an evolution to GSM and UMTS technologies - with an industry-adopted name of Long Term Evolution (LTE) – has become the most dominant technology in the race for 4G wireless. This talk will address the evolution from GSM/UMTS technologies to 4G wireless dominated by the LTE. The talk will cover the drivers for 4G, the architectural details of LTE and the Evolved Packet Core (EPC), QoS support for real-time services, and seamless mobility within and across multiple radio access networks provided by LTE. This will be followed by a status of LTE deployments and projections worldwide, and brief preview of Voice over LTE (VoLTE) – a technology that will change the way telephone networks operated for over 100 years.

Biography: Dr. Vijay K. Varma is a Senior Scientist in the Applied Communication Sciences (formerly Telcordia Advanced Technology Solutions), Red Bank, NJ. He has over 25 years experience in wireless communications has published several papers in this area, given many tutorials, organized many workshops, and given and chaired panel sessions at various IEEE conferences. He was the Technical Program Vice-Chair for the IEEE WCNC conference in 2005 and is an associate editor for IEEE Vehicular Technology Magazine. Dr. Varma received the M.Tech. degree from the Indian Institute of Technology, Kanpur, and the Ph.D. degree from Southern Methodist University, Dallas, TX, both in Electrical Engineering. He is a Senior Member of the IEEE. He received the Frederick E. Terman award in 1985 and Telcordia CEO Award in 2010.

Email: v.varma@ieee.org

Location: Babbio Center, Room Number: 319, Steven Institute of Technology, Hoboken, NJ 07030

Getting to Stevens Institute of Technology

Time: 3:00 PM to 4:00 PM

Contact: Yingying (Jennifer) Chen, yingying.chen@stevens.edu Dr. Mani Iyer, mani.iyer@ieee.org For Updates and Registration: Click Here Back to Calendar of Events

February 13, 2013

IEEE North Jersey PACE presents:

ENGINEERS MEET: How to Succeed as a Sales Engineer - Tips from a Seasoned Professional

Speaker: Russell Pepe, Co-owner and Sales Engineer with Advanced Technical Marketing (ATM)

Abstract: Our meeting is designed to introduce Engineers to the skills needed for Engineering Sales. The presentation is a combination of sales techniques typically presented in sales training courses, enhanced by real-life experience. Topics include Account Identification, Time Management, Closing Techniques, and Database management. It should also enlighten experienced Sales Engineers with proven sales techniques and strategies.

We will have time for a question and answer session about the profession and the Section's future.

Bring your associates, friends and spouses. This session is necessary for recent graduates and experienced members.

Come and join other Section professionals for talk and refreshments.

Biography: Russell Pepe is currently the co-owner and Sales Engineer with Advanced Technical Marketing (ATM). ATM is a Manufacturer's Representative Company covering the northeast. Products include, Test Equipment, Components, Modules, Sub-Systems and Engineering Services, spanning technologies from RF, Microwave, Fiber Optics, EMC and Embedded Systems. Prior to joining ATM, Russell was the Applications Engineering Manager and Sales Engineer with Anritsu, a major test equipment manufacturer. He has over 35 years of engineering experience, with about 20 years in sales. Russell received an MSEE from NJIT. He was recently elected as the IEEE North Jersey Section Chair for 2013/2014.

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

Time: 6:30 PM to 8:45 PM

Contact: Richard Tax (rtax@verizon.net), Paul E. Ward (peward@ieee.org)

For Updates and Registration: Click Here Back to Calendar of Events

ENGINEERS MEET NNJ Section PACE (Professional Activities Committee for Engineers)

Our North Jersey Section Professional Activities Committee (PACE) meets for informal discussions about the Engineering Profession. Join us with your thoughts and concerns and meet other Engineers. Pizza & Refreshments will be served during the mid-meeting break.

Time: 6:30 to 9:00 PM, on the Second Wednesday of every month.

Location: Clifton Memorial Library, 292 Piaget Ave., Clifton, NJ 07011 (Tel: 973 772-5500)





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

February 20, 2013

IEEE Technology Management Council and AP/MTT Societies presents:

IT ROI

Speaker: Dr. Todd W. Kolb of Verizon Wireless

Abstract: IT ROI is a performance measure used to evaluate the efficiency of an IT investment or to compare the efficiency of a number of different investments. This is an outline of one possible way to effectively measure your IT investments and is not specific to any single industry.

Biography: Dr. Todd is a Distinguished Member of Technical Staff at Verizon Wireless, holds a bachelor's degree in computer science from Widener University, both a master's and doctorate in computer science/computing from Pace University, and an MBA in international business at the University of Connecticut.

After working at Bell Atlantic NYNEX Mobile, which later became Bell Atlantic Mobile, Todd Kolb, D.P.S. joined Verizon Wireless as a Junior Solaris Administrator in 1998. Since then, he has held a variety of operations/infrastructure and IT leadership roles including enterprise architect for all Solaris deployments throughout the enterprise and team lead for all Open Systems Orangeburg infrastructure systems and the associated networks. Todd's current responsibilities are in IT Governance, Risk, and Compliance — business relationship planning where he works with business groups bridging IT technology with financial and business initiatives which includes asset management.

Email: Todd.Kolb@VerizonWireless.com

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

(Free parking in Parking Deck across from ECE Building)

Time: 5:00 PM to 7:00 PM Buffet dinner at 5:30 PM)

Contact: Tony Almeida, (201)-723-3162 (almeida@synergymwave.com)

Dr. Ajay Kumar Poddar (201)-560-3806, (akpoddar@synergymwave.com)

Prof. Edip Niver (973)596-3542, (niver@njit.edu)

No Admission Charge.

For Updates and Registration - Click Here Back to Calendar of Events

February 21, 2013

IEEE Consultants' Network of Northern New Jersey presents:

Setting Your Consulting Rate – Is there a Right Way?

The February meeting of the scheduled for Thursday, February 21, 2013 at 6:30 PM features a group workshop hosted by Network members.

Abstract: The IEEE Consultants' Network of Northern NJ will hold a discussion and workshop on setting fees for consulting services. Experienced members of the Northern NJ Consultants' Network, with many years of consulting practice under their belts, will debate the secrets of how a consultant should set fees.

By popular demand, we are presenting this hot topic once again to bring you up to date on the latest information. The most prevalent dilemma among independent technology consultants, both novices and veteran consultants alike, is deciding how much to charge their next client for their services. Putting a price tag on oneself can be a daunting and uncertain process. Too high a price, and you lose a contract. Too low a price and you are giving up the money that you deserve. During the workshop, consultants from the Northern NJ Consultants' Network will discuss the various methods that they have used in their practices. Among the topics to be covered:

- Data and Charts for range of prices charged by various specialties
- Flat fee pricing vs. Time & Materials pricing
- The Contract Engineer vs. the Expert Consultant
- Street Smarts in Price Determination
- Maximizing the Price and Profit
- Negotiation Factor: To Haggle or Not to Haggle

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 Directions to Library: www.mclib.info

Time: 6:30 - 8:30 PM.

Contact: Robert Walker, 973-728-0344, or

Visit our website, www.TechnologyOnTap.org.



February 21, 2013

IEEE Computer Society presents:

Energy Efficiency for Data centers

Abstract: Data centers consume a great deal of energy. The utility bill for our Miami collocation facility exceeds \$1 million per month. Reducing data center energy consumption is good for the ecology and is economically wise as the return on energy reduction investments is often measured in months. Through real world case studies, we will examine data center energy requirements, methods to reduce consumption, and means to measure the improvement facilitating cost/benefit justification. A great deal of press is floating about discussing data center energy efficiency. The number of related topics and varied levels of detail create a confusing landscape. Data center energy efficiency can be dramatically improved through a few relatively simple approaches yielding impressive operational expense savings in the form of reduced utility bills. Not every data center efficiency approach is appropriate for every data center. The attendee will learn what means and methods exist, which may apply to their data centers, and the associated savings that could be realized.

Biography: Mr. Ben Stewart is the Senior Vice President, Facility Engineering for Terremark Worldwide, Inc. and leads a team of professionals who design and build energy efficient mission critical facilities around the world. Mr. Stewart completed 25 years of military duty retiring as a Commander in the U.S. Coast Guard managing teams responsible for the engineering design, international equipment installation and secure telecommunications system management roles supporting Department of Homeland Security missions. Mr. Stewart received a Bachelor of Science in Electrical Engineering from the U.S. Coast Guard Academy, a Master of Science in Electrical Engineering from the U.S. Naval Postgraduate School and holds a Masters in Business Administration from Monmouth University. He is currently pursuing his PhD, is a Professional Engineer registered in the Commonwealth of Massachusetts and the Area Chair for the University of Phoenix/South Florida Campus College of Information Systems and Technology. Mr. Stewart also sits on the Industrial Advisory Board for the Miami Dade College of Engineering and the Advisory Council for The Green Grid. He is the founder and President of the Miami Chapter of AFCOM and sits on the Board of Directors for the 7x24 Mission Critical South Florida Chapter, both being professional organizations that foster the education and advancement of professionals in the field of data center design and management.

Location: Auditorium M105, Muscarelle Center, Fairleigh Dickinson University, Teaneck, NJ 07666 Getting to FDU

Time: 12:00PM to 01:00PM

Contact: Hong Zhao (201)-692-2350, zhao@fdu.edu; Howard Leach h.leach@ieee.org

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IEEE North Jersey Section EXCOM meeting - Newark, NJ

This executive committee (EXCOM) meeting of the IEEE North Jersey Section will be held at the New Jersey Institute of Technology (NJIT), in Newark, NJ. The meeting will take place in the ECE Building, Room ECE-202, 161 Warren Street, Newark, NJ.

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 (Chair, rcpepe@ieee.org), Chris Peckham (Secretary) and/or Adriaan van Wijngaarden (First Vice-Chair, avw@ieee.org).

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

(Free parking in Parking Deck across from ECE Building) **Time:** 6:00 PM to 8:45 PM

Time: 6:00 PM to 8:45 PM

Contact: Russell Pepe (rcpepe@ieee.org), Chris Peckham cdp@ieee.org and/or Adriaan J. van Wijngaarden, (avw@ieee.org)

For Updates and Registration - Click Here

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Special Issue on Wearable and RFID Antennas Call for Papers

A promising area of research allowing smaller, lighter weight and lower cost electronic devices is fabrication on low cost organic substrates such as paper and polymers. Organic and polymer substrates are cheaper, lighter, and in the case of organics more environmentally friendly with the additional advantage of providing flexibility.

These features are ideal for designing conformal and wearable antennas for applications such as wearable devices used for medical monitoring, cheap and flexible RFID tags for tracking and localization, and environmentally friendly, disposable devices. Despite the attractive applications, there are many obstacles to bring these devices into the mainstream, making it an area of active research. Researchers are invited to contribute original research articles addressing the challenges in the design, implementation and characterization of wearable, flexible antennas for



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various applications. Potential topics include, but are not limited to:

- Flexible and Conformal antennas
- Inkjet printed antennas
- Textile antennas
- Antennas on novel materials (paper, plastics, polymers, etc)
- RFID antennas
- Circuits Integrated Antennas (on-chip antennas)
- Flexible and wearable antennas characterization techniques
- Body effect and body channels characterization
- Antenna in RFIC packages

Before submission authors should carefully read over the journal's Author Guidelines, which are located at http://www.hindawi.com/journals/ijap/guidelines/

Prospective authors should submit an electronic copy of their complete manuscript through the journal Manuscript Tracking System at http://mts.hindawi.com/ According to the following timetable:

Manuscript due: February 15, 2013

First Round of Reviews May 10, 2013 Publication Date July 5, 2013

Lead Guest Editor

Duixian Liu, T. J. Watson Research Center, IBM, Yorktown Heights, New York, USA; Duixian@us.ibm.com

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Zhinong Ying, Network Research Laboratory, Research and Technology, CTO, Sony Mobile Communication AB, Lund 22188, Sweden; Ying.Zhinong@sonymobile.com

Welcome! New Members of the IEEE North Jersey Section

Yasemin Akpinar Student Member Christopher Ally Victoria Amarasiri Yaacov Apelbaum Ross Arnold Patrick Ascione Ebo Asmah Ezgi Aytac Igor Bondar Folawiyo I Campbell Nicholas Donatelli Yujie Du Ehssan Eizadkhah Anthony Enriquez Edward W Fagan David L Frase Luis Garcia John Gdovin Oscar Gonzalez Dayong Jia Piotr Kulik Param Kumar Daniel Alexandre Laguerre Philip Leitner Qing Li Kyle Matthew Lotfi Idan Mandelbaum Sita Raivalaxmi Marthi **Cristian Martinez** Joe Mathai Eddie Pagan David Pellot Gaston Planas **Richard M Reyes** WELVENS SENATUS **Dion Serben** Tajammai Sheikh YUXIN TAN Edwin S. Teran May Terry William D Thompson Junning Tong Samuel Everett Wilder Ray Williamson Emily R Winand Abhijeet jagtap Graduate Student Member

Student Member Member Associate Member Member Member Graduate Student Member Student Member Member Student Member Student Member Graduate Student Member Student Member Student Member Associate Member Member Student Member Student Member Student Member Graduate Student Member Student Member Member Student Member Member Graduate Student Member Graduate Student Member Member Graduate Student Member Student Member Member Graduate Student Member Student Member Member Graduate Student Member Student Member Graduate Student Member Student Member Graduate Student Member Student Member Graduate Student Member Member Graduate Student Member Student Member Member Student Member

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North Jersey Section Seeks Committee Chairs and Section Volunteers

The North Section is seeking new volunteers to help conduct business for the benefit of its membership. There are a variety of volunteer positions open and available. They range from technical to non-technical, leadership or just participatory. A list of North Jersey Societies is published at the end of the newsletter for those interested in participating with them. 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 AT fdu.edu

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://www.ieee.org/go/njsection or contact anyone listed above.

North Jersey Section Employment Network Announcement

We have kicked off the 2013 Employment Network with a LinkedIn group where unemployed members who seek jobs can share leads and discuss job search strategies.

Once established, our network will hold online and face to face meetings with technical presentations and seminars to assist job seekers in targeting their skills to succeed in this job market.

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".

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

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IEEE North Jersey Section and FDU sponsored Course

Project Management in Five Saturdays

Saturday mornings, March 2, 2013 through April 6, 2013 Five weekly classes (March 2, 9, 23, 30, April 6, 2013) Fairleigh Dickinson University, Teaneck, New Jersey

(Checks should not be mailed to this address)

IEEE North Jersey Section thanks Fairleigh Dickinson University 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 *Project Management Professional (PMP) Exam*, 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: **Donald Hsu, PhD**., has been a corporate manager for 11 years and an experienced trainer. Since 2006, he has trained 800+ in IT Project+, MS Project, Project Management, Contract Procurement Management, and International 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. Create and modify custom reports, templates and combination views
- 8. Share resources and create a master plan loaded to Project Server
- 9. Approve updates and conclude a project plan
- 10. Analyze global E-Commerce projects
- 11. Present student Projects

WHERE: Fairleigh Dickinson University, Teaneck, New Jersey

- WHEN: 5 Saturdays, March 2, 9, 23, 30, April 6, 2013, 9:30 am 1:30 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 registration form with the check (Checks payable to "North Jersey Section IEEE") to

Dr. Kalyan Mondal, Co-Chair Education Committee, IEEE North Jersey Section, Fairleigh Dickinson University, School of Computer Sciences and Engineering, 1000 River Road, T-MU1-01, Teaneck, NJ 07666

Name:		Email address		
□ Non-member				
□ IEEE Member	Member #:	Member of	technical society	
Employer:				
Employer Address	:			
Home address:				
Business (day) telephone #:		Home t	Home telephone #:	
Please enclose req	uired fee payable to: <u>N</u>	orth Jersey Section IEEE		
As soon as a comp will be notified by	U	and the payment are received, you are o	fficially registered for this course. Registration status	

□ I wish to receive the IEEE Completion Certificate

Signature:





C# .NET Programming in Five Saturdays

Saturday, April 13, 2013 through May 11, 2013 Five weekly classes (April 13, 20, 27, May 4, 11, 2013) New Jersey Institute of Technology, Newark, New Jersey (Checks should not be mailed to this address)

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

The IEEE North Jersey Section is offering a course entitled "C# .NET Programming". Since 2007, C# .NET has generated significant headway in Fortune 1000 enterprise development systems. Dice.com lists 1000+ C# .NET jobs (up from 820 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 MCSD 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, Goldman Sachs, IBM, Microsoft, Verizon, and other Fortune 500 firms.

Instructor: **Donald Hsu, PhD**., has been a corporate manager for 11 years and is an experienced trainer.

Since 2006, he has trained 700+ people in C++, Java, Oracle, WebLogic, and XML and C #.NET in 8 different organizations.

TOPICS

- 12. Compare the enterprise development tools using Java to C# .NET
- 13. Define Visual Studio .NET Version 2008 to latest
- 14. Identify C# syntax, data type, control structures and common language runtime
- 15. Distinguish methods, arrays, object-oriented programming
- 16. Build graphical user interface, multithreading, files and streams
- 17. Explain the benefit of using extensible markup language (XML)
- 18. Select database, SQL server, and ADO .NET
- 19. Choose ASP .NET, web forms, web services, advanced topics
- 20. Present student Projects

WHERE:	New Jersey Institute Technology, Newark, New Jersey		
WHEN:	Saturdays, April 13, 20, 27, May 4, 11, 2013, 9:00 AM to 1:00 PM		
COST:	IEEE members \$500; Non-IEEE members \$550.		
Contact:	Donald Hsu, <u>yanyou@hotmail.com</u>		

REGISTRATION: C#.NET Programming

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

Donald Hsu, PhD, Chair Education Committee, IEEE North Jersey Section, P.O. Box 2093, Fort Lee, New Jersey 07024.

Name:		Email address
□ Non-member		
□ IEEE Member	Member #:	
Employer:		
Home Address:		
Business (day) telephone #:		
Please enclose requ	ired fee payable to: North Jersey Section IEEE	
\Box I wish to receive	IEEE Completion Certificate	Signature:

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2013 IEEE North Jersey Section Volunteers

Executive Committee Chair - Russell Pepe rcpepe@ieee.org Vice Chairman 1 -Adriaan van Wijngaarden avw@ieee.org Vice Chairman 2 - Ajay Poddar akpoddar@synergymwave.com Secretary - Chris Peckham cdp@ieee.org Treasurer - Kalyan Mondal mondal@fdu.edu Members at Large 1. Mengchu Zhou zhou@njit.edu 2. Goran Djuknic gd@ieee.org 3. John C Taylor john.taylor1204@gmail.com

Junior Past Chair - Naresh Chand chandnaresh@gmail.com

Senior Past Chair – Amit Patel a.j.patel@ieee.org

Society Chapters Aerospace Electronic Systems Society Chair – Goran Djuknic gd@ieee.org

Vice-Chair – Naresh Chand chandnaresh@gmail.com

Antennas and Propagation Society/ 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 - Durga Misra 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

Engineering in Medicine and Biology Society Chair - Raquel Perez-Castillejos raquelpc@njit.edu

Industrial Applications Society Chair - Ken Oexle k.oexle@ieee.org



Instrumentation Measurement Society Chair – Peter J. Pupalaikis peterp@lecroy.com

Photonics Society Chair – Naresh Chand chandnaresh@gmail.com

Power & Energy Society Chair - Ronald W. Quade, P.E rwquade@ieee.org

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

Systems, Man, and Cybernetics Society Co-Chair – Mike Liechenstein itsmikesju@aol.com Co-Chair – Mengchu Zhou zhou@njit.edu

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

Technical Councils Technology Management Council Chair - Tony Almeida almeida@synergymwave.com

Affinity Groups Consultants Network Chair - Peter Schutz schutze@compuserve.com

GOLD Chair - Sean Kennedy sean.kennedy@alcatel-lucent.com

Women in Engineering Chair - Zhiwei Mao zmao@fdu.edu

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-Chair 1 - Donald Hsu yanyou@hotmail.com Co-Chair 2- Kalyan Mondal mondal@fdu.edu Co-Chair 3 - Mengchu Zhou zhou@njit.edu



Employment Network Chair - Suzanne McIntosh skranjac@us.ibm.com

Government and Industry Relations Committee Chair – Naresh Chand chandnaresh@gmail.com

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

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Intersection activities Chair- Amit Patel a.j.patel@ieee.org

Legal Activities Joel Miller jm@joelmillerlaw.com