



THE IEEE NORTH JERSEY SECTION NEWSLETTER

Vol. 65, No. 8

SEPTEMBER 2019

Calendar of Events

IEEE North Jersey Section EXCOM meeting - NJIT (Newark, NJ)

Date: 4 September 2019 **Time:** 06:00 PM to 08:30 PM

Location: Chand Palace, 269 Littleton Rd, Parsippany, NJ 07054

Contact: Hong Zhao (201)-692-2350, zhao@fdi.edu, Yu-dong Yao - yyao@stevens.edu

Exploring the Power of Pervasive Sensing for IoT Security and Smart Healthcare – SP/CS

Date: 5 Sept 2019 **Time:** 03:00 PM to 04:00 PM

Location: Auditorium, M105, Muscarelle Center, 1000 River Road, Fairleigh Dickinson University, Teaneck, NJ 07666

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

Speaker: Dr. Yingying (Jennifer) Chen of Rutgers University

Low Phase Noise Signal Generation utilising Oscillators, Resonators & Filters and Atomic Clocks – MTTs Distinguished Lecture

Date: 9 September 2019 **Time:** 06:30 PM to 08:00 PM

Location: ECE 202, NJIT, 154 Summit Street, Newark, NJ 07102

Contact: Ajay K. Poddar: +1 201-560-3806, akpoddar@ieee.org, Durga Misra: +1-973-596-5739, dmisra@ieee.org,
Anisha Apte: anisha_apte@ieee.org, Edip Niver: edip.niver@njit.edu

Speaker: Jeremy Everard of University of York, UK

IEEE North Jersey Section PACE meeting - Clifton, NJ – PACE

Date: 11 September 2019 **Time:** 06:30 PM to 8:30 PM

Location: Clifton Memorial Library, 292, Piaget Avenue, Clifton, NJ 07011

Contact: Russell Pepe - rcpepe@ieee.org

Speaker: Richard Tax - rtax@verizon.net

Small Business Insights – C>NNNJ Meeting

Date: 12 September 2019 **Time:** 06:30 PM to 08:30 PM

Location: Morris County Library, 30 East Hanover Avenue, Whippany, NJ 07981

Contact: Robert Walker at (973) 728-0344 or robert@rdwalker.com

Speaker: Lorette Pruden, PhD

Reliability of Metal Gate / High-K CMOS devices – ED Society's Distinguished Lecture

Date: 13 September 2019 **Time:** 11:00 AM to 12:15 PM

Location: ECE 202, NJIT, 154 Summit Street, Newark, NJ 07102

Contact: Ajay K. Poddar: +1 201-560-3806, akpoddar@ieee.org, Durga Misra: +1-973-596-5739, dmisra@ieee.org,
Anisha Apte: anisha_apte@ieee.org, Edip Niver: edip.niver@njit.edu

Speaker: Dr. Andreas Kerber of Skorpis Technologies, Inc.

News from any Location to Anywhere in the World: The Electronic News Gathering Paradigm Shift – IEEE Princeton/Central Jersey Broadcast Technology, IEEE North Jersey/New York (IT), IEEE METSAC

Date: 17 September 2019 **Time:** 06:00 PM to 09:00 PM

Location: Room:6A-209, Nokia Bell Labs, 600 Mountain Ave, Murray Hill, NJ 07974

Contact: Joe Stack, jstack@ieee.org, Adriaan J. van Wijngaarden, (973) 738 3393, avw@ieee.org

Speaker: Al Kornak (JVC Kenwood, Director of Broadcast Sales)

Webex information: <https://ieeemeetings.webex.com/join/mmga-r1-metsac>

Semiconductor UV lasers and LEDs – ED/CAS, MTT/AP**Date:** 25 September 2019 **Time:** 04:30 PM to 06:30 PM**Location:** ECE 202, NJIT, 154 Summit Street, Newark, NJ 07102**Contact:** Ajay K. Poddar: +1 201-560-3806, akpoddar@ieee.org, Durga Misra: +1-973-596-5739, dmisra@ieee.org,
Anisha Apte: anisha_apte@ieee.org, Edip Niver: edip.niver@njit.edu**Speaker:** Xiaohang Li (Assistant Professor at KAUST) & founder (Polarization Toolbox)**Substation Construction Management & Survey Techniques – PES/IAS/Life Members****Date:** 27 September 2019 **Time:** 09:00 AM to 02:00 PM**Location:** PSE&G - Hadley Road Facility, Auditorium, 4000 Hadley Road, South Plainfield, NJ 07080**Contact:** Mike Miller - millerm@ieee.org, Ken Oexle k.oexle@ieee.org**Speaker:** Jennifer Mayadas-Dering (Maser Consulting P.A.), Kevin Hanna (Maser Consulting P.A.)**Life Member and PES/IAS Luncheon - Congress and President Trump – PES/IAS/Life Members****Date:** 10 October 2019 **Time:** 12:00 PM to 04:00 PM**Location:** 16, Eagle Rock Avenue, East Hanover, NJ 07936**Contact:** Mike Miller - millerm@ieee.org, Ken Oexle k.oexle@ieee.org**Speaker:** Russel T. Harrison (IEEE-USA's director of Government Relations)**[Legacy Report] Life Member Election Meeting – PES/IAS/Life Members****Date:** 10 October 2019 **Time:** 01:00 PM to 01:30 PM**Location:** 16, Eagle Rock Avenue, East Hanover, NJ 07936**Contact:** Mike Miller - millerm@ieee.org**Armstrong Memorial Lecture - Andrew Viterbi: Digital Wireless: Origins, Evolution and Challenges – IEEE METSAC and the IEEE North Jersey/New York IT – Distinguished Lecture****Date:** 15 October 2019 **Time:** 02:00 PM to 03:30 PM**Location:** Davis Auditorium, Schapiro (CEPSR) Building, Columbia University, 116 St and Broadway, NY, NY 10027**Contact:** Debasis Mitra (debasismitra@columbia.edu), W: <http://www.ee.columbia.edu/debasis-mitra>Adriaan J. van Wijngaarden (avw@ieee.org)**Speaker:** Dr. Andrew Viterbi**Load Banks for Power System Testing – PES/IAS/Life Members****Date:** 25 October 2019 **Time:** 09:00 AM to 02:00 PM**Location:** ASCO Power Technologies, Auditorium, 160 Park Avenue, Florham Park, NJ 07932,**Contact:** Ken Oexle k.oexle@ieee.org**Speaker:** Mark Prevoznik, of ASCO**IEEE NORTH JERSEY SECTION – Short Courses****Big Data Market Research in Seven Saturdays** (Instructor: Donald Hsu) - **Education Committee****Date:** 05 October 2019 **Time:** 09:00 AM to 12:00 PM (7 Saturdays, Oct 5, 12, 19, 26, Nov 2, 9, 16, 2019)**Location:** New Jersey Institute Technology, Newark, NJ**COST:** IEEE (& affiliate) members \$500; Non-IEEE members \$550.**Contact:** Donald Hsu - yanyou@hotmail.com**Project Risk Management in Seven Saturdays** (Instructor: Donald Hsu) - **Education Committee****Date:** 05 October 2019 **Time:** 12:00 PM to 3:00 PM (7 Saturdays, Oct 5, 12, 19, 26, Nov 2, 9, 16, 2019)**Location:** New Jersey Institute Technology, Newark, NJ**COST:** IEEE (& affiliate) members \$500; Non-IEEE members \$550.**Contact:** Donald Hsu: yanyou@hotmail.com

THE INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS, INC.



NORTH JERSEY SECTION
MTT-Society & AP-Society Joint Chapters
PRESENTS



34th ANNUAL SYMPOSIUM AND MINI-SHOW

THURSDAY OCTOBER 3, 2019

Hanover Manor, 16 Eagle Rock Ave., East Hanover, NJ 07936. 973-992-7425

MINI SHOW FEATURING LATEST PRODUCTS - (9:30 AM TO 5:00 PM)
TECHNICAL SESSIONS (8:50AM to 5:00 PM)

Time	Topic	Speakers	Title	Affiliation
8:50	Opening Remarks	George Kannell	Technical Chair IEEE MTT/AP	General Dynamics
9:00-10:00	Drone Detection and Deterrence - The Legal and Technical Challenges of Unauthorized UAVs	Joel Miller Ziang Gao	Patent Attorney RF Team Lead	Joel Miller, Esq. AeroDefense
10:00	BREAK - MINI SHOW EXHIBITION			
10:30-11:00	Frequency-Domain Characteristics of the Volterra Series with Application to Digital Predistortion	Dr. George Vella-Coleiro	Consultant	Self
11:00-11:30	A Heuristic Method for Determining Far Field Distance of mmW 5G Massive MIMO Antennas	Steve Majkowski	Member of Technical Staff	Nokia Bell Laboratories
11:30-12:00	Designing a Closed Loop Circuit for Power Electronics	Dan Schwarz	Field Applications Engineer	Keysight
12:00	COMPLEMENTARY LUNCH - MINI SHOW EXHIBITION			
1:00-1:30	A 5G Clever Dumb Antenna	Dr. John Howard	President	ET Industries, Inc.
1:30-2:00	New Directional Filter Circuits for Combiner Designs	Dr. Huaren Yi	Senior Staff Engineer	Futurewei
2:00	BREAK - MINI SHOW EXHIBITION			
2:30-3:00	Extending Ground Coverage of Mobile Networks Using Satellites: Opportunities for Rapid Network	Dr. Paul Moakes	Chief Technical Officer	WTG CommAgility
3:00-3:30	5G Phased Array Applications; the Effects of Antenna Element Coupling, and its Mitigation	Andy Hughes	Solutions Architect	AWR
3:30-4:00	Atomic Clocks Tutorial	Stewart Hampton	SDA Product Line Manager	Microchip Technology Inc.
4:30-5:00	Women in Engineering	Erin Bongo Dru Reynolds	Software Engineer Recruiter	General Dynamics Dru Reynolds
5:00	Closing remarks	Kirit Dixit	Chair IEEE MTT/AP Symposium	Microcom Sales

Registration is on-site. Section Home page: <http://sites.ieee.org/northjersey/>

ALL ARE WELCOME (IEEE Membership not required). REGISTRATION IS ON-SITE
THERE IS NO CHARGE TO ATTEND THE SYMPOSIUM OR SHOW.
COMPLEMENTARY BREAKFAST / LUNCH INCLUDED FOR ALL

FOR FURTHER INFORMATION

General Event Chair	Kirit Dixit	201-669-7599	kdixit@microcomsales.com
Technical Program Chair	George Kannell	973-261-1421	george.kannell@gd-ms.com
Event Coordinator:	Ken Oexle		k.oexle@ieee.org
Event Coordinator	Har Dayal	973-633-4618	dayalhar@gmail.com
Event Coordinator:	Russell Pepe	201-960-6796	rpepe@att.net
Event Coordinator:	Howard Leach		h.leach@ieee.org
MTT/AP Chapter Chair	Dr. Ajay Poddar	201-560-3806	akpoddar@synergymwave.com
MTT/AP Chapter Vice Chair	Professor Edip Niver	973-596-3542	edip.niver@njit.edu
Section Chair	Professor Yu-Dong Yao	201-216-5264	Yu-Dong.Yao@stevens.edu

IEEE – IMPORTANT EVENTS, ARTICLES, ANNOUNCEMENTS AND REMINDERS:

- **7th Annual IEEE North Jersey Advanced Communications Symposium (NJACS-2019)**

Date: 14 September 2019 **Time:** 09:30 AM to 03:30 PM

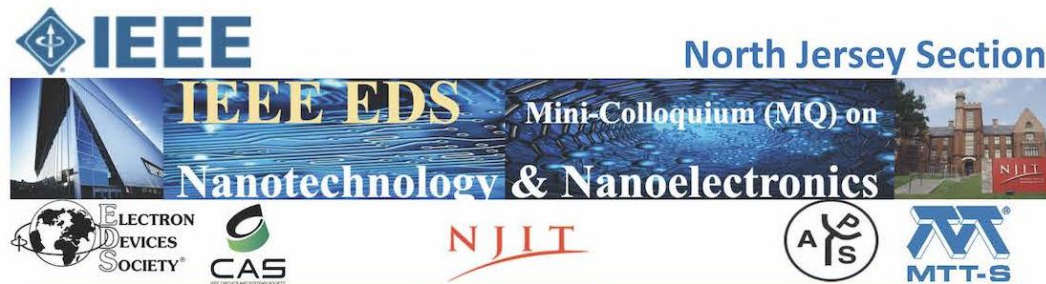
Location: Babbio Center, Stevens Institute of Technology, 525 River Street, Hoboken, NJ 07030

Contact: Yu-Dong Yao, Program Chair, yyao@stevens.edu,

Adriaan van Wijngaarden, Symposium Chair, avw@ieee.org

- **This Month's Communications Society News from Around the World**
- **"Try College Teaching" - An article by Harry Roman**
- **4 December 2019: ED/CAS, AP/MTT Co-Sponsors**

Mini-Colloquium (MQ) on Nanotechnology and Nanoelectronics - "IEEE Electron Device Society Mini-Colloquium and Distinguished Lecture Program"



*IEEE EDS Nanotechnology Technical Committee
& North Jersey ED/CAS & AP/MTT Chapters
Wednesday, December 4, 2019*

SPEAKERS

Prof. Moshe Kam
Dean, Newark College of Engineering
Past President, IEEE: Introduction



Dr. Fernando Guarin
IEEE EDS President 2018-2019
Introduction: IEEE EDS

Prof. Navakanta Bhat
Indian Institute of Science, India
High Performance Gas Sensors using 2D
Nanomaterials



Prof. Michael Shur
Rensselaer Polytechnic Institute, USA
Nanoplasmonic TeraFETs for Terahertz Applications

Dr. MK Radhakrishnan
NANOREL, Singapore
Interface Physics, Reliability and Analysis
Challenges in Si Nanodevices



Dr. Bin Zhou
ON Semiconductors, USA
Power Management Solutions Enabled by Mixed-Signal
Technologies and Intelligence

Prof. Dr. Ulrich Rohde
Synergy Microwave Corp., NJ, USA
Emerging Trend in 5G, IoT and SDR



Prof. Bipin Rajendran
New Jersey Institute of Technology, USA
Designing Learning Systems based on Nanoscale
Devices

Venue: Department of Electrical and Computer Engineering, NJIT, Room: ECEC 202

Parking: 154 Summit Street, Newark, NJ 07102

Sponsors: IEEE EDS, North Jersey ED/CAS and AP/MTT Chapters and NJIT

Registration: <https://events.vtools.ieee.org/m/204002>

Registration Fee: None

Last Day to Register: December 1, 2019

Committee Chair: Dr. Durga Misra, ECE Dept., NJIT, +1-973-596-5739, dmsira@njit.edu

Co-Chair: Dr. Ajay Poddar, Synergy Microwave Corp., +1- 201-560-3806, akpoddar@ieee.org

**All Welcome: You Don't have to be an IEEE Member to attend this event
Must Register to Attend**

For up to date information, visit our website: [IEEE North Jersey Section](http://www.ieee.org/northjersey) . You do not have to be an IEEE member to attend any event.
The Section Executive Committee roster is at: <http://sites.ieee.org/northjersey/org/> Prior registration is encouraged and appreciated.