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@fdu.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@fdu.edu; Alfredo Tan, tan@fdu.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, Anisha Apte: anisha_apse@ieee.org, Durga Misra: +1-973-596-5739, dmisra@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 – CNNNJ 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, Anisha Apte: anisha_apse@ieee.org, Durga Misra: +1-973-596-5739, dmisra@ieee.org, Edip Niver: edip.niver@njit.edu
Speaker: Dr. Andreas Kerber of Skorpios Technologies, Inc.

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, apoddar@ieee.org,  
Durga Misra: +1-973-596-5739, dmisra@ieee.org,  
Anisha Apte: anisha_ape@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 02:00 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  

**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
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)

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Speakers</th>
<th>Title</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:50</td>
<td>Opening Remarks</td>
<td>George Kannell</td>
<td>Technical Chair IEEE MTT/AP</td>
<td>General Dynamics</td>
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<tr>
<td>9:00-</td>
<td>Drone Detection and Deterrence - The Legal and Technical Challenges</td>
<td>Joel Miller, Ziang Gao</td>
<td>Patent Attorney, RF Team Lead</td>
<td>Joel Miller, Esq., AeroDefense</td>
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<tr>
<td>9:10</td>
<td>of Unauthorized UAVs</td>
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<tr>
<td>10:00</td>
<td>BREAK - MINI SHOW EXHIBITION</td>
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<tr>
<td>10:30</td>
<td>Frequency-Domain Characteristics of the Volterra Series with</td>
<td>Dr. George Vella-Coleiro</td>
<td>Consultant</td>
<td>Self</td>
</tr>
<tr>
<td>11:00</td>
<td>Application to Digital Predistortion</td>
<td></td>
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<tr>
<td>11:10</td>
<td>A Heuristic Method for Determining Far Field Distance of mmW 5G</td>
<td>Steve Majkowski</td>
<td>Member of Technical Staff</td>
<td>Nokia Bell Laboratories</td>
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<tr>
<td>11:30</td>
<td>Massive MIMO Antennas</td>
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<tr>
<td>12:00</td>
<td>Designing a Closed Loop Circuit for Power Electronics</td>
<td>Dan Schwarz</td>
<td>Field Applications Engineer</td>
<td>Keysight</td>
</tr>
<tr>
<td>1:00</td>
<td>COMPLEMENTARY LUNCH - MINI SHOW EXHIBITION</td>
<td>Dr. John Howard</td>
<td>President</td>
<td>ET Industries, Inc.</td>
</tr>
<tr>
<td>1:30</td>
<td>A 5G Clever Dumb Antenna</td>
<td>Dr. Huairen Yi</td>
<td>Senior Staff Engineer</td>
<td>Futurewei</td>
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<tr>
<td>2:00</td>
<td>BREAK - MINI SHOW EXHIBITION</td>
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<tr>
<td>2:30</td>
<td>Extending Ground Coverage of Mobile Networks</td>
<td>Dr. Paul Moakes</td>
<td>Chief Technical Officer</td>
<td>WTG CommAgility</td>
</tr>
<tr>
<td>3:00</td>
<td>Using Satellites: Opportunities for Rapid Network</td>
<td>Andy Hughes</td>
<td>Solutions Architect</td>
<td>AWR</td>
</tr>
<tr>
<td>3:30</td>
<td>5G Phased Array Applications; the Effects of Antenna Element</td>
<td>Stewart Hampton</td>
<td>SDA Product Line Manager</td>
<td>Microchip Technology Inc.</td>
</tr>
<tr>
<td>3:40</td>
<td>Coupling, and its Mitigation</td>
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<tr>
<td>4:30</td>
<td>Atomic Clocks Tutorial</td>
<td>Erin Bongo, Dru Reynolds</td>
<td>Software Engineer, Recruiter</td>
<td>General Dynamics, Dru Reynolds</td>
</tr>
<tr>
<td>5:00</td>
<td>Women in Engineering</td>
<td>Kirit Dixit</td>
<td>Chair IEEE MTT/AP Symposium</td>
<td>Microcom Sales</td>
</tr>
</tbody>
</table>

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 Wijngaarde, 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”

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**IEEE EDS Nanotechnology Technical Committee & North Jersey ED/CAS & AP/MTT Chapters**

**Wednesday, December 4, 2019**

**SPEAKERS**

- **Prof. Moshe Karn**  
  Dean, Newark College of Engineering  
  Past President, IEEE  
  [Introduction](#)

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

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

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

- **Dr. Fernando Guarin**  
  IEEE EDS President 2018-2019  
  [Introduction](#)

- **Prof. Michael Shur**  
  Rensselaer Polytechnic Institute, USA  
  Nanoplasmic TeraFETs for Terahertz Applications

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

- **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.ieee.org/m/204029](https://events.ieee.org/m/204029)  
**Registration Fee:** None  
**Last Day to Register:** December 1, 2019  
**Committee: Chair:** Dr. Durga Misra, ECE Dept., NJIT, +1-973-596-5739, dmisra@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*

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For up to date information, visit our website: [IEEE North Jersey Section](#). 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/](http://sites.ieee.org/northjersey/org/) Prior registration is encouraged and appreciated.