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

IEEE
North Jersey Section

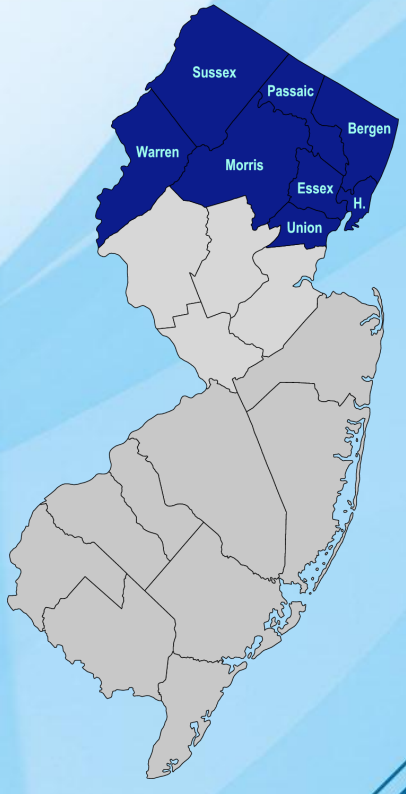
IEEE North Jersey Section Newsletter

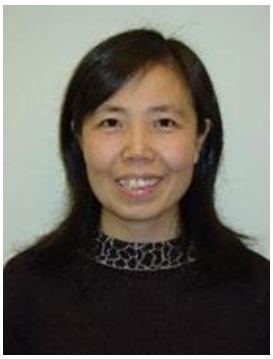
VOL. 69, NO. 09 Issue: October 2023

- You do not have to be an IEEE member
- Prior registration is encouraged to attend any event.

IEEE North Jersey Section Website

IEEE North Jersey Section - Roster





Chair's Note - A Message from the IEEE North Jersey Section Chair Prof. Hong Zhao

As we embrace the golden October, I am excited to share with you a lineup of events and activities that the North Jersey Section has organized for the month. There are eleven events scheduled this month including technical seminars, the 37 th AP/MTT annual symposium and mini show and a short course for deep learning Seminar topics include machine learning/deep learning applied in various fields, co-design of software and hardware for machine learning, security and trust, radar sensing technology & challenges, and signal processing. The short course "Introduction to Deep Learning", held every Saturday throughout October, offers a comprehensive introduction to this transformative field, and will equip you with valuable skills for the future. Our prestigious 37 th Annual symposium and Mini Show features speakers from leading companies with emphasis on military electronics, wireless technologies, and microwave communications. The Mini Show promises to be a showcase of innovation and technological advancement.

Please visit our vTools webpage and register for the events that interest you. We look forward to seeing you there!

Best wishes,

Hong Zhao, IEEE North Jersey Section Chair

IEEE – IMPORTANT EVENTS, ARTICLES, ANNOUNCEMENTS AND REMINDERS:

- This Month's Communications Society News from Around the World
- "What Advice Would you Give?" - An article by Harry Roman

What Advice Would You Give?

Here is an exercise to get your juices flowing. You are invited back to your alma mater to sit on an advisory board to provide input into its engineering college. You have been out of school for quite some time, but you have amassed a great deal of real-life engineering experience, the

kind of "rubber-meets-the road" practical experience. What kinds of recommendations would you make for how the engineering curriculum should be taught?

As you look back over the years, what were the pitfalls you faced or the big surprises that caused career detours or opportunities? Is it possible young engineers could face similar circumstances? Could your advice help future engineers?

Would you be an advocate for new and improved subject matter, or perhaps better techniques and processes that students could use? Maybe both?

Should engineering students be encouraged to work part-time or during the summer for a company in an "engineering-assistant" capacity to learn first-hand about the work-a-day world of engineering? Should their college coordinate this?

How about professional skills like communications, and interpersonal skills? How did mastery of these skills affect your career? Should young engineers write and speak more to get ready for the business world?

Is there a place in the curriculum for the teaching of creativity and invention techniques?

What about continuing education and professional engineering affiliations?

What was the best advice your on-the-job mentors and colleagues ever gave you?

Why would you recommend IEEE membership? What benefits could this supply to young engineers?

Talk to you again soon...

Harry

Harry T. Roman, Life Senior Member

Author & Advisor, Edison Innovation Foundation
(Retired-PSE&G Co.)
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FDU
Gildart Haase School of Computer Sciences & Engineering

GRADUATE SCHOOL VIRTUAL OPEN HOUSE!

Tuesday, October 17, 2023, 5 p.m.

Fairleigh Dickinson University

Gildart Haase School of Computer Sciences & Engineering (GHSCSE)

Cybersecurity Leadership: "National Center of Academic Excellence for Cyber Defense Education (CAE-CDE)" by NSA

18 cutting-edge labs, among the best in the North and Mid-Atlantic Regions

Offers 6 Masters of Science (MS) Programs

- *Cybersecurity & Information Assurance
- *Electrical Engineering
- *E-Commerce
- *Management Information Systems
- *Computer Engineering
- *Computer Science (Data Science, Cloud Computing and more)

Scan Zoom Registration

Scan Grad Program Info

FDU
Gildart Haase School of Computer Sciences & Engineering

GRADUATE SCHOOL VIRTUAL OPEN HOUSE!

Tuesday, November 21, 2023, 5 p.m.

Fairleigh Dickinson University

Gildart Haase School of Computer Sciences & Engineering (GHSCSE)

Cybersecurity Leadership: "National Center of Academic Excellence for Cyber Defense Education (CAE-CDE)" by NSA

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Calendar of Events

Upcoming Events: October 2023 Onwards

Title	Date	Location
37th ANNUAL SYMPOSIUM AND MINI-SHOW : North Jersey Section Jt Chapter, AP03/MTT17	04 Oct 2023 09:00 AM	E. Hanover, New Jersey
Facilitating Security and Trust among Multiple Parties through Blockchain Techniques : North Jersey Section Chapter, C16	04 Oct 2023 04:30 PM	Newark, New Jersey
Webinar: Machine Learning in Communications and Sensing in Wireless Networks: North Jersey Section	05 Oct 2023 06:00 PM	Yes
Introduction To Deep Learning : North Jersey Section Chapter, COM 19	07 Oct 2023 01:30 PM	Teaneck, New Jersey
2nd IEEE CAS Seasonal School: Intelligent Memory & Sensor at the Edge (IMS 2023) - Device to Architecture Co-Design : North Jersey Section Jt Chapter,CAS04/ED15	10 Oct 2023 09:30 AM	Newark, New Jersey
Deep Learning with Quantum State Fidelity and Beyond : North Jersey Section Chapter,C16	12 Oct 2023 11:00 AM	Newark, New Jersey

Title	Date	Location
Applications of Microwaves in Medicine : North Jersey Section Jt Chapter,AP03/MTT17	12 Oct 2023 12:00 PM	Virtual
Geothermal Energy with Tokamak Plasma Testing : New Jersey Coast Section	12 Oct 2023 06:00 PM	Piscataway, New Jersey
Verification and Validation within a System of Systems : North Jersey Section Chapter,SYS45	17 Oct 2023 05:00 PM	Virtual
Synthetic Aperture Radar (SAR) Signal Processing Challenges and Data Sets for Associated Research : North Jersey Section Chapter,SP01	18 Oct 2023 12:00 PM	Virtual
Resilient Situational Awareness for Smart Grids : North Jersey Section Chapter,CS23	20 Oct 2023 11:00 AM	Newark, New Jersey, Virtual
Episodic Processing for Radar Image Characterization : North Jersey Section Chapter,AES10	24 Oct 2023 06:45 PM	Virtual
Defense Microelectronics Industrial Base : Northern Virginia/Washington Chap,ED15,SSC37,EP21	25 Oct 2023 06:30 PM	Vienna, Virginia, Virtual

Title	Date	Location
Co-Design of Algorithms and Architectures for Machine Learning Inference at the Edge for Video Analytics : Long Island Section Chapter,SP01	30 Oct 2023 06:00 PM	Virtual
New Jersey Offshore Wind Bootcamp Training - Winter Session : North Jersey Section Chapter,MAG33/UFFC20/SEN39	04 Dec 2023 08:30 AM	Newark, New Jersey
New Jersey Offshore Wind Technology Conference and Exhibition : North Jersey Section Chapter,MAG33/UFFC20/SEN39	06 Dec 2023 08:30 AM	Newark, New Jersey
EDS/CASS Distinguished Lecture: Semiconductor Innovation for Transformative Impact : North Jersey Section Jt Chapter,CAS04/ED15	03 Apr 2024 02:15 PM	Newark, New Jersey

Past Month's Events: September 2023

Title	Date	Location
Fairleigh Dickinson University 5th Annual Cybersecurity Symposium : North Jersey Section	06 Sep 2023 08:00 AM	Florham Park, New Jersey
IEEE North Jersey Section EXCOM - Meeting 6:30 PM : North Jersey Section	06 Sep 2023 06:30 PM	Virtual
Surge Protection of Power Systems : North Jersey Section Chapter,PE31	08 Sep 2023 09:00 AM	South Plainfield, New Jersey
Mobile Material Characterization and Localization by Electromagnetic Sensing : North Jersey Section Jt Chapter,AP03/MTT17	12 Sep 2023 12:00 PM	Virtual
Mobile Material Characterization and Localization by Electromagnetic Sensing : North Jersey Section Jt Chapter,AP03/MTT17	12 Sep 2023 12:00 PM	Virtual
IEEE HTB Taenzer Grant Topics in Inclusion & Accessibility: Dr Raziq Yaqub : IEEE New Jersey Coast Section SIGHT	12 Sep 2023 07:30 PM	Virtual

Title	Date	Location
Next-generation Computational Imaging and Display Systems Engineering based on End-to-end Optimization of Physical Structure and Signal Processing : North Jersey Section Chapter,SP01	13 Sep 2023 12:00 PM	Virtual
IEEE NJACS-2023: 11th Annual IEEE North Jersey Advanced Communications Symposium (Theme: AI, Deep Learning, and ChatGPT) (Zoom) : North Jersey Section Chapter,C16	16 Sep 2023 01:00 PM	Zoom Online, New Jersey
CHIPS: An Unprecedented Opportunity What This Program Means : Northern Virginia/Washington Chap,ED15,SSC37,EP21	20 Sep 2023 06:30 PM	Vienna, Virginia, Virtual
IEEE AP-S COPE, SIGHT and EPICS (Engineering Projects in Community Service)-Project Activities : North Jersey Section Jt Chapter,AP03/MTT17	22 Sep 2023 11:00 AM	Virtual
IEEE AP-S COPE, SIGHT and EPICS (Engineering Projects in Community Service)-Project Activities : North Jersey Section Jt Chapter,AP03/MTT17	22 Sep 2023 11:00 AM	Virtual

Title	Date	Location
AP-S COPE Energy Harvsting Humantarian Technology Project Activities : North Jersey Section Jt Chapter,AP03/MTT17	23 Sep 2023 09:00 AM	
RedCap Device Testing Made Easy : North Jersey Section Jt Chapter,AP03/MTT17	27 Sep 2023 01:00 PM	Virtual
Seminar: A Glimpse into the Robotics Industry : Montclair State Univ	27 Sep 2023 02:00 PM	Montclair, New Jersey
USB 3.2 electrical compliance test : North Jersey Section Jt Chapter,AP03/MTT17	28 Sep 2023 02:00 PM	Virtual
Redesign Ancillary Services with Clean Energy Resources, Machine Learning, and Ubiquitous Information : North Jersey Section Chapter,CS23	29 Sep 2023 11:00 AM	Newark, New Jersey, Virtual

2023 IEEE North Jersey Section Volunteers

Executive Committee

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First Vice-Chair – Emad Farag enfarag@ieee.org

Second Vice-Chair – Anisha Apte anisha_apte@ieee.org

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Alfredo Tan **–** tan@fdu.edu

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Senior Past Chair – Yu-Dong Yao

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Vice-Chair – Kirit Dixit - kdixit@ieee.org

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Russell C. Pepe rcpepe@ieee.org

Group coordinator / History

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Legal Activities

Chair – Vacant

Membership Development

Chair – Michael Newell

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TPC Co-Chair – Ajay Poddar

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Ajay Poddar - akpoddar@ieee.org

Emad Farag **-** enfarag@ieee.org

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Avimanyou Vatsa - avatsa@fdu.edu