

# IEEE North Jersey Section

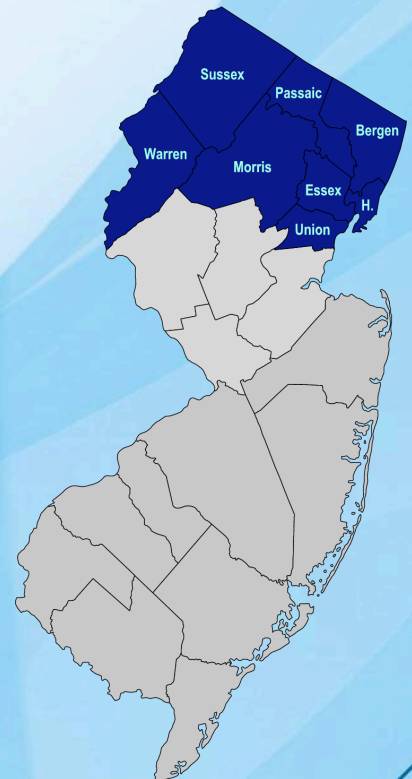
## IEEE North Jersey Section Newsletter

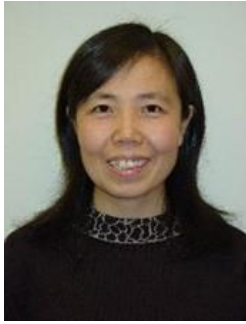
**VOL. 70, NO. 02      Issue: February  
2024**

Prior registration is highly 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 step into the month of February, we are thrilled to share with you the upcoming events the IEEE North Jersey Section has in store for you. We have organized a diverse array of topics catered to the ever-evolving landscape of technology. These events will explore health-associated hazards linked to electromagnetic waveform exposure in 5G and beyond, delve into the world of edge computing security, discover how Artificial Intelligence (AI) and Machine Learning (ML) is transforming optimization processes, unpack the security challenges inherent in Open RAN architectures, deepen your understanding of phase noise measurement techniques.

All these events will be conducted virtually, allowing us to transcend geographical boundaries and invite esteemed speakers from around the world. The convenience of virtual meetings ensures that you can join us from the comfort of your home or office.

I strongly encourage you to take advantage of these opportunities for professional development Looking and networking. Your active participation will contribute to the success of these events and foster a vibrant community of knowledge-sharing within our section.

forward to the exciting February events – Join Us Virtually!

**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](#)
- **The Edison-Fessenden Connection** - An article by Harry Roman

## **The Edison-Fessenden Connection** - *An article by Harry Roman*

Reginald Aubrey Fessenden (1866-1932) is celebrated by IEEE for his great contributions to the early days of radio and wireless transmission. He was responsible for the first radio transmission in 1900, discovering the principle of amplitude modulation that led to AM radio and even developing sonar systems that determined things like ocean depth and iceberg collision avoidance. Fessenden is considered the Father of radio-telephony.

However, before he went on to create 500+ patents, Fessenden was a lifelong admirer of Thomas Edison, and in 1886, he applied to work for him so that he could learn from the best. He was hired for a semi-skilled position as an assistant tester for the Edison Machine Works laying underground electrical mains in New York City.

Fessenden moved to Edison's West Orange labs in 1887, where he was Edison's assistant and participated in a broad range of projects, which included solving problems in chemistry, metallurgy, and electricity. Edison valued him for his ability to work out solutions across a variety of technical areas. Fessenden could think on his feet, and Edison highly prized this ability. Eventually, Fessenden would become the chief chemist of Edison Electrical Co.

Taking advantage of the practical experience that he gained with Edison, Fessenden had no problem finding positions with a series of manufacturing companies, including his own. Fessenden taught electrical engineering at Purdue and the University of Pittsburg, teaching others the Edison style of thinking and project management.

Another fascinating connection between these two great electrical icons is that both had WWII naval fighting vessels named in their honor: DD 439, the USS Edison (destroyer), and DE 142, the USS Fessenden (destroyer escort).

Talk to you again soon...

Harry

Harry T. Roman, Life Senior Member, Author & Advisor, Edison Innovation Foundation  
(Retired-PSE&G Co.), [htroman49@aol.com](mailto:htroman49@aol.com)



**Fairleigh Dickinson University**  
**Gildart Haase School of Computer Sciences & Engineering (GHCSE)**

**GRADUATE SCHOOL VIRTUAL OPEN HOUSE!**

**Tuesday, February 20, 2024, 5 p.m.**

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

**Scan Zoom Registration**



**Scan Grad Program Info**






























































































































































































































































**Fairleigh Dickinson University**  
**Gildart Haase School of Computer Sciences & Engineering (GHCSE)**

**GRADUATE SCHOOL VIRTUAL OPEN HOUSE!**

**Tuesday, March 19, 2024, 5 p.m.**

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

**Scan Zoom Registration**



**Scan Grad Program Info**
































































## Calendar of Events

### Upcoming Events: February 2024 Onwards

Title	Date	Hosts	Location
Redefining testing for Bluetooth Low Energy: North Jersey Section Jt Chapter, AP03/MTT17	01 Feb 2024 01:00 PM	CH01092 - North Jersey Section Jt Chapter, AP03/MTT17, CH01178 - North Jersey Section Chapter, PHO36	Virtual
IEEE North Jersey Section EXCOM - Meeting 6:30 PM: North Jersey Section	07 Feb 2024 06:30 PM	R10327 - North Jersey Section	Montclair, New Jersey, Hybrid
Understanding over the Horizon low-frequency radar: North Jersey Section Jt Chapter, AP03/MTT17	08 Feb 2024 11:00 AM	CH01092 - North Jersey Section Jt Chapter, AP03/MTT17, CH01178 - North Jersey Section Chapter, PHO36, CH01184 - North Jersey Section Jt Chapter, CAS04/ED15, CH01153 - North Jersey Section Chapter, VT06	Virtual

Health Aspects of Millimeter-Wave Radiation in 5G and Beyond: North Jersey Section Jt Chapter, AP03/MTT17	13 Feb 2024 12:00 PM	CH01092 - North Jersey Section Jt Chapter, AP03/MTT17, CH01184 - North Jersey Section Jt Chapter, CAS04/ED15, CH01178 - North Jersey Section Chapter, PHO36, CH01285 - North Jersey Section Chapter, SIT30	
Understanding Phase Noise: Mastering Phase Noise Measurements from 50 GHz to sub-THz and beyond North Jersey Section Jt Chapter, AP03/MTT17	14 Feb 2024 02:00 PM	CH01092 - North Jersey Section Jt Chapter, AP03/MTT17, CH01178 - North Jersey Section Chapter, PHO36	Virtual
Optimization Techniques for RISs - AI/ML webinar: North Jersey Section	15 Feb 2024 12:00 PM	R10327 - North Jersey Section	Virtual
Security Considerations for Mobile Edge Computing webinar: North Jersey Section	21 Feb 2024 11:00 AM	R10327 - North Jersey Section	Virtual

IEEE Montclair State University STEM Fair: Montclair State Univ	21 Feb 2024 02:30 PM	STB21201 - Montclair State Univ, R10327 - North Jersey Section	Montclair , New Jersey
Optimizing ORAN Security Design and Considerations: North Jersey Section	20 Mar 2024 11:00 AM	R10327 - North Jersey Section	Virtual
EDS/CASS Distinguished Lecture: Semiconductor Innovation for Transformative Impact: North Jersey Section Jt Chapter, CAS04/ED15	03 Apr 2024 02:15 PM	CH01184 - North Jersey Section Jt Chapter,CAS04/ED15, CH01092 - North Jersey Section Jt Chapter ,AP03/MTT17	Newark, New Jersey

**For Past Month's Events - January 2024 - [Click Here](#)**



## 2024 IEEE North Jersey Section Volunteers

### *Executive Committee*

**Chair** – Hong Zhao zhao@fdu.edu

**First Vice-Chair** – Emad Farag

enfarag@ieee.org

**Second Vice-Chair** – Anisha Apte

anisha\_apte@ieee.org

**Secretary** - Adriaan J. van

Wijngaarden avw@ieee.org

**Treasurer** – Avimanyou Vatsa

avatsa@fdu.edu

**Member-at-Large**

Naresh Chand -

chandnaresh@gmail.com

Har Dayal –

dayalhar@gmail.com

Alfredo Tan – tan@fdu.edu

**Junior Past Chair** – Ajay K.

Poddar akpoddar@ieee.org

**Senior Past Chair** – Yu-Dong Yao

Yu-Dong.Yao@stevens.edu

### *Society Chapters*

#### *Aerospace Electronic Systems*

**Chair** – Cherif Chibane

cherif.chibane@gmail.com

**Vice-Chair** – Kirit Dixit -

kdixit@ieee.org

#### *Antennas and Propagation /*

#### *Microwave Theory and Techniques*

**Co-Chairs**

Ajay Poddar

akpoddar@synergymwave.com

Edip Niver niver@adm.njit.edu

**Vice-Chair** – Anisha Apte

anisha\_apte@ieee.org

#### *Circuits and Systems/Electron*

##### *Devices*

**Chair** – Durga Misra

dmisra@njit.edu

**Vice Chair** - Shaahin Angizi

shaahin.angizi@njit.edu

##### *Communications*

**Chair** – Amit Patel -

a.j.patel@ieee.org

##### *Computer*

**Chair** – Hong Zhao -

zhao@fdu.edu

**Vice Chair** -Tao Han -

tao.han@njit.edu

##### *Computational Intelligence Society*

**Chair:** Prasenjit Bhadra -

prasenjit@ieee.org

**Vice-Chair:** Ratna Raj -

ratna.raj@njit.edu

##### *Control Systems*

**Chair** – Marcos Netto

marcos.netto@njit.edu

##### *Electromagnetic*

##### *Compatibility/Product Safety*

##### *Engineering*

**Chair** – Russell C. Pepe -

rcpepe@ieee.org

##### *Engineering in Medicine and*

##### *Biology*

**Chair** – Yu-Dong Yao -

Yu-Dong.Yao@stevens.edu

##### *Industrial Applications*

**Chair** – Ken Oexle -

k.oexle@ieee.org

#### *Information Theory*

**Chair** – Adriaan J. van

Wijngaarden

avw@ieee.org

#### *Instrumentation & Measurement*

**Chair** – Russell C. Pepe -

rcpepe@ieee.org

##### *Photonics*

**Chair** – Naresh Chand

chandnaresh@gmail.com

##### *Power & Energy*

**Co-Chairs**

Ronald W. Quade

rwquade@ieee.org

Michael Miller

michaelamiller8@gmail.com

##### *Robotics & Automation*

**Chair** - Mengchu Zhou

zhou@njit.edu

**Vice Chair** - Shilpi Chakraborty

shilpi@ieee.org

##### *Signal Processing*

**Chair** – Alfredo Tan - tan@fdu.edu

##### *Social Implications of Technology*

**Chair** – Kirit Dixit -

kdixit@ieee.org

##### *Systems, Man, and Cybernetics*

**Chair** – Weitian Wang

wangw@montclair.edu

##### *Technology & Engineering*

##### *Management*

**Chair** – Kirit Dixit -

kdixit@ieee.org

##### *Vehicular Technology*

**Chair** – Ionel Bajescu

nelu108@yahoo.com



## ***Affinity Groups and Councils***

### ***Consultants Network***

#### **Co-Chairs**

Jim Julian  
consultant@jimjulian.com  
Jay Morreale [p-brane@p-brane.com](mailto:p-brane@p-brane.com)

### ***Young Professionals***

**Chair** – Larry Yang –  
[larry.yang@alcatel-lucent.com](mailto:larry.yang@alcatel-lucent.com)  
**Vice Chair** -Patrick Beesley  
[Patrick.Beesley@se.com](mailto:Patrick.Beesley@se.com)

### ***Women in Engineering***

#### **Co-Chairs**

Chitra Venkatraman  
[chitrav55@gmail.com](mailto:chitrav55@gmail.com)  
Reena Dahle  
[reena.dahleh@gmail.com](mailto:reena.dahleh@gmail.com)  
Ratna Raj ([ratna.raj@njit.edu](mailto:ratna.raj@njit.edu))

### ***LIFE Members***

#### **Co-Chairs**

Ken Oexle - [k.oexle@ieee.org](mailto:k.oexle@ieee.org)  
Michael Miller -  
[michaelamiller8@gmail.com](mailto:michaelamiller8@gmail.com)

### ***Nanotechnology Council***

**Chair** - Eui-Hyeok Yang -  
[ehyang@ieee.org](mailto:ehyang@ieee.org)

### ***North Jersey SIGHT Group***

#### **Co-Chairs**

Anisha Apte -  
[anisha\\_apte@ieee.org](mailto:anisha_apte@ieee.org)  
Dushyant Deshmukh  
[pranavdush@gmail.com](mailto:pranavdush@gmail.com)

## ***Committees***

### ***Audit Committee***

#### **Co-Chairs**

Ajay Poddar - [akpoddar@ieee.org](mailto:akpoddar@ieee.org)  
Kalyan Mondal - [mondal@fdu.edu](mailto:mondal@fdu.edu)  
Mani Iyer - [mani.iyer@ieee.org](mailto:mani.iyer@ieee.org)

### ***Awards & Recognitions***

#### **Co-Chairs**

Ken Oexle - [k.oexle@ieee.org](mailto:k.oexle@ieee.org)  
Adriaan J. van Wijngaarden  
[avw@ieee.org](mailto:avw@ieee.org)

### ***Educational Activities***

#### **Co-Chairs**

Donald Hsu –  
[yanyou@hotmail.com](mailto:yanyou@hotmail.com)  
Kalyan Mondal – [mondal@fdu.edu](mailto:mondal@fdu.edu)  
Amit Patel – [a.j.patel@ieee.org](mailto:a.j.patel@ieee.org)

### ***Employment Network***

#### **Co-Chairs**

Chitra Venkatraman  
[chitrav55@gmail.com](mailto:chitrav55@gmail.com)  
Naresh Chand  
[chandnaresh@gmail.com](mailto:chandnaresh@gmail.com)

### ***Government and Industrial***

#### ***Liaisons***

#### **Co-Chairs**

Art Greenberg  
[a.h.greenberg@ieee.org](mailto:a.h.greenberg@ieee.org)  
Russell C. Pepe [rcpepe@ieee.org](mailto:rcpepe@ieee.org)

### ***Group coordinator / History***

**Chair** – Howard Leach -  
[h.leach@ieee.org](mailto:h.leach@ieee.org)

### ***Legal Activities***

#### **Chair – Vacant**

### ***Membership Development***

**Chair** – Michael Newell  
[-msnewell@ieee.org](mailto:-msnewell@ieee.org)

### ***MTT/AP Trade Show and Symposium***

#### **Chair** – Kirit Dixit -

[kdixit@ieee.org](mailto:kdixit@ieee.org)

#### **Vice-Chair** – Har Dayal

[-dayalhar@gmail.com](mailto:-dayalhar@gmail.com)

#### **TPC Co-Chair** – George Kennall

[gkk@lgsinnovations.com](mailto:gkk@lgsinnovations.com)

#### **TPC Co-Chair** – Ajay Poddar

[akpoddar@ieee.org](mailto:akpoddar@ieee.org)

### ***Newsletter***

#### **Chair** – Anisha Apte

[anisha\\_apte@ieee.org](mailto:anisha_apte@ieee.org)

### ***Nominations and Appointments***

Ajay Poddar - [akpoddar@ieee.org](mailto:akpoddar@ieee.org)  
Kalyan Mondal - [mondal@fdu.edu](mailto:mondal@fdu.edu)  
Durga Misra - [dmisra@njit.edu](mailto:dmisra@njit.edu)

### ***PACE***

#### **Chair** – Russell C. Pepe -

[rcpepe@ieee.org](mailto:rcpepe@ieee.org)

#### **Co-Chair** – Paul E. Ward -

[peward@ieee.org](mailto:peward@ieee.org)

### ***Pre-University Activities***

**Co-Chair** – Chitra Venkatraman  
[chitrav55@gmail.com](mailto:chitrav55@gmail.com)

### ***Program Review Committee***

Kirit Dixit - [kdixit@ieee.org](mailto:kdixit@ieee.org)  
Ajay Poddar - [akpoddar@ieee.org](mailto:akpoddar@ieee.org)  
Emad Farag - [enfarag@ieee.org](mailto:enfarag@ieee.org)

### ***Student Activities***

#### **Chair** - Melvin Lewis

([mlewis@fdu.edu](mailto:mlewis@fdu.edu))

### ***Student Representative Committee***

**Chair** - Kalyan Mondal  
[mondal@fdu.edu](mailto:mondal@fdu.edu)

### ***Webmaster***

#### **Co-Chairs**

Adriaan J. van Wijngaarden -  
[avw@ieee.org](mailto:avw@ieee.org)  
Avimanyou Vatsa - [avatsa@fdu.edu](mailto:avatsa@fdu.edu)