

THE IEEE NORTH JERSEY SECTION NEWSLETTER

VOL. 67, NO. 09

Message from the IEEE North Jersey Section Chair Dr. Ajay Poddar

As the month of October begins, it is reassuring to see that many schools have opened for the fall



session with in-person instruction while some are still functioning in the hybrid method. Nevertheless, as a humanity, we all have come a long way in these trying times of the COVID-19 global pandemic. Strides have been made in making the vaccine available and at the same time medicines and diagnostic methods for treating and testing patients have developed rapidly. Some sense of normalcy seems to have returned, while everyone is adapting to the new normal and keeping up with the guidelines and regulations in an effort to keeping this pandemic at bay.

Our North Jersey Section is no different. As the weather begins to become cooler, we decided to host an outdoor event, and take a break from the online meetings being held for more than the past eighteen months. The North Jersey Section and its Membership Development, Students, YP, WiE and all Chapters gathered together at the Lewis Morris Park, in Morristown, New Jersey, on Sunday, September 26th 2021, The event was published on vTools at North Jersey Section Membership and Engagement, YP, WiE and Picnic - Lewis Morris Park, Sugarloaf A Shelter: vTools Events (ieee.org).



Fig. 1: Members of the IEEE North Jersey Section at the Outdoor Event Members enjoyed the outdoors and volunteered to organize food and other arrangements. About 80 members attended the event, and though it is not possible to share all the photos here, a group photo taken at the event is seen in Fig. 1. A formal discussion was organized by the Section Chair Dr. Ajay Poddar where the chapter officers and members shared about all the interesting activities that all the different chapters have been involved in during the pandemic, and the new initiatives were also discussed, a glimpse can be seen in Fig.2.

OCTOBER 2021

Several student members also attended and benefited from the event. Out section was pleased to invite and host Region-1 dignitaries from our neighboring sections, and Prof. Ali Abedi, and Bala Prasanna were happy to join the event and to get to know more about the vibrant North Jersey section.



Fig. 2: Section Members, Guests, Students - Interaction and Discussion

The 35th AP/MTT Joint Chapter Annual Symposium and Mini-Show was successfully held in-person at the Hanover Manor in East Hanover, New Jersey, after the break taken in 2020 due to the guidelines imposed during the Covid-19 Pandemic situation. The vTools link for the event: <u>35th ANNUAL SYMPOSIUM AND MINI-SHOW: North Jersey Section Jt Chapter, AP03/MTT17</u>



Fig. 3: Technical Session in progress at the Hanover Manor, NJ



Fig. 4: Plaques Presented to the Speakers at the Symposium

Fig. 3 shows the technical session in progress and Fig.4 shows the display of the plaques that the speakers of the day were presented. Several industry sponsors made their presence at the event with a display of the products in the exhibit hall, as

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

seen in Fig. 5. Lunch and refreshments were served to all the attendees.



Fig. 5: Exhibition and Banquet Hall

IEEE AP-S President Prof. Yahia Antar, IEEE AP-S SIGHT chair Dr. Jawad Siddiqui, and IEEE MTT-S 2022 President Elect. Prof. Rashaunda Henderson, Dr. Clinton Andrews, IEEE SSIT President, were some of the speakers at the event.



Fig 6: From Left: George Kannell, Jawad Siddiqui, Anisha Apte, Rashaunda Henderson, Yahia Antar, Har Dayal, Kirit Dixit, Ken Oexle, Naresh Chand, Ajay Poddar, Ulrich Rohde, Richard Snyder, Prasenjit Bhadra

All in all, the North Jersey Section is making successful attempts in beginning to host in-person events in an effort to bring some sense of normalcy during this global pandemic.

Get Involved with IEEE HAC/SIGHT

Important Dates & Upcoming Virtual Events

- 25 October IEEE HAC panel, "Leveraging a Global Network of Technologists to Address Local Challenges in the Face of a Pandemic" at The Global Sustainable Technology & Innovation Community (G-STIC) Conference
- 10 November The first-ever IEEE HAC Global Summit will serve as a platform to bring together IEEE members, leaders from a variety of IEEE entities, and representatives from external partners in the sustainable development space to exhibit the breadth and width of HAC engagement, showcase grassroots HAC/SIGHT

projects, and contribute to the global discussion on the application of humanitarian technology to address local challenges.

Visit the HAC/SIGHT **calendar** for more humanitarian technology events and activities (all virtual for now). Call for Proposals to support IEEE member grassroots humanitarian technology and sustainable development goals. Please visit the HAC website (https://bit.ly/HACSIGHTCfP2021) for more details.

IEEE AP-S Ulrich L. Rohde Humantarian Technical Field Projects-Award

Call for proposals: The proposal consisting of details of the project and budget can be submitted to IEEE AP-S SIGHT committee Chair Dr. Jawad Siddiqui (jys.rpe@gmail.com) and IEEE HAC Inter-Society Group Chair Dr. Ajay Poddar (akpoddar@ieee.org).

Deadlines: September 30, 2021.

The Project selection process is in line with IEEE SIGHT and Humanitarian Activity Committee Project Awards. The evaluation of proposals will be based primarily on technical content. After completion of the project, the awards committee will explore follow-up activities for low-cost production of the proposed technology, which is the key requirement for humanitarian needs. The announcement of the award will be made at the annual awards ceremony of the IEEE AP-S flagship conference. The recipient will receive a plaque and a \$10,000 cash prize for the completion of the project. The name(s) of the award recipient(s) will be published in *IEEE Antennas and Propagation Magazine* and on the IEEE AP-S website.

Detailed information available at IEEE AP-S SIGHT (https://www.ieeeaps.org/committees/ieee-aps-sight).

New Funding Opportunity

IEEE AP-S SIGHT, AP-S COPE, and IEEE HAC are jointly hosting a special call for proposals for AP-S Members. Awards of up to US\$3,000 will be made to selected projects that present a convincing plan to a) understand the real needs of a local community or local stakeholder organization and b) complete in no more than six months' time a pilot project utilizing AP-S relevant technology to address those local community challenges.

The last day to submit an application is 30 October 2021.

I wish all the members good health and a productive time ahead.

Best Wishes.

Ajay Poddar

IEEE North Jersey Section Chair



GRADUATE SCHOOL VIRTUAL OPEN HOUSE!

Wednesday, October 20, 2021, 7 p.m.

Fairleigh Dickinson University's Gildart Haase School of Computer Sciences & Engineering (GHSCSE)

- A national leader in Cybersecurity, designated as a "Center of Academic Excellence for Cyber Defense Education" by NSA and DHS
- 18 cutting-edge labs, among the best in the North and Mid-Atlantic Regions
- Offers 6 Masters of Science (MS) Programs:
 - o Cybersecurity & Information Assurance
 - o Computer Science
 - o Electrical Engineering
 - o Computer Engineering
 - o Management Information Systems
 - E-Commerce

Grow your career opportunities!

Register for the Open House: http://bit.ly/OpenHouseCyber

For Programs information, visit: https://tinyurl.com/GHprogram

IEEE – IMPORTANT EVENTS, ARTICLES, ANNOUNCEMENTS AND REMINDERS:

- This Month's Communications Society News from Around the World
- 35TH ANNUAL SYMPOSIUM AND MINI-SHOW (AP/MTT-s)
- "10 Vehicle Stats to Ponder" An article by Harry Roman for the October Newsletter

Calendar of Events

October Events

Date and Time	Event Details		
01 Oct 2021 09:00 AM to 11:00 AM	Distribution Voltage Regulation Seminar - Parts 3 & 4: North Jersey Section Chapter, PE31 (PES / IAS / LM Joint Meeting) Location: Required - vTools Registration link, Contact: Ronald Quade: rwquade@ieee.org Speaker: Bob McFetridge of Beckwith Electric		
05 Oct 2021 10:00 AM to 11:10 AM	IEEE Northern Jersey Section, SMC Chapter Seminar on Domain Adaptation via Enhanced Subspace Distribution Matching and Generative Adversarial Distribution Matching: North Jersey Section Chapter, SMC28 Location: Required - vTools Registration link (Hybrid Event) Building ECEC Room Number: 207, 323 MLK Blvd. Newark, NJ 07102 Contact: Prof. Mengchu Zhou: zhou@njit.edu Speaker: Siya Yao		



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

05 Oct 2021 06:00 PM to 09:00 PM	Location: Required - vTools Registration link			
06 Oct 2021 06:00 PM to 09:00 PM	Big Data Market Research in Seven Wednesdays via Zoom: North Jersey Section Jt Chapter, AP03/MTT17 Location: Required - vTools Registration link Contact: Instructor: Donald Hsu: yanyou@hotmail.com When: 7 Wednesdays, October 6, 13, 20, 27, November 3, 10, 17, 2021 @6 - 9 pm			
07 Oct 2021 09:00 AM to 04:30 PM	35th ANNUAL SYMPOSIUM AND MINI-SHOW: North Jersey Section Jt Chapter, AP03/MTT17 Location: Required - vTools Registration link Attendee Registration Form and Guidelines Hanover Manor, 16 Eagle Rock Avenue, East Hanover, NJ 07936 Contact: Kirit Dixit: kdixit@ieee.org; Dr. Ajay Poddar: akpoddar@ieee.org, Speaker: Multiple Speakers (Download Flyer)			
12 Oct 2021 09:00 PM to 10:00 PM	Seminar on Advanced Operators for Graph Neural Networks: North Jersey Section Chapter, SMC28 Location: Required - vTools Registration link, Virtual meeting link available after registering Contact: Mengchu Zhou: zhou@njit.edu Speaker: Dr. Yao Ma, Department of Computer Science, New Jersey Institute of Technology			
13 Oct 2021 02:00 PM to 03:00 PM	Your Career – Don't Let it Manage You! A few Tips to Manage Professional Development & Career Security: North Jersey Section Chapter, C16, SP01 Location: Required - vTools Registration link ZOOM Meeting Link: Meeting ID: 956 6231 4495 Muscarelle Center, Room M105, 1000 River Road, Teaneck, NJ 07666 Contact: Prof. Hong Zhao: zhao@fdu.edu; Dr. Alfredo Tan: tan@fdu.edu Speaker: Mr. Bala Prasanna of IEEE Region 1 Treasurer 2020-21			
15 Oct 2021 09:00 AM to 11:00 AM	Distribution Voltage Regulation Seminar - Parts 5 & 6: North Jersey Section Chapter, PE31 (PES / IAS / LM Joint Meeting) Location: Required - vTools Registration link Contact: Ronald Quade: rwquade@ieee.org Speaker: Bob McFetridge of Beckwith Electric			
29 Oct 2021 09:00 AM to 11:00 AM	Distribution Voltage Regulation Seminar - Parts 7 & 8: North Jersey Section Chapter, PE31 Location: Required - vTools Registration link Contact: Ronald Quade rwquade@ieee.org Speaker: Bob McFetridge of Beckwith Electric			
29 Oct 2021 08:00 PM to 09:00 PM	IEEE Virtual Distinguished Lecturer (VDL) Talk: "Connecting Space Assets to the Internet: Challenges and Solutions": New York Section Chapter, COM19 Location: Required - vTools Registration link Contact: Amit Patel: a.j.patel@ieee.org (Several Chapters sponsoring this event globally) Speaker: Prof. Mohammed Atiquzzaman of University of Oklahoma			
03 Nov 2021 06:30 PM to 08:45 PM	IEEE North Jersey Section - EXCOM - Zoom: North Jersey Section Location: Required - vTools Registration link Zoom meeting information: Meeting ID: 890 6781 1667 Contact: Ajay Poddar: akpoddar@ieee.org; Adriaan van Wijngaarden: avw@ieee.org Speaker: The meeting is meant to discuss and coordinate the activities of the Section and its Chapters and Groups, as well as new initiatives. Everyone is welcome to attend this meeting.			
12 Nov 2021 09:00 AM to 11:00 AM	Distribution Voltage Regulation Seminar - Parts 9 & 10: North Jersey Section Chapter, PE31 (PES / IAS / LM Joint Meeting) Location: Required - vTools Registration link Go to Meeting Link: Contact: Ronald Quade rwquade@ieee.org Speaker: Bob McFetridge of Beckwith Electric			









THE INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS, INC. NORTH JERSEY SECTION

MTT-Society & AP-Society Joint Chapters PRESENTS

35th ANNUAL SYMPOSIUM AND MINI-SHOW

THURSDAY OCTOBER 7, 2021

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

MINI SHOW FEATURING LATEST PRODUCTS - (9:30 AM TO 4:30 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	GDMS		
9:00- 10:00	Public Roles for Technical Experts	Dr. Clinton Andrews	President, IEEE SSIT	Rutgers University		
10:00	BREAKFAST BREAK - MINI SHOW EXHIBITION					
10:30- 11:00	Multi-Functional UWB Filtering Antennas With Complementary Bandpass and Bandstop Response	Dr. Jawad Siddiqui	Associate Professor	University of Calcutta, India, Royal Military College Canada		
11:00 - 11:30	Integration and Packaging Strategies for Millimeter- Wave CMOS	Dr. Rashaunda Henderson	2022 MTT-S President Elect Associate Professor	University of Texas		
11:30- 12:00	Advancements and future trends in Modern Antenna Systems for Communications and Sensors	Dr. Yahia Antar	President IEEE AP Professor	Royal Military College of Canada & Queen's University		
12:00	LUNCH					
1:00- 1:30	Timing and Frequency Distribution using optical fiber	George Conway Jay Darish	Senior Staff Engineers	Linear Photonics		
1:30- 2:30	Terahertz chip-scale systems	Dr Kaushik Sengupta	Associate Professor Director of IMRL Lab	Princeton University		
2:30	BREAK - MINI SHOW EXHIBITION					
3:00- 3:30	derstanding Quantum Computing for RF Engineers Mark Elo US National Sales Manager		Tabor Electronics			
3:30- 4:00	TFLE-Thin Film Lumped Elements Filters and Transition Time Converters (TTC) Solutions	Rafi Hershtig	Chief Technology Officer	K&L Microwave		
4:00- 4:30	Modular Implementation of the latest RFSoC chip from Xilinx	Bob Muro	Embedded Systems AE	Pentek Systems		
4:30- 5:00	High Power Energy Weapon Systems	Matt Diessner	FAE	Wireless Telecom Group		
5:00	Closing remarks	Kirit Dixit	Chair AP/MTT Mini 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.

Attendees will be required to sign a statement indicating full vaccination.

Masks are mandatory except during consumption.

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 Vice Chair	Ken Oexle	11	k.oexle@ieee.org
Event Vice Chair	Har Dayal	973-628-7394	dayalhar@gmail.com
Event Coordinator:	Russell Pepe	201-960-6796	rpepe@att.net
Event Coordinator:	Howard Leach	1.0	h.leach@ieee.org
NNJ Section Chair	Dr. Ajay Poddar	201-560-3806	akpoddar@ieee.org
Chapter Vice Chair	Professor Edip Niver	973-596-3542	edip.niver@njit.edu



Past Month's Events

Date and Time	Event Details				
01 Sep 2021 06:30 PM	IEEE North Jersey Section - EXCOM - Zoom: North Jersey Section				
04 Sep 2021 06:00 PM	Review of Humanitarian Technology Projects: North Jersey Section Jt Chapters, AP03/MTT17				
04 Sep 2021 09:30 PM	COPE Projects: Application of Microwave and Antenna Technology for Humanitarian Applications: North Jersey Section Jt Chapters, AP03/MTT17				
06 Sep 2021 07:00 PM	Antenna Design: Workshop and STEM Program: North Jersey Section Jt Chapters, AP03/MTT17				
08 Sep 2021 07:00 PM	COPE PROJECTS: Workshop and STEM Program: North Jersey Section Jt Chapters, AP03/MTT17				
09 Sep 2021 02:00 PM	USB 3.2 Compliance Testing: North Jersey Section Jt Chapters, AP03/MTT17				
09 Sep 2021 02:00 PM	USB 3.2 Compliance Testing: North Jersey Section Jt Chapters, AP03/MTT17				
14 Sep 2021 09:00 AM	Modelling-Based Characterization of Materials for Application in 5G and Energy Sectors: North Jersey Section Chapters, AP03/MTT17				
14 Sep 2021 11:30 AM	Utility of the Future - Virtual - NNJ Section - LM Group UPDATED ZOOM DETAILS: North Jersey Section Affinity Group, LM				
14 Sep 2021 11:30 AM	Utility of the Future - Virtual - NNJ Section - PES / IAS: North Jersey Section Affinity Group, LM				
15 Sep 2021 08:45 AM	Engineer's day celebration by WiE Affinity Group: North Jersey Section Affinity Group, YP				
15 Sep 2021 02:00 PM	IEEE Student Membership: North Jersey Section Chapter, C16				
17 Sep 2021 09:00 AM	Distribution Voltage Regulation Seminar - Parts 1 & 2: North Jersey Section Chapter, PE31				
18 Sep 2021 01:00 PM	9th Annual IEEE North Jersey Advanced Communications Symposium (NJACS-2021) (Theme: AI and Deel Learning) (Zoom): North Jersey Section Chapter, C16				
20 Sep 2021 06:00 PM	Who Wants To be an Engineer? North Jersey Section Affinity Group, WIE				
26 Sep 2021 12:00 PM	North Jersey Section Membership and Engagement, YP, WiE and Picnic - Lewis Morris Park, Sugarloaf A Shelter: North Jersey Section				
27 Sep 2021 09:30 AM	IEEE DAY 2021: Building a Career in Photonics and Available IEEE Resources: North Jersey Section				

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

2021 IEEE North Jersey Section Volunteers

Executive Committee

Chair - Ajay K. Poddar akpoddar@synergymwave.com

First Vice-Chair - Hong Zhao

zhao@fdu.edu

Second Vice-Chair - Emad Farag

enfarag@ieee.org

Secretary - Adriaan J. van Wijngaarden

avw@ieee.org

Treasurer - Avimanyou Vatsa

avatsa@fdu.edu

Member-at-Large

Har Dayal - dayalhar@gmail.com Kirit Dixit - kdixit@ieee.org

Anisha Apte - anisha_apte@ieee.org

Junior Past Chair - Yu-Dong Yao

Yu-Dong.Yao@stevens.edu

Senior Past Chair - Kalyan Mondal

mondal@fdu.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-Chair - Ajay Poddar

akpoddar@synergymwave.com

Co-Chair -Edip Niver niver@adm.njit.edu

Co-Chair – Anisha Apte anisha_apte@ieee.org

Circuits and Systems/Electron Devices

Chair - Durga Misra dmisra@njit.edu

Communications

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

Computer

Chair – Hanna (Hong) Zhao

zhao@fdu.edu

Computational Intelligence Society

Chair: Prasenjit Bhadra prasenjit@ieee.org Control Systems

Chair - David Haessig davidhaessig@ieee.org

Electromagnetic Compatibility/Product

Safety Engineering Chair - Russell C. Pepe rcpepe@ieee.org

Engineering in Medicine and Biology

Chair - Har Dayal dayalhar@gmail.com

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-Chair - Ronald W. Quade

rwquade@ieee.org

Co-Chair - Michael Miller michaelamiller8@gmail.com

Robotics & Automation

Chair - Naresh Chand chandnaresh@gmail.com

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 - Mengchu Zhou

zhou@njit.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-Chair - Jim Julian consultant@jimjulian.com Co-Chair - Jay Morreale p-brane@p-brane.com Young Professionals

Chair - Larry Yang

larry.yang@alcatel-lucent.com

Women in Engineering

Co-Chair - Chitra Venkatraman chitrav55@gmail.com

Co-Chair - Reena Dahle reena.dahleh@gmail.com

LIFE Members

Co-Chair - Ken Oexle k.oexle@ieee.org

Co-Chair - Michael Miller michaelamiller8@gmail.com

Nanotechnology Council Chair - Eui-Hyeok Yang ehyang@ieee.org

North Jersey SIGHT Group Chair - Anisha Apte anisha apte@ieee.org

Co-Chair - Dushyant Deshmukh

pranavdush@gmail.com

Committees

Audit Committee

Co-Chair - Kalyan Mondal

mondal@fdu.edu Co-Chair - Mani Iyer mani.iyer@ieee.org

Awards & Recognitions

Co-Chair - Ken Oexle

k.oexle@ieee.org

Co-Chair - Adriaan J. van Wijngaarden

avw@ieee.org

Educational Activities

Co-Chairs

Donald Hsu - yanyou@hotmail.com Kalyan Mondal – mondal@fdu.edu Amit Patel a.j.patel@ieee.org

Employment Network

Co-Chair - Chitra Venkatraman

chitrav55@gmail.com Co-Chair - Naresh Chand chandnaresh@gmail.com

Government and Industrial Liaisons

Co-Chair - Art Greenberg a.h.greenberg@ieee.org Co-Chair - Russell C. Pepe

rcpepe@ieee.org

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

Legal Activities Chair - Vacant

Membership Development Chair - Michael Newell msnewell@ieee.org

MTT/AP Trade Show and Symposium

Chair - Kirit Dixit kdixit@ieee.org Vice-Chair - Har Dayal dayalhar@gmail.com

TPC Co-Chair - George Kennall gkk@lgsinnovations.com

TPC Co-Chair - Ajay Poddar akpoddar@synergymwave.com

Newsletter

Chair - Anisha Apte anisha apte@ieee.org

Nominations and Appointments Kalyan Mondal mondal@fdu.edu Durga Misra dmisra@njit.edu

PACE

Chair - Russell C. Pepe rcpepe@ieee.org

Co-Chair - Paul E. Ward peward@ieee.org

Pre-University Activities Co-Chair - Chitra Venkatraman chitrav55@gmail.com

Program Review Committee

Yu-Dong Yao -

Yu-Dong.Yao@stevens.edu Hong Zhao - zhao@fdu.edu Emad Farag - enfarag@ieee.org

Student Activities Chair - Hong Zhao zhao@fdu.edu

Student Representative Committee

Chair - Kalyan Mondal mondal@fdu.edu

Webmaster

Co-Chair - Adriaan J. van Wijngaarden

avw@ieee.org

Co-Chair - Avimanyou Vatsa

avatsa@fdu.edu

