THE IEEE NORTH JERSEY SECTION NEWSLETTER

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for Humanity

Advancing Technology

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



The COVID-19 global pandemic has had an adverse effect on many of the in-person events in

the year 2020, and we still are susceptible to this virus worldwide. The testing and vaccinations have been ramped up, treatments are improving, nevertheless yet to return to normalcy. We have seen transitions in our professional and social meetings, our interactions are restructured, while virtual meetings on digital platforms have augmented extensively. Our section events are no exceptions; all the events (Chapter and ExCom activities) have been conducted on virtual platforms with a record number of attendees. I took the position as Section Chair on Jan 01, 2021, organized the first successful ExCom Zoom meeting in 2021 on Jan 13; a total of 36 members attended and actively participated. The meeting started with a Call to order, guest introductions, and Chair remarks. A "60 seconds silence" was observed in the memory of Max Schindler, who passed away on Jan 8, 2021. I believe Max Schindler was our oldest living North Jersey Section's past Chair. He served as Section Chair from July 01, 1974, thru June 30, 1975. At that time the Officers terms began on July 1.

2020 is now behind us, and it's a year that none of us will soon forget. In spite of the disruption in our professional and social lives, we were able to organize numerous webinars and events for the benefit of members and the community. I'm optimistic that the next half year of 2021 will be a period of returning to normalcy, and I hope that our section and chapters will start holding in-person meetings including conferences, workshops, and technical talks.

The students of today are the engineering experts of tomorrow who will spur innovation for humanity. I am enthusiastic and anticipate an increase in STEM and humanitarian activities in the coming days. IEEE has been devoting and inspiring the next generation to pursue STEM fields and it is IEEE volunteers who are helping to spark excitement about engineering through their pre-university STEM education programs. Our section's Pre-University Committee and Student Activities Committee (SAC) can be instrumental in motivating students who are our future, by extending support and promoting engineering at various levels, including high schools, colleges, and universities and even after graduating, by getting involved in mentoring and providing guidance through YP's, and PACE and WiE for the women in the engineering field and gain a rewarding experience in return. I am looking forward to working with our volunteers, and to

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support Chapter activities and student membership's drive. There is good news for student members, IEEE BOD approved a 50% discount on Student/Grad Student Membership dues, and the discount code is FUTURE50. Discount can be used for renewing membership also. I encourage students to take advantage of this discount on membership fees.

I would like to promote COPE (Committee on Promoting Equality) in our section and to make an effort in building an "Inter-Section Relationship" for "Promoting Humanitarian Technology and Equality" with the joint partnerships among IEEE sister societies. COPE is an initiative aiming at promoting equality in gender, income, and race, by promoting access to knowledge and promoting equality by leveraging access to opportunities in Science and Technology for the benefit of the community. Partnership with sister societies, EPICS (Engineering Projects in Community Service), industry, academic institutions, and local communities will strengthen the society and promote equality in underserved and under-represented communities.

On behalf of North Jersey ExCom, I want to thank our past Treasurer Chair Mani Iyer for his valuable time during his two years term 2019-2020. Our Section is in decent shape, financially sound, well structured, and incessantly at the forefront of service to local members and the community. I want to welcome Avimanyou Vatsa for serving as the Section's Treasurer Chair for a two years term 2021-2022.

I am happy to inform you that the Audit Committee meeting was held successfully via Zoom on Saturday, Jan 30, 2021. In attendance were Kalyan Mondal (2021-22 Senior Past-Chair, 2017-18 Chair, 2012-14 Treasurer), Mani Iyer (2019-20 Treasurer; 2015-16 Treasurer), Avimanyou Vatsa (2021-22 Treasurer, 2019-20 Secretary), Emad Farag (2021-22 Second Vice-Chair, 2017-18 Treasurer), and Adriaan J. van Wijngaarden (2021-22 Secretary, 2015-16 Chair). The Treasurer position involves dedicating a lot of time to creating and updating the budgets, processing voucher requests with either payments or deposits, updating NetSuite records, and generating the monthly reports. Mani Iyer has carefully checked all expense reports, promptly issued checks, and he has kept both the paper records and electronic records (NetSuite) in good order. He has provided monthly overviews of the budget and the actual income and expenses. All reports were filed well in time with IEEE. IEEE MGA Finance has approved the IEEE North Jersey Section MGA Compliance Documents. The IEEE North Jersey Section Account for 2020 has been reconciled between NetSuite and the CBRS Statement on January 21, 2021. The Audit Committee





recommends that all Chapters who were active in 2020 should apply for their respective chapter rebates or subsidy if applicable. If they have not done so already, the Chapter Chairs should go to their respective IEEE Society website, do a search on "chapter rebates or subsidies" and follow the directions. The Chapter Chairs are reminded to file event reports (L31s) for all their events for the year 2020. Rebates and subsidies are to be sent to the IEEE North Jersey Section Treasurer. The Audit Committee thanks the chapter and affinity group chairs who were responsible for obtaining a rebate or subsidy in 2020.

I have noticed that the Section Newsletters are not stored on our section website for the past 3 years. I have requested Anisha Apte, Editor IEEE Newsletter, and Howard Leach, Chair History Committee for storing the files and make it upto-date till Feb 2021. I have received several requests from ExCom members for improving the section website. I have requested Adriaan Van Wijngaarden, Secretary and Webmaster and Avimanyou Vatsa, Treasurer to find student volunteers for assisting in the streamlining of our section website for the benefit of members.

My goal is to expand IEEE membership in our section by introducing Engineers to the various benefits of IEEE membership. An involved membership with strong volunteer support will provide the necessary tools to tackle challenges and work towards a greater cause with a broader perspective. To sum it up, all the committees will be called upon to work harmoniously to support engineering in our section. Finally, sections like ours cannot function without dedicated ExCom members, committee chairs, and volunteers. We survive and thrive because of the enthusiasm of our volunteers and the time they devote to organizing and running sections and chapter's activities, and many more. Please think about volunteering to serve and help our Section. Please visit our website to learn about various volunteering opportunities.

The Pandemic is continuing to change the way we live, but our engagement with members and volunteers is growing resilient than ever. This is due to our ExCom members volunteering services and professional contributions. Our ExCom members are using a virtual platform that continues to promote the IEEE mission, 'advancing technology for humanity", and we can do it with your help.

Last but not the least, on behalf of IEEE North Jersey ExCom, I would like to congratulate Dr. Richard Snyder for receiving recognition of 2021 Distinguished Service Award "For a Career of Leadership, Meritorious Achievement, Creativity and Outstanding Contributions" in the Field of Microwave Theory and Techniques. from the MTT Society. I wish all the members good health and a productive time ahead.

Best Wishes, Ajay Poddar IEEE North Jersey Section Chair

Congratulations to Dr. Richard Snyder on receiving the prestigious Distinguished Service Award, "For a Career of Leadership, Meritorious Achievement, Creativity and Outstanding Contributions" in the Field of Microwave Theory and Techniques.



RICHARD V. SNYDER President of RS Microwave (Butler, NJ, USA, founded in 1981), is an author of 136 papers, several book chapters, and holds 27 patents. His interests are: E-M simulation, network synthesis, dielectric and suspended

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resonators, high power notch, and bandpass filters and active filters. He holds the BS, MS, and Ph.D. degrees from Loyola-Marymount, USC, and Polytechnic Institute of New York University. Served the IEEE North Jersey Section as Chairman, and 14 years Chair of the MTT-AP chapter. Chaired the IEEE North Jersey EDS and CAS chapters for 10 years. He twice received the Region 1 award. In January 1997 was named a Fellow of the IEEE and is now a Life Fellow. In January 2000, he received the IEEE Millennium Medal. He was General Chairman for IMS2003, in Philadelphia, and was Emeritus Chair for IMS2018 also in Philadelphia. He was elected to ADCOM in 2004. Within the ADCOM, he served as Chair of the TCC and Liaison to the EuMA. He served as an MTT-S Distinguished Lecturer from 2007-2010, continuing as a member of the Speakers Bureau. Associate Editor for the IEEE Transactions on Microwave Theory and Techniques, responsible for most of the filter papers submitted. He is currently a member of the American Physical Society, the AAAS, and the New York Academy of Science. He was the MTT-S President for 2011. He is currently a reviewer for IEEE-MTT, Circuits and Systems Transactions, and EMC publications; teaches and advises at the New Jersey Institute of Technology, and is a Visiting Professor at the University of Leeds, in the U.K. He served for 7 years as Chair of MTT-8 and continues in MTT-8/TPC work for many conferences, including IMS, EuMW, Asia-Pacific Microwave Conference, and others. He is currently Vice-Chair of the IMSEC and Chair of the N&A committee, for the ADCOM. He is the organizer of the annual IWS conference in China.





GRADUATE SCHOOL VIRTUAL OPEN HOUSE!

Wednesday, February 17, 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
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For Programs information, visit: https://tinyurl.com/GHprogram

Calendar of Events

Automotive Ethernet and Next-Gen In-Vehicle Networks – AP/MTT & ED/CAS, VT Chapters

Location: Required - Registration Link

Date: 26 January 2021 Time: 02:00 PM to 03:00 PM (Eastern Daylight time)

Contact: Dr. Ajay K. Poddar: akpoddar@ieee.org, Dr. Anisha Apte: anisha_apte@ieee.org,

Prof. Durga Misra: dmisra@njit.edu, Prof. Edip Niver: edip.niver@njit.edu, Ionel Bajescu: nelu108@yahoo.com Speakers: Dr. Nik Dimitrakopoulos of Rohde & Schwarz, Randy White of Rohde & Schwarz

Voice over 5G – evolution, deployment, technology and testing aspects – AP/MTT & ED/CAS, VT Chapters Location: Required - vTools Registration Link Registration Link - to receive joining details (Please register using both links) Date: 27 January 2021 Time: 01:00 PM to 02:00 PM (Eastern Daylight time)

Contact: Dr. Ajay K. Poddar: akpoddar@ieee.org, Dr. Anisha Apte: anisha_apte@ieee.org,

Prof. Durga Misra: dmisra@njit.edu, Prof. Edip Niver: edip.niver@njit.edu, Ionel Bajescu: nelu108@yahoo.com Speakers: Reiner Stuhlfauth, Technology Manager Wireless Rohde & Schwarz of Rohde & Schwarz, Voice over 5G – evolution, deployment, technology and testing aspects

Living with the IoT Neighbors: Demonstrating Wireless Coexistence testing – AP/MTT & ED/CAS, VT Chapters

Location: Required - vTools Registration Link Registration Link for joining Webinar (Please register using both links) Date: 28 January 2021 Time: 02:00 PM to 03:00 PM (Eastern Daylight time)

Contact: Dr. Ajay K. Poddar: akpoddar@ieee.org, Dr. Anisha Apte: anisha_apte@ieee.org, Prof. Durga Misra: dmisra@njit.edu, Prof. Edip Niver: edip.niver@njit.edu, Ionel Bajescu: nelu108@yahoo.com Speakers: Naseef Mahmud of Rohde & Schwarz

Switchgear Series - Switchgear Technical Discussion – PES / IAS / LM Joint Meeting

Date: 29 January 2021 Time: 09:00 AM to 11:00 AM (Eastern Daylight time)

Location: Required - vTools Registration link Link for joining the meeting - https://global.gotomeeting.com/join/800363093

Speaker: Jonathan Wear of AZZ

IEEE North Jersey Section EXCOM meeting - February 2021 - Online (Zoom)

Date: 3 February 2021 Time: 06:30 PM to 08:45 PM

Location: Required - vTools Registration link Link to Join Zoom Meeting Meeting ID: 890 6781 1667

Contact: Dr. Ajay Poddar akpoddar@ieee.org, Prof. Hong Zhao zhao@fdu.edu, Dr. Adriaan van Wijngaarden avw@ieee.org







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

Computation of Unsteady Turbulent Flows with Application to Acoustics – AES/CS

Location: Required - vTools Registration Link Link To join Zoom Meeting Meeting ID: 863 7883 9630 Passcode: 713479 Date: 6 February 2021 Time: 01:00 PM to 2:15 PM (Eastern Daylight time) Contact: Cherif Chibane: cherif.chibane@gmail.com, Kirit Dixit: kdixit@microcomsales.com Speaker: Dr. Kader Frendi

Hardware/Software Co-Design of Deep Learning Accelerators - CS/SP, AP/MTT

Location: Required - vTools registration Link To join Zoom Meeting Meeting ID: 935 8068 8040 Date: 10 February 2021 Time: 02:00 PM to 03:00 PM (Eastern Daylight time) Contact: Prof. Hong Zhao: zhao@fdu.edu Speaker: Dr. Yiyu Shi of University of Notre Dame

Introduction to HF: Modulation and Propagation (Webinar) – AP/MTT & ED/CAS, VT Chapters

Location: Required - vTools Registration Link Please use this Link for joining webinar (Please register using both links) Date: 17 February 2021 Time: 12:00 PM to 01:00 PM (CST) (01:00 PM to 02:00 PM (Eastern Daylight time)) Contact: Dr. Ajay K. Poddar: akpoddar@ieee.org, Dr. Anisha Apte: anisha_apte@ieee.org,

Prof. Durga Misra: dmisra@njit.edu, Prof. Edip Niver: edip.niver@njit.edu, Ionel Bajescu: nelu108@yahoo.com Speakers: Paul Denisowski of Rohde & Schwarz

Insulators 101 – PES / IAS / LM Joint Meeting

 Date: 26 February 2021
 Time: 09:00 AM to 11:00 AM (Eastern Daylight time)

 Location: Required - vTools Registration link
 Link for joining the meeting - https://global.gotomeeting.com/join/800363093

 Contact: Ronald Quade: rwquade@ieee.org
 Speaker: Timothy Van Remmen of LAPP

IEEE North Jersey Section EXCOM meeting - March 2021 - Online (Zoom)

Date: 3 March 2021Time: 06:30 PM to 08:45 PMLocation: Required - vTools Registration linkLink To Join Zoom MeetingMeeting ID: 890 6781 1667Contact: Dr. Ajay Poddar akpoddar@ieee.org, Prof. Hong Zhao zhao@fdu.edu, Dr. Adriaan van Wijngaarden avw@ieee.org

Sensory Intelligence – CS/SP

Location: Required vTools registration - for attendance Link To join Zoom Meeting Meeting ID: 921 0625 9053 Date: 10 March 2021 Time: 2:00 PM to 3:00 PM (Eastern Daylight time) Contact: Prof. Hong Zhao: zhao@fdu.edu Speaker: Dr. Yang Cai

Epigenetic distance-based methods – CS/SP

Location: Required vTools registration - for attendance Link To join Zoom Meeting Meeting ID: 950 1364 2344 Date: 17 March 2021 Time: 2:00 PM to 3:00 PM (Eastern Daylight time) Contact: Prof. Hong Zhao: zhao@fdu.edu Speaker: Dr. Shuang Wang of Columbia University

SHORT COURSES AND SYMPOSIUM:

C#.**NET Programming** (Instructor: Donald Hsu) - **Education Committee/AP/MTT/ED/CAS**, **Date:** 06 March - 21 April 2021 **Time:** 09:00 AM to 12:00 PM (7 Saturdays March 6, 13, 27, April 3, 10, 17, 24, 2021) **Location:** Please register on vTools using this link Online via Zoom (**Please contact Prof. Hsu for details**) **COST:** IEEE (& affiliate) members \$500; Non-IEEE members \$550. **Contact:** Prof. Donald Hsu - yanyou@hotmail.com

Project Risk Management (Instructor: Donald Hsu) - Education Committee/AP/MTT/ED/CAS, Date: 06 March - 21 April 2021 Time: 12:00 PM to 03:00 PM (7 Saturdays March 6, 13, 27, April 3, 10, 17, 24, 2021) Location: Please register on vTools using this link Online via Zoom (Please contact Prof. Hsu for details) COST: IEEE (& affiliate) members \$500; Non-IEEE members \$550. Contact: Prof. Donald Hsu - yanyou@hotmail.com

IEEE – IMPORTANT EVENTS, ARTICLES, ANNOUNCEMENTS AND REMINDERS:

- This Month's Communications Society News from Around the World
- "Let's Talk Energy" An article by Harry Roman

You do not have to be an IEEE member but prior registration is encouraged to attend any event. IEEE North Jersey Section Website The Section Executive Committee Roster

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2021 IEEE North Jersey Section Volunteers

Executive Committee

Chair - Ajav 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

Control Systems Chair – David Haessig davidhaessig@ieee.org

Electromagnetic Compatibility/Product Safety Engineering **Chair** – Russell C. Pepe rcpepe@ieee.org

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Signal Processing Chair – Alfredo Tan tan@fdu.edu

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Vehicular Technology Chair – Ionel Bajescu nelu108@yahoo.com

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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

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Educational ActivitiesCo-ChairsDonald Hsu –yanyou@hotmail.comKalyan Mondal –mondal@fdu.eduAmit Patel –a.j.patel@ieee.org

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Legal Activities Chair – Vacant

Membership Development Chair – Michael Newell msnewell@ieee.org

MTT/AP Trade Show and Symposium **Chair** – Kirit Dixit

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chandnaresh@gmail.com PACE

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Student Activities Chair – Hong Zhao zhao@fdu.edu

Student Representative Committee Chair – Kalyan Mondal mondal@fdu.edu

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