

IEEE North Jersey Section

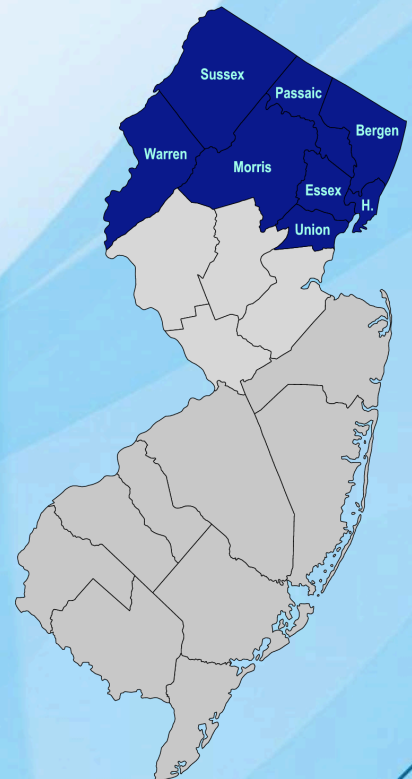
IEEE North Jersey Section Newsletter

VOL. 70, NO. 05 Issue: MAY 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

I am pleased to share with you the exciting news that several IEEE North Jersey Section members and volunteers have recently been recognized with prestigious IEEE Awards, Society Awards, Region 1 Awards, and MGA Awards. These awards are a testament to the hard work and dedication of our IEEE members and the impact they have made on the field of engineering. The awards reception held on May 5th celebrated the outstanding achievements of our members and volunteers. Congratulations to all the award recipients! You have worked hard to achieve this recognition, and you deserve it.

The List of the Awardees and Citations as below:

2024 IEEE FELLOW AWARD

presented to

Joerg Kliewer

for contributions to theory and applications of iteratively decodable error-correcting codes and network coding

2024 IEEE FELLOW AWARD

presented to

Zhi Wei

for contributions to knowledge discovery from biological data

2024 IEEE FELLOW AWARD

presented to

Yifei Yuan

for contributions to non-orthogonal multiple access and narrow-band Internet-of-Things technology and standardization

MGA / REGION-1 Awards

2023 IEEE Region 1 Outstanding Teaching Award

presented to

Alfredo Tan

For outstanding leadership and innovation in computer sciences and engineering

IEEE MGA Region-1 Award

Technological Innovation Award (Academic)

Presented to

Reza Khalaj Amineh

For developing innovative imaging and sensing systems using electromagnetic waves

The Radio Club of America

Armstrong Medal

Presented to

Ajay Poddar

For demonstrating excellence and making lasting contributions to the arts and sciences of radio

IEEE TECHNICAL SOCIETY AWARDS

IEEE Communication Society

Distinguished Industry Leaders Award

Presented to

Ulrich L. Rohde

for contributions and leadership in Radios and Electronics Test-Measurement Equipment that has supported the design of modern communications systems and their industrial implementation

IEEE AP-S Distinguished Industry Leaders Award

Presented to

Ulrich L. Rohde

For the scientific contribution and leadership to the field of Antennas and related Communication Systems, leading to the development of state-of-the-art Antennas products for industrial, military, and aerospace applications

PES – Society/Chapter Engineer/Volunteers Awards

IEEE PES Chapter Outstanding Engineer Award

presented to

Raymond Alvarez

For Contributions and Leadership in the Design, Operation, and Integration of Advanced Technologies into our Electric Power System

IEEE PES Chapter Outstanding Engineer Award

Presented to

Joseph Zablatzky

For Contributions in Communications and Networking Activities for Power System and Energy Projects

IEEE PES Chapter Outstanding Volunteer Award

presented to

Michael Miller

For Sustained Contributions and Leadership to the Power and Energy Society

IEEE MTT Society

IEEE MTT-S Outstanding Chapter Award

Presented to

Ajay Poddar, Edip Niver, and Anisha Apte

IEEE STEM Champion Award

Presented to

Weitian Wang

“For contributions to pre-university STEM education and to building a community of pre-university IEEE STEM outreach volunteers.”

IEEE Recognition Award

Presented to

Har Dayal

“For Notable Services and Contributions towards the Advancement of IEEE and the Engineering Profession”

2024 Terra North Jersey Science Fair

IEEE North Jersey Section Young Engineer Award

Our chapter officers, who will visit each school over the next two months, will present these to the students.

Best wishes,

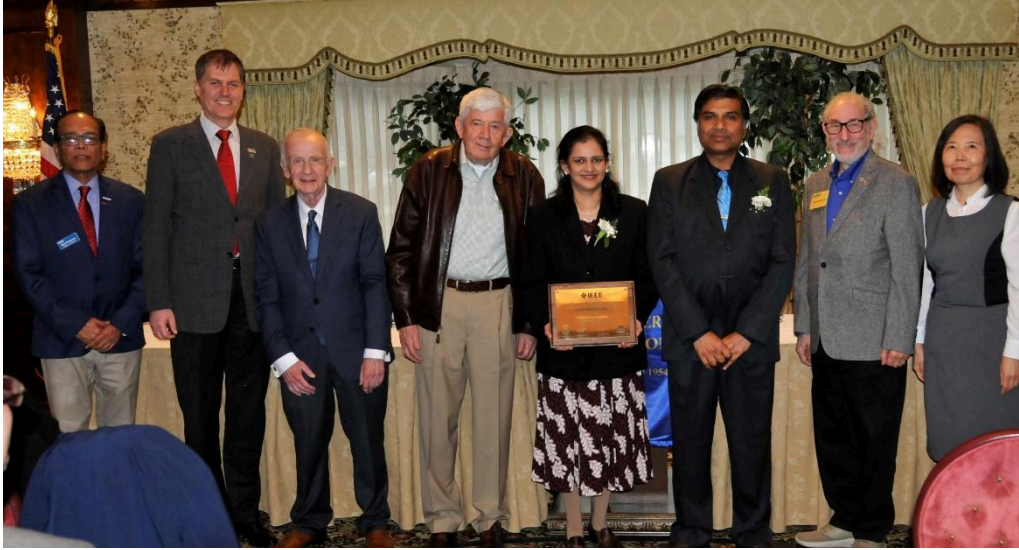
Hong Zhao, IEEE North Jersey Section Chair

Please see the pictures taken by Howard on May 5th during our annual awards ceremony at <https://drive.google.com/drive/folders/1AOImdcBF5vXwshwrcxZRZCkm7Yx6bZJ?usp=sharing>

Below are some Pictures from the May 5th, 2024 Award Banquet







IEEE – IMPORTANT EVENTS, ARTICLES, ANNOUNCEMENTS, AND REMINDERS:

- [This Month's Communications Society News from Around the World](#)
- **An Inventor Worth Noting-** An article by Harry Roman

An Inventor Worth Noting

I have been fond of this inventor because of his amazing depth and breadth of knowledge and application, as expressed in his 168 patents.

Consider some of his “biggest.”

- Electrical automotive starter
- Vibrant and quick-drying automotive exterior paints
- Leaded gasoline
- Freon refrigerant for refrigeration and air conditioning systems
- Lightweight two-stroke diesel engines
- First aerial missile or guided missile
- Infant incubator
- Solar energy applications
- Air-cooled engines
- Engine-driven generator plus battery storage for isolated buildings/homes
- Use of magnetism for medical diagnostic techniques

He was a founding member of the famed Dayton Engineering Laboratories Company or Delco [later sold to GM]. He helped found what became the Memorial Sloan Kettering Cancer Center--its philosophy based on how American industrial research techniques could be applied to cancer research.

The inventor in question here is Charles F. Kettering, 1876-1958, who, in his early automotive invention pursuits, was known affectionately by his staff as “Boss Ket.”

Throughout his career, he worked variously as a consultant with formal job assignments at NCR and Du Pont before becoming head of research at General Motors.

He attributed his success to good luck but added, “I notice the harder I work, the luckier I get”;

Talk to you again soon...

Harry (Harry T. Roman, Life Senior Member, Author & Advisor, Edison Innovation Foundation

(Retired-PSE&G Co.), htroman49@aol.com)



GRADUATE SCHOOL VIRTUAL OPEN HOUSE!

Tuesday, May 21, 2024, 5 p.m.

Fairleigh Dickinson University

Gildart Haase School of Computer Sciences & Engineering (GHCSE)

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

<p>*Cybersecurity & Information Assurance</p> <p>*Electrical Engineering</p> <p>*E-Commerce</p>	<p>*Management Information Systems</p> <p>*Computer Engineering</p> <p>*Computer Science (Data Science, Cloud Computing and more)</p>
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Scan Zoom Registration



Scan Grad Program Info





GRADUATE SCHOOL VIRTUAL OPEN HOUSE!

Tuesday, June 18, 2024, 5 p.m.

Fairleigh Dickinson University

Gildart Haase School of Computer Sciences & Engineering (GHCSE)

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

<p>*Cybersecurity & Information Assurance</p> <p>*Electrical Engineering</p> <p>*E-Commerce</p>	<p>*Management Information Systems</p> <p>*Computer Engineering</p> <p>*Computer Science (Data Science, Cloud Computing and more)</p>
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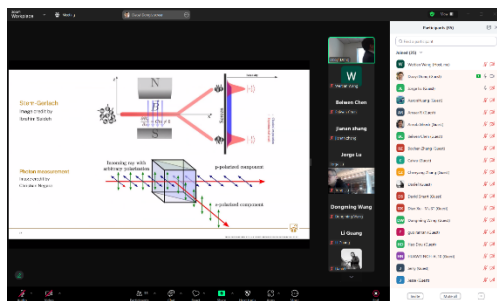
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IEEE Distinguished Lecture: Improved reinforcement learning with applications in robotics, games, and quantum engineering

- A brief report by **Weitian Wang, Ph.D.**, Associate Professor, Director, *Collaborative Robotics and Smart Systems Laboratory (CRoSS Lab)*, Director, *NSF MRI MCROS Site*, School of Computing, Montclair State University, Montclair, NJ 07043

Sponsored by IEEE Systems, Man and Cybernetics Society (SMC) Chapter, co-sponsored by IEEE Robotics and Automation (RA) Society Chapter and Computer Society Chapter of IEEE North Jersey Section, Drs. Mengchu Zhou and Weitian Wang successfully organized an IEEE Distinguished Lecture at NJIT on April 22, 2024. The invited speaker, Dr. Daoyi Dong (IEEE Fellow, ARC Future Fellow, and Professor of the Australian National University), gave a fantastic talk on improved reinforcement learning with applications in robotics, games, and quantum engineering. 48 participants, including faculty members, students, scientists, and engineers from national and international research institutes, organizations, and other communities, attended this event in person or online. In this talk, Dr. Dong presented state-of-the-art research findings and insights into reinforcement learning in diverse applications.



Dr. Daoyi Dong is currently a Professor at the Australian National University. His research interests include machine learning, quantum control, system identification, and renewable energy. Dr. Dong was elevated as an IEEE Fellow for contributions to quantum systems control and reinforcement learning. This IEEE Distinguished Lecture has well disseminated the research on rapidly developing areas of reinforcement learning, AI, and their applications, highly promoted the recognition of IEEE SMC, RA, and Computer Society Chapters as well as the North Jersey Section, and strongly advanced the membership drive and development for IEEE.

MAY 03: Towards a Risk-Free Training Future: Personalized Training Simulation with AI-ML, AR/VR, Gamification, Metaverse, Cloud & IoT: vTools Events (ieee.org)

Heavy motor, finance, and underground drilling industries can modernize their training, simulation, and advertisement practices by integrating AR/VR, metaverse, AI, gamification, IoT, Web3, and cloud technologies. AR/VR can overlay real-time data onto machinery, VR can offer realistic training scenarios, metaverse can create virtual training spaces, AI can tailor training programs, gamification can increase engagement, IoT can collect real-time data, Web3 can enable decentralized training platforms, and cloud can provide scalable infrastructure. These technologies lead to safer operations, more efficient workflows, and enhanced learning experiences.



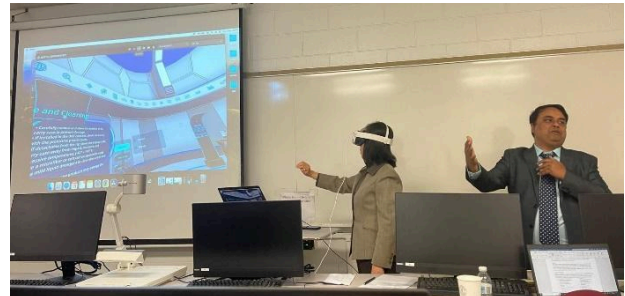
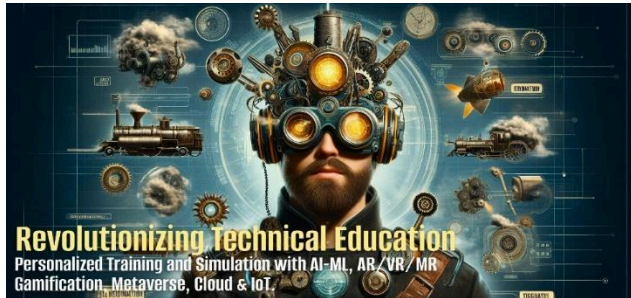
Speaker Vishal Kumar, CTO | Co-Founder—Ocean2Sand LLC, Chief Software Architect | Product Manager | Research Scientist—Digital Control Inc., Founder—MetaTel | Poddar Apps and Engineering Manager | Chief Engineer—Synechron, gave a talk at Rutgers University on May 3rd. More than 42 people also joined the presentation via Zoom on May 3rd.

MAY 13: Revolutionizing Technical Education: Personalized Training and Simulation with AI-ML, AR/VR/MR, Gamification, Metaverse, Cloud & IoT. : vTools Events (ieee.org)

The Speaker, Vishal Kumar, gave another talk at FDU on May 13th.

With a live demo of the technology towards the end of each of the talks, the speaker kept the audience immersed in the experience of Virtual/Augmented Reality.

IEEE North Jersey Section AP/MTT, Computer, Photonics, WIE, and SP chapters Co-sponsored the event. The picture shows the various Chapter Chairs and some of the attendees:



From Left: Rakesh Singh, Ionel Bajescu, Dr. Anisha Apte, Dr. Ajay Poddar, Prof. Hong Zhao, Vishal Kumar, Dr. Alfredo Tan, Prof. Manfred Minimair, Prof. Avi Vatsa, Joe Bajescu, and Kavita Poddar

Calendar of Events

Upcoming Events: May 2024 Onwards

Title	Date	Hosts	Location
Towards a Risk-Free Training Future: Personalized Training Simulation with AI-ML, AR/VR, Gamification, Metaverse, Cloud & IoT: North Jersey Section Jt Chapter, AP03/MTT17	03 May 2024 06:30 PM	CH01092, CH01103, CH01178, WE10327	Piscataway, New Jersey
2024 IEEE North Jersey Section Awards Banquet: North Jersey Section	05 May 2024 03:00 PM	R10327	Whippany, New Jersey
See Her, Be Her is Girl Scout Heart of New Jersey's annual career fair 2024: North Jersey Section	11 May 2024 09:00 AM	R10327	Hoboken, New York
Embark on a Risk-Free Training Future: Tailored Training Simulation with AI-ML, AR/VR, Gamification, Metaverse, Cloud & IoT: North Jersey Section Jt Chapter, AP03/MTT17	12 May 2024 11:00 AM	CH01092, CH01103, CH01178, WE10327	Paterson, New Jersey, Virtual
Revolutionizing Technical Education: Personalized Training and Simulation with AI-ML, AR/VR/MR, Gamification, Metaverse, Cloud & IoT: North Jersey Section Jt Chapter, AP03/MTT17	13 May 2024 06:30 PM	CH01091, CH01092, CH01095, CH01178, CH01184, WE10327	Teaneck, New Jersey Hybrid

Semiconductor Electronics for High Power/High-Speed Reconfigurable RF and Microwave Electronics: North Jersey Section Jt Chapter, AP03/MTT17	14 May 2024 12:00 PM	CH01092, CH01178	Virtual
IEEE SSIT Lecture: Prof Clint Andrews - Implications of Robotics for Public Policy: UK and Ireland Section Chapter, SIT30	15 May 2024 06:00 PM	CH01070, CH01092, CH01177, CH01258, CH01285, CH02100, CH04055, CH07171, CH08031, CH08667, CH08917, SIGHT060, SIGHT119, SIGHT177, WE10327	Virtual
Is AI the New Plastic? : North Jersey Section	16 May 2024 12:00 PM	R10327	Virtual
2024 Microwave Keynote Address: Ethical & Societal Implication of AI By Prof. A.G. Hessami Chair & Technical Editor, IEEE 7000 Standard: Long Island Section Chapter, C16	16 May 2024 05:00 PM	CH01043, CH01047, CH01048, CH01070, SIGHT177	Virtual
The Ethereum Blockchain Game Theory: New Jersey Coast Section Chapter, PE31	17 May 2024 07:00 PM	CH01252, R1, R10327, R10329, R10345, R20003	Virtual

Dr Robert Wilson, Nobel Laureate: Celebration 60th Anniversary 1st Measure of Cosmic Microwave Background Radiation CMB Big Bang Origins of the Universe: North Jersey Section Jt Chapter, AP03/MTT17	20 May 2024 11:00 AM	AP003, CH01070, CH01091, CH01092, CH01156, CH01177, CH01178, CH01184, R10327, SIGHT056, SIGHT177, WE10327, YP10327	Middletown Township, New Jersey
The Secure Use of AI: New Jersey Coast Section	20 May 2024 06:30 PM	CH01252, R1, R10327, R10329, R10345, R20003, WE10345	Virtual
IP Analysis - the groundbreaking development in network benchmarking: North Jersey Section Jt Chapter, AP03/MTT17	21 May 2024 12:00 PM	CH01092, CH01178	Virtual
The Role of Amplifiers in High Power RF Component Characterization: North Jersey Section Chapter, IM09	21 May 2024 02:00 PM	CH01232	Virtual
The Role of Amplifiers in High Power RF Component Characterization: North Jersey Section Jt Chapter, AP03/MTT17	21 May 2024 02:00 PM	CH01092, CH01178	Virtual
The Secure Use of AI: New Jersey Coast Section Chapter, PE31	22 May 2024 06:30 PM	CH01252, R1, R10327, R10329, R10345, R20003	Virtual

4-Switch buck-boost converter verification in battery applications: North Jersey Section Jt Chapter, AP03/MTT17	24 May 2024 02:00 PM	CH01092, CH01178	Virtual
Summer Camp for Female Middle School and High School Students: SHE in ECE: North Jersey Section Jt Chapter, CAS04/ED15	02 Jul 2024 08:15 AM	CH01092, CH01178, CH01184, R10327, SIGHT177, WE10327	Newark, New Jersey
IEEE SSIT Lecture: Automating Empathy in Human-AI Partnerships: Issues, Ethics and Governance: UK and Ireland Section Chapter, SIT30	10 Sep 2024 06:00 PM	CH01070, CH01092, CH01177, CH01258, CH01285, CH02100, CH04055, CH07171, CH08031, CH08667, CH08917, SIGHT060, SIGHT119, SIGHT177, WE10327	Virtual
38th Annual Symposium and Mini-Show - Exhibitor Registration Site: North Jersey Section Jt Chapter, AP03/MTT17	09 Oct 2024 08:00 AM	CH01092	East Hanover, New Jersey

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

2024 IEEE North Jersey Section Volunteers

Executive Committee

Chair – Hong Zhao zhao@fdu.edu

First Vice-Chair – Emad Farag
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Second Vice-Chair – Anisha Apte
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Secretary - Adriaan J. van
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Treasurer – Avimanyou Vatsa
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Senior Past Chair – Yu-Dong Yao
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Vice-Chair – Kirit Dixit -
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Signal Processing

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Vehicular Technology

Chair – Ionel Bajescu
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Nanotechnology Council

Chair - Eui-Hyeok Yang -
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Awards & Recognitions

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Government and Industrial Liaisons

Co-Chairs

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Russell C. Pepe rcpepe@ieee.org

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Legal Activities

Chair – Vacant

Membership Development

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MTT/AP Trade Show and Symposium

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Co-Chair – Paul E. Ward -
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Student Representative Committee

Chair - Kalyan Mondal
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Webmaster

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