

IEEE Foundation FOCUS

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2024 Recap: IEEE Foundation IEEE Foundation activities moved forward in a year of tremendous progress

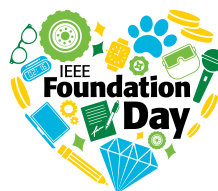
Following the IEEE Foundation's milestone 50th anniversary in 2023, donors and volunteers around the globe made 2024 a memorable year by driving an array of activities and achievements that will positively impact beneficiaries for generations to come. With the addition of 17 new funds in 2024, the IEEE Foundation continues to expand IEEE's global charitable impact, supporting new and established opportunities for IEEE programs to advance technology for the benefit of humanity.

A special highlight of 2024 was the inaugural celebration of [IEEE Foundation Day](#) on 16 February, the anniversary of the IEEE Foundation's founding in 1973. The day was a resounding success and will be celebrated annually going forward. [Ralph Ford](#), who completed his term as President of the IEEE Foundation Board of Directors at the end of 2024, championed IEEE Foundation Day: "The day connects to our vision to be the heart of IEEE charitable giving and philanthropy, and more importantly, acknowledges the donors and volunteers who make IEEE philanthropic programs possible, as well as the program beneficiaries whose lives have been transformed."

Through the generosity of the **IEEE Jon C. Taenzer Memorial Fund**, established thanks to a bequest from the Fund namesake, two new initiatives were launched, including The [Spectrum Assistive Technologies Fellowship Program](#) and the [Bengaluru Mobility Challenge 2024](#). The Taenzer Fund also supported an IEEE Dataport Data Competition, and the continual investment in service learning through the [EPICS in IEEE Access and Abilities projects](#).

The IEEE Foundation continued its proud tradition of actively participating in IEEE-wide initiatives. For [IEEE Education Week](#), in April, a [blog](#) highlighting five beneficiaries of the Educate Pillar program who are now giving back to the community was published. In honor of both [IEEE Day](#) and [IEEE History Week](#), a virtual history lecture was co-hosted with the IEEE History Center to commemorate IEEE's 140th anniversary. The lecture "[From Artificial Light to Artificial Intelligence: Reflecting on 140 Years of IEEE History](#)" explored the organization's rich heritage.

In September, 31 volunteers and staff representing 11 IEEE programs came together for the Foundation's **Inaugural IEEE philanthropic workshop** to learn and strengthen collaboration. In December, the



IEEE community demonstrated its heart and passion for IEEE programs by giving more than US\$209,000 toward the [#IEEEGivingTuesday](#) campaign. **Thank you!**

The Foundation continued gratefully acknowledging the generosity of committed donors with recognition through the [IEEE Heritage Circle](#) and [IEEE Goldsmith Legacy League](#) while highlighting donor impact with 10 [in-depth donor profiles](#) online and in newsletters. Helpful educational resources were created for donors, including the [Forever Generous planned giving newsletter](#), an [updated Giving Guide](#), and numerous articles highlighting [Ways to Give](#). Additionally, the Foundation hosted an in-person Planned Giving seminar with financial planning expert David Sandhu, Senior Wealth Advisor, EverSource Wealth Advisors ([read David's expert tips here](#)), and a [webinar](#) with IEEE Heritage Circle members Darcy Immerman, Director, Carrier Energy Solutions Center of Excellence; and Tina Mertel, Founder and Executive Coach, Facilitator, Meaningful Coaching.

IEEE Foundation Board and staff members attended and presented at IEEE conferences and events worldwide to share the impact donors make on IEEE's philanthropic programs. Some of the notable events included the IEEE Vision, Innovation, and Challenges Summit and Honors Ceremony, where we were honored to celebrate the top 2024 IEEE honorees, and the IEEE Antennas and Propagation Society (AP-S) International Symposium, where we promoted the **AP-S newly launched Talent Development Fund** (read more on pages 4 and 5 of this newsletter). At the IEEE Region 1 and 2 Student Activities Conference, we hosted a donor-supported funding opportunity panel. IEEE Foundation staff and volunteers were also at the IEEE Global Humanitarian Technology Conference and several Milestone Dedication Ceremonies, among many others.

Thank you to everyone who contributed to making 2024 a success for IEEE charitable programs and hundreds of thousands of beneficiaries worldwide. Moving into 2025 and beyond, as the heart of IEEE charitable giving, we are committed to innovation for impact, shining a light on technological advances that solve global challenges. ■

Igniting the Future: A Message From Newly Elected IEEE Foundation President Marko Delimar

As an electrical engineer, researcher, educator, and lifelong optimist, I have always believed in the power of education and innovation to transform lives. Since 1997, I've had the privilege of working with and educating thousands of students at the University of Zagreb, Croatia, helping them navigate the fascinating world of electrical engineering and power systems. These experiences have reinforced my passion for empowering the next generation of engineers, scientists, and technologists.

As the newly elected President of the IEEE Foundation, I was thrilled to share a milestone moment with you: **IEEE Foundation Day 2025**. This year, our theme, Students + Young Professionals, highlighted the very heart of what we do—investing in the future by supporting those who will shape it.

The Heart of IEEE's Mission

The IEEE Foundation is more than a charitable organization. It is the heart of IEEE's philanthropic efforts, where generosity meets impact. Donor-supported programs like scholarships, travel grants, awards, and research grants & competitions directly benefit students and young professionals, opening doors to opportunities that many might never have imagined possible.

[These programs](#) are more than financial support—they are catalysts for transformation. Imagine a young engineering student presenting groundbreaking research at a global conference thanks to a travel grant. Picture an aspiring technologist completing their education with the aid of an IEEE scholarship. These aren't just stories; they are real-life examples of how your contributions help propel dreams into reality.

Celebrating Impact

As part of this year's celebration, we featured five remarkable student beneficiaries whose journeys have been profoundly influenced by IEEE programs (see next page to meet them). Their stories highlight the tangible impact of your generosity, showing how these programs enable innovation, foster collaboration, and empower individuals to make a difference.



A Community of Changemakers

Behind every success story is a network of champions: [our donors](#). Your generous and unwavering support fuels these initiatives, ensuring that students and young professionals have the resources they need to thrive. To our donors, I extend my deepest gratitude—you are the architects of change, building bridges to a brighter tomorrow. Thank you for your generous and loyal support!

To students and young professionals, I encourage you to explore the wealth of opportunities available through the IEEE Foundation (www.ieeefoundation.org/students-and-young-professionals). Whether through scholarships, mentorship, or professional development, these resources are here to help you reach your full potential.

Join Us in Making an Impact

[Let's work together](#) to ensure every student and young professional has the tools, support, and inspiration they need to succeed. After all, when we invest in them, we're investing in a brighter future for all. ■

Marko Delimar

President, IEEE Foundation

Get more information

Donors to the IEEE Foundation establish and invest in IEEE programs that nourish brilliant minds, create opportunities to dream and cultivate a generation of technology professionals. Find out more about all the opportunities by scanning the QR Code to the right.



Innovating for Impact With Students and Young Professionals



IEEE Foundation's commitment to innovating for impact empowers the next generation of engineers and technologists to engineer a better world. These students and young professionals have not only received scholarships, grants, and funding but have leveraged these opportunities to create waves of positive change in their communities and fields of study. Their journeys are a testament to the incredible work that IEEE programs – backed by the IEEE Foundation and its generous donors – make possible.



Max Petlick – Empowered by Connection

Max, a 4th-year electrical engineering student from the University of Florida (UFL), Gainesville, FL, USA received the [**IEEE Power & Energy Society \(PES\) Scholarship Plus**](#). Beyond its financial support, the scholarship introduced him to invaluable mentors and industry leaders, including IEEE Foundation Director John McDonald. "Winning the PES Scholarship didn't just alleviate financial burdens; it opened doors to meaningful relationships and career-shaping opportunities. The process was quick and easy, all I had to do was explain my interest in the power industry and what I was doing to pursue it," Max shares.



Yucely Beb – Breaking Barriers and Inspiring Generations

As a proud descendant of the Maya-Kekchí people from Guatemala, Yucely Beb has used her journey in STEM to inspire others. The recipient of the [**IEEE Systems Council James O IEEE. Gray Graduate Scholarship**](#), Yucely used her award to prepare for her PhD in Control and Automation during the COVID-19 pandemic. "This scholarship was instrumental in helping me begin my PhD," Yucely says. "It enabled me to enhance my language skills and facilitated academic mobility, laying the foundation for my future success." She recalls, "Without this scholarship, starting my PhD with a good grasp of the local language and improving my English skills might not have been possible. Additionally, knowing that I had the support of such a prestigious scholarship opened doors and provided options for where I could conduct my doctoral studies."



Shang-Yi Sun – Bridging Borders in Research

Shang-Yi Sun is a PhD student from the University of Technology Sydney, Australia, and his main research interests include antenna interference suppression, base station antenna arrays, and metasurfaces. He used his [**IEEE Antennas and Propagation Society C.J. Reddy Travel Grant**](#) to present his work at the [**IEEE AP-S/URSI 2024 conference**](#) in Florence, Italy. "I presented my work to scholars from around the world and engaged in in-depth discussions, which not only greatly broadened my research perspectives but also built bridges of communication with peers worldwide," he reflects.



Ramesh Nair – From Beneficiary to Benefactor

Ramesh Nair's IEEE journey spans 15 years, from an undergraduate student who benefited from an [**IEEE Foundation Grant**](#) to a professional at Intel and now a donor himself. In 2009, Ramesh was in his sophomore year of undergraduate study at Amrita Vishwa Vidyapeetham, Kerala, India, when a senior in his program encouraged him to join IEEE. "I quickly realized IEEE is much more than a student club," shares Ramesh. "I was able to network with senior section members and officers and increased my understanding of IEEE benefits. And that's when I first heard about the IEEE Foundation."



Naviah Izquierdo – Shaping the Skies

A first-generation student from the Bronx, NY, USA, Naviah Izquierdo is pursuing aerospace engineering at the University of Oklahoma, Norman, OK, USA, with the support of the [**IEEE Women in Engineering Edith Hannigan McHale Scholarship**](#). "This scholarship alleviated some financial stress and made it easier for me to focus on my education," Naviah says. She did not know about IEEE until her high school advisor told her about the scholarship. "During the application process I had a lot of assistance, both from my advisor and from IEEE as well," she shared.

These five stories illuminate how scholarships, travel grants, and research funding spark innovation and enable the next generation to flourish. Your generosity powers these life-changing programs, turning aspirations into achievements. **Thank You!** ■

Making Waves: Empowering Tomorrow's Innovators Today



Through its proactive new talent development fund and campaign, the AP-S aims to build the talent pool in the dynamic field of antennas and propagation for generations to come.



In 2024, the IEEE Antennas and Propagation Society (AP-S) proudly celebrated its 75th anniversary, marking a significant chapter in its long-standing commitment to advancing engineering and scientific developments in applied electromagnetics. The society has been instrumental in enhancing both terrestrial and space-based communication across generations.

As AP-S embarks on this new era, it strategically focuses on the future with the initiative "Waves of Support – Empowering Tomorrow's Innovators Today." This campaign introduces the **IEEE AP-S Talent Development Fund** aimed at attracting and nurturing future technologists and innovators, ensuring that the field continues to flourish.

Addressing a Talent Shortage

Despite AP-S's growth — now with over 13,000 global members and increased chapters — industry experts have raised concerns over an impending shortage of engineers, which could adversely affect engineering disciplines. The AP-S initiative directly tackles this issue by fostering a pipeline of skilled engineers poised to meet the field's escalating demands.

The program offers students unrivaled access to cutting-edge technologies and connections with industry leaders and academic mentors. By engaging with these resources, students gain insight into the vast potential of the field and are encouraged to pursue innovative solutions to global challenges. Furthermore, the emphasis on skill development, networking, and career readiness equips participants to succeed in a competitive job market.

Proactively addressing this reality, the AP-S seeks to lay the groundwork for the upcoming generation of innovators by establishing the **Talent Development Fund**. This fund will exclusively support services and events for undergraduate and graduate students, as well as programs for early-career professionals, practitioners, and researchers in antennas and propagation. Past recipients emphasize that these types of initiatives effectively inspire aspiring engineers to explore opportunities within the AP-S and dedicate themselves to the profession.

Empowering Tomorrow's Innovators

Contributions to this fund will help draw, invest in, and empower future innovators while expanding opportunities for upcoming pioneers globally in the ever-evolving field of antennas and propagation. Read more about two opportunities on the next page.

Dr. C.J. Reddy, IEEE Fellow and Vice President of Business Development, Electromagnetics - Americas at Altair, shared his perspective on the importance of organizations like IEEE. For over three decades, IEEE and AP-S have significantly influenced his career growth. In 2019, he established the C.J. Reddy Travel Grant for Graduate Students, which annually awards US\$1,500 grants to MS and PhD students to attend the IEEE International Symposium on Antennas and Propagation. Dr. Reddy expressed, "Attending the annual IEEE AP-S/URSI Symposium significantly benefited me both professionally and personally. Supporting the AP-S Talent Development Fund will help give that opportunity to qualified young students."

Promoting an enriching environment for future engineers, the **IEEE AP-S Talent Development Fund** aims to bridge the talent gap in the industry while inspiring the next generation of innovators in antennas and propagation. Through this initiative, AP-S is committed to ensuring a vibrant future for the field and fostering the innovators who will take it forward. ■

**NOTE: This article is excerpted from "Making Waves: Empowering Tomorrow's Innovators Today," in IEEE Antennas and Propagation Magazine, vol. 67, no. 2, Apr. 2025, doi: 10.1109/MAP.2025.3539124 © 2025 IEEE*



Make an investment today to ensure future generations of AP professionals.

IEEE AP-S Talent Development Fund



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Researching the “Mysteries of Waves” With the IEEE Leopold B. Felsen Research Grant for Electromagnetics



The **IEEE Leopold B. Felsen Research Grant for Electromagnetics** honors significant contributions to the field and commemorates the legacy of Professor Leopold Felsen (1924-2005), a distinguished expert in electromagnetic waves and electrodynamics. His son, Michael Felsen, established the grant to inspire emerging scientists. “With this research grant in my father’s name, I hope that talented young students will build upon his legacy and achieve new levels of understanding regarding the mysteries of wave behavior,” he stated.

Professor Felsen took great pleasure in mentoring enthusiastic doctoral and post-doctoral students, recognizing their potential and passion for solving complex problems. The **IEEE Felsen Research Grant** continues this commitment by providing funding to bright young professionals for research projects focused on fundamental aspects of electromagnetics.

Michael Felsen emphasized the importance of encouraging students to enter challenging fields, stating, “The technological challenges we face at this moment in human civilization are more than daunting. We need to encourage young students to dedicate themselves to difficult fields like electromagnetics, searching for solutions that will serve the survival of the planet and our shared humanity. I hope that in some small way, the **IEEE Felsen Research Grant** will help in that endeavor.” Through this initiative, the legacy of pioneering research in electromagnetics continues to thrive, fostering the next generation of innovators.

Travel Grant Established to Honor the Distinguished Career of Dr. John L. Volakis



The IEEE Antennas and Propagation Society (AP-S) has launched the **IEEE AP-S John Volakis Travel Grant for Graduate Students**, honoring Dr. John Volakis for his significant contributions and mentorship in antennas and propagation. The AP-S Talent Development Fund aims to raise US\$1.5M, with US\$400,000 designated for the Volakis Travel Grant. IEEE AP-S will match every dollar raised from its reserves. As of April 2025, commitments totaling US\$154,000 have been secured, including a notable contribution from Dr. Volakis.

Dr. Volakis is one of the most active and cited researchers in his field, with more than 465 journal papers and thousands of conference papers, and the author of nine books, including the popular Antenna Handbook. Foremost in his admirable accomplishments may be his impact on his students.

“John’s excellence in research and mentorship is widely recognized,” said Sunil Navale, Vice President at Northrop Grumman. “His genuine care for students has greatly influenced many, including myself.”

“John Volakis has impacted many lives through his teaching, advising, and outstanding research at universities. Through this grant, he will continue to extend his impact, enriching the life experiences of many others. I am honored and proud to support such a meaningful initiative,” shared Yakup Bayram, a former student of Dr. Volakis and generous donor.

Hasnain Syed, Senior Director at Microsoft, echoed these sentiments, “This travel grant will offer valuable opportunities for graduate students to network and exchange ideas with other researchers in AP-S. It will serve as a significant learning and professional development experience for these students.”

The **Volakis Travel Grant** will provide an estimated 8 travel grants for graduates, with the first grants awarded for the 2026 IEEE International Symposium on Antennas & Propagation and North American Radio Science Meeting (AP-S/URSI) in Detroit, MI, USA. ■

Get more information

Donations to the IEEE AP-S Talent Development Fund will directly support this initiative and other initiatives, enriching the experiences of future researchers. Contact Michael Deering, Sr. Development Officer, at m.deering@ieee.org or +1.732.562.3915 to learn more or scan the QR Code.



Celebrating Innovators and Technologists at the 2025 IEEE VIC Summit and Honors Ceremony



The 2025 IEEE VIC Summit and Honors Ceremony took place from 23 to 24 April 2025 in the vibrant city of Tokyo, Japan. This two-day exclusive event was a thrilling experience filled with innovation, inspiration, and opportunities to hear from industry legends.



On Wednesday, 23 April, the Summit featured thought leaders and experts discussing groundbreaking topics in science and engineering. Attendees delved into the future of technology, exploring innovations, challenges, and opportunities ahead. Those who could not attend the event in Tokyo are encouraged to tune into the recorded livestream to witness insightful discussions and gain valuable perspectives from industry visionaries.

In addition, the Awards previewed the new exclusive program – **IEEE Young Professionals and Laureate Forum** – where young professionals from around the globe connected, heard from experts, and had the opportunity to receive personalized mentorship.

The Honors Ceremony Gala followed on Thursday evening, 24 April, paying tribute to exceptional individuals whose groundbreaking work made significant societal impacts. This year's celebration was particularly notable. Henry Samueli, co-founder of Broadcom, received the prestigious [IEEE Medal of Honor](#) and its inaugural \$2M prize for “pioneering research and commercialization of broadband communication and networking technologies, and promotion of STEM education.” Also of note, Henry is an *Honored Philanthropist* in the IEEE Heritage Circle, the cumulative giving donor recognition program of the IEEE Foundation.

Additionally, twenty-four esteemed recipients were recognized, including [Mung Chiang](#), who received the IEEE Founders Medal for his leadership across academia, industry, and government, and [José M. F. Moura](#), honored with the IEEE Haraden Pratt Award for his global service and impactful contributions to IEEE. ■

Watch the recording and get more details

The event was live-streamed and archived on [IEEE.tv](#) for later viewing. To learn more about the [IEEE VIC Summit & Honors Ceremony](#), the complete list of the 2025 honorees, and the broadcast link, scan the QR Code to the right.



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An Electrifying Read

Dr. Marc Landry's IEEE Life Member History Fellowship led to the publication of his new book, "Mountain Battery: The Alps, Water, and Power in the Fossil Fuel Age."



During the late 1800s, the water flowing through the Alps – a more than 700-mile-long mountain range that stretches across the European countries of Monaco, France, Switzerland, Italy, Liechtenstein, Germany, Austria, and Slovenia – became sought after for its ability to generate electricity and replace coal as the region's predominant energy source. Dams built to generate hydroelectricity transformed the Alps in ways that would come to impact the region's economy, military position for the impending World Wars, and environmental future.

In a fascinating new book titled *"Mountain Battery: The Alps, Water, and Power in the Fossil Fuel Age"* (published in January 2025 by Stanford University Press), author Marc Landry, PhD discusses how dam-building in the 19th and 20th centuries transformed the Alps into Europe's "battery" – an energy landscape designed to store and produce electricity for use throughout the Continent – and created other far-reaching implications related to fossil fuels and climate change.

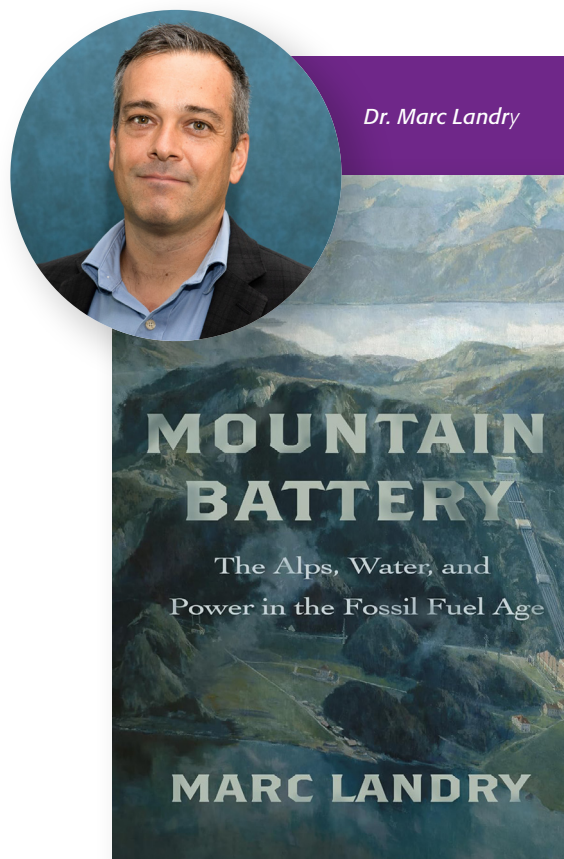
The recipient of the 2011 IEEE Life Members History Fellowship supported by the IEEE Life Members Fund, Dr. Landry completed his dissertation, which became the basis for the book, through extensive historical research conducted in archives across Europe, especially Germany, Austria, France, Switzerland, and Italy.

A native of Colchester, VT, USA, Dr. Landry earned his PhD in History at Georgetown University in Washington, D.C., USA, in 2013 and currently serves as Associate Professor of History, Marshall Plan Endowed Professor in Austrian Studies and Director of the Austrian Marshall Plan Center for European Studies at the University of New Orleans, LA, USA. Previously, Dr. Landry was the Fulbright-Botstiber Visiting Professor in Austrian-American Studies at the University of Innsbruck, Austria.

The IEEE Life Member History Fellowship supports one year of full-time graduate work or one year of post-doctoral research for a scholar who's received their PhD within the previous four years in the history of any of IEEE's designated fields. Providing a stipend of US\$25,000 and a research budget of up to US\$3,000, Fellows are selected based on their potential for pursuing research in and contributing to the history of IEEE's designated fields (which include Engineering, Computer Sciences and Information Technology, Physical Sciences, Biological and Medical Sciences, Mathematics, Technical Communications, Education, Management, and Law and Policy).

"Having the IEEE's encouragement as a junior scholar allowed me to continue with a project that offered new perspectives on the history of electrification – one in which I could emphasize the underappreciated centrality of electrification in modern energy history while shedding light on the inextricable connections between landscape, environment, and electrification," a grateful Dr. Landry shared. "Receiving the IEEE Life Member History Fellowship provided the crucial financial support that enabled me to access important sources in distant archives as well as have the necessary time to write up my conclusions."

For more information on Dr. Landry's book, visit www.sup.org/books/history/mountain-battery. For more information on the IEEE Life Member History Fellowship, visit www.ieee.org/about/history-center/fellowship.html. ■



Watch the interview with Dr. Landry!



According to Dr. Landry, who was recently interviewed about *Mountain Battery* by the Botstiber Institute for Austrian-American Studies in Media, PA, USA, researching and writing his book was an extremely positive experience and one that wouldn't have been possible without the strong support and extensive resources provided by IEEE.

Purdue's IEEE-HKN Lounge: Re-Dedicated Over Five Decades Later



By John D. McDonald, Founder/CEO, JDM Associates, LLC, Duluth, GA, USA

IEEE Foundation Director and VP Development

IEEE Life Fellow, Member National Academy of Engineering, CIGRE Honorary Member



In September 2024, I was honored to participate in the dedication of the new IEEE-HKN Beta Chapter Lounge at my alma mater, Purdue University, West Lafayette, IN, USA.

(I earned my BSEE at Purdue in 1973 and my MSEE in 1974.) As you're probably aware, the IEEE-Eta Kappa Nu (IEEE-HKN) Honor Society recognizes electrical engineering (EE), computer engineering, computer science, and other IEEE fields of interest students of exceptional academic merit, character, and attitude and provides them with a community of their peers that, in turn, is supported by a network of professors, mentors, and donors wherever IEEE-HKN chapters are established.

I arrived at Purdue as a freshman in 1969 and plunged into honors courses. The HKN Lounge had been established the prior year by enterprising HKN members who voluntarily staffed Basement Room 24 in Purdue's EE Building to sell snacks and coffee. ("The cheapest coffee on campus," then and now.) Naturally, this offer attracted a broad swath of Purdue students from all academic majors, but it especially offered a physical community space for EE students such as myself and my cohorts.

Although I was inducted into HKN during my sophomore year in college, I didn't fully participate in HKN-related activities until well into my professional career. I ultimately recognized the need to give back to the institutions that enabled my success, so I became a mentor, which has provided great personal and professional satisfaction. (I expound on this topic in "[The Mentor and the Mentee: A Little Philosophy, Lots of Practical Advice](#)" on the *IEEE USA Insight* website).

In 2009, Purdue recognized me as an "outstanding electrical engineer," and my connection with Purdue and its HKN Honors Society chapter grew. I was subsequently asked to teach seminars in professional and career development and executive leadership to EE undergraduate and graduate students. A few years later, after IEEE and HKN merged, IEEE-HKN Director Nancy Ostin asked me to meet with IEEE-HKN Beta Chapter student leaders at Purdue and play a role in IEEE-HKN workshops, which has enriched my life.

More recently, the EE Building underwent a renovation, and the IEEE-HKN Lounge was moved to a first-floor, sunlit space—a definite promotion from its subterranean past. Purdue's IEEE-HKN Beta Chapter student president, Jack Blowers, and his student team made it their priority to establish the new lounge and organize its dedication ceremony. I was honored to be asked to participate in that dedication.



(L to R) Faculty advisor Niraj Menon; John McDonald; Jack Blowers, student president of the IEEE-HKN Beta Chapter; Professor Steven D. Pekarek, faculty advisor of the IEEE-HKN Beta Chapter.

The dedication of the new IEEE-HKN Lounge also coincided with the original HKN Honor Society's 120th Anniversary, a historic milestone celebrated with a custom logoed sheet cake, for which I served as an official—and proud—cake cutter. ■

Gratitude for a Generous Legacy Gift



Purdue's new HKN lounge was made possible through a generous legacy gift from Purdue alumnus [Don Heirman](#), IEEE Life Fellow, and a Forever Generous [IEEE Goldsmith Legacy League](#) member who passed in 2020. The IEEE Foundation serves as a vehicle for supporting all things IEEE, which includes the worldwide network of IEEE-HKN chapters, scholarships, and more. An investment in the IEEE Foundation is an investment in our shared future. ■

The IEEE-USA Government Fellows Program



Now in existence for over 50 years, the unique IEEE-USA Government Fellows Program continues to build critical connections between technologists and U.S. policymakers



Founded in 1973, the IEEE-USA Government Fellows Program enables scientists, technologists, and engineers to work with and advise members of the United States Congress to help ensure a continued linkage between STEM professionals and public policymakers at the Federal government level.

In the over half-century since the program's inception, more than 170 U.S. IEEE members have served as U.S. Government Fellows, where they spend a year living and working in Washington, D.C., USA and learning first-hand about the public policy process while imparting their knowledge of engineering, technical disciplines, and related fields to public policymakers.

Program participants can serve in any of several roles, working as advisors to either a U.S. Senator, a U.S. Representative, or a Congressional Committee.

Former Fellows describe their time representing IEEE and its mission in the nation's capital as "life and career-changing." Marc Canellas, PhD, IEEE Member and 2017 IEEE-USA Congressional Science and Technology Fellow, said, "My year on the Hill was the most formative 12 months in my life, and I cannot recommend the experience enough."

As the IEEE-USA Congressional Fellows Committee prepares to announce the 2025-2026 IEEE-USA Government Fellows, applications for the 2026-2027 Government Fellows program are open and will be accepted until 8 December 2025. Generous donor support is needed to expand this invaluable program, which enables IEEE's U.S. members to provide timely advice and assistance to the U.S. government while educating IEEE U.S. members on public policies that directly affect the STEM community.

For more information on the IEEE-USA Government Fellows Program or to apply to become an IEEE-USA Government Fellow, visit <https://ieeeusa.org/public-policy/government-fellowships>. ■

Learn more

Interested in discussing ways you can impact this vital program? Contact Eileen R. Heltzer, CFRE, at e.heltzer@ieee.org, +1.732.799.4431 or to [make a gift online](#) scan the QR code to the right.



Past participants in the IEEE-USA Government Fellows Program (and Bill Nye).



With the Support of the Humanitarian Technologies Board, **IEEE MOVE Global** Continues to Make an Impact Around the World



Los Angeles Fires and MOVE-3 Deployment

During the Los Angeles wildfires, IEEE-USA MOVE leadership communicated closely with Red Cross representatives to assess the situation. The Red Cross set up shelters in facilities that provided essential services, making it possible for those affected to receive support without an immediate need for additional resources. Fortunately, many individuals affected by the wildfires were able to evacuate to areas with power and communications, utilizing hotels and rental properties while temporarily displaced from their homes.

As conditions evolved and the need for assistance arose, IEEE-USA MOVE was prepared and quickly deployed MOVE-3 to the Border 2 wildfire near San Diego. MOVE-3 was onsite for 4 days with 2 volunteers. They assisted with setting up the American Red Cross (ARC) evacuation center computers to support the evacuee

registration process. They also provided high speed internet service to the Red Cross evacuation shelter through the duration of their deployment. It is important to note that the commitment to safety is paramount, and MOVE has established processes and procedures to ensure the well-being of the crew and equipment during every deployment.

For each event, IEEE-USA MOVE collaborates with partners to identify the most effective ways to utilize their services. Every disaster is unique, influenced by factors such as the type of disaster, location, infrastructure impact, and access to nearby resources like hotels, airports, and highways. They take pride in contributing positively when services are needed most.



Melody Richardson, Founder and Coordinator of STEM on the MOVE speaks at an elementary school in Georgia, USA.

Inspiring Elementary Students With STEM and Coding

Melody Richardson, founder and coordinator of IEEE MOVE Community Outreach “STEM on the MOVE” program, visited an elementary school in Georgia, USA, to engage students in discussions about the IEEE-USA MOVE program, the importance of STEM, and how challenges can lead to personal and academic growth. Melody provided real-world examples of how STEM is applied in disaster relief efforts and shared the importance of learning from challenges and using each as a stepping stone to success. Her message encouraged students to approach setbacks with perseverance and view them as improvement opportunities.

During the visit, Melody also participated in the Hour of Code challenge, guiding students through interactive coding activities demonstrating how technology can be accessible and fun. The hands-on session sparked curiosity and introduced students to the creative side of problem-solving.

By the end of the visit, students gained a greater appreciation for the role of STEM in addressing real-world challenges. They left feeling inspired to explore new opportunities in science, technology, engineering, and math. Melody's visit highlighted the power of STEM to empower individuals and positively impact communities. ■

IEEE MOVE India: Advancing Disaster Preparedness and Response Through Technology and Education



The IEEE MOVE India program, a key initiative launched by the IEEE India Council in collaboration with state disaster agencies and nongovernmental organizations (NGOs), is part of the IEEE MOVE Global program. The program aims to provide emergency response by offering temporary communication and power solutions in disaster-affected regions. Beyond disaster relief, IEEE MOVE India is deeply committed to raising awareness about disaster preparedness and promoting STEM education, engaging with schools and communities to emphasize how technology can positively impact society and contribute to addressing global challenges.

The foundations of MOVE India were laid in 2019 when Mary Ellen Randall, then the MOVE Community Outreach Program Director and now 2025 IEEE President-Elect, visited Bangalore, India. This visit inspired the idea of establishing MOVE India. On 8 July 2021, the program officially launched, thanks to the leadership of prominent figures including Deepak Mathur, 2021-22 Region 10 Director and 2024 IEEE Vice President for Member and Geographic Activities (MGA), Suresh Nair, the 2021-22 Chair of IEEE India Council, Debabrata Das, the 2023-24 Chair of IEEE India Council, Prerana Gaur, the 2025 India Council Chair, and Sadhana Attavar, Chair of IEEE MOVE India. The core team of MOVE India also includes committee members like Arun Tankasali, Dr. Chengappa Munjandira, and Dr. Mousiki Kar, who head the Marketing, Technology, and Education Committees, respectively and two staff of IEEE representing IEEE India Philanthropy, Ashoka Vittal and Swaraj H V. Together, they have been instrumental in shaping the program's direction and ensuring its success.

In 2024, MOVE India conducted many programs including disaster awareness training in 27 schools, a Training of Trainers (TOT) program for IEEE SIGHT volunteers, and a workshop at the IEEE TENSYP 2024 conference in Delhi, India. MOVE India also provided crucial aid to the victims of the Wayanad landslides by donating solar lanterns and mobile chargers, helping those affected by power outages.



Disaster Awareness Training Program at Vidodaya School in Kochi, Kerala, India, held on 15 January 2025.

The program also launched a STEM kit to promote climate change awareness, followed by a training session in Bangalore, India, and a hands-on workshop focused on leveraging technology to combat climate change, which was conducted in Kolkata, India. Additionally, MOVE India organized 25 STEM workshops at various locations across India, raising awareness about climate change and sustainability.

In 2025, MOVE India continues to advance its mission with key developments, including the introduction of a modular MOVE India truck. Equipped with communication and power systems, the truck will serve as a mobile solution for future disaster response operations. Additionally, the MOVE India team will expand its disaster awareness training programs and STEM workshops, maintaining a strong focus on climate change and sustainability. Additionally, MOVEATHON, an ideathon exploring technological innovations to reduce disaster impact, is slated for later in the year.

On 15 January 2025, MOVE India, in collaboration with the IEEE SIGHT Kerala Section, organized a Disaster Awareness and Preparedness workshop at Vidodaya School in Kochi, Kerala, India. This workshop, attended by 300 students, provided essential knowledge for disaster response.

With a proven track record of impactful initiatives and the launch of the modular MOVE truck on the horizon, MOVE India is set to continue playing a pivotal role in disaster preparedness and response across India. Its commitment to disaster relief, education, and climate change awareness ensures that it will remain a vital force in building resilience and fostering community preparedness. ■

Visit the [IEEE MOVE donation page](#) to fund vital programs and aid local communities when disaster strikes.



Hands-on STEM workshop at Parkala High School, Manipal, India on 8 November 2024.

Augmented Reality System Opens Doors to Distance Learning in Rural Pakistan

EPICSin**IEEE**



All children deserve a quality education and the necessary resources to learn, grow, and develop. However, due to the area's harsh weather conditions, damaged roads, sparse healthcare, overcrowded schools, and limited teacher training, achieving this goal can be challenging for students in rural areas of Pakistan's congested Sindh province.

Thankfully, an EPICS in IEEE team of students from the Department of Electronics at Mehran University of Engineering and Technology (MUET) in Jamshoro, Pakistan, developed a virtual and hands-on learning platform that has provided hundreds of elementary students in rural areas of Pakistan with instant access to a wealth of educational resources. The EPICS in IEEE team included nineteen students and two faculty supervisors from MUET, the IEEE-Instrumentation and Measurement Society (IMS) Student Chapter, and the IEEE Karachi Section. They collaborated on the platform's display, content, and power management. "Our system features real-time capture, processing, streaming, and 3D visualization of recorded educational content as well as interactive 3D content adapted from the schools' book lessons, allowing knowledge transfer to remote areas," said IEEE member Sameer Qazi, a senior at MUET and one of the project leads.

The Fast Rural Development Program (FRDP) is a local group in rural Sindh, Pakistan, that works to promote sustainable development. FRDP was the non-profit partner that worked with the EPICS in IEEE team. "Our goal was to develop a 3D augmented reality (AR) display system to address the unique educational challenges faced by rural communities in Pakistan," said Qazi. While the team found it challenging to precisely align their prototype's semi-reflective glasses and LED display to achieve a seamless threeview holographic effect, their ongoing efforts and out-of-the-box thinking proved successful.

"So far, we've deployed our 3D AR system in two schools in rural Sindh and have reached about 500 students in first through fourth grade," Qazi said of their outreach efforts. "The response has been overwhelmingly positive, with students demonstrating higher engagement and better conceptual understanding. Teachers have also appreciated the system's ease of use and its potential to transform traditional learning."

This project was made possible thanks to a US\$4,115 grant from EPICS in IEEE, which was funded through generous donor support. Donors to the IEEE Foundation allow the EPICS in IEEE program to support projects being developed and impacting people in local communities worldwide.

"From funding to mentorship, EPICS in IEEE provided us with essential support that allowed us to bring this project from concept to reality," confirmed Qazi. "Ultimately, our vision is to see our system deployed in rural schools across Pakistan, where it can provide students with access to high-quality, interactive learning tools. More broadly, we hope that the technology can inspire similar innovations in healthcare, vocational training, and beyond and ultimately foster development in underserved communities." ■

For more information on EPICS in IEEE, visit epics.ieee.org. Interested in helping EPICS in IEEE expand its reach and support more worthy projects?

Contact Danny DeLiberato, CFRE at d.deliberato@ieee.org, call him at +1.732.562.5446, or make a gift online by scanning this QR code.



EPICS in IEEE project university team from Mehran University of Engineering and Technology (MUET) assembling their Augmented Reality 3D System prototype to deploy in local schools in Pakistan.



EPICS in IEEE project team's electronic engineering students working on the development of a virtual, sustainable, and hands-on learning platform that engages students and teachers alike.

This story was excerpted from the following story: <https://epics.ieee.org/blogs/augmented-reality-system-opens-doors-to-distance-learning-in-rural-pakistan>

Make an Impact With an IEEE TryEngineering STEM Grant



In 2025, the [IEEE TryEngineering STEM Grants Program](#) awarded more than US\$70,000 to 58 volunteer-led programs for pre-university outreach activities. 416 applications from nine of the ten IEEE regions, including submissions from Germany, Hong Kong, India, Indonesia, Malaysia, Sri Lanka, and Uganda were received. A special thanks goes to those IEEE Members who served as reviewers for the grant applications. The full list of 2025 STEM Grants recipients can be found here: tryengineering.org/news/announcement-tryengineering-stem-grant-recipients-2025.

In 2025, applicants were able to apply for funding at three different levels:

- **Introductory** level, for projects up to US\$500;
- **Share** level, for projects up to US\$1,000;
- **Inspire** level, for projects up to US\$2,000.

The winning proposals funded a wide range of activities, from robotics workshops and career explorations, to programming and cybersecurity. Programs included outreach events for students of all ages, as well as programs for teachers.

With the generous support of a long-time donor to the IEEE Foundation, the IEEE TryEngineering STEM grant program provided additional funds to support five outreach projects that were designed to show school aged children that engineering and technology careers are for anyone interested in changing the world - three in India and two in Kenya.

In 2025, additional support was provided from IEEE society partners, including US\$30K to support grant proposals in their fields of interest. The IEEE Communication Society supported *IoT Unplugged: Smart Plant Guardians using Arduino* in Canada, and the IEEE Computer Society supported *Exploring the Fundamentals of Social Robots* in the USA. Additional support was provided by the IEEE Oceanic Engineering Society, the IEEE Signal Processing Society, and IEEE Women in Engineering. The partnership of IEEE societies has allowed the IEEE TryEngineering STEM Grant program to award funds to projects in nine of the ten regions across the globe.

To learn more about these impactful projects, visit the TryEngineering website to read articles spotlighting the STEM grants program: tryengineering.org/get-involved/ieee-members/stem-grants/program-spotlights. ■



*Hands-on learning sparks curiosity and creativity!
An instructor guides future engineers through circuits and electronics in the IEEE Signal Processing K12 STEM Program – 4th Edition on Wheels.*

Interested in helping IEEE TryEngineering support more innovative projects?

The [IEEE TryEngineering STEM Grant program](#) looks forward to the impact that will be made in 2025.

Since the launch of the IEEE TryEngineering STEM Grant program in 2021, US\$246,000 has been awarded to 202 programs in more than 40 countries. Consider donating to the [IEEE TryEngineering Fund](#). Your gift will support more STEM outreach projects across the globe in future years. **Scan the QR Code Now.**



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Exhibits and Interactives From the IEEE Global Museum



At the end of 2024, several important projects of the IEEE Global Museum, presented by the IEEE History Center, came to fruition, not least the launch of its flagship traveling exhibit [*Unseen Signals: E. Howard Armstrong's Radio Revolution*](#). Curated by IEEE History Center historians Alexander B. Magoun and Daniel Jon Mitchell, the exhibit opened on 1 November 2024 at the National Museum of Industrial History (NMIH) in Bethlehem, PA, USA. New Jersey, USA residents will be excited to learn that the next venue has been confirmed: **InfoAge Science and History Museums in Wall Township, NJ, USA, May through December 2025.**

Dr. Mitchell was also busy preparing a special anniversary exhibit, *Our Mobile World*, for the IEEE Vehicular Technology Conference (VTC) held in October 2024 in Washington, DC, USA. The exhibit commemorated two major milestones for the IEEE Vehicular Technology Society (VTS): the 75th anniversary of its founding as the Professional Group on Vehicular and Railroad Communications of the Institute of Radio Engineers (IRE) in 1949, and the 100th VTC.

In 1949, the two-way vehicular communications technology, pioneered in police radio, was spreading to other public safety agencies and power utilities. At the same time, WWII portable

"handie-talkie" technology was being adapted for industry and civil defense. After that, VTS evolved in two major phases: during the 1960s and 1970s with the development of vehicular electronics — first with solid state devices and then integrated circuits — and then during the late 1980s - early 1990s with the commercial rise of cellular telephones.

Our Mobile World presents key events in all these fields and features a ten-question interactive timeline game spanning a century of related inventions. The timeline game emerged as a spin-off of a similar game created in partnership with IEEE Strategic Marketing for the 2024 Consumer Electronics Show (CES) that addressed IEEE technologies more broadly. These initiatives illustrate the IEEE History Center's commitment to raising awareness among IEEE members of their shared legacies and promoting them to the public. ■

The IEEE History Center relies on the support of generous donors to the IEEE Foundation to make these programs possible. Please consider making a donation today.



Gregory Su, an Electrical and Computer Engineering graduate student at Carnegie Mellon University, plays the Electricity and Electronics timeline game at the VTC Conference in Washington, DC, USA. Photo Credit Daniel Jon Mitchell.



A guest at the Unseen Signals VIP reception at the National Museum of Industrial History considers the business and politics of radio broadcasting. In the background is a portable Radiola 24 superhet. Photo Credit Mario Acerra.

IEEE Foundation Happenings

Congratulations to Alex Acero, IEEE Foundation Director, on His Election into the Prestigious National Academy of Engineering

Alex Acero was elected to the National Academy of Engineering (NAE). Election to the NAE is among the highest professional distinctions accorded to an engineer. His peers elected Alex for his leadership in research and development of spoken language technology. Alex joins four other IEEE Foundation Directors who have received this prestigious honor: Philip Krein, John McDonald, Karen Panetta, and Sarah Rajala.



Alex Acero

Leading by Example



During the February 2025 IEEE Foundation Board of Directors meeting, John McDonald, Vice President of Development, presented certificates to two Directors, Christopher Geiger and Jerry Hudgins.

Christopher Geiger (above left photo) and his wife, Lisa, were recognized as “Honored Philanthropists” at the Nikola Tesla level in the [IEEE Heritage Circle](#), the IEEE Foundation’s cumulative giving donor recognition program.

Jerry Hudgins (above right photo) and his wife, Sheryl, were recognized as “Forever Generous” members of the [IEEE Goldsmith Legacy League](#), the Foundation’s elite estate planning recognition group.



Challenge Accepted!



On behalf of donors, the IEEE Foundation Board was thrilled to receive the 2025 IEEE Challenge Coin presented by Kathleen Kramer, President and CEO of IEEE, at the IEEE Foundation Board Retreat in Bellevue, WA, USA in February. The IEEE Foundation looks forward to continuing to harness the power of One IEEE for charitable giving.

Celebrating IEEE Foundation Day at the IEEE Meeting Series in Bellevue, WA, USA!



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As the philanthropic partner of IEEE, the IEEE Foundation is the heart of IEEE charitable giving. We expand the IEEE charitable body of work by inspiring philanthropic engagement that ignites a donor's innermost interests and values. Together, we deliver opportunity, innovation and impact, and advance the IEEE mission across the globe. We categorize the IEEE programs supported by your donations under five main pillars: Illuminate, Educate, Engage, Energize and Future, though their benefits span multiple categories.

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