

IEEE-Eta Kappa Nu

2024

Year in Review



 **IEEE**
Advancing Technology
for Humanity



Group photo of SLC attendees in the Embassy Suites Concord Golf Resort and Spa's lobby

The 2024 Student Leadership Conference draws Record Breaking Number of Students

The IEEE-HKN Student Leadership Conference (SLC) has become the most anticipated event of the year, not only for students but also for industry and IEEE Society Representatives, who enjoy the contagious energy of HKN students. Held on 15-17 November 2024 at the Embassy Suites Concord, North Carolina, this year's Student Leadership Conference had several new enhancements this year, including being held at a conference center as opposed to a college campus and a special "Find Your Technical Home" Pavillion where students had the opportunity to learn how to leverage IEEE Society membership to enhance their skills and to grow their careers. The Charlotte Section of the IEEE Young Professionals sponsored an after-party that promoted camaraderie and informal networking over games of foosball, cornhole, and giant Jenga.



Group photo of Gamma Theta Chapter attendees

Close to 350 attendees from 64 chapters all over the world participated in 5 workshops, 20 learning sessions, and two recruitment fairs. Session topics ranged from career development topics such as "Career Advancement Through Effective Communication" to more technical ones like "Quantum Computing: The Need for Engineers." The 2025 IEEE President Kathleen Kramer gave the keynote address at Saturday's lunch, and 2025 IEEE President-Elect Mary Ellen


Randall also spoke to encourage students. The IEEE MOVE Truck was on hand all day, allowing students to witness firsthand how IEEE supports communities in times of natural disasters.

On Saturday evening, an awards dinner celebrated the achievements of HKN students and chapters with the awarding of the Madni Family Scholarships, Outstanding Student Awards, and Key Chapter Awards. The conference wrapped up on Sunday with 4 Region meetings where students shared best practices and made plans to continue collaborations



(l-r, Kathleen Kramer, 2025 IEEE President, 2024 Region Directors Eric Grigorian, Kathy Hayashi, Drew Lowery, and Mary Ellen Randall, 2025 IEEE President Elect)

beyond the conference. According to Serena Canavero, a computer engineering graduate student at the Politecnico in Turin, Italy, and 2025 IEEE-HKN Student Governor, "The SLC is a place where young, promising engineers come together to learn how to grow into their best professional selves. Here, we learn how to be ethical leaders, are enriched by international dialogue, and meet an incredible community of HKN colleagues from all over the world."

Sponsorships from 40 companies, IEEE Societies, and graduate schools help to keep costs to attend affordable for students in addition to a generous grant from the Samueli Foundation. If you are interested in sponsorship opportunities, please contact Nancy Ostin at n.ostin@ieee.org. Plans are underway for next year's Student Leadership Conference with an announcement to be coming soon! 



2024, Celebrating Our History While Looking to Our Future



Scholarship

- 24 Chapter Grants Awarded
- 48 Chapters in Coaching
- 8 New Chapters
- New Graduate Pitch Competition
- 2,419 Inductions, 12%
- 40 Key Chapters

Character

- 104,000 Service Hours
- 8,000+ STEM Hours
- 50 Grad./Alumni Mentoring Participants
- 18,000 hours w/IEEE Student Branches



Attitude

- 1,200+ Conference Attendees
- 2 New Eminent Members
- 87 Professional Inductees
- 4 Madni Family Scholarships
- 3 Professional Awards given
- 22 Outstanding Chapters
- 12th Apex Award for *THE BRIDGE*

120th Anniversary Highlights


- 120 Voices of HKN campaign
- HKN 120th Anniversary Coin
- [120th Anniversary Video](#)
- [120th Anniversary infographic](#)
- [History timeline](#)
- Nine 120th Anniversary Cakes
- Traveling HKN memorabilia exhibit
- [120th Anniversary Hackathon](#) – close to 100 student involved.
- Founders Day Virtual Event
 - Fireside Chat with Vint Cerf and Bob Kahn
- Successful Social Media Campaign
- 120th Anniversary articles in the [Institute](#), and the [IEEE Foundation newsletter](#)

Since 1904, HKN has been recognizing excellence in electrical and computer engineering and allied fields of interest. This past year offered the opportunity to look back on our proud past while building a bright future. From our explosive growth in the number of new chapters to our expansion of offerings to our graduate students, in 2024, HKN continued to build upon the solid foundation laid by our founders. Our successful year would not have been possible without the generosity of our donors, the tireless devotion of our volunteers, the support of our corporate and IEEE Society partners, the ambitious leadership of our Board of Governors, and the dedicated IEEE-HKN staff. Below are just the highlights of what made 2024 a historic year.

Eight New Chapters Were Welcomed into our Global Network in 2024!



2023 IEEE-HKN President Sampath Veeraraghavan (center) installs NuNu Chapter at the University of Dubai

We were thrilled to welcome 8 new university chapters into the IEEE-HKN family in 2024. These new chapters represent a diverse range of institutions and bring fresh energy and perspectives to our community, spreading the HKN ideals of scholarship, character, and attitude to new parts of the world. Congratulations to Hampton University in Hampton, Virginia; Obuda University in Budapest, Hungary; Texas State University in San Marcos, Texas; Polytechnic University of Puerto Rico in San Juan, Puerto Rico; Western New England University in Springfield, Massachusetts; Vardhaman College of Engineering in Hyderabad, India; Escuela Superior Politécnica del Litoral in Guayaquil, Ecuador; and the University of Dubai in Dubai, United Arab Emirates, on their installations." 

Eta Chapter Welcomes Close to 100 New Members



Eight Professional Members being inducted at the 2024 June Board Series in Toronto, Canada

With six in-person ceremonies held around the world and three virtual ceremonies, HKN welcomed 87 new professional members into the Eta Chapter of the IEEE-HKN Board of Governors. These professionals were nominated for induction by HKN members because they embody the core values of Eta Kappa Nu, namely outstanding scholarship, impeccable character, and a dedication to


lifelong learning and service. They have demonstrated significant leadership and service during their careers and will contribute their dedication and personal integrity by sharing their professional skills and personal time.

Many of the newly inducted members are dedicating their considerable talents to HKN by jumping right into service and joining HKN committees. A few newly inducted members are also exploring the possibility of forming new university chapters and helping reactivate dormant ones, and several have been connected with chapters in their local area to serve as mentors and event speakers.

In-person induction ceremonies were held throughout the year at:

- IEEE SoutheastCon, Atlanta, GA
- IEEE Region 5 Meeting, Springdale, AR
- IEEE Region 1&2 Meeting, Stamford, CT
- IEEE June Board Series, Toronto, Canada
- IEEE Oceans Conference, Halifax, Nova Scotia, Canada
- IEEE November Board Series, Dallas, TX

In addition, three virtual induction ceremonies were held to accommodate those members who were unable to attend in person. Several of the members inducted at December's virtual ceremony are AT&T and Nokia Bell Labs Fellows, having contributed significant research and innovation to our fields.


We are already planning several induction ceremonies for 2025. If you know a professional who embodies the attributes of HKN-Scholarship, Character, and Attitude, you can nominate him or her for the Eta Chapter [here](#). With your help, 2025 will be another successful year for the Eta Chapter of HKN! 

Two Nobel Prize Winning Scientists Elevated to HKN Eminent Members

On Tuesday, 17 September 2024, the HKN community gathered at the AT&T Museum & Science Technology Center in Middletown, NJ, to elevate [Dr. Robert Woodrow Wilson](#) and [Dr. Arno Penzias](#) to Eminent Member & Honorary Eminent Member, respectively. Dr. Wilson and Dr. Penzias are credited with discovering cosmic microwave radiation, which is considered strong evidence for the Big Bang theory of the universe's origin. Their discovery led to a Nobel Prize in 1978 in recognition of their outstanding contributions to advancing our understanding of the universe. IEEE Regions 1 and 2 sponsored the event in partnership with AT&T Labs and drew over 70 attendees to celebrate Dr. Wilson's



Dr. Robert Woodrow Wilson addressing the audience at his Eminent Member Elevation Ceremony

and Dr. Penzias's work. In 1950, Eta Kappa Nu established the [Eminent Member recognition](#) as the society's highest membership classification. It is to be conferred upon those select few whose attainments and contributions to society through leadership in the fields of electrical and computer engineering have resulted in significant benefits to humankind. 

HKN Celebrated its 120th Anniversary with First Ever Hackathon, Eminent Member Fireside Chat, and Cake-filled Alumni Gatherings

2024 marked the 120th anniversary of the founding of Eta Kappa Nu, which offered an opportunity to celebrate the rich history of our society while launching new initiatives. Alumni gatherings at IEEE meetings across the United States featured opportunities to reconnect and share their special Eta Kappa Nu memories over cake. Events were held at IEEE Region 3's [SoutheastCon](#), the [IEEE Life Members Conference](#), the [IEEE Communication Society Conference](#), the [IEEE Power & Energy Society General Meeting](#), and the [IEEE World Forum on Public Safety Technology](#).



(left to right) IEEE-HKN Board Members, Colleen Bailey, Jim Jefferies, John McDonald, Karen Panetta, 2019 IEEE-HKN President and Evelyn Hirt, 2015 IEEE-HKN President. Photo taken at the IEEE Life Members Conference in Austin, TX

On Founders Day, 28 October 2024, the anniversary was also marked by a special virtual Fireside Chat featuring HKN Eminent Members Vint Cerf and Bob Kahn, known as the "Fathers of the Internet," who shared their recollections of their collaboration on building the architecture that created the internet. Dr. Karen Panetta, 2019 HKN President and Dean of the Graduate School of Engineering at Tufts University, hosted the event, which reached a worldwide audience of over 100 attendees.

The culmination of the first-ever IEEE-HKN Hackathon was also a part of the virtual celebration, with teams presenting

their solutions to 16 IEEE professionals who judged their work. Students attending the 2023 Student Leadership Conference conceived of the Hackathon, which came to fruition after seven months of planning as a means of fostering international collaborations among chapters. The Hackathon Committee, led by Christian Winnigar, a Gamma Theta alum, was composed of 17 students who created mathematical and engineering problems around the theme of saving the eight founders of HKN. According to Serena Canavera, one of the event's organizers and 2025 HKN Student Governor, "Our founders, especially Maurice L. Carr, envisioned a society that would eventually become international, as it is today, more than a century into the future. To capture this spirit, our team combed through HKN's historical records, seeking insights into the visionary students who founded HKN. We imagined them facing various challenges, often misunderstood by school leaders who didn't yet see the value in an organization dedicated to the professional growth of young, bright, and philanthropic engineers."

The Hackathon succeeded in capturing the imagination of students around the world, with 62 students working in 12 teams. Test Equity awarded prizes to the top five teams. Hackathon promoted creativity, teamwork, and a greater awareness of the history of HKN while demonstrating its principles of scholarship, character, and attitude. Due to the enthusiastic response to the Hackathon, plans are already underway for another one in 2025.


To learn more about HKN's history, check out the [timeline](#). 

2024 Brings a Special Focus on Fulfilling the Needs of Graduate Students

Graduate students, always a key constituency for HKN, received even more attention through an expanded third round of graduate/alumni mentoring, special networking events, and a Graduate Pitch Competition.

The third round of the Graduate Student/Alumni Mentoring Program enjoyed a 300% growth rate since its inception, with 50 participants—31 mentees and 19 mentors paired in 2024. The 2024 program also included two virtual networking sessions, one held in March to kick off the program, which drew 31 participants, and one in August held in partnership with the HKN Alumni Committee with an additional 26 attendees. The Mentoring Program has been extremely meaningful to both its mentors and mentees. Patrick Nunally, a longtime mentor, said, "As I look back on the experience, it's been incredible. I have one young man completing his master's degree who has accepted an offer for the exact position in the same department with the exact same company (General Dynamics) that I had accepted coming out of school (40 years ago). Another young fellow is ready to launch his company. I've been working with him on his ideas, and he's already getting nibbles from investors, so he's getting ready to change the world."

A Graduate Pitch Competition was piloted in October as an addition to HKN's other graduate student offerings that include GradLab Podcasts and Graduate Student Research Spotlights in *THE BRIDGE* Magazine. The competition was introduced as a means to help graduate students practice their research presentation skills in a supportive, low-risk environment in preparation for other career-expanding opportunities like conference and dissertation presentations. In the pilot, eight graduate students presented their work to four judges.

The Graduate Student Subcommittee is committed to helping their fellow undergraduate students who are presenting a virtual panel session at the Pathways to Industry conference, "Paycheck vs. Fulfillment - Perspective on an Industry Career," as well as a special networking session where students could meet directly with the panelists and moderators. For TechX, the graduate students held an informal networking Resume Review Workshop that allowed 36 students to get expert advice from reviewers across industry, academia, and graduate programs. At the November Student Leadership Conference, members of the Graduate Student Subcommittee presented on how chapters can recruit graduate students, tabled, and handed out snacks, all visible reminders to students that graduation does not always have to mean an end to one's education. 

THE BRIDGE Magazine Garnered its 12th Consecutive Apex Award for Publication Excellence

THE BRIDGE Magazine won its second APEX Grand Award for Publication Excellence in 2024. The October 2023 issue of *THE BRIDGE* received recognition for its special issue on "Humanitarian Technologies for a Sustainable Society." Congratulations to the issue's guest co-editors, Sampathkumar Veeraraghavan, 2023 IEEE-HKN President, and Dr. Mohamed Essaaidi, and to the 2023 Editor-in-Chief, Jason Hui. Less than ten percent of the more than 1100 entries received Grand Award recognition. It is the 11th year that *THE BRIDGE* and IEEE-HKN have been recognized and its second consecutive Grand Award win. 


Growing HKN Social Media Presence Provides Platforms to Broaden Reach

Social media is an important means of connecting and growing our network and amplifying the great work of HKN. Due to the extraordinary efforts of Katie Brinker, chair of the Public Relations and Communications Committee, our PR and Communications Committee exceeded its 2024 goals by growing social media followers across our platforms by double digits, with [LinkedIn](#) increasing by 50% (3,845), [Instagram](#) increasing by 18% (1,016), and [YouTube](#) by a whopping 71% (711).

Part of the success of our social media is the creation of relevant and interesting content through the production of podcast episodes and the posting of sessions from



our virtual conferences, Pathways to Industry and TechX. In December, the HKN Alumni Committee, led by HKN Board Member Amy Jones, produced a well-received [Career Conversations](#) episode on *The Journey of Personal Discovery with Dr. Marcus A. Huggans*. In this episode, Dr. Marcus A. Huggans, an engineer and educator with over 20 years of experience in the STEM field, shares his insights from his impressive career, his passion for mentoring underrepresented students in STEM, and the importance of setting purpose-driven goals.

Everyone can help in these efforts in 2025 by liking and sharing content. Our social media supports all HKN initiatives—awards, conferences, chapter news, alumni, etc. - and tells stories of our impact in communities around the world. 

2024 HKN Awardees at the IEEE November Meeting Series

Ryan Bales, 2024 IEEE-HKN President, presented the IEEE-HKN Awards on Friday, 22 November 2024, as part of the IEEE Educational Activities Awards Presentation Ceremony held during the IEEE Meeting Series in Dallas, TX, USA. Rabab Ward, the 2024 Vice President of IEEE Educational Activities, presided over the ceremony, which was attended by the IEEE President, members of the IEEE Board of Directors, and IEEE Officers. The following honorees received plaques and much-deserved gratitude for their inspiring contributions:




(left-right) Dr. Gina Adam, S.K. Ramesh, Dr. Andrea Goldsmith, Ron Jensen, Rabab Ward, Ryan Bales, Nancy Ostin, and Asad Madni

IEEE-HKN Asad M. Madni Outstanding Technical Achievement and Excellence Award: *Dr. Andrea Goldsmith*, Dean of Engineering and Applied Science, Princeton University, "for her pioneering work in wireless communications and information theory leading to the innovations which have shaped the performance of wireless networking and enabled fast, reliable wireless service around the world."

IEEE-HKN Distinguished Service Award: *Ronald Jensen*, 2021 IEEE-HKN President, "for continued service in leading and growing impactful IEEE-HKN programs and sustained dedication to mentoring future student leaders."

C. Holmes MacDonald Outstanding Teaching Award:

Dr. Gina Adam, Associate Professor in the department of electrical and computer engineering at George Washington University, “for contributions to nanoelectronics education and inclusion efforts in electrical and computer engineering.”


Additional photos of the ceremony can be found [here](#). The 2025 IEEE-HKN Awards cycle is now underway. If you know of a colleague who is making outstanding contributions and should be considered for one of the above awards, please learn more and submit a nomination [here](#) before 5 May 2025. 

HKN Conferences Ready Students for their Future Careers

HKN once again hosted three conferences in 2024: Pathways to Industry, TechX, and the Student Leadership Conference, which drew a record number of participants. Each conference had a different focus, with Pathways to Industry held in February 2024, devoted to helping students and young professionals have the professional skills they need to secure internships and full-time jobs. The virtual conference, featuring engaging sessions like “From Rocket Science to Financial Planning: 5 Financial Insights I Wish I Knew in College” and an X-Factor Conversation with Bob Kahn, was filled with practical information as well as inspiring messages. HKN TechX followed in April, with a focus on ethical considerations in technology, and featured keynotes from Dr. Karen Panetta, who spoke about her groundbreaking work in artificial intelligence, and an X-Factor conversation with Dr. Sandra Magnus, NASA Astronaut and HKN Eminent Member. “Responsible AI” will be the theme of the [2025 HKN TechX](#), which will take place from 9-11 April. You can register [here](#).



Burton Dicht interviewing IEEE-HKN Eminent Member Sandra Magnus at 2024 TechX Conference

HKN conferences are made accessible and affordable to students through the financial support of our sponsors, donors, IEEE Society, and academic and industry partners who, in addition, share their wisdom and advice to guide the next generation of engineering leaders. [Read about this year's SLC](#). 

Inaugural Winners of Asad, Gowhartaj, and Jamal Madni Family Scholarships Awarded

Thanks to the generosity of Asad M. Madni and his family, a new [scholarship](#) was established in 2024 to support qualified undergraduate and graduate students pursuing a degree in the fields represented by IEEE-HKN and who are members of an active IEEE-HKN Chapter. The scholarship is another manifestation of the commitment of Dr. Asad Madni's family to education, having already established a scholarship at UCLA.

Asad Madni is an Eminent Member of HKN and winner of the Vladimir Karapetoff Outstanding Technical Achievement Award in recognition of his illustrious career as the president of BEI Technologies, where he led the development and commercialization of intelligent sensors, systems, and instrumentation, including the control system for the Hubble Space Telescope's Star Selector. Asad M. Madni is an adjunct professor of electrical and computer engineering at UCLA Henry Samueli School of Engineering and Applied Science. He was bestowed the IEEE Medal of Honor in 2022 and the John Fritz Medal in 2024. He established the IEEE-HKN Asad M. Madni Outstanding Technical Achievement and Excellence Award to recognize individuals who have distinguished him or herself with a career of meritorious achievement and innovation in electrical or computer sciences, engineering, or technology.

This year, four outstanding students were granted a \$1,000 scholarship in recognition of their embodiment of HKN's principles of scholarship, character, and attitude:


Two Undergraduate Scholarships

- **Laura Floyd**, Mu Rho Chapter, Valparaiso University
- **Benjamin Nguyen**, Iota Phi Chapter, United States Military Academy

Two Graduate Scholarships

- **Hannaneh Hojaiji**, Iota Gamma Chapter, University of California, Los Angeles
- **India Elkhazin**, Zeta Lambda Chapter, Prairie View A&M University

Laura Floyd and Benjamin Nguyen were recognized for their achievements at the 2024 Student Leadership Conference held in November 2024. Laura's student profile can be found on [here](#).

Applications for the 2025 Madni Family Scholarship are currently being accepted. To qualify for the Madni Scholarship, a student must be a U.S. citizen enrolled as a full-time student in electrical engineering or related fields at an accredited U.S. university or college. Further qualifications include being an inducted member of IEEE-HKN and having completed his or her third year in an IEEE-HKN field of interest. The award will be \$1,000 per student to cover school expenses such as tuition, books, and fees. Applications will be accepted until 5 May 2025 and can be submitted [here](#). 



IEEE-Eta Kappa Nu



Thank you to all our HKN students, IEEE-HKN Board of Governors and volunteers, sponsors, and donors for helping HKN to achieve its mission of supporting promising young engineers through every step of their professional journeys. We hope that you will join us in our efforts.

Scholarship ♦ Character ♦ Attitude



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