

## The IEEE, Who We are, Where we are Going

Tom Coughlin, 2025 IEEE Past President IEEE Santa Clara Valley Section 8 October 2025









## Inspiring a Global Community of Innovation

### Where forward-thinking technology professionals collaborate

- Discover what's next in technological innovation
- Create international standards
- Build technical communities
- Shape and share research

#### **Our Mission**

The core purpose of IEEE is to foster technological innovation and excellence for the benefit of humanity

#### **Our Vision**

IEEE will be essential to the global technical community and to technical professionals everywhere, and be universally recognized for the contributions of technology and of technical professionals in improving global conditions www.ieee.org

## IEEE at a Glance

- 486,000+ members in more than 190 countries
  - More than 189,000 Student members
- 39 technical Societies and eight technical Councils representing the wide range of IEEE technical interests
- 6 million+ documents in the IEEE *Xplore*® digital library, with 24 million+ downloads each month
- 1,079 active standards and 1,000+ standards under development
- Publishes approximately 200 transactions, journals, and magazines
- Sponsors 2,000+ conferences in 109 countries a year
- •IEEE publications referenced **3X more** in patents than any other publisher
- Continuing technology education resources
- Global public policy and professional ethics

All figures as of February 2025 www.ieee.org













Technology for a Sustainable Climate



## What we have been working on



- Increase our retention of younger members
- Increase our engagement with industry
- Increase our outreach to the broader public
- Make investments in new products and services
- Develop the future of education



**IEEE PROPRIETARY** 

## **Guiding Principles Applied to Develop IEEE Strategic Goals**



In service of the Mission, Vision, and Core Values of IEEE



Reflect IEEE's status as a 501(c)(3) public charity



Represent all units within IEEE



Incorporate extensive feedback from a diverse group of 3,000+ stakeholders



Screened by international consultant for global friendliness



## **IEEE Strategic Plan**

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#### **CORE VALUES**











Growth & Nurturing

Trust

Partnership Integrity in Action

y Global n Community Building

Service to Humanity

**OUR GOALS Drive technological innovation** while **Provide opportunities** for technology-related Advance science and technology as a leading trusted source of information for research, promoting scientific integrity and the ethical interdisciplinary collaboration, research, and development, standards, and public policy development and use of technology knowledge sharing across industry, academia, and government **Empower technology professionals** in their **Inspire intellectual curiosity** and support **Expand public awareness** of the significant discovery and invention to engage the next role that engineering, science, and technology careers through ongoing education, mentoring, generation of technology innovators networking, and lifelong engagement play across the globe

## Retaining our Younger Members

- Transitioning students to YP members and retaining them is vital to keeping IEEE dynamic and relevant!
- Most of these members work in industry, so to retain them we need to show our value to those involved in the practical applications of technology
- I believe that an important element is creating a sense of community among IEEE members, particularly at the local section level and engaging our student and YP members.
- IEEE can create resources to support talks to student branches and perhaps help with connections with industry with job fairs, etc.









## 2025-2030 IEEE Strategic Goals Directly Related to Industry Activities

- Provide opportunities for technology-related interdisciplinary collaboration, research, and knowledge sharing across industry, academia, and government
  - Industry Content Platform (ICP): transform research papers into industry application content, expected to be ready by 2026
  - Webinar: Creating new industry conferences for the product development community
    - Webinar Recording in IEC's IEEE.tv Channel
- Empower technology professionals in their careers through ongoing education, mentoring, networking, and lifelong engagement
  - IEEE Career Guidance Counselor Chatbot
  - Virtual Job Fairs
  - Create industry content through ICP
  - Create conferences for industry
    - e.g., World Technology Summits (WTS)

Value Individual Members (SM, FM)

Conferences WTS Publications Industry Content



## Strengthening IEEE's Value to Industry and our Members Working in Industry

- This will require work at the local level as well across IEEE Organizational Units.
- Get members from industry involved in your local section leadership.
- Work with your local companies.
- Local groups at companies.
- Participate in local trade shows (exhibits, talks).
- Recognize local companies for their activities.
- Engaging with industry is an important element in retaining and attracting younger members.









## IEEE Future Directions Activity Chaired by Kathy Hayashi

#### **2024 Achievements**

- Supported Semiconductor Working Groups in R8 and R9 with Bernard Lim and Jen Castillo
- Supported IEEE USA Packaging Summit (industry, gov, academia)
- Discussions across OUs with multiple countries on IEEE capabilities (e.g. Columbia, Dominican Republic, Panama, Hong Kong and more)
- IEEE Supported Tiny TapeOut event with > 70 tapeouts in one day
- Engagement with Major Semiconductor Groups (e.g. ICOS, OECD SEIN)
- Support of EA micro certifications and OnSemi train the trainers

#### **2025 Strategic Plans**

- Continue IEEE Global Semiconductors Activities
- Global Collaboration increasing reliance on partnerships in Latin America, Asia and Europe.
- Increased Company Engagements Collaborative forums to address challenges in new resiliency models and international workforce development
- Continued support for semiconductor related IEEE Roadmaps
- Support technical aspects of educational development, with deployment to international groups



## **Global Semiconductors. Global Impact.**

semiconductors.ieee.org



Taken At PSDC. From the left, Dr. Bernard Lim, Dr. Hari Narayanan, Ms. Hazel Dieh Stoiber, and Ms. Lim Wei Chen



## **2025 IEEE Future Directions Current Coverage**

Industry Advisory Board



Global Semiconductors
Ad Hoc

TechNav Al





















#### **New Initiatives Possibilities:**

- Alternative Energy Generation Storage
- Smart Agrifood
- Aging & Tech



## IEEE PREMIER Corporate Program Quello Oppo TMEIC





## Companies can strengthen business intelligence, workforce development, and public visibility programs



Leverage the full benefit of the global reach and technical expertise of IEEE



Foster innovation and keep your global workforce on top of the latest technology



Engage and develop their technical employees



Receive access to some the most essential plenary sessions at IEEE conferences



Influence technology development and help define standards



Celebrate leaders in the engineering profession, connect with innovators, and learn from visionaries

#### **BUSINESS DEVELOPMENT**

Networking **Business Intelligence Emerging Market Development** 

#### **PUBLIC VISIBILITY**

Thought Leadership Foundation Leadership Branding

#### WORKFORCE DEVELOPMENT

**Employee Membership IEEE Social Good Activities Professional Development Retention & Recruitment** 





#### **Raising the Prestige of IEEE Awards:**

- IEEE Medal of Honor prize increased from US \$50,000 to \$2 million
- 2025 IEEE Medal of Honor laureate was announced at a dedicated press conference in New York City







### IEEE Distinguished Young Professional Innovator and Laureate Forum

- Background: Recommendation from the 2024 IEEE Ad Hoc Committee on Raising the Prestige of IEEE Awards who were charged to develop a new program to enhance the engagement of early career professionals in IEEE
- Overview: The IEEE Distinguished Young Professional Innovator and Laureate Program/Forum will:
- Occur as an annual event launching in 2027 and held before the IEEE Honors Ceremony.
- Recognize and celebrate exceptional achievements by young professionals, early-career technologists, innovators, and researchers from around the world.
- Aim to provide a platform for these individuals to network, be recognized for their work, connect with IEEE Medal of Honor Laureates, IEEE Medal Recipients, and industry and government leaders
- Ties to IEEE's core value of growth and nurturing and the IEEE goal to provide opportunities for career and professional development

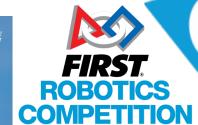




## Unique Engagement Opportunities

Outreach to the broader technical community and the general public.















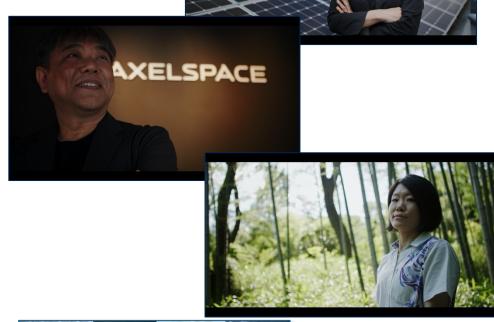






## IEEE is My Professional Home Videos Membership & Public Engagement through Video Outreach

- New videos being made in 2025 with IEEE members in Australia, New Zealand and Singapore
- 2024 filming in Japan and the UK with IEEE members
- Target audience is early career technology professionals, existing IEEE members, as well as the general public
- Expanding IEEE's video portfolio by producing new videos, tailoring the spots to a global audience so ads can be run outside the US and scheduling use in additional targeted media markets
- In addition to their use for a larger external advertising campaign, these videos will also be available for use by IEEE organizational units, regions, sections and members for their promotional efforts





The original IEEE is My Competitive Edge ads can be found here: <a href="https://bit.ly/ieeeusa-videos">https://bit.ly/ieeeusa-videos</a>



## IEEE: A Resource For Technology Decisions

- Technology of all sorts drive the world's economy.
- IEEE is the largest technical professional organization in the world.
- IEEE members are involved in all aspects of technology creation and use.
- IEEE research powers patents and IEEE cre many of the world's technical standards.
- IEEE fosters efforts in future directions, technical roadmaps and tracking megatrends.
- IEEE can inform public policy and is a resource for technical discussions.





# Advancing Technology for Humanity



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