

IEEE Technical Activities

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5 April 2025



My IEEE Journey

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Biography and Background

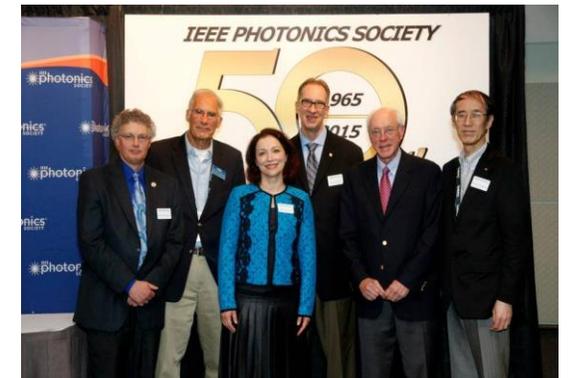
- ▶ Geographical Background
 - Born in Europe, raised and educated in Australia
 - Based in the US (Maryland) since 2001
- ▶ Technical Background
 - Multidisciplinary: Photonics, Microwaves, Communications, Wireless
 - Professional career has spanned Academia, Industry, and Entrepreneurship
 - Elected to IEEE Fellow in 2007
- ▶ 2004 – present, VP of Engineering at Octane Wireless
- ▶ 2003, Co-founder Pharad, LLC (became Octane Wireless)
- ▶ 2001 – 2003, Technical Section Lead, Corvis Corporation
- ▶ 1992 – 2004, Professor at The University of Melbourne
- ▶ 2004 – present, Professorial Fellow at The University of Melbourne
- ▶ 1992, PhD, The University of Queensland
- ▶ 1987, BE (Electrical) Honors I, The University of Queensland



My IEEE Volunteer Journey

Australia to USA, MGA » TA » BoD

- ▶ 1989 Joined as a student member
- ▶ 1993 Joined the IEEE Victorian Section ExCom
- ▶ 1996 Joined ExCom of inaugural LEOS/EDS Australian Chapter
- ▶ 1996 Elected Chair of IEEE Victorian Section
- ▶ 1999 Formed LEOS/EDS Victorian Chapter
- ▶ 1999 Elected Chair of IEEE Australia Council
- ▶ 1999 Started to actively participate in IEEE LEOS (now Photonics Society) and MTT-S Technical Activities
 - Publications, Conferences, Awards, Technical Subcommittees, and Industry Engagement
- ▶ 2014 – 2015 President of IEEE Photonics Society
- ▶ 2021 – 2023 Chair, TAB Committee on Diversity, Equity and Inclusion
- ▶ 2021 – 2022 Director of Division X



IEEE Technical Activities

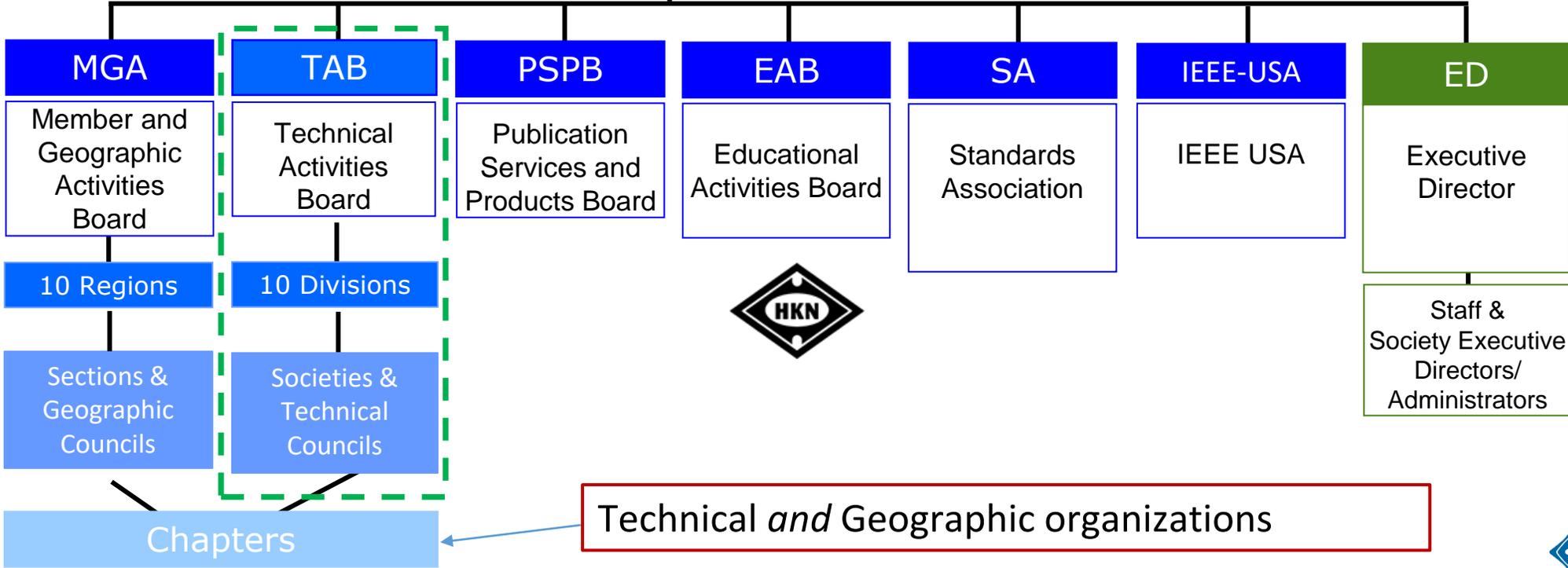
IEEE Organization



MEMBERS

Board of Directors (BoD)

Assembly

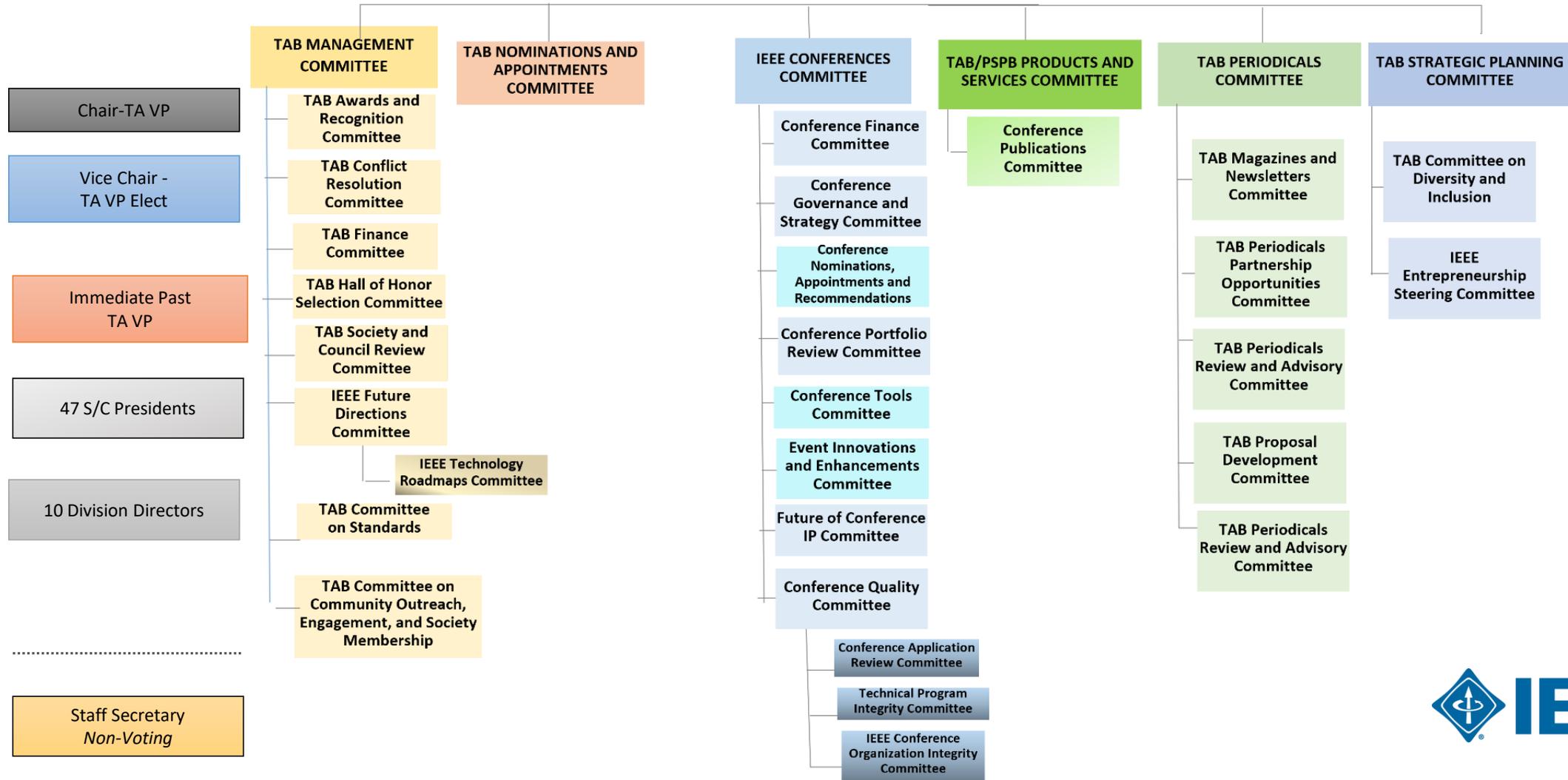


ta.ieee.org



IEEE Technical Activities Board (TAB)

The governing body of IEEE Technical Activities



IEEE Technical Activities **Organizational Framework**



TA

IEEE Technical Activities Board oversees the IEEE's Technical OUs: 39 Societies and 8 Technical Councils

Societies / Technical Councils



IEEE Technical Communities

Blockchain
Community

Brain Community

Digital Privacy
Community

Digital Reality
Community

Entrepreneurship
Community

Future Networks
Community

IEEE Technology
for a Sustainable
Climate
Community

International
Roadmap for
Devices & Systems
Community

Internet of Things
Community

Micro Electro
Mechanical
Systems Technical
Community

Public Safety
Technology
Community

Quantum
Community

Smart Cities
Community

TechEthics
Community

And more!





STRATEGIC PROGRAMS



ta-strategy@ieee.org

IEEE Entrepreneurship
7.5K+ participants



Connects tech entrepreneurs to an engineering-driven global innovation network

IEEE TechEthics™
3.4K+ participants



Engages stakeholders in dialogue and debate on the ethical and societal impacts of technology

IEEE Technical Community for
Climate Change
3K+ participants



Amplifies voices and efforts of IEEE Technical Activities constituencies working on climate change and sustainability

IEEE Technical Activities
Diversity, Equity & Inclusion



Ensures policies, procedures, and practices are conducive to supporting a diverse, equitable, inclusive environment



Current IEEE Society Membership

MD Summary		Pages 1-2		Current Month Charts		Page 4	
TA Society Spotlight		Page 3		Society & Special Interest Memberships		Pages 5-7	
Monthly Snapshot		YoY Change		Jan '25	Jan '24	Dec '24	MoM Chg
IEEE Membership		27,021	+5.7%	501,357	474,336	486,616	+3.0%
Honorary		2	+5.6%	38	36	38	0.0%
Fellow		141	+1.7%	8,482	8,341	8,106	+4.6%
Senior Member		4,493	+8.0%	60,583	56,090	60,539	+0.1%
Member		2,643	+1.2%	225,220	222,577	222,090	+1.4%
Associate Member		463	+8.2%	6,143	5,680	6,126	+0.3%
Graduate Student		4,188	+6.8%	65,776	61,588	60,895	+8.0%
Undergraduate Student		15,091	+12.6%	135,115	120,024	128,822	+4.9%
Society Memberships		41,634	+10.9%	424,065	382,431	428,050	-0.1%
32 Societies up > 1%		48,400		Societies Note: All counts excluding Affiliates. Including Affiliates, total Society memberships are up year-over-year by 41,730 or +10.7%.			
2 Societies +/- 1%		-40					
5 Societies down > 1%		-6,726					

Looking for Society/Council guidance in forming a Chapter?

Check the [IEEE Rosters](#) Chapter Support view under each S/C for contact information.

Additional questions? Email chapter-support@ieee.org



IEEE Conferences

The Essential Business Stats – 2024



2,260

**IEEE
Conferences
& Events**



609K+

**Global
Conference
Participants**



109

**Countries
Around the
World**



280K+

**Technical
Conference
papers**



1,546

**Non-IEEE
Partners**



Projected Conference Activity as of 2 January 2025



▶ **2-3 October 2025** Glasgow Scotland

▶ **IEEE Technology Summit**

- A new collaborative annual series
- Technical focus varies year to year
- TA sponsored, engaging IEEE and beyond



■ **TechSummit 2025 - CleanTech Solutions**

- IEEE Global Startup Pitch Competition: 2025 Clean Tech Solutions
 - In collaboration with IEEE Entrepreneurship, Young Professionals and Student activities



Event characteristics

- Produced event
 - Not a scholarly event, no CFP
 - Inviting best content from IEEE and beyond



Team



- Event producer
- Members from across TA and IEEE

International Year of Quantum Science and Technology (IYQ)

- ▶ UN 2025 International Year of Quantum Science and Technology (IYQ)
 - ▶ IEEE is a Distinguished Partner of IYQ
 - ▶ Using the occasion of 100 years of quantum mechanics in 2025 to help raise public awareness of the importance and impact of quantum science and applications on all aspects of life
 - ▶ IYQ seeks to show how quantum technologies support health and well-being, reduced inequalities, industry and infrastructure, economic growth, climate action, and clean energy
- ▶ 2025 IEEE Quantum Week
 - ▶ Aug 31 – Sept 5, Albuquerque, NM



Appendix

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2025 Future Directions Committee Technology Coverage

Industry Advisory Board



Global Semiconductors Ad Hoc

TechNav AI



AI Coalition

New Initiatives Possibilities:

- Alternative Energy Generation Storage
- Smart Agrifood

IEEE

IEEE Entrepreneurship

IEEE's Global Venture Development Program



- ▶ Supports tech entrepreneurs
- ▶ Strengthens innovation ecosystems
- ▶ Programs include:
 - ENT 101 Workshops
 - Women's Support Network
 - Annual Impact Award
 - Mentorship Program
 - Hard Tech Venture Summit (HTVS)



Learn more at entrepreneurship.ieee.org



TAB Committee on Technical Community Outreach, Engagement and Society Membership (TCOES)



- ▶ TCOES aims to help all of IEEE's technical organizational units raise their visibility, engage effectively with the rest of IEEE and the world, deliver value to their members, increase their membership, and support their local Chapters. Current activities include:
 - ▶ Hosting TAB Membership and Engagement Forums
 - ▶ Engaging with Industry, Students, and Recent Graduates
 - ▶ Support for Society/Council Chapter Coordinators
 - ▶ Sharing Best Practices and ideas for engagement
 - ▶ Facilitating Interactions with Chapter Volunteers
 - ▶ IT project to enhance the [IEEE Rosters](#), [IEEE OU Analytics](#), [vTools](#), and automated [Chapter Officer Onboarding Emails](#) to improve communication and collaboration on Chapter support activities between Society/Council and local Chapter/Section/Region volunteers
 - ▶ IEEE Chapter Connections newsletter to Chapter officers and Society/Council Chapter Coordinators
 - ▶ Collaborating with OUs across the organization, e.g., MGA Chapter Operations Support Committee, IEEE Industry Engagement Committee



Learn more about TCOES activities at <https://ta.ieee.org/operations/outreach-engagement-and-society-membership>



Priorities for TA in 2025

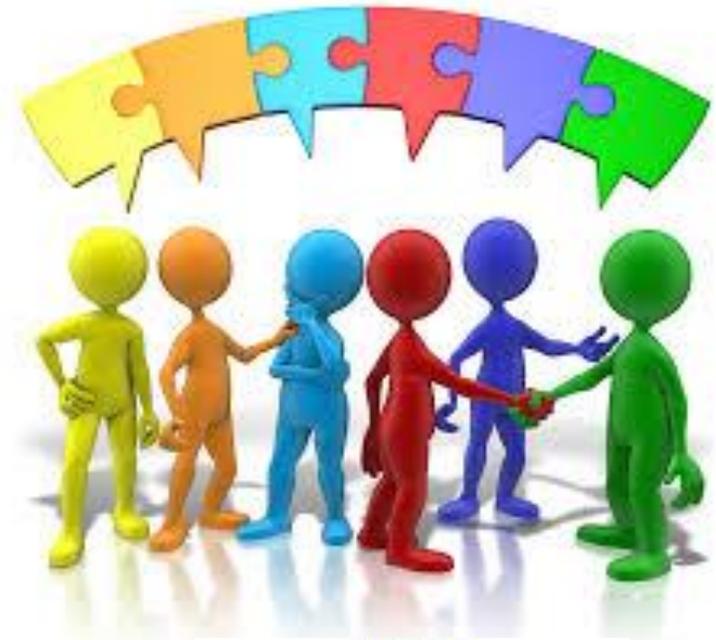
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One IEEE/One TA

Collaboration and Engagement

- ▶ TA strategic programs and committees
 - FDC
 - TCOES
 - CDEI
 - Entrepreneurship
 - Standards
 - TechEthics
- ▶ TA wide partnerships with emerging communities
- ▶ Other IEEE OUs
 - Industry Engagement
 - Educational Activities
 - Humanitarian Activities
 - Membership and Geographical Activities
 - YPs, WiE, Students, Life Members

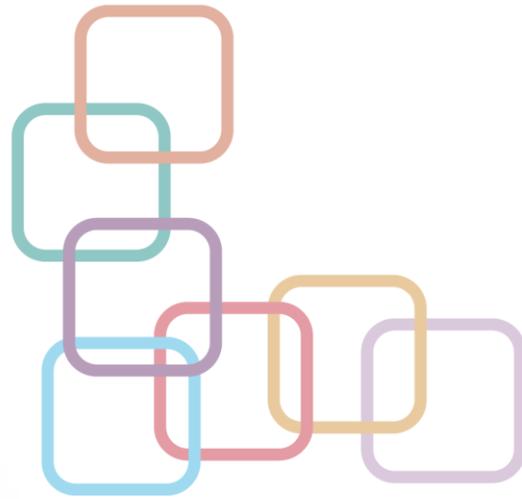


Developing the TAB Volunteer Pipeline

- ▶ Strategies to identify the next generation of TAB leaders
- ▶ Promotion of and increasing the accessibility of TAB volunteer opportunities
- ▶ Promotion of the benefits of volunteering
- ▶ Promotion of TAB's joint and continued commitment to representation and inclusion



IEEE Technical Activities



Find Your Technical Home in IEEE Technical Activities

Did you know your IEEE membership gives you **major discounts** on IEEE society and community memberships? Many Technical Communities are even **free!**

Questions?

Email ta-answercentral@ieee.org

View the [IEEE Technical Activities catalog](#)

Explore IEEE Technical Communities

Dive deep into your career and research areas of interest with multiple memberships!

- 5G/6G & Future Networks
- Brain & NeuroTechnologies
- Public Safety Technologies
- Quantum Technologies
- Startup & Entrepreneurship
- Sustainable Climate
- TechEthics & Digital Privacy

...and many others!