IEEE Technical Activities

Dalma Novak, Vice President, IEEE Technical Activities

29 March 2025

My IEEE Journey

Advancing Technology
for Humanity

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
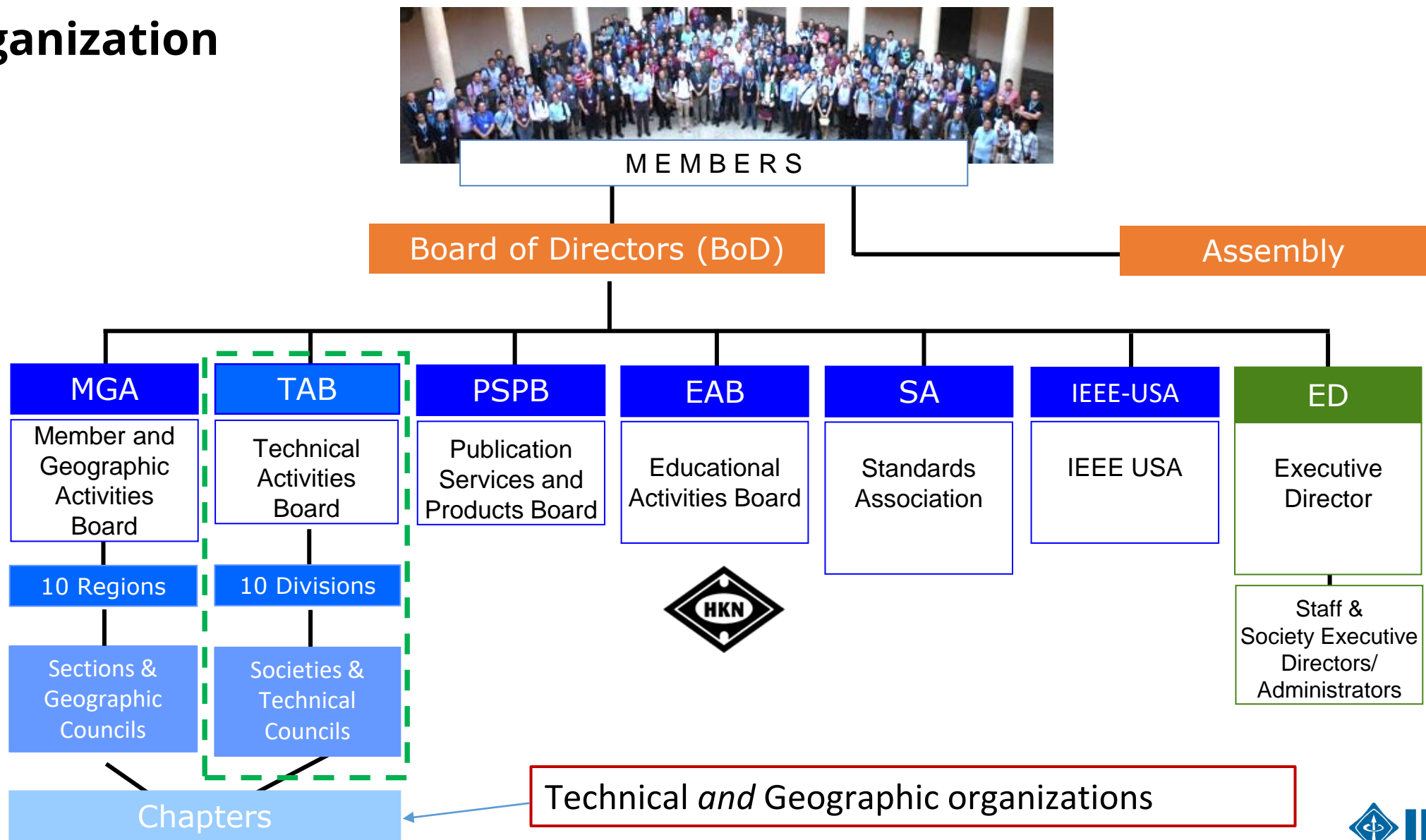
My IEEE Volunteer Journey

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 – 2022 Director of Division X
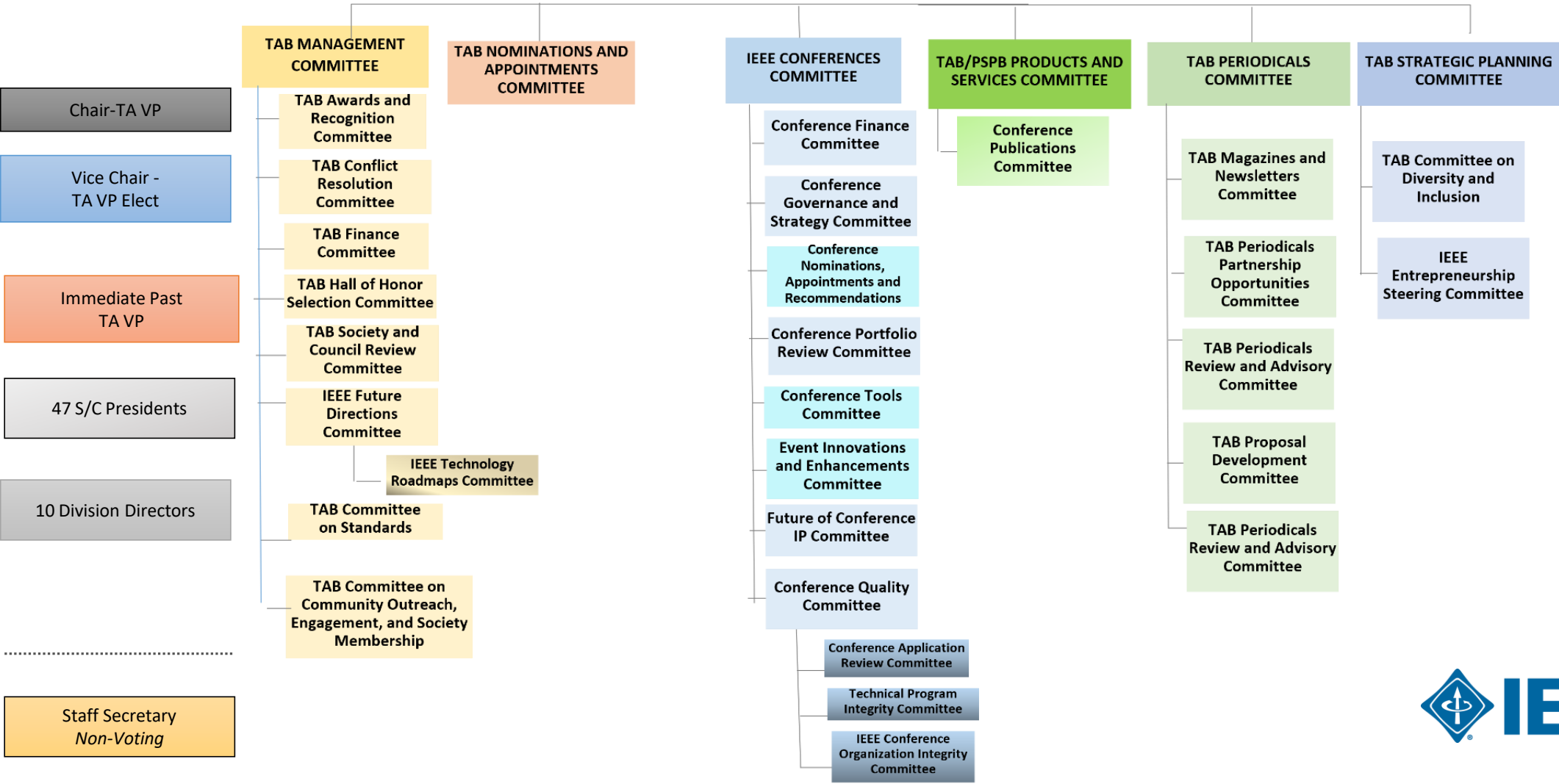- 2021 – 2023 Chair, TAB Committee on Diversity, Equity and Inclusion

IEEE Technical Activities

IEEE

Advancing Technology for Humanity

IEEE Organization

M E M B E R S

Board of Directors (BoD) — **Assembly**

MGA	TAB	PSPB	EAB	SA	IEEE-USA	ED
Member and Geographic Activities Board	Technical Activities Board	Publication Services and Products Board	Educational Activities Board	Standards Association	IEEE USA	Executive Director

MGA: 10 Regions → Sections & Geographic Councils → Chapters

TAB: 10 Divisions → Societies & Technical Councils → Chapters

HKN

ED: Staff & Society Executive Directors/ Administrators

Technical *and* Geographic organizations

ta.ieee.org

IEEE

IEEE Technical Activities Board (TAB)

The governing body of IEEE Technical Activities

Chair-TA VP

Vice Chair - TA VP Elect

Immediate Past TA VP

47 S/C Presidents

10 Division Directors

Staff Secretary *Non-Voting*

TAB MANAGEMENT COMMITTEE

- TAB Awards and Recognition Committee
- TAB Conflict Resolution Committee
- TAB Finance Committee
- TAB Hall of Honor Selection Committee
- TAB Society and Council Review Committee
- IEEE Future Directions Committee
  - IEEE Technology Roadmaps Committee
- TAB Committee on Standards
- TAB Committee on Community Outreach, Engagement, and Society Membership

TAB NOMINATIONS AND APPOINTMENTS COMMITTEE

IEEE CONFERENCES COMMITTEE

- Conference Finance Committee
- Conference Governance and Strategy Committee
- Conference Nominations, Appointments and Recommendations
- Conference Portfolio Review Committee
- Conference Tools Committee
- Event Innovations and Enhancements Committee
- Future of Conference IP Committee
- Conference Quality Committee
  - Conference Application Review Committee
  - Technical Program Integrity Committee
  - IEEE Conference Organization Integrity Committee

TAB/PSPB PRODUCTS AND SERVICES COMMITTEE

- Conference Publications Committee

TAB PERIODICALS COMMITTEE

- TAB Magazines and Newsletters Committee
- TAB Periodicals Partnership Opportunities Committee
- TAB Periodicals Review and Advisory Committee
- TAB Proposal Development Committee
- TAB Periodicals Review and Advisory Committee

TAB STRATEGIC PLANNING COMMITTEE

- TAB Committee on Diversity and Inclusion
- IEEE Entrepreneurship Steering Committee

IEEE

IEEE Technical Activities Organizational Framework

TA Programs, Resources *and* Initiatives

20-25 Technical Communities

39 Societies

8 Technical Councils

IEEE

The professional home for the engineering and technology community worldwide

Value of Technical Entities

➢ IEEE Technical Activities efforts benefit the worldwide technological community

- Aggregating people with similar technical interests to build a vibrant community
- Developing technical community leadership globally
- Developing technical community locally, providing excellence and service to academia, industry, and society

➢ TA technical entities are responsible for creating and ensuring the quality of IEEE content and technical programs

	Technical diversity	There is a community for almost everyone
		Societies, Councils, TC's

Dedicated volunteers, rich traditions

Technical content – periodicals and conferences

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!

Current IEEE Society Membership

Monthly Snapshot		YoY Change		Feb '25	Feb '24	Jan '25	MoM Chg
IEEE Membership	📈	**22,542**	**+7.2%**	**333,947**	**311,405**	**501,357**	**-33.4%**
Honorary	⬆	2	+5.6%	38	36	38	0.0%
Fellow	⬆	142	+1.8%	8,009	7,867	8,482	-5.6%
Senior Member	⬆	3,804	+7.4%	54,866	51,062	60,583	-9.4%
Member	⬇	-1,996	-1.3%	153,748	155,744	225,220	-31.7%
Associate Member	⬇	-130	-5.0%	2,452	2,582	6,143	-60.1%
Graduate Student	⬆	6,765	+19.2%	41,986	35,221	65,776	-36.2%
Undergraduate Student	⬆	13,955	+23.7%	72,848	58,893	135,115	-46.1%
Society Memberships	📈	**29,899**	**+10.7%**	**309,540**	**279,641**	**424,065**	**-27.0%**
29 Societies up > 1%	⬆	32,416					
5 Societies +/- 1%	⬇	-28					
5 Societies down > 1%	⬇	-2,489					

Societies Note: All counts **excluding** Affiliates. **Including Affiliates, total Society memberships are up year-over-year by 29,922 or +10.5%.**

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

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

STRATEGIC PROGRAMS

IEEE Technical Activities
Societies | Councils | Communities

ta-strategy@ieee.org

IEEE Entrepreneurship

Connects tech entrepreneurs to an engineering-driven global innovation network

7.5K+ participants

IEEE TechEthics™

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

3.4K+ participants

IEEE Technical Community for Climate Change

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

3K+ participants

IEEE Technical Activities Diversity, Equity & Inclusion

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

IEEE

2025 Future Directions Committee Technology Coverage

Industry Advisory Board

IEEE ROADMAPS™

Global Semiconductors Ad Hoc

TechNav AI

IEEE 5G/6G InnovationTestbed™

IEEE Metaverse

IEEE SMART LIGHTING

IEEE Telepresence

IEEE Digital Privacy

IEEE Public Safety Technology™

IEEE SusTech

Wireless Power Technologies
IEEE WPT

IEEE LEO SatS

AI Coalition

New Initiatives Possibilities:
- **Alternative Energy Generation Storage**
- **Smart Agrifood**

IEEE

IEEE Entrepreneurship
IEEE's Global Venture Development Program

7.5K+ participants

▶ **Supports tech entrepreneurs**

▶ **Strengthens innovation ecosystems**

▶ **Programs include:**
- ENT 101 Workshops
- Pier 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

17

▸ **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
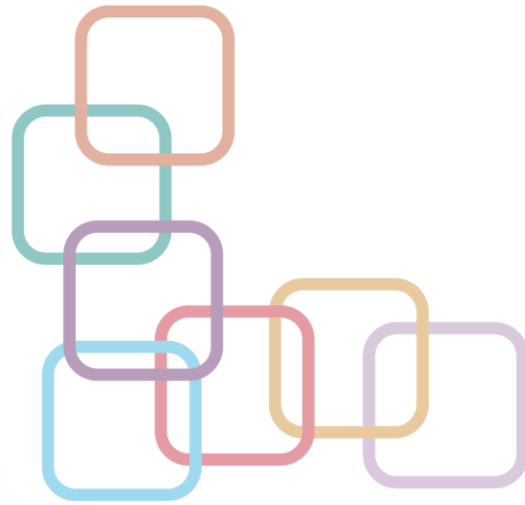- Inviting best content from IEEE and beyond

Team

▪ Event producer

▪ Members from across TA and IEEE

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!

IEEE