

IEEE PES Transformers Committee

Newcomers Orientation

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Vice-Chair

March 20, 2023
2023 Spring Meeting

AGENDA

- Overview of IEEE, Societies, & Committees
- Org Charts
- Scope of Responsibilities
- Meeting Week Timeline Overview
- What can YOU do?
- How to find relevant information

Source: 2021
IEEE Annual
Report

BRIEF IEEE OVERVIEW

409,654 Members;
125,989 Student
Members

10 Geographic
Regions Worldwide

~1300
Conferences
In 92 Countries

~170
Publications,
Journals, & Magazines

~5.5 million
Documents in Digital
Library
(IEEE Xplore®)

2,100+ Standards
561 in PES (44%)
115 TR Com (21% of PES)

IEEE Memberships



Power & Energy (PES)

- One of 39 Societies
- Over 30,000 Members



Standards Association (IEEE-SA)

- Oversees the standards development process

39 Societies in IEEE

- Aerospace and Electronic Systems Society
- Antennas and Propagation Society
- Broadcast Technology Society
- Circuits and Systems Society
- Communications Society
- Components, Packaging, and Manufacturing Technology Society
- Computational Intelligence Society
- Computer Society
- Consumer Electronics Society
- Control Systems Society
- Dielectrics and Electrical Insulation Society
- Education Society
- Electron Devices Society
- Electromagnetic Compatibility Society
- Engineering in Medicine and Biology Society
- Geoscience and Remote Sensing Society
- Industrial Electronics Society
- Industry Applications Society
- Information Theory Society
- Instrumentation and Measurement Society
- Intelligent Transportation Systems Society
- Magnetics Society
- Microwave Theory and Techniques Society
- Nuclear and Plasma Sciences Society
- Oceanic Engineering Society
- Photonics Society
- Power Electronics Society
- **Power & Energy Society (PES)**
- Product Safety Engineering Society
- Professional Communication Society
- Reliability Society
- Robotics and Automation Society
- Signal Processing Society
- Society on Social Implications of Technology
- Solid-State Circuits Society
- Systems, Man, and Cybernetics Society
- Technology and Engineering Management Society
- Ultrasonics, Ferroelectrics, & Frequency Control
- Vehicular Technology Society



Power & Energy Society



TECHNICAL COMMITTEES

1. Analytics Methods for Power Systems
2. Electric Machinery
3. Energy Development & Power Generation
4. Energy Storage & Stationary Battery
5. Insulated Conductors
6. Nuclear Power Engineering
7. Power System Communications & Cybersecurity
8. Power Systems Dynamic Performance
9. Power System Instrumentation and Measurements
10. Power System Operations, Planning & Economics
11. Power System Relaying and Control
12. Smart Buildings, Loads and Customer Systems
13. Substations

14. Surge Protective Devices

15. Switchgear



16. Transformers

17. Transmission & Distribution

COORDINATING COMMITTEES

1. Intelligent Grid & Emerging Technologies
2. Marine Systems
3. Wind & Solar Power

STANDING COMMITTEES

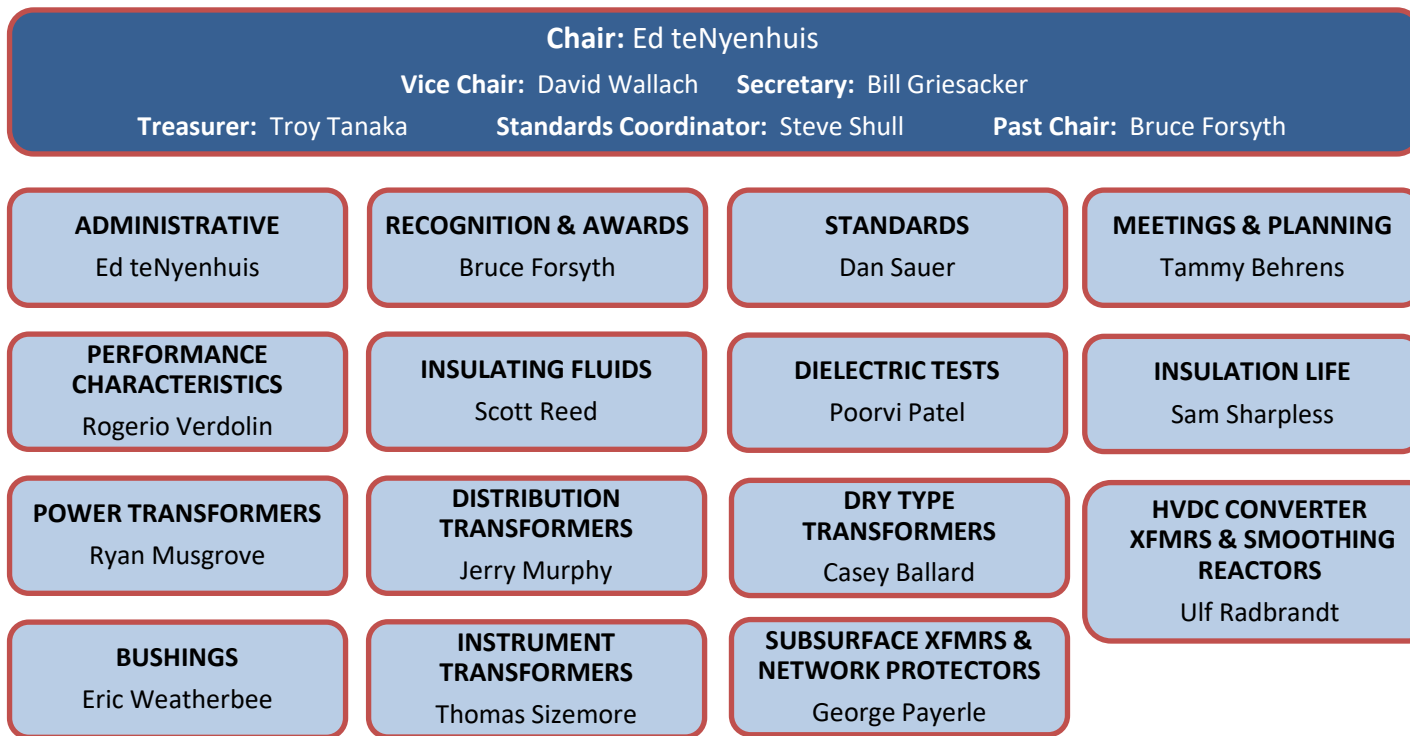
1. Awards
2. Organization & Procedures
3. Standards Coordination
4. Technical Sessions

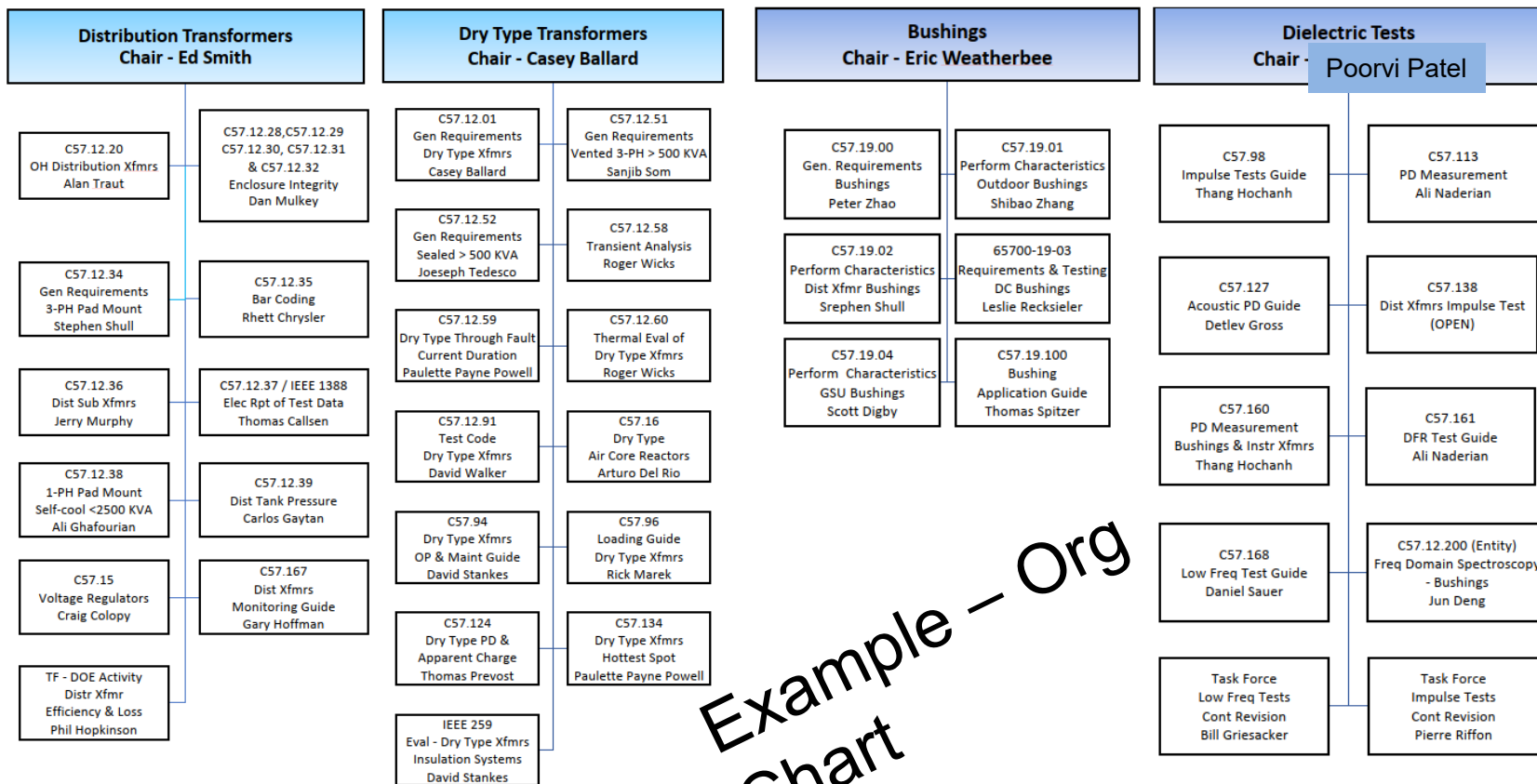
Main Scope of the Transformers Committee

Sponsorship and development of standards, recommended practices, guidelines and policies, position papers and documents, technical conferences and sessions related to:

- **Generation, Transmission, and Distribution Transformers**
- **Voltage Regulators (step and induction regulators)**
- **Reactors and Grounding Transformers**
- **HVDC Converter Transformers and Smoothing Reactors**
- **Power Semiconductor Rectifier Transformers**
- **Instrument Transformers (voltage and current transformers)**
- **Insulation and Dielectric Problems Relating to Transformers**
- **Outdoor Apparatus Bushings**
- **Insulating Fluids**
- **Phase Angle Regulating Transformers**
- **Underground & Submersible Transformers and Network Protectors**

Committee Organization Chart





What we do...

■ Development of Standards

Sponsor and develop standards, recommended practices, guidelines and policies under the guidelines of IEEE-SA.
Prepare position papers for publication or presentation at technical conferences

■ Coordination of Technical Subject Matters

Coordinate with other technical committees, societies, groups and associations concerning various aspects of items listed in the Committee scope.
Promote harmonization with international standards organizations such as IEC

■ Continuing Education

Tutorial presentations on:

- Current state of the art in the industry
- New issues requiring attention in Standards documents
- Significant work in the Committee

■ Review Technical Papers

Committee Members are responsible for review of technical papers within the scope of the Committee.
Members and participants are encouraged to advance the knowledge of the industry by writing and publishing technical papers.

Committee Meetings

■ Two meetings per year

- Spring (March/April)
- Fall (October/November)

■ Location

- Various – primarily in North America (US, Mexico, Canada)

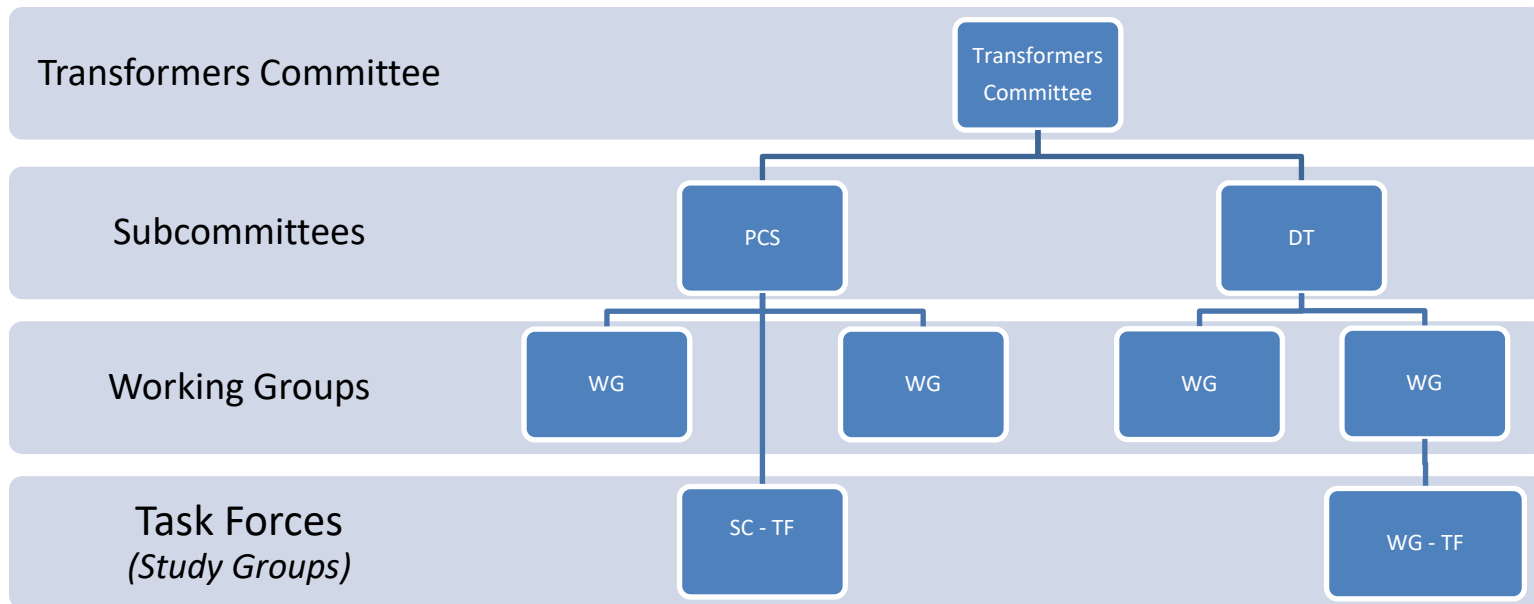
■ Attendance

- ~ 500 Committee Members and guests
- ~ 60-80 spouses/companions
- Regular International attendees - North America, South America, Europe, & Asia

■ Meeting Schedule

On website, and available via wireless smartphone platforms by IEEE EventHub. Download and install the IEEE EventHub application on your mobile device, and then search for "IEEE Transformers Committee".

Meeting Activity Groups



Meeting Week – Timeline

- **Sunday 6:00 PM – 8:00 PM**
 - Reception – catch up with old friends and meet new people
- **Monday 7:00 AM – 6:00 PM**
 - Morning Newcomers Orientation
 - **AM: Opening General Session**
 - AM: WG/TF meetings
 - Luncheon - The Standards Development Process
 - PM: WG/TF meetings
- **Tuesday 8:00 AM – 6:00 PM**
 - AM: WG/TF meetings
 - Awards Luncheon
 - PM: WG/TF meetings
- **Wednesday 7:00 AM – 6:00 PM**
 - AM/PM: SC Meetings
 - Evening Social Event
- **Thursday 8:00 AM – 12:00 PM**
 - AM: Two Technical Tutorials
 - **AM: Closing General Session**

Optional Technical Tours (Sunday thru Thursday - Check Schedule –)

Meeting Schedule – Daily View

IEEE PES TRANSFORMERS COMMITTEE
 SPRING 2023 MEETING: MARCH 19 TO MARCH 23
 Hyatt Regency; Milwaukee, WI USA

2/2/2023

MONDAY, MARCH 20 Breaks Sponsored by The H-J Family of Companies*

TIME	ACTIVITY	TRACK	MTG CHAIR	STATUS	ROOM (FLOOR)
7:00 AM – 5:00 PM	Meeting Registration				Regency Prefunction (2)
7:00 AM – 7:50 AM	Newcomers Orientation - Arrive early, grab breakfast and get a good seat - Newcomers and guests are encouraged to attend		D. Wallach	–	Lakeshore Ballroom (1)
7:00 AM – 8:00 AM	Breakfast - Attendees (no spouses/companions please)				Atrium (2)
8:00 AM – 9:30 AM	Breakfast - Spouses/Companions (no meeting attendees please)				Vue (21)
8:00 AM – 9:15 AM	Opening Session - All registered meeting participants are encouraged to attend - See separate document on website for meeting agenda - Attendance required to maintain Committee Member status		E. teNyenhuis	–	Regency Ballroom (2)
9:30 AM – 3:15 PM	Spouses/Companions Tour: Ethnic Milwaukee Food Tour - Advance on-line registration required — space is limited! - Lunch included at the historic On the Clock bar and grill - See website/flyer for details	Tour			
9:15 AM – 9:30 AM	Break (beverages only): The H-J Family of Companies				Atrium (2)
9:30 AM – 10:45 AM	TF IEEE-IEC Cross Reference	Stds	A. Washburn	I	Gilpatrick (1)
9:30 AM – 10:45 AM	WG Guide of FRA for Liquid Filled Transf. C57.149	PCS	C. Sweetser	I	Lakeshore Ballroom (1)
9:30 AM – 10:45 AM	WG Standard Requirements for Tap Changers C57.131	Power	C. Colopy	I	Milwaukee (2)
9:30 AM – 10:45 AM	WG Std Transf. Terminology C57.12.80	Stds	D. Sauer	I	Executive Ballroom (2)
9:30 AM – 10:45 AM	TF Transf Efficiency & Loss Evaluation (DOE Activity)	Distr	P. Hopkinson	I	Regency B (2)
9:30 AM – 10:45 AM	TF Guide for Tank Rupture Mitigation C57.156	Power	P. Zhao	N	Regency A (2)
10:45 AM – 11:00 AM	Break (beverages only): The H-J Family of Companies				Atrium (2)
11:00 AM – 12:15 PM	WG Overhead Distr. Transf. C57.12.20	Distr	A. Traut	I	Lakeshore Ballroom (1)
11:00 AM – 12:15 PM	WG Loading Guide PC57.91	Ins Life	D. Wallach	I	Executive Ballroom (2)
11:00 AM – 12:15 PM	WG Class 1E Transf. for Nuclear Power Gen Std. 638	Power	C. Swinderman	I	Regency A (2)
11:00 AM – 12:15 PM	WG Guide for Field Testing PC57.152	Stds	M. Ferreira	I	Milwaukee (2)
11:00 AM – 12:15 PM	TF Partial Discharge Tests for Class I Trfs	DiTests	D. Ayers	I	Regency B (2)
11:00 AM – 12:15 PM	WG Guide for DGA in Silicone PC57.146	IF	P. Boman	I	Gilpatrick (1)
12:15 PM – 1:30 PM	Standards Development Review Luncheon				Regency CD (2)

*Everyone is welcome to attend. All SP/AG/IEE leaders are highly encouraged to attend. Doors open ~12:00 pm. Come early.

Which Meetings Can I Attend?

- Sunday Reception . . .
- Attendee Breakfasts . . .
- Any Meeting on the Schedule - except ones noted as “Closed Meeting”
Committee Membership is not required for attendance
- Any Event You Have Registered/Paid For - Technical Tours, Luncheons, Dinner Social, etc.

What's in it for ME?

FOR THE PARTICIPANT

- Attend/participate in world-class meetings
- Participate in Standards Development
- Learn from the experts during technical sessions and tutorials
- Share your experience/knowledge
- Access to Committee and PES web-based information
- Stay up-to-date with technological advances
- **Industry recognition for your contributions**

FOR THE EMPLOYER

- Access to the latest information on transformer technology
- Opportunity to significantly influence industry standards through employee participation
- Provide employees with top-notch ongoing training through tutorials and technical sessions
- Contribute to employees' professional development and morale
- Access to Industry trends, problems, solutions, contacts

What Can YOU Do?

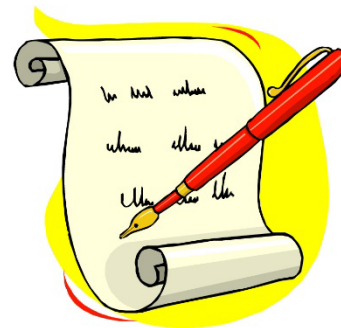
- **Join the activities that you are interested in**
 - Subcommittees / Working Groups / Task Forces
- **Participate in these activities by volunteering for work**
 - Write drafts
 - Review what others write
 - Provide comments and discuss issues
 - Present solutions instead of just complaints
- **Join IEEE Standards Association and participate in balloting process**
 - [The Balloting Process](#)
- **Work together with a group of dedicated professionals to serve our industry**



What Can YOU Do?

■ Technical Papers

- Write them
- Review them
- Attend presentations



■ Tutorials, Symposiums, & Special Technical Sessions

- Present your developmental work to your peers
- Learn and apply to your day-to-day work.
- Earn PDHs
- Share tutorials with colleagues at home



What Can YOU Do?

[Tutorials – PES Transformers Committee](#)

TUTORIALS/PRESENTATIONS

Spring 2001 to Present

The TR Committee Password is required to access Tutorials.

Use or distribution of this information is intended for TR Committee participants and their sponsoring companies only.

[A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

A

Alternate Energy Sources

Transformers Used with Alternative Energy Sources – Wind & Solar – Spring 2011, San Diego, California – [Abstract](#), [Presentation](#), [Video](#)

Wave Farm Presentation – Fall 2008, Porto, Portugal – [Video](#)

B

[\(back to top\)](#)

Bushings:

Bushing Rating and Dimensional Simplifications – Fall 2003, Pittsburgh, Pennsylvania – [Presentation](#), [Video](#)

What Can YOU Do?

■ Learn

- Industry trends
- Issues that impact your work
- Solutions to those issues

■ Practice / Implement

- What you learn
- Simplify / Standardize

■ Build a strong network of industry experts - and good friends too!



How Can I Become a Committee Member?

- **Join IEEE PES and IEEE SA**
- **Active Participation on SCs/WGs/TFs for a minimum of 2 years**
 - Submit Membership Application (download from website)
- **Review Policy & Procedures Manuals**
 - TC P&P, WG P&P

Association Management System?

■ Categories of People in the AMS

■ Committee Member	~218
■ Past Committee Member	~44
■ Active Participant	~326
■ <u>Interested Individual</u>	<u>~1557</u>
■ Total	~2145

AMS does:

- Event Registration
- Email lists
- Rosters
- Memberships

We are transitioning to a new AMS in 2023 that should be operational by the Fall 2023 meeting. We are “winging it” for now.

Get Familiar with the Website:

www.transformerscommittee.org

PES Transformers Committee


[HOME](#)
[SCOPE](#)
[LEADERS](#)
[SUBCOMMITTEES](#)
[MEETINGS](#)
[INFORMATION](#)

WELCOME TO THE TRANSFORMERS COMMITTEE WEBSITE!

The Transformers Committee is one of the largest and most active of the 17 technical committees within the IEEE Power and Energy Society (PES). The Committee is comprised of technical and managerial representatives from manufacturers, consultants, vendors and end users of electrical transformers and components. The continuing scope of the Committee is to develop and update standards and guidelines for the design, testing, repair, installation, operation and maintenance of transformers, reactors and associated components that are used within electric utility and industrial power systems.

NOTICES:

The on-line registration has been enabled and will be available through October 12 for the [Fall 2022 Meeting in Charlotte, North Carolina](#).



It is with great sorrow that we inform you of the passing of Vinay Mehrotra. A [Celebration of Life](#) will be held at the Mehrotra family home on Saturday, September 17 from 10:30AM – 2:00PM Central Time. More information and photos will be provided on the [Memorial](#) page. Please keep Vinay's family in your thoughts and prayers.

Please regularly check the [Meeting Calendar](#) page for web/conf call meetings. We will make every effort to publicize them in advance when notified.

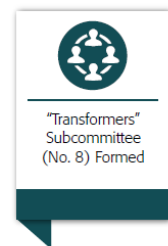
A new email address for website updates has been created. Please send website update requests to tc-webmaster@ieee.org.

[TRAINING](#)

100 Years of Standards

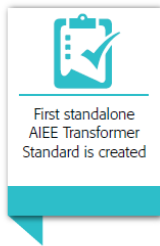
Celebrating 100 Years IEEE Power & Energy Society Transformers Committee

100+ IEEE standards published in the last century!



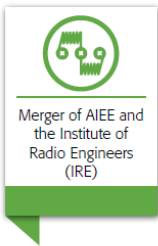
1918

TRANSFORMERS
In 1918, the AIEE Standards Committee formed the first formal transformer committee to be found on record.



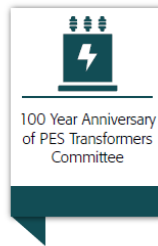
1925

IEEE
Standard 13-1925 Standard for Transformers, Induction Regulators and Reactors is established.



1963

MERGER
The Transformers Committee continued as a Technical Committee in the Power Division of the Institute of Electrical & Electronic Engineers (IEEE).



2018

100 YEARS
Members drive transformer technology and innovation for state of the art of transformers for the benefit of society and further advancement.
550+ Committee Meeting Attendance



Visit our website

www.transformerscommittee.org

For a complete copy of this presentation

Username: xfmrcom

Password: *password provided at Thursday meeting
(expires after each Fall meeting)

IEEE Wireless Network in the Meeting Areas

SSID codes: IEEETR

The network key is "8006784333"

-OR- Facility Network

- **Look for information when you check in for your badge.**
- **We understand your day job does not stop but we ask you to be “present” and engaged.**



Welcome Aboard!!

We're Glad You're Here!
Make some new friends, and...

Let's Get to Work!



Questions / Comments?

Contact me at david.wallach@ieee.org