# MINUTES
## TECHNICAL COUNCIL MEETING NO. 112
### Garden Grove, CA, USA
#### Room: Harbor Room (Hyatt Regency Orange County) & WebEx Online
#### Sunday, 9 January 2022, 10:30 AM – 6:00 PM Pacific Time

### Attendance:
- **TC Officers:** Hong Chen, Diane Watkins, Jim McBride, Vijay Vittal
- **IEEE PES Staff:** Shana Pepin, Tim Licitra
- **IEEE-SA Staff:** Erin (Spiewak) Morales, Malia Zaman, Ashley Moran, Christian Orlando, Rudi Schubert, Michael Kipness
- **Guests:** Jessica Bian (IEEE PES President), Jonathan Sykes (IEEE PES Secretary), Wayne Bishop (IEEE PES VP of Meetings & Conferences), Stephen Shull, Farnoosh Rahmatian, Damir Novosel (ITSLC), Todd Irwin (Standards Liaison) (absent/excused)

### Agenda:

1. **Analytical Methods in Power Systems (AMPS) – Kwok Cheung, Steve Miller**
2. **Electric Machinery (EMC) – Jim Lau, Gayland Bloethe**
3. **Energy Development and Power Generation (EDPG) – John Yale**
4. **Energy Storage and Stationary Battery (ESSB) – Babu Chalamala**
5. **Insulated Conductors (ICC) – Yingli Wen**
6. **Nuclear Power Engineering (NPEC) – John White**
7. **Power Systems Communications & Cybersecurity (PSCC) – Craig Preuss**
8. **Power Systems Dynamic Performance (PSDP) – Leo Lima**
9. **Power System Instrumentation and Measurements (PSIM) – Jeff Britton**
11. **Power System Relaying and Control (PSRC) – Murty Yalla**
13. **Substations – Patrick Fitzgerald**
14. **Surge Protective Devices (SPDC) – Steven Hensley**
15. **Switchgear – No representative**
16. **Transformers – Ed Tenyenhuis**
17. **Transmission & Distribution (T&D) – Surya Santoso, Dan Sabin**
18. **Intelligent Grid & Emerging Technologies Coordinating Committee (IGET) - Jim Follum**
19. **Marine Systems Coordinating Committee – John Prousalidis, Dwight Alexander**
20. **Renewable Systems Integration Coordinating Committee (RSICC) – Andy Leon**
21. **EICC – Xinwei Shen**
Summary of Action Items:

- **Action**: J. McBride will recirculate the latest roster to request any additional updates
- **Action**: ALL Tech/Coordinating Committees to send final annual report to H. Chen (pes-tc-chair@ieee.org) no later than Jan. 31, 2022.
- **Action**: H. Chen to follow-up with PES GB to share diversity & inclusion demographics with Tech Council
- **Action**: S. Pepin to work with Tech/Coordinating Cmtes to add a PDH form to memberplanet when it opens later this year
- **Action**: H. Chen to provide S. Pepin with the approved PDH form to be posted on the PES Technical Activities Resource section when ready
- **Action**: S. Pepin to send M. Yalla Fellow’s ppt for PSRC Fellows meeting tomorrow (completed)
- **Action**: E. Morales & M. Zaman to work with the IEEE SA BoG to get some insight into how this decision was made and share with the PES Tech Council so they can better understand the IEEE SA BoG’s decision to decline to implement separate designations for individual vs. entity standards.
- **Action**: S. Pepin to send a copy of the signed MOU between PES & CIGRE to C. Preuss (completed)
- **Action**: H. Chen to connect with TC Officers & S. Pepin to review potential dates/time in Spring for PES Tech Council web-meeting prior to in-person PES Tech Council meeting in July 2022
- **Action**: H. Chen to follow-up via email with Tech Council to plan for Nov. 2022 PES Tech Council Retreat.

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<th>TOPIC</th>
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<td>10:30 – 10:50</td>
<td>ADMINISTRATIVE TOPICS</td>
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<td>1. Introduction of members and guests and Agenda</td>
<td>H. Chen</td>
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Standing Action Items

2. Updates for Technical Committee Rosters
   - Last month (Dec. 2021) D. Watkins sent out an email request to the pes-tech@ieee.org listserv to request any updates to Tech/Coordinating Committee rosters for 2022. For the time being, J. McBride will maintain the Tech Council roster via excel spreadsheet until memberplanet is up and running later this year. If you have updates to your roster for Tech Council in the meantime, email them to J. McBride (cc S. Pepin).
   - **Action**: J. McBride will recirculate the latest roster to request any additional updates

3. Technical Committee Meetings Calendar for posting on PES web site
   - Spring/Summer Committees going virtual? Happening in-person?
   - **SmartSheet** to record committee meetings as they get scheduled/change

4. Annual Reports
   - **Action**: ALL Tech/Coordinating Committees to send final annual report to H. Chen (pes-tc-chair@ieee.org) no later than Jan. 31, 2022.
   - Template for annual report is found on the PES website here: https://www.ieee-pes.org/technical-activities/committees/resources
   - The annual reports are used to determine the “committee of the year” award so those received after the Jan. 31, 2022 deadline will not be considered.
10:50 – 11:10  TOPICS FROM THE OFFICERS

1. Chair Comments  
   a. Welcome to the new Tech & Coordinating Committee chairs joining Tech Council in 2022! Thank you to the PES Gov. Board members present at today’s meeting!

2. GM 2022  
   b. Theme: Powering a Sustainable Future in a Changing World
   c. Tomorrow (Mon. Jan. 10, 2022) is the Technical Session Planning Meeting (all TCPCs or representative should be present at tomorrow’s meeting – online or in-person)

3. Awards  
   a. Currently V. Vittal does not have any nominations for PES Tech Council awards.
      i. Young Professional Award
      ii. Service Award
      iii. Committee of the Year Award (selected by review of the Annual Reports)

11:10 – 11:30  TOPICS FROM THE PES Governing Board & Members

1. PES Gov. Board Meeting January 8, 2022  
   a. H. Chen attended yesterday’s PES Gov. Board meeting (hybrid).
      i. Fellow elevation process - was discussed and Maria T. was invited to today’s meeting later in the agenda to talk about the Fellows process.
      ii. Diversity and inclusion – PES has signed to diversity & inclusion pledge. H. Chen read the pledge aloud during the meeting and can be found here in presentation by J. Bian in the meeting minutes appendix.
      1. Can demographics be shared by PES on these diversity & inclusion?
         a. Action: H. Chen to follow-up with PES GB to share diversity & inclusion demographics with Tech Council
      iii. Member retention – if we can, get our student members & young professionals more engaged
      iv. SmartGrid liaison
      v. IEEE Industry Technical Support Leadership Committee (ITSLC)

2. IEEE PES President Comments  
   a. PPT presentation was provided to provide overview of highlights from the PES GB – presented by, J. Bian, T. Licitra, W. Bishop & J. Sykes (ppt will be included in meeting min. appendix)

3. IEEE PES Director PES Operations Comments  
   a. PDH Credits for WG Meetings – thoughts? Current status?
      i. E. teNyenhuis & S. Shull shared what Transformers Committee has done for PDH credits of WG meetings to date. Moving forward, it would be preferred if there was a standard procedure on how PES Working Groups can allow individuals to obtain PDH credits.
      ii. D. Toland (PES Staff Operations Director) brought this up via email with the PES Tech Council officers already.
      iii. P. Fitzgerald (SUB) also already offers CEU/PDH credits for their working group meetings and can share their process doc.
      iv. H. Chen suggested: TR & SUB to sync up and review their current processes and come
back to Tech Council with recommendations

v. C. Preuss made suggestion to explore if memberplanet could accommodate the awarding or creation of PDH/CEU credits for attending meetings (ex. Send out email PDH credits to those who attend a specific meeting)

1. P. Fitzgerald noted that then the individuals dependent on these PDH credits are at the discretion of whomever is taking meeting attendance for that meeting to be sure they receive their PDH credits

vi. Conversation took place regarding online meeting attendance of someone who participates only for a few minutes and then automatically gets the PDH email with credit but the same could be true for in-person meetings where someone attends only for the final few minutes of a meeting and has the meeting chair sign their psychical PDH form – both leave the potential for an individual to “play the system”.

vii. Validation of sending out the PDH form is difficult to police whether it be online (PDF) or in-person (paper form)

viii. **Action:** S. Pepin to work with Tech/Coordinating Cmtes to add a PDH form to memberplanet when it opens later this year

ix. B. Chalamala noted that the ESSB Committee uses IEEE Meeting Attendance Tool (IMAT) for their committee meeting attendance tracking

x. S. Pepin will talk more later in the agenda about the memberplanet transition

xi. H. Chen mentioned in the interim before memberplanet is up and running that a PDH Form be added to the PES website as a PDF template for committees to use as a resource for the time being.

1. **Action:** H. Chen to provide S. Pepin with the approved PDH form to be posted on the PES Technical Activities Resource section when ready

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<th>11:45 - 12:45</th>
<th>Lunch Break</th>
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<td>12:45 – 2:00</td>
<td>TOPICS FROM TECH/COORD. COMMITTEES</td>
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**Committee Chairs**

   K. Cheung reported that AMPS Committee typically meeting annually. Officer rotation occurred. Activities at the subcommittee level (?). In 2021 there was a drop in the number of papers being submitted (Note: This is the same case for other technical committees as well). AMPS Committee does not do a lot of standards work overall but they are sponsoring 3 currently which are through the individual process. AMPS Committee did raise some concerns under the entity proposals and their committee members ability to participate in those entity standards. M. Zaman (IEEE SA staff) mentioned the IEEE SA ad hoc that is working on a process and language to clarify the entity process and participation. The new recommendation should be helpful in offering easier ways for individuals to participate in the entity process – more to come from this IEEE SA ad hoc in the future.

2. **Electric Machinery (EMC)** – Jim Lau
   J. Lau just transitioned into the Chair role in 2022 so, this is his first PES Tech Council meeting as chair. EMC Membership is dwindling but they do have approx. 32 active standards.

   J. Yale reported that things are on track with active standards groups.

4. **Energy Storage and Stationary Battery (ESSB)** – Babu Chalamala
   B. Chalamala reported that ESSB is continuing to grow and may be adding another sub-committee. SCC21 collaboration is growing. ESSAT Conference will now be owned and operated by the ESSB Committee/PES. PES ESSB China Chapters Council has reached out to the ESSB Committee and has been collaborating more actively.
   H. Chen reminded ESSB that if the new subcommittee does come to fruition that the ESSB Committee must revise their O&P Committee to reflect the addition of this subcommittee and the O&P manual would be circulated within Tech Council for review and approval.

IEEE Climate Committee was mentioned by J. Bian. This committee is at the “IEEE level” and was mentioned by S. Rahman during the Jan. 8, 2022 PES GB meeting. J. Bian does not yet have the scope of this IEEE Climate Committee yet. This topic would involve many PES Technical Committees above and beyond just ESSB Committee.
8. Chalamala noted the task force within the IEEE ITSLC working on a white paper related to T&D decarbonization which would be related to this topic. This white paper is due to be completed in the next month (by Feb. 2022).

Hydrogen was also brought up as a topic that needs to find a home within PES Technical Committees.

5. Insulated Conductors (ICC) — Yingli Wen
Y. Wen is transitioning into the chair role for 2022 so this is her first PES Tech Council meeting. ICC has scheduled their first in-person meeting for late April/early May 2022. This is the first in-person meeting since COVID. A number of the ICC working groups have continued to work online on their standards. Quite a number of PARs are expiring or have expired so, they need to as IEEE SA to extend these PARs. Y. Wen will reach out to M. Kissness to be sure they have support from the IEEE SA Program Manager related to the PAR extensions.

6. Nuclear Power Engineering (NPEC) — John White
J. White reported that NPEC had 2 meetings in 2021 — one fully virtual and one was hybrid. For the next 3 meetings will be in-person with some exceptions for adcom meeting but attendance has been as good/better than normal for NPEC meetings.

7. Power Systems Communications & Cybersecurity (PSCC) — Craig Preuss
C. Preuss reported that PSCC Committee continues to grow. Standards Coordinator position for PSCC will be changing during PSCC’s meeting later this week. PSCC has had some interaction with the IEEE PES PSCC China Chapters Council group to coordinate efforts and C. Preuss will present in March 2022 at their upcoming meeting.

8. Power Systems Dynamic Performance (PSDP) — Leo Lima
L. Lima reported that PSDP only meeting annually at the PES GM. Since the last two were virtual, PSDP Committee met virtually and have been very well attended. The biggest problem PSDP Committee had with the virtual meetings was that they were not through the PES GM and needed to be held outside the dates of the PES GM and is a large time commitment for volunteers who participate in those meetings. PSDP is in the process of reviewing at least 2 new technical reports. Planning to meet in Denver with the PES GM in July 2022.

9. Power System Instrumentation and Measurements (PSIM) — Ernst Hanique, Jeff Britton
J. Britton reported that PSIM Committee has not had a full committee meeting since the last PSIM Committee meeting in-person at 2020 PES JTCM. PSIM hopes to rejoin JTCM in 2023 as they will not be meeting in conjunction with PES JTCM this week (2022). PSIM subcommittees and working groups have been meeting regularly virtual to keep work going. Unlike some of the larger committees, PSIM does not have funding to have access to resources and tools to host virtual and hybrid meetings. Finding economical solutions moving forward would greatly benefit PSIM and they would like to be part of these conversations.

J. Wang reported that he is transitioning into the chair role for 2022. This is his first PES Tech Council meeting. PSOPE only meets once per year at the PES GM and plan to meet in Denver at PES GM in July 2022. Some of the PSOPE working groups and task forces have set up websites hosted by IEEE. Recruiting members to join the committee and working groups has been difficult in virtual format.

11. Power System Relaying and Control (PSRC) — Murthy Yalla
M. Yalla reported that PSRC for the PSRC meeting registrations they have 75% virtual and 25% in-person (of about 240 people). PSRC is still planning to have a hybrid meeting in May 2022 in Reno, NV – hotel contract has not yet been signed – M. Yalla wanted to wait to see how the JTCM PSRC meetings are before signing the May ‘22 meeting venue contract.

Separate follow-up item from the November 2021 PES Tech Council retreat related to PSRC Technical Reports – PES Tech Council Officers had a web-meeting with S. Pepin & D. Fiorino (PES Resource Center manager) which resulted such that PSRC (and any other PES Technical Committee) is permitted to post their technical reports on their website without the PES cover page and send the PES copyrighted version to the PES RC for posting separately.

J. Mathiu reported the SBLCS is growing and actively working on standards as well as building out additional task forces. Participated in the recent IEEE PES Trending Tech emails.

13. Substations — Patrick Fitzgerald
P. Fitzgerald reported that SUB is meeting regularly virtually. Still working to schedule first meeting in-person in May 2022 in Nashville, TN.

14. Surge Protective Devices (SPDC) — Steven Hensley
S. Hensley sent a separate file with the SPDC report (to be included in the meeting minutes appendix). SPDC did hold an in-person meeting in San Diego, CA in November 2021 – thank you to the IEEE Contracts team to help negotiate that contract with the hotel to avoid penalties.

For individual working groups the virtual meetings has been working fine but for the larger committee meetings it is not as great or as interactive of an experience and it seems to be the same few people participating on the larger meetings while not sure if others are actively listening or engaged. IEEE SA system is working well for SPDC to get their standards work completed virtually.

15. Switchgear — Keith Flowers
No report

16. Transformers — Ed Tenyenhuis
E. Tenyenhuis reported that he is transitioning into the chair role for 2022 so this is his first PES Tech Council meeting as chair. There seem to be more PAR extension requests than usual. Hoping to meet in person in Denver at PES GM 2022 in July. TR is (hoping) to meet in March 2022 in Denver.

17. Transmission & Distribution (T&D) — Surya Santoso
Over the past year, our subcommittees have been meeting virtually through WebEx. We meet twice a year, once during the general meeting and once during the joint technical committee meeting. For this JTCM, all subcommittees have meetings planned between now and Thursday.
Recent technical developments are as follows:

- T&D Committee is working with SCC 21 on the revision and amendment of IEEE 1547-2018. We have agreed to serve as a co-sponsor committee. Our representatives (Dan Sabin and Babak Enayati) have been participating in the revision study group and PAR developments.
- T&D Committee is now a new home for SCC 22 on Power Quality. We have agreed to absorb and carry out responsibilities and activities of the former SCC 22. Its main responsibilities remain the same, i.e., to coordinate standards and activities related to Power Quality outside IEEE PES.
- T&D Committee, with its 7 technical subcommittees, currently manages 64 active standards and 71 draft projects that have an active PAR.
- T&D Committee is updating its O&P manual using the new template.

18. **Intelligent Grid & Emerging Technologies Coordinating Committee (IGET)** - Jim Follum
J. Follum transitioned into the chair role in Summer 2021. IGET has not been very active recently so, J. Follum has been working to reinvigorate and assign roles within the committee. IGET also does not have an O&P manual so, they are working to use the new PES Tech/Coordinating Committee O&P Manual to create one for review and approval by PES Tech Council.

19. **Marine Systems Coordinating Committee** – Dwight Alexander, John Prousalidis
D. Alexander reported that the MSCC has been actively engaged in the standard IEEE 45 (which is actually a standard under IEEE IAS – not PES). 45.1 and 45.2 are both being updated. MSCC also supports technical conferences via tutorial sessions and track chairs for technical sessions at IEEE conferences such as the IEEE SSIT Conference. MSCC noted that they are not funded to participate in meetings such as PES Tech Council, so it makes in-person attendance at these meetings difficult so, the virtual aspect has been beneficial.

20. **Renewable Systems Integration Coordinating Committee (RSICC)** – Andy Leon
A. Leon noted that RSICC hosted their annual meeting virtually in 2021 and hoping to meet in-person in Denver at PES GM in July 2022. Participation and interest in this area has really exploded and having a hard time to accommodate and keep up with all the groups involved in this space at their meetings.

21. **EICC** – Hongbin Sun, Qinglai Guo, Xinwei Shen
X. Shen reported on behalf of the EICC using a ppt presentation (ppt is included in the meeting minutes appendix).

2:00 – 2:15 **TOPICS FROM THE PES Governing Board & Members (Cont.)**

1. PES Gov. Board Meeting January 8, 2022 – Updates (Cont.)
   a. *PPT presentation submitted to TC Officers + S. Pepin for Fellows Update (included in meeting minutes/appendix)*
   b. D. Novosel provided comments as he is on the ad com committee to review and change the Fellows Committee process. We need more nominations (and diverse nominations).
   c. B. Chalamala agreed that getting more nominations is critical.
   d. At the technical committee level there may be Fellows Committees but others may only have a Fellows representative, so it was suggested that for those committees who only have a single Fellows rep. that they consider putting together a Fellows Committee to garner more nominations.
   e. **Action:** S. Pepin to send M. Yalla Fellow’s ppt for PSRC Fellows meeting tomorrow

2:15 – 3:15 **STANDARDS DEVELOPMENT - Updates**

1. Standards Coordination Committee
   a. *PPT presentation submitted to TC Officers + S. Pepin for SCC Updates (included in meeting minutes/appendix)*

2. PAR entity review process update
   a. **SmartSheet Submission & Review Process**
      i. S. Pepin provided and overview of the Smartsheet Dashboard used by the IEEE PES EPM Committee to conduct their meetings & operations
      ii. *PPT presentation submitted to TC Officers + S. Pepin for IEEE PES EPM Update by D. Sabin (included in meeting minutes/appendix)*
      iii. PSIM (J. Britton) provided perspective on the process and the proposals since PSIM has received a high volume of entity proposals for review, as they are often intriguing
proposals, and the committee takes the reviews of the proposals seriously. Many of them are advanced topics that are not at the point of standardization and are actually new technologies not used widely around the world.

1. R. Schubert will provide a presentation later in the agenda on the IEEE SA’s Industry Connection Program to hopefully urge these topics that are more emerging technologies to go through this program instead of going to standards process.

iv. EMC (J. Lau) mentioned that they have concerns as a committee about what happens to a proposal once a technical committee declines it, and it continues either with CAG or in some other way.

1. M. Zaman mentioned that E. Morales sent a Doodle Poll (today 1/9/21) to IEEE PES & SA leadership to schedule a call later this month (Jan. 2022) to find a way for feedback from CAG or IEEE SA back to the EPM Committee & technical committees so they know what ultimately happens to a proposal.

v. Trial-Use Standards mentioned by PSCC (C. Preuss) – has IEEE PES had any trial-use standards? A trial-use standard goes away after 2 years. A guide does not go away. The trial-use standards are less used (if at all) vs. a guide or recommended practice because they go away after 2yrs.

vi. P0019 – An entity proposal that was submitted to the EMC for review was raised specifically with concerns.

3. Reports and Updates from IEEE SA

   a. PPT presentation submitted to TC Officers + S. Pepin for IEEE SA Update (included in meeting minutes/appendix)

4. Other committees

   4:20 – 4:30 BREAK

   Meeting will resume at 4:30PM PST/5:30PM MST/6:30PM CST/7:30PM EST

4:30 – 5:30 Technical Activities Plan - Updates

1. Tech Council roster transition
   a. Discussed earlier in the agenda

   a. Discussed earlier in the agenda

3. MemberPlanet Status
   a. PPT presentation submitted to TC Officers for IEEE Tech. Act. Update (included in meeting minutes/appendix)

4. PES Resource Center/Content Calendar
   a. PPT presentation submitted to TC Officers for IEEE Tech. Act. Update (included in meeting minutes/appendix)

5. G-PSTC activities update
   a. PPT presentation submitted to TC Officers + S. Pepin for G-PSTC Update (included in meeting minutes/appendix)
6. IEEE-SA Industry Connections program overview
   S. Pepin/R. Schubert
   a. PPT presentation submitted to TC Officers + S. Pepin for IEEE SA Industry Connections Update (included in meeting minutes/appendix)

7. Industry Technical Support Leadership Committee (ITSLC)
   D. Novosel
   a. PPT presentation submitted to TC Officers + S. Pepin for ITSLC Update (included in meeting minutes/appendix)

5:30 – 5:35
TECH COUNCIL STRATEGIC PLANNING (RETREAT FOLLOW-UP) H. Chen

1. Action: E. Morales & M. Zaman to work with the IEEE SA BoG to get some insight into how this decision was made and share with the PES Tech Council so they can better understand the IEEE SA BoG’s decision to decline to implement separate designations for individual vs. entity standards.

5:35 – 6:00
CIGRE-PES Collaboration V. Vittal

1. PES & CIGRE have had a collaborative MOU for the past few years and recently re-newed and signed a new MOU. C. Preuss had asked a question to Tech Council Officers prior to this meeting about CIGRE sharing their reports with IEEE PES technical committees.
   a. Action: S. Pepin to send a copy of the signed MOU between PES & CIGRE to C. Preuss

6:00 – 6:18
OTHER BUSINESS/FUTURE MEETINGS H. Chen

1. Old Business
   a. Thank you, Farnoosh Rahmatian for your 8yr commitment as an officer of the PES Technical Council!

2. New Business
   a. C. Preuss brought up the PSCC IEEE SA P&P manual being reviewed and posed the question to the Tech Council about if an update needs to be made related to how PES China Chapters Council groups should work with the PSCC Committee on standards activities, specifically entity proposals. It was recommended that the PSCC Committee do include these specifications into their P&Ps with how to work with these entity proposal working groups in the future.
   b. IEEE PES Entity Proposal Management (EPM) Committee is an IEEE PES process/committee – IEEE PES EPM Committee is a standing committee of the PES Technical Council – not an IEEE SA process/committee.

Next Meetings
• 2022 – April – need to schedule a PES Tech Council Web-Meeting
  o Action: H. Chen to connect with TC Officers & S. Pepin to review potential dates/time in Spring for PES Tech Council web-meeting prior to in-person PES Tech Council meeting in July
2022

- 2022 – PES GM Denver, CO, USA                July 17-21, 2022

**Action:** H. Chen to follow-up via email with Tech Council to plan for Nov. 2022 PES Tech Council Retreat.

6:18  ADJOURN

**NOTICE:** E-mail Supporting Documentation (e.g. presentations, reports) to: pes-tc-sec@ieee.org

**Appendix (continue to next page)**
IEEE Power & Energy Society

Technical Council Meeting

Jessica Bian, PES President
Tim Licitra, PES Executive Director
Wayne Bishop, PES Vice President, Meetings & Conferences
January 9, 2022

PES Strategic Direction (2021-2025)

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IEEE POWER & ENERGY SOCIETY (PES) WILL

DEVELOP stronger engagement with industry and increase its involvement in education programs.

IMPROVE & STRENGTHEN the global presence, diversity and participation in technical committees.

REINVIGORATE Chapter communication with its members and establish mentorship and coaching programs.

GROW life-long learning and expand student offerings worldwide.
November 2021 Tech Council Retreat

- Strategic topics related to the January 8 PES Governing Board (GB) discussion
  - Attracting new members
  - Increasing diversity
  - ITSLC
- Meeting format
  - Attendance, engagement, branding, costs
  - Benefits/drawbacks
    - In-person, virtual and hybrid meetings

January 8 PES Governing Board Meeting

- The PES GB adopted a PES Membership Development goal of 2% growth in 2022.
  - Total PES membership 42,805 (7.9% YoY) as of 12/31/21
  - Most of the global growth in 2021
    - Large increase in student membership in R10
    - Moderate increase in higher grade membership in R10
  - Need to reverse Regions 1 to 7 and Region 9 membership decreasing trend
January 8 PES Governing Board Meeting (cont’d)

- PES VP-Membership & Image, Dr. Julio Romero Aguero, and PES VP-Chapters, Dr. Mazana Armstrong, to work with PES staff
  - Develop a request for proposal, including the hiring of an organization by April 2022
    - Conduct a review of PES Membership drivers
    - Identify potential solutions
      - Professional diagnosis
      - Action plan by Region, grade, affinity group, etc.

Diversity
IEEE Diversity Statement

• IEEE’s mission to foster technological innovation and excellence to benefit humanity requires the talents and perspectives of people with different personal, cultural, and disciplinary backgrounds. IEEE is committed to advancing diversity in the technical profession, and to promoting an inclusive and equitable culture in its activities and programs that welcomes, engages and rewards those who contribute to the field without regard to race, religion, gender, disability, age, national origin, sexual orientation, gender identity, or gender expression.

PES Governing Board – A Diverse Group
• 7 Female Members (33%)
• Representatives from all 10 Regions
• Industry and Academic Experience
• IEEE Fellow and Senior Members
• Administration and Management
• View at https://www.ieee-pes.org/about-pes/governing-board

PES Diversity Pledge
PES supports the inclusion of a diverse set of speakers which will lead to more creative, interesting and representative panels across the IEEE. IEEE PES pledges to end same-sex panels at all IEEE meetings, conferences and events, including our own.

Diversity, Equity and Inclusion

• One of main IEEE initiatives within last five years
  • IEEE diversity main webpage
• Data Request from the IEEE Technical Activities Board (TAB) Committee on Diversity & Inclusion
  • At its November meeting, once again asked Societies & Councils to provide diversity data for TAB’s efforts in making progress in diversity and inclusion by Dec 31, 2021
• Four areas – Awards, Publications, Conferences, and Governance
TAB Data Request (cont’d) - Awards

• By Gender, Region and Professional Affiliation (Academia, Industry, Government, Other)
  ➢ Technical Achievement Awards
  ➢ Service Achievement Awards
  ➢ Constrained Awards
  ➢ Journal Paper Author Awards
  ➢ Distinguished Lecturer Awards

TAB Data Request (cont’d) - Publications

• By Gender, Region and Professional Affiliation (Academia, Industry, Government, Other)
  ➢ Editors-in-Chief: All Editors-in-Chief of Society/Council publications
  ➢ Associate Editors: All Associate Editors of Society/Council publications
  ➢ Senior/Area/Executive Editors: All Senior/Area/Executive Editors, or equivalent editorial positions outside of Editors-in-Chief or Associate Editors (if applicable)
  ➢ Steering Committee: All steering committees of Society/Council publications (if applicable)
TAB Data Request (cont’d) – Conferences*

• By Gender, Region and Professional Affiliation (Academia, Industry, Government, Other)
  ➢ Conference General Chairs
  ➢ Conference TPC Chairs
  ➢ Conference TPC Members
  ➢ Conference Plenary Speakers
  ➢ Conference Panelists/Invited Speakers
  ➢ Conference Paper Awards

*“Conferences” is defined as all main conferences that your Society/Council sponsors or co-sponsors.

TAB Data Request (cont’d) – Governance

• What efforts has your Society/Council made or is planning in order to improve governance diversity?
• What efforts has your Society/Council made or is planning in order to improve membership diversity and inclusion?
PES Diversity Task Force

• Dr. Guadalupe Gonzalez
  ➢ PES Member-at-Large on Diversity
  ➢ 2022 Chair of the Task Force
  ➢ Will lead the data collection effort by working with all PES VPs and staff team
  ➢ Report results at the next GB meeting

Quarterly Meetings with Operations Committee Chairs

• PES Governance and Leadership Calendar
  – Sync committee meeting schedules
  – Attend cross-team meetings
  – Coordinate and support each other for efficiency and timely updates

• Quarterly Meetings and Orientation Sessions with All Operations Committee Chairs
  – IEEE and PES Overview
  – IEEE Ethics Reporting Line, etc.
January 8 PES Governing Board Meeting (cont’d)

• New IEEE Transaction on Energy Markets, Policy and Regulations (T-EMPR)
• Improved PES N&A Process – Tim Licitra, PES ED
  • 2022 History Committee Chair, JTCM Vice Chair, etc.
• Meeting Format – In-person, Hybrid, Virtual?
  • Wayne Bishop, PES VP Meetings & Conferences
• PES Fellow Committee Activities Update
  • Professor Maria Teresa Correia de Barros,
    2020-2021 PES Fellows Committee Chair

PES Executive Director – Goals and Areas of Focus

• Efficiency
• Operations Manual
• Transparency
• Diversity & Inclusion
• Website
• The New Normal for Events
• Education
Questions & Discussion

Technical Committees are PES Crown Jewels!

Thank You for Your Time and Contribution!
vii. 3.6.12 Surge Protection of Photovoltaic Facilities. Just a few edit left on white paper comparing UL and IEC handling of PVs. Will send to WG shortly for approval to be posted on SPDC Website as a tutorial.

viii. 3.6.13 Smart Grid Protection Guide.

ix. 3.6.14 EVSE Protection Guide. PC62.230 has been balloted with an 84% participation and 84% approval. The WG will be working on the 54 comments.

x. 3.6.15 Low Voltage AC Power System SPDs. The TF on Internally Generated Transients is still working. The WG is working on PC62.44a, which will add the disconnector report information as it pertains to Category C locations as an Informative Annex to C62.44. The consensus of the WG was to combine Dot 34 with Dot 62 and Dot 44 with Dot 72. This action would combine the two application guides and the two test and performance standards into two standards for this new, combined WG to shepherd. This was not a formal decision.

It will be left for the incoming chair to formalize.

c. Entity Standards
   i. IEEE WG P2771 - Guide for Parameter Configuration of Acing Horns of DC Earth Electrode Lines (P2771): in Ballot process
   ii. PAR Request for Review - Project Title: Recommended Practice for controllable metal oxide surge arrester of 1000 kilovolt (kV) Ultra High Voltage (UHV) Alternating Current (AC) system. SPDC has recommended that the Switchgear and Relaying Committees be included.

2. Upcoming Meetings
   a. The next meeting is scheduled for May 2-6, 2022, in St. Petersburg, Florida at the Hyatt Place hotel.
   b. The Fall 2022 meeting will be held October 3-7, 2022, in San Diego, California at the Catamaran Resort.
will meet either on-line or by e-mail correspondence to address the comments as needed. It is expected to have a re-circulation ballot in early 2022. The PAR on this document has been extended by one year and will expire on December 31, 2022.

viii. WG 3.5.7 – Neutral Grounding: C62.92.1 – IEEE Guide to Neutral Grounding in Utility Systems Part I – Introduction. Revised in 2017 and published with some errors. An errata document has been published, but the WG has inquired about a second printing that would incorporate the errata to enable the user to acquire one document instead of two. No answer from IEEE. The current document and its errata will expire on 12/31/2027.

ix. WG 3.5.7 – Neutral Grounding: C62.92.3 – IEEE Guide to Neutral Grounding in Utility Systems Part III – Generation Station Auxiliaries. Requesting a PAR to begin this work. This is the most urgent work the WG has due to an expiration date of the existing document (12/31/2022). This TF met at the end of the WG meeting to begin work on this document.


xii. WG 3.5.7 – Neutral Grounding: C62.92.6 – IEEE Guide to Neutral Grounding in Utility Systems Part VI – Current-Regulated Sources. Published for the first time a few years ago and is now starting to receive feedback for industry users. There are some areas that have been identified for improvement. Ben York has accepted the TF chair to revise this document and is ready to get started.

xiii. Awards – The HV Subcommittee presented Mr. Steve Hensley with an award of recognition for serving as its chair for almost 20 years. Ray Hill made the presentation during the WG 3.3.11 meeting. The subcommittee would like to thank Steve for his many years of faithful service.

b. Low Voltage Subcommittee – Ray Hill (Chairman)
   i. Working Group Meetings held 2021
      1. 3.6.2 LVSFSPD Solid State Components  Mick Maytum
      2. 3.6.3 LV Components Application Guide Mick Maytum
      3. 3.6.4 Surge Characterization LV Circuits Doug Dorr
      4. 3.6.5 SP in ICT and Smart Grid Data Ernie Gallo
      5. 3.6.10 SP of Equip on LVAC & Comm Mick Maytum
      6. 3.6.12 SP of PV Facilities James Moedlmann
      7. 3.6.13 Smart Grid Protection Guide Matt Wakeham
      8. 3.6.14 EVSE Protection Guide Bill Travis
      9. 3.6.15 Low Voltage AC Power SPDs Ray Hill

ii. 3.6.2 Low Voltage Solid State Surge Protective Components. Review available low voltage solid state surge protective components. Develop and recommend standard methods for testing and rating these surge protective components. Prepare sections defining the characteristics of low voltage solid state surge protective components for incorporation into the Low Voltage Surge Protective Components Application Guide.

iii. 3.6.3 Low Voltage Surge Protective Components Application Guide. Resolved C62.42.2 (MOV guide) ballot comments. Will post result and initiate recirculation. Submitted C62.42.5 (electronic current limiters) PAR to NESC.

iv. 3.6.4 Surge Characterization on Low Voltage Circuits. Dot 3 (formerly Dot 48) C62.41.2 is ready to ballot and will go for MEC soon. C62.41.4 will be next. A call for a VCC committee replacement for Ray Hill (retiring soon, hopefully) was made.

v. 3.6.7 Surge Protection Used in Information and Communications Technology (ICT) and Smart Grid Data Circuits. Five teleconferences since the Fall 2020 meeting. Comment resolution on PCS.43.1 was continued; almost complete.

vi. 3.6.10 Surge Protection of Equipment Connected to Both Low Voltage AC Power and Communication Circuits. Continued update of How to Protect Your House and Its Contents from Lightning. To be issued as group homework so work can be concluded at next meeting.
IEEE Power Engineering Society
Surge Protective Devices Committee

TECHNICAL COUNCIL MEETING NO. 112
1/09/2022

Entity: Surge Protective Devices Committee

Chair: Steven Hensley
Vice-Chair: Thomas Tran
Secretary: open

1. Current Activity:
   a. High Voltage Subcommittee – Michael Champagne (Chairman)
      i. Working Group Meetings held Fall 2021 in San Diego, CA and On-Line via IEEE WebEx
         1. 3.4.9 Rotating Machines
         2. 3.3.11 Continuous Revision of C62.11
         3. 3.4.18 Insulation Coordination
         Andrew Steffen
         Tim Smith
         Jon Woodworth
   ii. Working Group Meetings held in 2021 On-Line
      1. 3.4.8 Surge Protection of Transformer
         Michael Champagne
         Tom Field
      3. 3.5.2 Neutral Grounding
         Steve Whisenant
   iii. WG 3.4.8 (Surge Protection of Transformer). This WG did not meet in 2021; however, its
        current focus is to complete the application guidance passage for Neptune arrester
        arrangement. James Taylor and Michael Champagne have corresponded via e-mail and on-
        line conversations to work on an example problem, but work is not yet complete.
   iv. WG 3.4.9 (Rotating Machines). WG met at San Diego and several times online during the
       year. Its PAR is valid through the end of 2022. The WG is working on the text of the C62.21
       (Surge Protection of AC Machines) document and expects to go to ballot in the middle to later
       part of 2022.
   v. WG 3.3.11 – Continuous Revision of HV Arrester Test Standard (C62.11): Latest revision of
       C62.11 complete and published in 2020. This document is valid until December 31, 2030.
       New Chair is Tim Smith and Vice-Chair is Ryan Freeman. The PARs for the next revision of
       PC62.11 and P2770 “Non-Gapped Line Arresters (NGLA) and Externally Gapped Line
       Arresters (EGLA) for use on AC or DC transmission and distribution power lines with system
       voltages > 1kV” are on the NESC agenda for 1/24/22 approval.
   vi. WG 3.4.14 – Continuous Revision of HV Arrester Application Guide (C62.22): This Working
       Group has not met since Fall 2020. The goal is to submit to RevCom before the Fall of 2022.
   vii. WG 3.4.18 – Insulation Coordination: C62.82.1 – Insulation Coordination – Definitions and
       Introduction (formerly IEEE Std. 1313.1) and C62.82.2 – Insulation Coordination –
       Application Guide (currently IEEE Std. 1313.2). Jon Woodworth accepted the chair of this
       WG. This WG was re-organized earlier this year and has met virtually several times and in Sn
       Diego, CA. C62.82.1 was last published in 2010 and the WG has begun the initial work
       to update and revise this document. The WG also plans to harmonize with IEC as part of this
       process. This WG is currently working toward completion of PC62.82.2 – Insulation
       Coordination Application Guide, which is in ballot resolution. All of the comments from
       the initial ballot have been addressed by the WG in previous meetings. In August 2021, Mike
       Champagne began the work of technical editor to address the comment resolution and the
       draft went to its first re-circulation ballot in November. That re-circulation ballot closed on
       December 5, 2020 with 12 comments. One HV member who was in the original ballot pool,
       will have additional comments and those will be accepted by the technical editor. The WG
IEEE PES
Energy Internet Coordinating Committee (EICC)
Report for 2021 at JTCM

Dr. Xinwei Shen, Tsinghua Shenzhen International Graduate School (SIGS), SMIEEE
Prof. Hongbin Sun, Tsinghua University, IEEE Fellow
Prof. Mohammad Shahidehpour, IIT, IEEE Fellow
Dr. Sharon (Xuanyuan) Wang, State Grid Corp. of China
1/10/2022
sxw.tbsi@sz.tsinghua.edu.cn, shb@tsinghua.edu.cn

EICC Officers/Steering Committee/Liaisons

Chair: Prof. Hongbin Sun, Tsinghua University, China, IEEE Fellow
Vice Chair: Prof. Mohammad Shahidehpour, Illinois Institute of Technology, USA, IEEE Fellow
Secretary (& Treasurer): Dr. Sharon (Xuanyuan) Wang, State Grid Corp. of China
Committee Program Chair: Prof. Qinglai Guo, Tsinghua University, China, SMIEEE
Web Master: Dr. Xinwei Shen, Assi. Prof., Tsinghua Shenzhen International Graduate School(SIGS), China, SMIEEE

Steering Committee
- Zhengyu Sun (Chair, State Grid, China)
- Mohammad Shahidehpour (IIT, USA)
- Jovica Milanovic (The University of Manchester, UK)
- Nikos Hatzigiorgiou (NTUA, Greece)
- Weijiang Chen (CEPRI, China)
- Hong Gao (ABB)
- Anjan Bose (Washington State University, USA)
- Xiaoxin Zhou (China Electric Power Research Institute)
- Hongbin Sun (Tsinghua University, China)
- Shijie Cheng (HUST, China)
- Jun Yu (State Grid, China)
- Dean Sharafi (AEMO, Australia)

Liaisons from TCs

<table>
<thead>
<tr>
<th>Name</th>
<th>TCs</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prof. Kai Strunz</td>
<td>ED&amp;PG</td>
<td>TU Berlin</td>
</tr>
<tr>
<td>Dr. Pengwei Du</td>
<td>PSOPE</td>
<td>The Electric Reliability Council of Texas, USA</td>
</tr>
<tr>
<td>Eriks Surmanis</td>
<td>T&amp;D</td>
<td>Power Delivery Consultants</td>
</tr>
<tr>
<td>Prof. Stephen McArthur</td>
<td>AMPs</td>
<td>University of Strathclyde</td>
</tr>
<tr>
<td>Jeff Joy</td>
<td>ICC</td>
<td>Seattle City Light</td>
</tr>
<tr>
<td>Dr. Babu Chalamala</td>
<td>ESSB</td>
<td>Sandia National Laboratories</td>
</tr>
<tr>
<td>Prof. Claudio Canizares</td>
<td>PSDP</td>
<td>University of Waterloo</td>
</tr>
<tr>
<td>Bruce Forsyth</td>
<td>Transformer s</td>
<td>Bruce Forsyth and Associates, PLLC, U.S.A.</td>
</tr>
</tbody>
</table>
1. Two Virtual Meetings in 2021
2. 5th IEEE conf. on Energy Internet and Energy system Integration (EI2)
3. Discussions & Progresses on TFs in EICC
4. Papers and Panel Proposals of EICC in PES GM 2022

Two Virtual Meetings in 2021

- First one: the annual meeting of EICC
  - Held on Aug. 29, 2021
  - 29 attendees from EICC officers/liaisons/steering committee members
    - EICC annual report
    - Task Force Report and Comments
    - Future plan discussions

- Second one: meeting & online voting of EICC
  - Held on Nov. 7, 2021
  - Online discussions/voting till the end of Nov., about
    - Revised TFs’ scope and proposal
    - Panel Proposals in PES GM 2022
5TH IEEE conf. on Energy Internet and Energy system Integration (EI²)

- 2021 IEEE conf. on Energy Internet & Energy Systems Integration (IEEE EI²) was successfully held in Taiyuan, Shanxi, China on 22-24th, Oct.
  - It was launched in 2017 and has been successfully held 5 times.
  - Co-sponsored by IEEE PES, CSEE, Tsinghua DEE/EIRI/SIGS, Taiyuan Univ. of Tech.
  - "Energy Internet for Carbon Neutrality"
  - 1100+ paper submissions, 845 accepted.
  - 41 technical sessions/panels, 70 paper sessions, 5 poster sessions.
  - 10000+ online/on-site attendees (1000+ registered).

5TH IEEE conf. on Energy Internet and Energy system Integration (EI²)

- 2021 IEEE conf. on Energy Internet & Energy Systems Integration (IEEE EI²) was successfully held in Taiyuan, Shanxi, China on 22-24th, Oct.
  - Prof. Saifur Rahman (IEEE President-Elect, PES Past President), Dr. Jessica Bian (PES President), Dr. Shay Bahramirad (PES President-Elect) all gave speeches at opening ceremony.
  - Prof. Xiaoxin Zhou (CEPRI), Prof. Weijiang Chen (SGCC) and Prof. Shijie Cheng (HUST, China) et al from PES EICC Steering Committee were also among Advisory Committee of IEEE EI².
Discussions & Progresses on TFs in EICC

TF Proposals Submitted → Liaisons of EICC review and vote → EICC officers review → TF officially works → TF name

- By the end of 2020, 7 TF/WG proposals were submitted to EICC.
- Before/in EICC annual meeting on Aug. 29th, 2021, TFs “chairs” were asked to
  - revise their scope and proposals based on a comprehensive survey on existing TF/WGs in PES, to minimize the overlap, and develop coordination plans with TCs accordingly
  - submit the revised scope and proposals for the EICC leadership (including steering committee and liaisons from TCs) to
    - review and vote (via online links in/after 2nd meeting)
- 5 TFs are approved, with comments to improve their work.

Discussions & Progresses on TFs in EICC

A good example:
TF on Resilient and Secure Large-Scale Energy Internet Systems

Chair: Dr. Charalambos Konstantinou, KAUST, Saudi Arabia;
Co-Chair: Dr. Reza Arghandeh, Western Norway University of Applied Science, Norway

Coordination Plans

“Charalambos Konstantinou is now the co-chair of IEEE Task Force on Cyber-Physical Interdependence for Power System Operation and Control under PES Bulk Power System Operation Subcommittee. He will coordinate with that TF and gather inputs from them to yield broader impacts on our new TF across the power community. We are also communicating with other TF and WGs. For example, we recently proposed a panel proposal as part of our IEEE Task Force on Resilient and Secure Large-Scale Energy Internet Systems (EICC) efforts in coordination with WG on Cyber Security in Power Systems (CAMPS/AMPS).”

Liaisons

Prof. Kai Strunz(ED&PG), Prof. S. McArthur(AMPS), Dr. Pengwei Du (PSOPE)
21 papers were submitted to EICC, now under review.

2 panels were approved in EICC, with 1 approved in other TC.
- After review and vote (via online links in/after 2nd meeting)

<table>
<thead>
<tr>
<th>Panel Approved</th>
<th>Chairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>From Smart Grid to Energy Internet: Recent Advances in Security and Resilience (approved in other TC)</td>
<td>TF on Resilient and Secure Large-Scale Energy Internet Systems (EICC) (Charalambos Konstantinou, KAUST), in coordination with WG on Cyber Security in Power Systems (CAMS/AMPS, Manimaran Govindaraju, ISU, USA)</td>
</tr>
<tr>
<td>Advanced State Estimation for Energy System Integration: Modeling, Algorithms and Applications</td>
<td>TF on State Estimation for Integrated Energy Systems (Dr. Jinho Zhao (UConn) and Dr. Ye Guo(Tsinghua SIGS) )</td>
</tr>
<tr>
<td>Coordinated control and co-simulation of power systems in Energy Internet</td>
<td>TF on Cloud-Based Control and Co-Simulation of Multi-Party Resources in Energy Internet (Dr. Yan Xu, Nanyang Technological University, Singapore; Dr. Graeme Burt, University of Strathclyde, UK)</td>
</tr>
</tbody>
</table>

Thank you!
IEEE PES-Fellows Committee - ACTIVITIES UPDATE
Elevation Class 2022

- 79 Nominations evaluated
- 18 Nominees elevated

<table>
<thead>
<tr>
<th>Category</th>
<th>Nominations</th>
<th>Elevations</th>
<th>Elev. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE/P</td>
<td>15</td>
<td>3</td>
<td>20.0</td>
</tr>
<tr>
<td>E</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>RE/S</td>
<td>48</td>
<td>12</td>
<td>25.0</td>
</tr>
<tr>
<td>TL</td>
<td>14</td>
<td>3</td>
<td>21.4</td>
</tr>
</tbody>
</table>

- Society recommendations ignored in a significant number of cases
- PES FEC Members disappointed
Overview of the Overall Fellow Process

- References
- Endorsements
- S/TC-FEC

Fellow Committee Judge

- Professional Activities
  - Weight: 10/100
- Strength of support of Refs & Endors
  - Weight: 15/100
- Strength of support of S/TC
  - Weight: 25/100
- Individual Technical accomplishments
  - Weight: 40/100

Nomination

Before March 1

Mid March
Mid June

Late June – Early September

IEEE PES-Fellows Committee - ACTIVITIES UPDATE
PES FEC Composition

- Chair + 15 Members
- 3 Evaluation Groups, according to topics
- 3 Vice-Chairs, one assigned to each group

Evaluation by experts is guaranteed
IEEE PES-Fellows Committee - ACTIVITIES UPDATE
PES FEC Operation

Each Nomination is assigned to 5 Evaluators, one of them acting as Advocate

- Vice-Chairs also act as Evaluators and Advocates.
- The Chair cannot act as Evaluator but will advocate all nominations, based on the drafted Society Evaluation Forms and supported by the Vice-Chairs.

The role of the Advocate is:

- Leading the discussion of the assigned Nominations, both at the group meeting and the committee meeting.
- Elaborate a “good case” for each assigned nomination, gathering contributions from the five Evaluators (Individual Reasons and group meeting discussion) and from all members (committee meeting).

---

IEEE PES-Fellows Committee - ACTIVITIES UPDATE
PES FEC Operation – Committee Meeting

All Nominations were discussed by all Members at the Committee Meeting

- Virtual, instead of F2F
- 3 days (3 times 4 Hours), instead of 2 days (8 + 4 Hours)

Outcome

- Society scores and ranking, and additional input to the Society Evaluation Form narratives

Process

- Input: Society Preliminary Scores (outcome of the individual scores, after normalization)
- Days 1 and 2 – Discussion of nominations per category (see why in the next slide), resulting into Society Intermediate Scores
- Day 3 – Merging and consolidation of results, resulting into Society Final Scores
### New Table 1 – Types of contributions of impact for use in a Fellow nomination.

All types of contributions are useful (Green Cells) unless noted otherwise (Yellow Cells).

This table will be included in the revised version of the Guide to an Effective Nomination.

<table>
<thead>
<tr>
<th>Name</th>
<th>Technical/Intellectual Contributions</th>
<th>Patients</th>
<th>Specialization Needs</th>
<th>Type of Evidence of Impact (categories required)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scop.</td>
<td>Impact of technical publication based papers can be high but not Fellows. More than 10,000 views their impact and popularity. A high citation score is an indicator of the impact and caliber of their work.</td>
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</table>

These contributions and impact reflect the principles described in § 17.2 of IEEE Fellow Operations Manual. They reflect expected changes to § 17.2 by the Board (to take place in 2021). Table 1 should always be compliant with the spirit of § 17.2.

---

**IEEE PES-Fellows Committee - ACTIVITIES UPDATE**

**PES FEC Operation - Timeline**

<table>
<thead>
<tr>
<th>WHEN</th>
<th>WHAT</th>
<th>WHO</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 16-26</td>
<td>Group / Evaluators Allocation</td>
<td>Chair/Vice-Chairs</td>
</tr>
<tr>
<td>March 27-29</td>
<td>COI identification</td>
<td>Evaluators</td>
</tr>
<tr>
<td>March 30-31</td>
<td>Group / Evaluators re-Allocation</td>
<td>Chair/Vice-Chairs</td>
</tr>
<tr>
<td>April 1-18</td>
<td>Individual Evaluation (spreadsheet to be provided by Vice-Chairs)</td>
<td>Evaluators</td>
</tr>
<tr>
<td>April 19-25</td>
<td>Group meeting (to be set by Vice-Chairs)</td>
<td>Evaluators</td>
</tr>
<tr>
<td>April 26-30</td>
<td>Eventual update of individual evaluation results</td>
<td>Evaluators</td>
</tr>
<tr>
<td>May 1-9</td>
<td>Society Evaluation Forms drafting</td>
<td>Advocates</td>
</tr>
<tr>
<td>May 10-18</td>
<td>Preparation of the Committee Meeting</td>
<td>Chair/Vice-Chairs</td>
</tr>
<tr>
<td>May 19-20-21</td>
<td>Committee Meeting</td>
<td>Everybody</td>
</tr>
<tr>
<td>May 22-30</td>
<td>Individual Evaluation Forms submission</td>
<td>Evaluators</td>
</tr>
<tr>
<td></td>
<td>Society Evaluation Forms improvement</td>
<td>Advocates</td>
</tr>
<tr>
<td>June 1-9</td>
<td>Society Evaluation Forms final revision</td>
<td>Chair/Vice-Chairs</td>
</tr>
<tr>
<td>June 10-11</td>
<td>Score Matrix and Society Evaluation Forms approval</td>
<td>Everybody</td>
</tr>
<tr>
<td>June 12-13</td>
<td>Score Matrix and Society Evaluation Forms upload</td>
<td>Chair</td>
</tr>
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---

[www.ieee.org](http://www.ieee.org)
IEEE PES-Fellows Committee - ACTIVITIES UPDATE
Elevation Class 2022

✓ A transparent evaluation process was established
✓ A fair evaluation was pursued

HOWEVER...

› Society recommendations were ignored in a significant number of cases
› PES FEC Members feel disappointed

Overview of the Overall Fellow Process

- References
- Endorsements
- S/TC-FEC

Nomination
Before March 1
Mid March
Mid June

Fellow Committee Judge

Professional Activities
Strength of support of Refs & Endors
Strength of support of S/TC
Individual Technical accomplishments

Weight
10/100
15/100
25/100
40/100

Late June – Early September
IEEE PES-Fellows Committee - ACTIVITIES UPDATE
2021 IEEE Ad Hoc Committee on Fellow Process

- Change from a 2-layer into a 1-layer Evaluation Process
  
  Experts evaluated by Experts

- Identification of Nominees and Nominators by Nomination Committee
  
  Encourage quality and diversity

---

IEEE PES-Fellows Committee - ACTIVITIES UPDATE
ENCOURAGE DIVERSITY

Some Facts – Membership versus Fellowship:

- Women are under-represented
- Industry is under-represented
- Region 9 is under-represented
IEEE PES-Fellows Committee - ACTIVITIES UPDATE
Identification of Nominees and Nominators

- Identification of unbalances

Work on Statistics

- Identification of Nominees and Nominators

Articulate Nomination Committee with Regions

HOW?
Standards Coordinating Committee
January 9, 2022
Todd Irwin, Chair

IEEE Power & Energy Society

Technical Activities

• 17 Technical Committees
• 4 Coordinating Committees
• 512 Active Standards, ~46% of IEEE standards
• 384 Active PES PARS, ~38% of IEEE PARS
Total Standards = 1106
(July 2021 report = 1052)

Total = 512
(July 2021 report = 496)
Total = 512
(July 2021 report = 496)

Total = 384
2021 YTD IEEE-SA PES Standards Activity

<table>
<thead>
<tr>
<th>PES PARs approved in 2021</th>
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<th>Amendment</th>
<th>Corrigendum</th>
<th>Revision</th>
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### 2021 YTD IEEE-SA PES Standards Activity (Cont.)

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**Total:** 43
IEEE Entity Proposal Management Committee

- Formed in 2020 by the IEEE Power & Energy Society (PES) Technical Council as a new standing committee to provide an internal process utilizing liaisons to review proposals to PES:
  - To review entity proposals from PES Regional Chapter Councils (e.g., the IEEE PES China Council) and other channels (e.g., the US Department of Homeland Security)
  - To review other similar Non-PAR proposals and documents (e.g., from CIGRE, CIRED, etc.)
- Manages the review of entity project proposals received from various channels to ensure that these proposals or similar documents are reviewed by the IEEE PES Technical Council and the relevant technical committees.
- Review takes place prior to IEEE Standards Association (IEEE SA) New Standards Committee (NesCom) review.
- Each technical committee has a liaison to the EPM Committee, but multiple committees share the same liaison.

Composition
- EPM Committee Chair is the immediate past chair of the IEEE PES Technical Council.
- EPM Vice Chair is a past chair of a PES committee and serves a five-year term.
- The EPM Chair appoints six (6) members from the 17 technical committees with staggered 3-year terms. There is an option for one renewal for a total potential term of 6 years for one individual.

Observers
- IEEE PES Tech Council Standards Coordinating Committee Chair
- IEEE PES Governing Board Member-at-Large for Standards
- IEEE SA Liaison, as assigned by IEEE SA
- IEEE PES Technical Activities Program Manager
- Other Representatives from PES Committees

Current IEEE PES EPM Members
- Farroosh Rahmatian, Chair
- Dan Sabin, Vice Chair
- Steve Vechy, Rep. for ESSB, NPEC, SRLCS & PSOPE Committees
- Philip Winstone, Rep. for PSRC, PSDC, & AMPS Committees
- Jim Graham, Rep. for TR, PSIM, & ICC Committees
- John McDaniel, Rep. for T&D, SPDC Committees
- Keith Flowers, Rep. for SWG & SUB Committees
- John Wagle, Rep. for ESSB, EDPG & PSOPE Committees

Meeting Schedule
- Meets Every Two Months, Chaired by EPM Committee Vice Chair
- Assigns New Entity Project Proposals to be Reviewed by EPM Committees
- Reviews PES Committee Reviews of Previous Submissions
- Conveys Committee Review Results to IEEE SA

PES Technical Committee
- AMPS: Analytic Methods for Power Systems
- EDPG: Energy Development & Power Generation
- EMC: Electric Machinery
- ESSB: Electric Storage & Battery
- ICC: Insulated Conductors
- NPEC: Nuclear-Power Engineering
- PSOPE: Power System Operation, Planning, and Economics
- PSRC: Power System Relaying & Control
- PSDC: Power System Instrumentation and Measurements
- SRLCS: Smart Buildings & Loads
- SPDC: Surge Protective Devices
- SUB: Substations
- SWG: Switchgear
- T&D: Transmission & Distribution
- TR: Transformers

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Entity Proposal Management

- In concert with the EPM Committee Liaison for a technical committee, the EPM Committee assigns review of an entity proposal by the technical committee. The proposal includes a title, description, participants, draft PAR, and supporting documents and/or presentations.
- The next steps can vary by committee. However, here are suggested steps for how the committee can review the proposal:
  - The committee's standards coordinator assigns the proposal to one or more its responsible subcommittees or working groups for review.
  - The subcommittee or working group reviews the proposal.
  - The subcommittee or working group provides answers to these questions to the committee's standards coordinator:

<table>
<thead>
<tr>
<th>Question</th>
<th>Possible Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the proposal within the scope of our committee?</td>
<td>Yes, No, Other. If “Other”, please explain.</td>
</tr>
<tr>
<td>Are there similar/overlapping standards?</td>
<td>Yes, No, Maybe, I'm not sure. If &quot;Maybe&quot; or &quot;I'm not sure&quot;, please explain.</td>
</tr>
<tr>
<td>Should our committee take oversight of the proposal?</td>
<td>Answers: Yes, No, Maybe. If &quot;No&quot;, please provide a detailed rationale. If &quot;Maybe&quot;, please clarify.</td>
</tr>
</tbody>
</table>

- The committee's standards coordinator provides answers to these questions to its EPM Committee liaison. The EPM Committee liaison relays the answers to the questions to the EPM Committee via an online questionnaire.
- The EPM Committee reviews the answers to the scope questions at its next meeting.

Entity Proposal Management Proposal Review

During the EPM Committee Meeting, the EPM Committee will take one of the following actions:

Accept Oversight: Ask IEEE SA to assign the proposal to one or more PES Technical committees for review
- The study group should work with the Standards Coordinator to finalize the proposal before submission to IEEE SA MyProject.
- When the study group and the PES technical committee agree on the scope, purpose, and description, the proposal should be submitted to IEEE SA MyProject for approval by the technical committee for consideration by IEEE SA New Standards Committee (NesCom) and final approval by IEEE SASSB.

Request Revision: Ask IEEE SA to provide feedback to the proposer with recommendations for revision before resubmission to IEEE PES for reconsideration
- The proposing council and its study group will review the feedback and consider if/how the proposal will be amended before resubmission to the EPM Committee.

Partially in Scope: Inform IEEE SA that the proposal is partially in the scope of one or more IEEE PES Technical committees and that one or more committees is interested in oversight but only as a Co-Standard Committee.
- The proposing council and its study group will review the feedback and may submit the proposal to other committees in other societies or councils. Optionally, an entity proposal could be submitted for review by IEEE SA Corporate Advisory Group (CAG), which can act as a Standards Committee for entity projects. If another committee or the CAG agrees to act as the Standards Committee, then the IEEE PES committee(s) should be listed as a Co-Standard Committee in the PAR and will be able to assign an SCA and experts if the PAR is approved by IEEE SASSB.

Out of Scope: Inform IEEE SA that the proposal is not in the scope of any IEEE PES Technical committees
- The proposing council and its study group will review the feedback and may submit the proposal to other committees in other societies or councils. Optionally, an entity proposal could be submitted for review by IEEE SA CAG. If another committee or the CAG agrees to act as the Standards Committee, IEEE PES will not have oversight or influence.

In Scope and Reject: Inform IEEE SA that the proposal is in the scope of one or more IEEE PES committees, but the proposal does not warrant an entity standard.
- The proposed standard, recommended practice, or guide has a scope of one or more PES committees, but it is one of many possible practices and should be completed as a technical paper or technical report. The committee(s) should provide supporting information.
Opportunities for Entity Project Influence by a PES Committee

- Use the process provided by the IEEE PES Entity Proposal Management (EPM) Committee and the committee itself to review and influence entity project proposal before it is submitted to IEEE SA New Standards Committee (NesCom) for approval as a new standards project.
- Provide technical expertise to influence a standard during its drafting stages by assigning a Standards Committee Representative (SCR) and nominating optional Technical Experts to the working group.
- Inform its committee members by summarizing project status using periodic reports provided by the SCR.
- Influence the standard over its entire lifecycle.

More Information Online

- IEEE PES EPM Committee Website

- IEEE SA Standards Board Bylaws

- IEEE SA Standards Board Operations Manual

- IEEE Baseline Operational Procedures
  [http://standards.ieee.org/about/sasb/audcom/bops.html](http://standards.ieee.org/about/sasb/audcom/bops.html)

- IEEE SA Website
IEEE SA STAFF UPDATE:
PES JTCM 2022
TECHNICAL COUNCIL MEETING

JTCM MEETING
JANUARY 9TH, 2022
CRIN MORALE3 - C.SPIEWAK@IEEE.ORG
MULLI ZAMAN - M.ZAMAN@IEEE.ORG
AGENDA

- IEEE/IEC Joint Development statistics
- Asia PAR statistics
- PES Sponsor P&Ps Due
- IEEE SA Policies Update
  - Mandatory Training
  - Participation Behavior Slide Deck
  - Commercial Terms and Normative References for Standards
  - Adoption of Non-IEEE Standards and Specification (e.g. CIGRE)
- Contributors Collection offering
- Appendix – Past policies updates
IEEE/IEC JOINT DEVELOPMENT UPDATE

- PES currently has 15 joint standards under development with IEC
  - NPEC: 7
  - TR: 2
  - SWG: 1
  - ED&PG: 2
  - SPD: 1
  - PSRC: 1
  - PSCC: 1

- IEEE/IEC Guide to Cooperation
  - Outlines process for joint development
  - IEEE and IEC staff are currently reviewing for update
  - https://standards.ieee.org/about/intl/iec.html
PES ASIA/ENTITY PAR UPDATE

- Active entity PARs under development: 36
  - T&D: 20
  - TR: 5
  - ED&PG: 2
  - PSIM: 3
  - SBLC: 2
  - SUB: 1
  - PSRC: 1
  - ESSB: 1
  - IC: 1
- PARs under review for potential Sponsorship: 36 (EPM Process)
IEEE SA AUDCOM UPDATE
IEEE SA Standards Committee P&Ps due in 2022

- ESSB
- PSCC
- PSRC
- SBLC
- SPDC

For 2023 the following IEEE SA Standards Committee P&P expire

- AMPS,
- ED&PG
- EM
- NPE
- PSIM
- Substation
- Switchgear

Baselines Templates: https://standards.ieee.org/about/sasb/audcom/bops.html
IEEE SA POLICY UPDATES – MANDATORY TRAINING

There was a Procedures Committee AdHoc on Strengthening Direction and Training Regarding Dominance. The SASB approved the AdHocs proposed changes and the policies will be updated to include:

☐ Ensure that all Working Group Officers have taken
  ☐ i) the IEEE SA Standards Working Group Chair Fundamentals training and
  ☐ ii) the Understanding IEEE SA’s Antitrust, Competition, and Commercial Terms Policies training prior to or within 60 days of appointment, or as assigned

• Implementation Date: June 2022
• All Standards Committee officers serving at the implementation date of 1 June 2022 have until 31 December 2022 to complete this training
• All Working Group officers serving at the implementation date of 1 June 2022 have until 31 December 2022 to complete this training.

Note: IEEE SA Staff will keep PES informed on updates as the implementation date approaches
POLICY UPDATES – PARTICIPANT BEHAVIOR

IEEE SA ProCom Strengthening Direction and Training Regarding Dominance ad hoc also proposed additional changes that the IEEE SASB has approved to clause 5.3.3 of the IEEE SASB Operations Manual.

5.3.3 Standards development meetings
The IEEE SA Individual method or Entity method participant behavior slide set, as applicable, shall be either presented at the beginning of every IEEE SA standards development meeting, or distributed prior to the meeting along with the meeting agenda. If the slides are distributed with the meeting agenda, all meeting participants shall be informed at the beginning of the meeting that participant behavior shall comply with the outlined requirements.

Slides are located at:
https://standards.ieee.org/content/ieee-standards/en/about/policies/index.html
PARTICIPANTS IN THE IEEE-SA - INDIVIDUAL METHOD

- Participants in the IEEE-SA “individual process” shall act independently of others, including employers

The IEEE-SA Standards Board Bylaws require that “participants in the IEEE standards development individual process shall act based on their qualifications and experience”

- This means participants:
  - Shall act & vote based on their personal & independent opinions derived from their expertise, knowledge, and qualifications
  - Shall not act or vote based on any obligation to or any direction from any other person or organization, including an employer or client, regardless of any external commitments, agreements, contracts, or orders
  - Shall not direct the actions or votes of other participants or retaliate against other participants for fulfilling their responsibility to act & vote based on their personal & independently developed opinions

- By participating in standards activities using the “individual process”, you are deemed to accept these requirements; if you are unable to satisfy these requirements then you shall immediately cease any participation
PARTICIPANTS IN THE IEEE-SA “ENTITY METHOD”

Participants in the IEEE-SA “entity process” represent the entity that appointed them.

- The IEEE-SA Standards Board Bylaws (clause 5.2.1) states, “entity representative participants in the IEEE standards development entity process are appointed by an entity to represent that entity and act on its behalf.”

- This means such participants:
  - May take actions based upon instructions from the entity for which they have been appointed as an entity representative.
  - Shall not direct the actions or votes of participants representing another entity or retaliate against other participants for fulfilling their responsibility to act on behalf of another entity.

- By participating in activities using the “entity process”, you are deemed to accept these requirements; if you are unable to satisfy these requirements then you shall immediately cease any participation.
POLICY UPDATES – COMMERCIAL TERMS AND NORMATIVE REFERENCES

Update to Clause 6.4.6 Normative references of the IEEE SASB Operations Manual:
Standards participants shall not contribute material that contains commercial terms and conditions (see 6.2.2) of which they are aware for inclusion in any draft IEEE standard or that is intended as a normative reference. If the submitter becomes aware of commercial terms and conditions in their Contribution thereafter, they shall promptly inform the Working Group Chair or IEEE SA Program Manager. Any participant who is personally aware of commercial terms and conditions in an IEEE standard, or in material that is normatively referenced, should promptly inform the Working Group Chair or IEEE SA Program Manager.

Note: See IEEE SA STANDARDS BOARD OPERATIONS MANUAL 6.2 for more details
https://standards.ieee.org/about/policies/opman/sect6.html

An SASB AdHoc was created and chartered to recommend updates to policy and training material where appropriate.
IEEE SA Staff will keep you informed as this SASB AdHoc completes its work.
ADOPION OF NON-IEEE STANDARDS AND SPECIFICATION

- A Procedures Committee (ProCom) change request was reviewed and approved by the SASB to update the existing P&P language which was ambiguous with respect to IEEE SA adopting documents.

IEEE SASB Operations Manual

- 5.6 Adoption: The adoption processes within IEEE allow for IEEE standards to be adopted by recognized standards organizations (see 5.6.1) and for IEEE to adopt standards and specifications from other organizations (see 5.6.2).

- 5.6.1 Process for adoption of IEEE Standards

- 5.6.2.1 Introduction

  - IEEE adopts standards and specifications from organizations, including but not limited to international standards bodies, regional standards bodies, and industry consortia. IEEE SA IPR Staff shall review the original, underlying document proposed for adoption prior to negotiation of a formal written agreement.

  - This text removes the ambiguity and allows for the potential adoption of specifications, such as CIGRE.

Note: Changes to take effect in January 2022
IEEE SA CONTRIBUTORS COLLECTION OVERVIEW

IEEE SA Contributor Collection is a free, publicly accessible platform dedicated to publishing the documents contributed by participants during the development of IEEE standards.

- Contributions may be different types of documents ranging from pure research to technical analysis, complete technical specifications and use cases.
- These Contributions may or may not be directly implemented or referenced in the final standard.
- Contributions should be previously submitted to a Standards Project, or will be submitted to a Standards Project when uploaded to the Contributors Collection.
- The contribution submitted will be discoverable, accessible and searchable via the Contributors Collection.
- The Contributor will be provided with a referenceable, permanent link that points to your contribution.
WHO CAN CONTRIBUTE?

Any IEEE SA Working Group participant who wants to provide a referenceable document that is available to the general public may upload documents to the platform.

- Submitted documents must be created by the contributor, cannot contain material taken from or owned by another source unless documented permission is provided to IEEE SA that permits publication under the selected Creative Commons license.
- The documents are vetted for plagiarism and appropriateness prior to acceptance on the platform.
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- **CC0 1.0 (Public Domain Dedication)** allows others to copy, reuse, adapt, and build upon your work for any purpose without attribution; all your rights in the work are waived and the work is dedicated to the public domain.
IEEE SA Contributiors Collection,
Submit your documents to the IEEE SA Collaborators Collection
Submission Guidelines
Frequently Asked Questions
QUESTIONS?
CONTACT US!

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Director Operational Program Management
e.spiewak@ieee.org
(732) 850 6410

Ashley Moran
Program Manager
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(732) 562 6552

Malia Zaman
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Christian Orlando
Program Coordinator
c.orlando@ieee.org
(732) 562 2645

Mike Kipness
Program Manager
m.kipness@ieee.org
(732) 562 3810

IEEE-SA Standards Association

IEEE 17
DRAFT SHARING UPDATES

- Draft Sharing Policy: Approve by ProCom and recommended for approval Under IEEE SASB.
- There will be changes to the IEEE SASB Operations Manual regarding the Draft sharing policy.
- Sharing Drafts with IEEE SA Working Groups and Standards Committees
- Sharing Drafts within the Same Standards Committee (with Standards Committee Approval)
- Sharing Drafts between IEEE SA Working Groups and Standards Committees Sharing Drafts with Organizations External to IEEE
- Establishing the Draft Sharing Relationship
- Sharing the Draft/Maintaining the Draft Sharing Relationship

- Once Finalized Training will be provided.
IEEE SASB UPDATES – TERMINOLOGY ADHOC

The following IEEE SASB policy statement has been approved as of Dec. 3rd, 2020.

IEEE standards (including recommended practices and guides) shall be written in such a way as to unambiguously communicate the technical necessities, preferences, and options of the standard to best enable market adoption, conformity assessment, interoperability, and other technical aspirations of the developing standards committee.

IEEE standards should be written in such a way as to avoid non-inclusive and insensitive terminology (see IEEE Policy 9.27) and other deprecated terminology (see clause 10 of the IEEE SA Style Manual) except when required by safety, legal, regulatory, and other similar considerations. Terms such as master/slave, blacklist, and whitelist should be avoided.
IEEE SA STANDARDS WORKING GROUP CHAIR FUNDAMENTALS

- There are 14 Modules available for Working Group Chairs, it is available via the following link:
  https://iln.ieee.org/Public/ContentDetails.aspx?id=AE404C2328DA4A39AAD7AB5117681F05

- These modules are free for IEEE and IEEE non members as long as you have an IEEE Web account. For non members you may need to create a web account.

- The following print screen go through some of the initial process.
IEEE SA Standards Working Group Chair Fundamentals

Course Program
As Chair of an IEEE Standards Working Group, you play a unique role within the IEEE SA. This course will help you confidently execute the duties of that role by providing the information you need to understand both your responsibilities and the environment in which you will operate. This deeper understanding will position you to lead your Working Group through the challenges of drafting and completing an IEEE Standard. Consisting of twelve modules, Standards Working Group Chair Fundamentals explores the intricacies of Working Group leadership and assists new and aspirational Working Group Chairs in navigating the complexities of the standards development process. You will explore topics such as organizational values, legal considerations, processes, the establishment of policies and procedures, and Working Group meeting best practices. The bottom line: You’ll complete this course as a better, stronger Chair, knowing how to serve your Working Group with established best practices.

Audience: Working Group Chairs and those aspiring to serve as a Chair, working group members, individuals and entities thinking of participating in the IEEE Standards Development process.

Publication Year: 2020
IEEE SA STANDARDS WORKING GROUP CHAIR FUNDAMENTALS – CONT’D

IEEE Checkout

My Cart

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*Net Amount USD: 0.00

Items in your cart will remain for up to 30 days and will always reflect the most current price and availability.

Proceed to Checkout

Questions?
IEEE Power & Energy Society

Technical Activities Program Management

January 9, 2021
Orange County, CA, USA
Shana Pepin, CMP
Program Manager, IEEE PES
Overall Efforts for the Technical Council

- Administrative Reminders
- Technical Council, Technical Committees, and PES Exec. Office
  - Foster a more cohesive working relationship with the Tech Council Leadership, Technical Committees and PES Executive Office (EO) to better support the following areas:
    - Marketing of the Technical Activities through activities such as:
      - Management of IEEE PES Technical Activities Meetings on PES Calendar via Smartsheet
      - Management of IEEE PES Technical Activities Content Calendar
      - Review & monitoring of the IEEE PES Technical Committee Websites
      - Consolidation & creation of content & products for the IEEE PES Resource Center
- Transition to memberPlanet
ADMINISTRATIVE REMINDERS
Listservs & Shared PES WebEx Accounts

- [PES-TECH@ieee.org](mailto:PES-TECH@ieee.org) listserv & [PES-TCPC@ieee.org](mailto:PES-TCPC@ieee.org) listserv
  
  - Managed by S. Pepin in PES Executive Office in coordination with the IEEE PES Tech Council Secretary – will review rosters and those updates w/ J. McBride but, please know that you can unsubscribe yourself from either of these IEEE listservs using the unsubscribe link in any of the emails you receive as part of these listservs if people on your committees in past chair or TCPC roles are still receiving these emails and no longer wish to receive them. As your officers and roles rotate, please be sure to notify the IEEE PES Tech Council Secretary and S. Pepin.
  
  - This process will hopefully be improved/changed with the transition into memberplanet (discussed later).

- Reminder there are 4 shared IEEE PES WebEx Accounts for PES Tech & Coordinating Committee Use
  
  - If you need the credentials for the WebEx account your Tech/Coordinating Committee is permitted to use, email Shana @ [s.pepin@ieee.org](mailto:s.pepin@ieee.org)
  
  - These 4 shared accounts are in addition to the WebEx accounts that are offered by the IEEE SA for their standards working groups
Resources & Templates

https://www.ieee-pes.org/technical-activities/committees/resources

O&P Manual Templates now available on PES Technical Committees Resources tab

PES Technical Committees

Resources for Technical Committees
Visit the IEEE PES Resource Center to browse completed work (i.e. Technical Reports, Webinars, Tutorials, etc.)

Technical Report & Paper Templates
- PES Resource Center Technical Report Submission Checklist - February 2019 (MS Word docx)
- PES Technical Report Template - January 2019 (MS Word docx)
- PES Technical Paper Compendium Template - January 2016 (MS Word docx)

Presentation, Powerpoint, Webinar, Tutorial Resources
- PES Powerpoint Templates
- PES University Resources Page (webinar, tutorial & plain talk submissions)
- PES Webinar Presenter Resources Page

Annual Report Templates
- MS Word (docx)
- MS Word (doc)

Operations & Procedures (O&P) Templates
- O&P Manual Template for Standards Developing Committees
- O&P Manual Template for Non Standards Developing Committees
Resources & Templates

https://www.ieee-pes.org/technical-activities/committees/resources

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- PES Powerpoint Templates
- PES University Resources Page (webinar, tutorial & plain text submissions)
- PES Webinar Presenter Resources Page

Annual Report Templates
- MS Word (docx)
- MS Word (doc)

Additional Resources
- IEEE Copyright & Consent Form - (MS Word docx)
- IEEE PES Volunteer Resources (i.e. logos, webmaster resources, etc.)
- PES Sponsor P&P Template for Standards Development Template - Approved SAgB 15 Jun 2017 (MS Word docx)
- PES Technical Committee Sponsor Policies & Procedures (P&P) Template - May 2017 (MS Word docx)
- PES Technical Committee Program Chair Guidelines (PDF) - September 2017

Annual Reports due January 31, 2022
TECHNICAL ACTIVITIES PROMOTIONAL PLAN
Technical Activities Promo Plan

Technical Activities Contribution to the Overall PES Business

- Globalization - IEEE PES Technical Committees and their activities are perceived to be very much North American focused, but we’d like to identify ways to market us globally.

- Industry Engagement - In many regions, IEEE is viewed as a leader in providing value to the academic/research space. Through communications and content development, increase and communicate the value proposition for industry members.

- Intellectual Property - Promote and support the creation of more intellectual property generated by the IEEE PES Technical Committees to be hosted in the IEEE PES Resource Center.
# Technical & Coordinating Committee Meetings Promotions

<table>
<thead>
<tr>
<th>Year</th>
<th>Month</th>
<th>Event Name</th>
<th>Meeting PES Technical Committee</th>
<th>Event Start</th>
<th>Event End</th>
<th>Event Start Time</th>
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<td>Spring 2022 IEEE PES Surge Protective Devices Committee Spring Meeting (SPDC)</td>
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For any of the IEEE PES Technical Committee meetings, if committees enter their meeting information into my Smartsheet [here](#), then I get alerted and put the meeting info onto our PES website calendar [here](#) and I work with PES Marketing to get them listed in the PES e-bulletins.
Technical & Coordinating Committee Meetings Promotions

*NEW* Smartsheet Entry Form: https://app.smartsheet.com/b/form/01a6f83af2e34fddc91c8fa1b6b0826bd

<table>
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<tr>
<th>Year</th>
<th>Month</th>
<th>Event Name</th>
<th>Meeting PES Technical Committee</th>
<th>Event Start</th>
<th>Event End</th>
<th>Location (Venue, City, State, Country)</th>
<th>Web Meeting Details (please provide dial-in info) (if applicable)</th>
<th>Meeting Type (i.e. admin, full committee, etc.)</th>
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This form should be used by the Technical and Coordinating Committees of the IEEE Power & Energy Society officers to enter the details related to their committee meetings. If you indicate that these meetings are "open to the public," then they will be posted on the IEEE PES website calendar and promoted for anyone to attend.

If you have questions about this form please contact, IEEE PES Program Manager, Shrima Phipin (s.phipin@ieee.org)
Technical Activities Flyer & Brochure

Committees of the Technical Council

There is a PES technical committee for most aspects of the electric power industry. These committees play an integral role in the development of IEEE Standards and have a major impact within the industry. The PES Committee structure was reorganized in 2016 - you can view information regarding this change by reviewing the PES Technical Committee Reorganization summary page.

Follow the links below to learn more about a specific committee. To see annual reports for a committee, click on the Annual Report link.

To find more resources and tools related to Technical Committee work, please view the "Resources" page linked here.

Technical Committees, Subcommittees, & Coordinating Committees Brochure
Updated for 2020! Learn more about each of these committees in our updated brochure.

Download the Brochure (PDF)

Technical Committees & Subcommittees

1. Analytic Methods for Power Systems (AMPS)
2. Electric Machinery (EMC)
3. Energy Development & Power Generation (EDPG)
4. Energy Storage & Stationary Battery (ESSB)
5. Insulated Conductors (ICC)
6. Nuclear Power Engineering (NPEC)
7. Power System Communications & Cybersecurity (PSCC)
8. Power System Dynamic Performance (PSDP)

Tech & Coordinating Cmte Info on PES
Technical Activities Tab

Technical Committees & Subcommittees

1. Analytic Methods for Power Systems (AMPs)
   - Visit the Analytic Methods for Power Systems website
   - Download the Analytic Methods for Power Systems Committee flyer (PDF)
   - Download the Analytic Methods for Power Systems Committee O&P Manual (PDF)

Scope
Investigate modeling, analysis and solution methodologies, computational tools and techniques, and the effective application of computing and intelligent systems to the various operational, planning, economic, risk, and uncertainty assessment, management and decision-making problems in bulk power and distribution systems. Initiate and coordinate studies, symposia, panel discussions and tutorials related to the subjects of this area. Coordinate activities, where possible, with other groups on analytical models which are used in the study of system dynamic performance, system planning, system operations and distribution system analysis, activities.

Subcommittees
- Big Data Analytics Subcommittee (BDoS)
- Computing and Analytical Methods Subcommittee (CAMIS)
- Distribution System Analysis Subcommittee (DSAS)
- Intelligent Systems Applications Subcommittee (ISAS)
- Reliability Risk and Probability Applications Subcommittee (RRPAS)
- Transient Analysis and Simulation Subcommittee (TASS)

Annual Reports

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- Technical & Coordinating Committee Websites
  - Please keep these up to date as these are used to find the latest information related to your committee’s activities (i.e. officers, meetings, subcommittees, working groups, task forces, etc.)

2020 Annual Reports have been added*

* MIS Coding: SPUC, PSIM, IGETCC
Trending Technology Emails (Monthly)

Trending Technologies

Every month, IEEE PES members receive Trending Technologies - a monthly digest of resources and content from IEEE PES about a particular topic in our field. Find previous issues of Trending Technologies below.

Available Issues

- **LATEST**: High-Voltage DC Circuit Breakers (June 2021)
- Green Hydrogen (May 2021)
- IEEE Development of Standards Supporting Advanced Reactor Design and Deployment (April 2021)
- Grid Resilience (March 2021)
- Virtualization of Substation Applications (February 2021)
- Active Distribution Networks, Interconnected Microgrids, and Energy Hubs (January 2021)
- Integration of Distributed Energy Resources (December 2020)
- Power System Relaying and Control (November 2020)
- Defining & Specifying Transformers for Wind and Solar Applications (October 2020)
- Machine Learning Applications to Energy Forecasting and Analytics (September 2020)
- Smart Buildings as a Transactive Energy Hub (August 2020)
- Towards 100% Renewables in the Power Grid (June 2020)
- Natural Disaster Mitigation: Best Practices, Methods, and Resilience Metrics (May 2020)
- Battery Energy Storage System Regulations (April 2020)
Trending Technology Emails (Monthly)

High-Voltage DC Circuit Breakers

MORE POWER TO THE FUTURE TRENDING TECH

HVDC transmission systems are being built rapidly to integrate the renewable generation resources through point to point, multi-terminal and HVDC grids due to the advantages inherently offered by the VSC technology. In addition, the DC technology is progressing to be applied in distribution systems which is being implemented either by converting existing AC distribution system to DC system or new DC distribution system. Both HVDC development in transmission and distribution networks call for the use of HVDC breakers to provide the fast interruption of the DC fault to ensure stable and reliable operations of the system.

The technologies of HVDC breaker are maturing and various types of DC breakers, including mechanical, solid-state or hybrid type have been researched, designed, and put in service. The major issue that researcher and engineers are facing is that there have not been any international standards on the high voltage DC breakers. The ratings and testing requirements are partially chosen and defined based on the need for individual research and application.

Efforts are being made by IEEE switching committees to provide the latest development in the HVDC breakers as well as the establishment of a WG so that a standard on HVDC breakers can be developed to best suit the customers in North America. It will also help to adopt and/or harmonize with IEC in the near future.

IEEE PES Webinars/Tutorials/Training

Switching in DC Systems

DC switching tutorial at IEEE switching committee 2018 spring meeting April 2018
Speakers: Rose Streets and Joanne Hu

This tutorial provides an overview of HVDC system development, topologies, associated switching functionality, various faults in HVDC system, requirements of the fault current interruption, the development of HVDC breakers, practical installations, and experience of testing HVDC Circuit Breakers.
PES ebulletin – Tech. Activities Section

Technical Activities

14 - 16 June | 2021 IEEE Power & Energy Society (PES) Energy Storage and Stationary Battery Committee (ESSB) Summer Virtual Meeting

Learn More & Register

Upcoming PES Technical Committees Meetings
You're invited to explore the PES Technical Committees as they will be hosting meetings throughout the summer and fall. Check out each committee’s website for upcoming meeting dates.

Learn More

View Now! Ask a Standards Expert
IEEE PES TECH ACTIVITIES CONTENT CALENDAR
Types of Content that can be created by IEEE PES Technical Activities

- Webinars
- Tutorials
- Technical Reports
- Tools
- Interviews
- Industry Surveys
- Roadmaps & Vision Docs
- Newsletter Articles
- Standards
- Recommended Practices
- Guides

IEEE PES Tech Activities Content Calendar:
https://app.smartsheet.com/sheets/8WcVG9JH2vRxMF5ggjiWGJg43Pf68jWj7p9qyvFC1
# Types of Content that can be created by IEEE PES Technical Activities

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<th>Project Status</th>
<th>Content Ready to Load in PES RC?</th>
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<th>PES RC: Product Part/ (linked to PES RC)</th>
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[IEEE PES Tech Activities Content Calendar](https://app.smartsheet.com/sheets/8WcVG9JH2vRxMF5ggjWGJg43Pt68jWj7p9gpyvC1)
IEEE PES Technical Committee Specific Tab

https://resourcecenter.ieee-pes.org/
IEEE PES Technical Reports

Reminders:

1. Technical Reports can be better promoted and distributed by submitting webinar proposals to accompany and provide overviews of these very technical documents.

2. Technical Report review and approval has a very specific process to be followed:

https://resourcecenter.ieee-pes.org/
Submitting Proposals for IEEE PES Webinars

INSTRUCTORS WANTED!
PES University is looking for subject matter experts to lead webinars, tutorials, and Plain Talk courses.

The PES University welcomes your knowledge, experience, and tutelage. If you would like to present a webinar, tutorial, or Plain Talk About the Electric Power System, please submit a proposal for consideration. Topics should be relevant to engineers, with the focus being on technical, professional development, or current issues/hot topics in the power industry.

https://www.ieee-pes.org/professional-development/pes-university/pes-university-presenter-resources
Review IEEE PES Technical Activities Resource Center Reports

- **PDF** - PES Resource Center Summary of Downloads/Products – December 2021
- **PDF** - TC Downloads-Revenue Details - December 2021
- **Excel** - TC Metrics Overview – Q4 2021

[https://resourcecenter.ieee-pes.org/](https://resourcecenter.ieee-pes.org/)
Transition to memberplanet UPDATE
## Memberplanet Implementation Plan*

<table>
<thead>
<tr>
<th>Phase 1</th>
<th>Internal Data Collection &amp; Migration Prep</th>
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<tr>
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<td>November-December 2021</td>
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<thead>
<tr>
<th>Phase 2</th>
<th>Kick-off &amp; Design Phases (i.e. hierarchy, rostering, admin., system design, etc.)</th>
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<th>Phase 3</th>
<th>Build &amp; Test (training) Phases</th>
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<td>May–Summer 2022 (Building initial subcommittee structure and other features. Customer training)</td>
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<tr>
<th>Phase 4</th>
<th>Data Migration/Training- Part of Build &amp; Test Phase</th>
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<thead>
<tr>
<th>Phase 5</th>
<th>Go-Live Phase - PES Tech &amp; Coor. Cmtes managing/maintaining with support</th>
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<tr>
<td></td>
<td>Summer 2022 – (initial go-live projected for June/July/August with on-going implementation occurring through year-end on some deliverables)</td>
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</table>

* This plan was drafted by S. Pepin and not necessarily the final implementation plan from memberplanet team. **Modifications to the plan may occur after Jan. 2022**
Summary of selection of memberplanet

- **123Signup shut down occurred on December 31, 2021**
- During July – October 2021, an ad hoc committee of Technical Committee leads met bi-weekly to develop a formal request for proposal (RFP), research suppliers, schedule demos, and review proposals to replace 123Signup services.
- In October 2021, the ad hoc committee decided upon memberplanet and sent their decision to the IEEE PES Technical Council Officers and VP of Technical Activities for review and approval.
- Decision to proceed with memberplanet as the new Association Management System (AMS) for IEEE PES Technical Council was approved in November 2021 by VP of Technical Activities. Memberplanet will be required of all PES Tech & Coordinating Committees to use to maintain their rosters and attendance moving forward per the [PES Tech Council O&P Manual](#).
- IEEE PES Executive Office will cover the cost of the annual contract for the memberplanet tool as part of the 2022 PES Budget except for pass-through charges for those technical committees who also choose to use the event registration features for their paid meetings (i.e. credit card transaction fees, badge creation fees, etc.)
Review of Data Collection & Migration

- S. Pepin sent emails on November 16 & 30, 2021 to pes-tech@ieee.org listserv to alert PES Tech Council of the 123Signup shut down and urge all technical & coordinating committees to extract all data and reports they would need to transition into memberplanet before 123Signup’s shutdown on Dec. 31, 2021.

- Email title: “REMINDER: Action: PES Tech Coordinating Cmtes – Download & Organize your 123Signup reports for memberplanet next steps”

- OneDrive folders were set up by S. Pepin for each of the 17 Tech Cmtes & 4 Coordinating Committees and Tech Council to aggregate all relevant excel reports either from 123Signup or wherever they were being maintained into the Excel format provided by memberplanet to make for a smoother transition into memberplanet.

- Committees will have the option to “start fresh” and not import any member profiles and request that everyone set up new profiles for the new system if they so choose.
On-boarding into memberplanet

- S. Pepin is working w/ memberplanet, IEEE Legal & Contracts teams to fully execute the 2022 master services agreement, statement of work, etc. to fully execute the contract with memberplanet for services. Contract should be fully executed in January 2022.
- On December 7, 2021, members of the ad hoc committee met with two members of the memberplanet team to review the next steps, data collection, and design and on-boarding process.
- S. Pepin will reach out to each committee directly along with the memberplanet team to start the process of implementing memberplanet starting in January-March 2022.
- Design phase will occur first to ensure the structure of the memberplanet hierarchal association management system will be set-up in a standard structure and then be adjusted to suit specific needs of each committee (i.e. specific questions, different role types, reports, etc.)
- For those technical committees needing to use registration services for spring meetings, memberplanet should be able to be used but it’s not the memberplanet team’s preference as they’d rather complete the design phase and on-boarding before committees use the registration feature.
Interim Solutions shared by S. Pepin

- Registration suppliers/services
  - PES Tech Cmtes are welcome to work directly with vendors like ReqFox and Eventmobi and specifically with Eventmobi to mention the committee is part of IEEE to receive a 25% discount
  - IEEE Meetings, Conferences & Events (MCE) full registration contracted services: https://ieeemce.org/mce-services/ieee-mce-registration-services/
  - PES Technical Committees may have been using other registration services they’ve contracted with and if approved by IEEE should be able to continue use if they prefer
  - PES Technical Committees is not required to use memberplanet for their meeting registration, but the option is now available to them for no additional fee other than payment processing fees, if any.

- IEEE Email Listserv
  - https://listserv.ieee.org/request/add-listserv.html
  - Note: 3-5 Business days to generate a new listserv so, allot time for this
  - J. McBride created a tool to take a report and convert it to easily import into IEEE listserv and can share soon
Overall Next steps

- Technical Committees, please ensure Shana (s.pepin@ieee.org) is on respective email listservs & meeting invitations to best assist your technical/协调委员会

- memberplanet on-boarding to start soon! Lookout for email introduction to memberplanet on-boarding team from S. Pepin

- Do you have upcoming meetings? Add them to the Smartsheet on Tech Committee Meeting Schedule:
  - https://app.smartsheet.com/b/form/01a6f83af2e34f9c91c8fa1b6b0826bd

- Have content for the IEEE PES Resource Center? Let's get it onto the IEEE PES Technical Activities Content Calendar!
  - https://app.smartsheet.com/sheets/8WcVG9JH2vRxF5FqJWgJg43Pf6BjWj7p9gpyfC1

- Share with Shana any items you would like promoted/marketed via IEEE PES e-bulletin, e-News, social media, PES Website, IEEE PES Resource Center, etc.

- Keep the momentum going! Please invite me to your AdCom meetings as you see fit and I'm happy to provide updates that are relevant to your group related to PES activities.
Questions?
Global Power Systems Transformation (G-PST) Consortium

- The G-PST Consortium provides coordinated, holistic end-to-end support and knowledge infusion for system operators pursuing clean energy transitions, including performing cutting edge research, providing implementation support for world-class engineering and operational solutions; supporting workforce development; building and disseminating open-access data and tools; and accelerating localized technology adoption, standards development, and testing programs.

- IEEE leads track on: Localized Technology Adoption
- Standards & Testing for grid modernization
Global Power Systems Transformation (G-PST) Consortium Participation

IEEE Leading Pillar 4

- Investigate the immediate and long term technical area focus at target regions/countries
- Provide strengthened support on standards, testing and certification
- Conduct a needs assessment for support on standards, codes, certification based on best practices
- Develop global resources and training to support these needs in 1-2 areas customized for priority countries
- Encourage local participation on associated standards and conformity development process
- Provide technical webinars and training opportunities tailored to the target regions/countries
- Coordinate with the consortium relative to activities by others

https://globalpst.org/
IEEE Pillar 4 Completed Deliverables

- Completed a landscape assessment of applicable standards, testing and certification activities – June 2020
- Survey of system operators was developed during the summer, distributed to GPSTC and IEEE contacts, and closed in mid-September; PES and SA volunteers and staff analyzed results and completed a summary report/white paper completed in January 2021; this activity was also supported by IEEE corporate research
  - Survey was designed in two parts: 1) system operator strategic technical priorities, and 2) key enabling standards in use, and priority needs
- **January 12, 2021** – Participated in first G-PST Consortium webinar in series of webinars.
  - Presentation from this overview webinar can be found here: [https://globalpst.org/wp-content/uploads/G-PST-Webinar-1-011121ac.pdf](https://globalpst.org/wp-content/uploads/G-PST-Webinar-1-011121ac.pdf)
- **February 16, 2021** – Panel session at IEEE ISGT-NA

IEEE Pillar 4 Completed Deliverables (continued)

- **April 27, 2021**: Technical Webinar to G-PSTC
  - Title: [Impact of Inverter Based Generation on Bulk Power System Dynamics and Short-Circuit Performance](https://resourcecenter.ieee-pes.org/technical-publications/white-paper/PES_WP_GPSTC_042721ac.pdf)
  - 285 attendees
  - Working on recordings in Spanish & Mandarin
- **July 2021**: Panel session at IEEE PES General Meeting
- **August 2021**: Technical Webinar to G-PSTC
  - Title: IEEE Standard 1547: DER Requirements and Implementation to Interconnection Processes
  - 300+ attendees
- **August 2021**: Panel session at IEEE PowerAfrica
- **September 2021**: Panel session at IEEE ISGT-Latin America
- **September 2021**: Panel session at IEEE CCECE
- **December 2021**: Panel session at IEEE International Humanitarian Technology Conference
2022 Proposed Plans (to be finalized by end of January)

- GPSTC driving increased "cross-pillar" activity; Pillar 4 – Pillar 1 collaboration underway
- Focus Area #1 - Standardization of renewables integration support (e.g. IEEE 1547; interest also in 2800)
  - Educational offerings for GPSTC system operators
  - Credentialing to “certify” knowledge of workers performing interconnect
  - Commissioning support/certification; application support
  - New hot topics - Offshore wind integration technology and design
  - Based on level of interest in the above bullets, build out a team of specialists to support these activities
  - Follow up discussions with Latin America system operators as a potential pilot region for these activities (based on Juan Carlos Montero efforts to date)
- Focus Area #2 - Grid Code Support in collaboration with Pillar 2 (tbd if this remains an item of interest; needs further discussion)
  - Grid resilience related power grid infrastructure design Guideline
- Focus Area #3 - Roadmap of New Standards Activity - building on the white papers produced by IEEE in 2020/2021, convene an interest group, and consider hosting a workshop with GPSTC stakeholders to develop a roadmap of recommendations on needed standards/certification actions for GPSTC

G-PSTC IEEE Core Team – Cross OU Collaboration

- **Juan Carlos Montero, IEEE PES Volunteer**
  - Role: Spokesperson to consortium on behalf of the pillar’s work & coordination and execution of technical deliverables.
- **Jay Liu, IEEE PES Volunteer**
  - Role: Lead technical coordinator of key projects and deliverables to the consortium with assistance from pillar 4 team.
- **Rudi Schubert, IEEE-SAS Staff**
  - Role: Lead for IEEE-SA perspective of existing standards but also potential future standards work.
- **Maike Luiken, IEEE MGA Volunteer**
  - Role: Support technical content and deliverables on behalf of pillar 4. Providing broader view into IEEE TAB, MGA & SA Sustainable Development Ad Hoc Committee efforts.
- **Dr. Wei-Jen Lee, IEEE IAS President**
  - Role: Support technical content and deliverable on behalf of pillar 4 related to industry applications.
- **Shana Pepin, IEEE PES Staff**
  - Role: Program manager pillar 4’s deliverables to G-PST consortium ensuring deadlines & expectations are met.
- **Patrick McCarren, IEEE IAS Executive Director**
  - Role: Support of IEEE business perspective.
- **Karen McCabe, IEEE-SAS Staff**
  - Role: Lead of marketing and communication in coordination with the G-PST Consortium secretariat.
Questions?

Rudi Schubert, IEEE SA Lead, r.schubert@ieee.org
Shana Pepin, IEEE PES Program Manager, s.pepin@ieee.org
INDUSTRY CONNECTIONS PROGRAM

9 JANUARY 2022
IEEE SA
STANDARDS
ASSOCIATION

PORTFOLIO OF PROGRAMS & SERVICES

Industry Connections
Exploring & incubating new tech & its use

Open Source
Providing a community-powered platform to support open source projects

Standardization
Creating markets & protecting public safety through standards development

Alliance Management
Providing support to alliances & trade associations

Membership
Connecting to experts & resources with advanced participation options

Registries
Providing unique identifiers to support global compatibility & interoperability

Conformity Assessment
Providing confidence & assurance & accelerating market adoption
INDUSTRY CONNECTIONS

- Pre-standardization activities
- 60+ programs & growing
- Incubator for new standards & related products
- Customizable menu of resources
- Efficient & economical environment
## IC PROGRAM METRICS

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<td>30</td>
<td>31</td>
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<td>53</td>
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</table>
A FEW OF OUR INDUSTRY CONNECTIONS PROGRAMS

Ethics in Action
The IEEE Global Initiative on Ethics of Autonomous and Intelligent Systems
An incubation space for new standards and solutions, certifications and codes of conduct, and consensus building for ethical implementation of intelligent technologies.
ICASG (PDF)

3D Body Processing
Giving consumers a deeper sense for how garments will fit their individual body and personal sense of style through realistic and interactive visual representations.
ICASG (PDF)

Big Data Governance and Metadata Management
Developing an interoperable data infrastructure through extensible governance and metadata lifecycle framework.

Industry Consortium on Learning Engineering
Helping to provide guidance concerning the capabilities and limitations of learning technologies, how to use them and evaluate their effectiveness.

Facilities Joint Use Program
Enabling Electric Power Utilities, Telecomm and Cable Companies, Regulators, etc., to coordinate and develop consistent approaches, methodologies, and rules for joint use

Complete List at: https://standards.ieee.org/industry-connections/activities.html
INDUSTRY CONNECTIONS (IC) PROGRAM

An economical and neutral environment for building consensus

- Supports incubation of new technologies, standards and related services
- Helps individuals and entities solve shared problems and produce shared results
- Minimal effort, time and expense to begin collaborative work

Two membership models

- **Individual-based:** Members are individuals with any affiliation. Voting (if needed) is one vote per individual.
- **Entity-based:** Members are entities. Voting (if needed) is one vote per entity. Entities include corporations, government agencies, academic institutions, trade associations, NGOs, etc.

IC projects are called “Activities”

- Activities are started by submitting an *Industry Connections Activity Initiation Document* (ICAID)
- IC Activities operate according to one of three types of Policies and Procedures (P&Ps)
POSSIBLE OUTPUTS OF IC ACTIVITIES

- Proposals for standards
- White papers
- Peer-reviewed guides and position papers
- Workshops and other events
- Databases and registration services
- Software, tools and web services
- Other jointly developed results

Anything except “standards”
IEEE PES CONSIDERATION TO LEVERAGE INDUSTRY CONNECTIONS

• Alternative Path to Research/Study Groups
• IC Activities are chartered for 2 year periods – ideal for longer term consensus building
• IC is often used in emerging topics where there may not be a clear technical committee positioned to lead an effort
• IC is often used for topics that span multiple domains and/or cross-OUUs within the IEEE structure
• Road mapping of future standards planning is a frequent endeavor of IC activities --- IEEE 802 uses IC for this purpose, as well as the standards-like indemnification provided
• Long term goal for IC activities is for them to “graduate” to successful programs/activities wherever they fit best within the IEEE – not just for standards
ADDITIONAL INFORMATION
HOW TO FORM AN IC ACTIVITY

Activities are approved for an initial period of 2 years and may be renewed.

1. Identify the minimum number of Activity participants, including:
   - Chair
   - Secretary
   - 3 other members

2. Complete the current ICAID form and send it to Industry Connections staff at least 2 weeks before the Industry Committee (ICCom) submittal deadline. Send email to industryconnections@ieee.org.
   - Staff will review the ICAID for completeness and might suggest changes
   - ICCom submittal deadlines can be found on the IEEE-SA Standards Board (SASB) Yearly Meeting Calendar at https://standards.ieee.org/about/sasb/meetings.html
   - ICAIDs received after the submittal deadline will be deferred to the next ICCom agenda

3. Staff submits the ICAID for placement on the ICCom agenda

4. The Activity chair attends the ICCom meeting and presents the ICAID

5. ICCom recommends approval of the ICAID

6. The SA approves ICCom’s recommendation. The ICAID is now approved.
RESOURCES

- Industry Connections Website:
  - https://standards.ieee.org/industryconnections

- Resources for IC Activities:
  - https://standards.ieee.org/about/sasb/icom/resources.html
  - ICAID form, P&P templates, status report templates, document templates, copyright permission templates

- Activity Initiation Form (ICAIM):
  - https://standards.ieee.org/content/dam/ieee-standards/standards/web/documents/forms/icaid_form.doc

- Industry Connections Administrator Email Address:
  - industryconnections@ieee.org

- Current and Closed IC activities:
  - https://standards.ieee.org/industry-connections/activities.html
  - https://standards.ieee.org/industry-connections/closed-activities.html
IEEE SA SUPPORT FOR IC ACTIVITIES

- Assignment of an IEEE SA advisor/mentor
- Assistance with creation and approval of ICAID
- Assistance with the creation of policies & procedures (P&Ps)
- Assistance with the election of Activity officers
- Advise Activity Chair on establishment of a work plan
- Establishment of a collaboration workspace, email reflector, and public website for the activity
- Announcement at/near beginning of IC activity
- One media announcement per year upon completion of major deliverables
- Guidance on publication of documents through IEEE
- Guidance on startup of IEEE SA standards projects
- Administration of aiding fee services (e.g., secretariat services, technical writing, workshops), including:
  - Facilitate selection of service providers
  - Manage contracts and negotiate fees
  - Deliverables and payments schedule oversight
  - Activity member/sponsor fee collection and distribution
IPR AND BORROWED MATERIAL

- The copyright for all documents or other copyrightable output of the Activity shall be held by the IEEE, in accordance with the IEEE-SA Copyright Policy as specified in Section 7 of the IEEE-SA Standards Board Bylaws.

- All Activity deliverables shall contain the IEEE-SA approved disclaimer related to patents in ICCom Activities.
  - Activities should use the latest IC Activity Document Template or IC Activity White Paper Template located at https://standards.ieee.org/about/sasb/icicom/resources.html. These templates contain the appropriate front matter regarding copyright.

- Activities shall receive copyright permission for borrowed material used in Activity work products.
  - Use the IC Activity Contribution Permission Request and IC Activity Contribution Permission Response templates located at https://standards.ieee.org/about/sasb/icicom/resources.html

- Activity participants shall observe a rule of confidentiality during discussions of the Activity. Any information reasonably considered, or actually labeled, as being confidential shall be treated as such, including information that each representative would treat as confidential based on the principles of their associated entity.
IEEE Power & Energy Society
Industry Technical Support Leadership Committee (ITS LC)

Summary

January 2022
Industry Technical Leadership Committee ITS LC (ITS LC)

IEEE PES
40,000+ members

IEEE

ITS LC
Corporate Engagement Program

New Initiatives & Outreach
Education
Publications
Membership & Image

Technical Activities
Standing Committees
Technical Committees
Coordinating Committees

230+ Chapters Across 10 Global Regions
Meetings
Standards Developing Technical Committees
ITS LC Scope, Objective, and Approach

Scope:
- **Regulatory and Government** - Providing and coordinating support to and cooperation with government, regulatory, and other industry organizations globally on technical issues related to power and energy topics.
- **Corporate Engagement** - Coordinating initiatives with global industry organizations (utilities, ISOs, vendors, and others), not including educational institutions.
- **Fast-track and other initiatives** - Deliver results as needed by the membership

Objective
- Provides independent and unbiased IEEE viewpoints and deliverables through objective, peer review process, to achieve coordinated and consistent communication
- Tap on IEEE membership, stakeholders, and various IEEE organization (e.g., Technical Committees, Smart Grid, Smart Cities, Smart Village, Chapters, Education, Conferences).
- Close cooperation with IEEE Standards Association (SA), IEEE-USA, and other IEEE Societies on an as needed basis.
Organization and Cooperation Agreements

- Leadership and Liaisons
  - IEEE PES GB President and VPs
  - ITS LC Chair and Vice-chair
  - IEEE PES Program Manager, CEP Support, Marketing
  - IEEE Executive Advisory Committee Liaison
  - IEEE-USA Liaison
  - IEEE European Policy Committee Liaison
  - IEEE Standards Association Liaison
  - IEEE PES Technical Council Liaison
  - IEEE PES Education Liaison

- Functional Teams:
  - Standards and Interoperability
  - Technology
  - Conferences and Meetings

- Each Memorandum of Understanding (MOU) has both organization and IEEE volunteer liaisons and implementation plan.

- Meetings are held regularly, usually quarterly and on-a-need basis.

**Regulatory and Government MOUs**

- US Department of Energy
- US Federal Energy Regulatory Commission
- North-American Energy Reliability Council
- North American Transmission Forum
- Panama National Secretariat of Energy

**MOUs in Work**

- Electricity Engineer’s Association of New Zealand
Corporate Engagement Program (CEP)

CEP is a world-wide program engaging the Industry Organizations in IEEE activities in a formal way
- Facilitates involvement of corporate employees in the IEEE activities.
- Involves corporate leaders to support membership/programs.

**Current Activities**
- CEP Webinar Series
- Quarterly newsletters for CEP participants
- Panel Sessions at major IEEE conferences (T&D, General Meeting, ISGT etc.)
- Facilitation of CEP participation in IEEE Technical Committees

**CEP MOUs**
- ComEd
- Quanta Technology
- VELCO
- ISO New England
- National Grid
- AEMO Australia
- Panama Canal Authority
- Burns & McDonnell

**CEP in Works**
- AECOM
- American Electric Power
- ISA Columbia
- OATI
- PHI
- Siemens
## Five of Top-Ten IEEE PES Resource Center Downloads are by ITS LC

<table>
<thead>
<tr>
<th>Title</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact of IEEE 1547 Standard on Smart Inverters - 2018</td>
<td>Webinars &amp; Tech. Report</td>
</tr>
<tr>
<td>Impact of Inverter Based Generation on Bulk Power System Dynamics and Short-Circuit Performance - 2018</td>
<td>Webinars &amp; Tech. Report</td>
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<tr>
<td>The Definition and Quantification of Resilience - 2018</td>
<td>Technical Report</td>
</tr>
<tr>
<td>Contribution to Bulk System Control and Stability by DER connected at Distribution Network</td>
<td>Technical Report</td>
</tr>
<tr>
<td>IEEE Tutorial on the Protection of Synchronous Generators</td>
<td>Tutorial Paper</td>
</tr>
<tr>
<td>Tutorial Course Transient Analysis of Power Systems. Solution Techniques, Tools, and Applications</td>
<td>Tutorial Paper</td>
</tr>
<tr>
<td><strong>Sharing Knowledge on Electrical Energy Industry’s First Response to COVID-19 – 2020</strong></td>
<td>White Paper</td>
</tr>
<tr>
<td><strong>Energy Storage Primer – 2020</strong></td>
<td>White Paper</td>
</tr>
<tr>
<td><strong>System Neutral Grounding Considerations for Inverter-Interfaced Distributed Energy Resources</strong></td>
<td>Technical Report</td>
</tr>
</tbody>
</table>
Other Selected Deliverables


- “Resilience Framework, Methods, and Metrics for Electricity Sector” report for DOE in October 2020 and two webinars (IEEE and NARUC).

- “Electric Storage Opportunities and Research Needs” white paper for DOE.


- “Success Factors for Sustainable Electrical Energy Delivery” presented at UN.

*COVID-19 Surveyed Regions*

- Asia
  - China
- Europe
  - Belgium
  - Germany
- Latin America
  - Costa Rica
  - El Salvador
  - Panama
  - Peru
  - Uruguay
- North America
  - Austin Energy
  - ComEd
  - National Grid
  - New York ISO
  - PJM
  - Southern Edison
  - VELCO
- Oceania
  - Australia
  - New Zealand
Other Selected Deliverables - Webinars

- Three webinars on “Sharing Knowledge on Electrical Energy Industry’s First Response to COVID-19” plus a number of podcasts.
- Second 3-part Web-based “Energy Storage” tutorial for FERC (with ESSB committee)
  - Grid Energy Storage Technology, Session 1 (Video Recording)
  - Analytics and Deployment Status, Session 2 (Video Recording)
  - Applications and Valuation of Energy Storage, Session 3 (Video Recording)
- “Resilience Framework, Methods, and Metrics for Electricity Sector”
  - Based on ITSLC Technical Report IEEE PES-TR83.
  - IEEE PES webinar in February 2021
  - Two NARUC (National Association of Utility Regulatory Commissioners) webinars in January and April 2021.
Other Selected Deliverables - Webinars

- CEP Webinars
  - “DER Integration from T&D Perspectives” by VELCO and NGrid Experience
  - “Improving Resilience of Transmission and Distribution Grids” by ISO-NE and ComEd Experience
  - “Coordinated GT&D Planning and Investment Prioritization” by Quanta Technology
  - “Introduction to IEEE PES Technical Activities: How Do I Get Involved?” by V. Vittal
  - “Addressing Extreme Weather Events” by Entergy and Austin Energy
Conferences

- ISGT North America 2021
  - Organized a plenary session on “Key Success Factors for Resilient and Decarbonized Grid” and provided speakers for other plenaries.
  - Organized additional panels with NERC and DOE

- IEEE PES GM 2021
  - Support for organizing the Late Breaking News Super Session on “Resilience Framework, Methods, and Metrics for the Electricity Sector” and “Texas Energy Crisis”
  - Corporate Engagement Program (CEP) panel on “Vision for the Future Grid – Industry Perspective”
Selected Planned Activities

- White paper on “Importance of T&D Grid Modernization to Achieve Decarbonization Targets” – start in July and completed by end of January
  Task Force is led by Babu Chalamala (Chair) and Juan Castaneda (Vice-Chair) and includes diverse group of global experts (academia, national labs, regulators, utilities, vendors, etc.) representing global perspectives (including contributors from Australia, Belgium, Columbia, Greece, New Zealand, U.S.)
- IEEE P2800 Standard (Interconnection and Interoperability of Inverter-Based Resources with Transmission Systems) - FERC tutorial

- Increase the CEP membership in Regions 9 and 10 and expand the CEP program to Region 8 (initial focus is on Africa)
- CEP Regional workshops
- The CEP to grow and become integral part of the IEEE membership offering

The CEP is one of the key initiatives to grow membership, particularly industry globally
DECEMBER 30, 2021

Industry Technical Support Leadership Committee (ITSLC) Annual Report

Overall Metrics related to IEEE PES Resource Center Downloads per Technical Activities

Although ITSLC only has 32 products on the IEEE PES Resource Center, this leadership committee currently has the most downloads and revenue. This success is the result of cooperation with various organizations across IEEE, including IEEE Standards Association, IEEE USA, IEEE European Policy Committee, IEEE PES Technical Committees, Conferences, Education, Chapters, and others.

Five ITS LC-led documents are among Top-Ten Resource Center downloads (since 2017): #1, #2, #4, #7, and #10. Total number of downloads is 10,279.

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<th>Title</th>
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<td>4. The Definition and Quantification of Resilience</td>
<td>Technical Report</td>
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<td>6. Stability definitions and characterization of dynamic behavior in system with high penetration of power electronic interfaced technologies (PSDP Committee)</td>
<td>Technical Report</td>
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<tr>
<td>7. Energy Storage Primer</td>
<td>White Paper</td>
<td>1,052</td>
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<tr>
<td>8. Contribution to Bulk System Control and Stability by Distributed Energy Resources connected at Distribution Network (PSDP Committee)</td>
<td>Tutorial Paper</td>
<td>1,042</td>
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<tr>
<td>9. IEEE Tutorial on the Protection of Synchronous Generators (PSRC Committee)</td>
<td>Tutorial</td>
<td>1,001</td>
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Cooperation Initiatives and Accomplishments

- IEEE PES Executive Advisory Council (EAC) Coordination
  One of the ITSLC roles is to work closely with the EAC and support its' mission to initiate and prioritize topics of executive interest.
  The EAC has met twice this year and prioritized topics, including initiating the white paper on "Importance of T&D Grid Modernization to Enable Decarbonization Measures Addressing Climate Change" as their top priority.

- White Paper on “Importance of T&D Grid Modernization to Enable Decarbonization Measures Addressing Climate Change”
  - Global Task Force was formed in July 2021 and is due to complete this white paper by January 2022.
  - This Task Force is led by Babu Chalamala (Chair) and Juan Castaneda (Vice-Chair) and includes diverse group of global experts (academia, national labs, regulators, utilities, vendors, etc.) representing global perspectives (including contributors from Australia, Belgium, Columbia, Greece, New Zealand, U.S.)

- E-mobility: Smart Charging position paper by the IEEE European Public Policy Committee (EPPC) included comments from the IEEE PES through volunteers from the IEEE PES ITSLC was published online in September: [https://www.ieee.org/about/ieee-europe/publications.html](https://www.ieee.org/about/ieee-europe/publications.html)


Conferences and Webinars

- ISGT North America 2021
  - Organized a plenary session on "Key Success Factors for Resilient and Decarbonized Grid" and provided speakers for other plenaries.
  - Organized additional panels with NERC and DOE

- IEEE PES GM 2021
  - Support for organizing the Late Breaking News Super Session on "Resilience Framework, Methods, and Metrics for the Electricity Sector" and "Texas Energy Crisis"
  - Corporate Engagement Program (CEP) panel on "Vision for the Future Grid – Industry Perspective".

- Webinars on “Resilience Framework, Methods, and Metrics for Electricity Sector”
  - Based on ITSLC Technical Report [IEEE PES-TR83](https://www.ieee.org/about/ieee-europe/publications.html)
  - IEEE PES webinar in February 2021. [Access webinar recording here](https://www.ieee.org/about/ieee-europe/publications.html)
  - Two NARUC (National Association of Utility Regulatory Commissioners) webinars in January and April 2021.
Governmental Organization MOU Initiatives

- **U.S. Federal Energy Regulatory Commission (FERC)**
  - FERC invited IEEE PES to provide a written testimony to Congress as part of the FERC Reliability Technical Congress – Aleksi Paaso testified to congress on Sept. 30, 2021, as the ITS LC representative. The written testimony can be found (free to all) via the IEEE PES Resource Center [linked here](#).
  - FERC participated in the July ‘21 IEEE PES GM via the Late Breaking News Supersession. David Ortiz, Acting Director, Office of Electric Reliability, presented on behalf of FERC. Presentation via the PES Resource Center is [linked here](#).
  - Meetings were held in February, April, June, and September (other follow-up calls held as projects required). Next remote meeting planned for January 2022.

- **U.S. Department of Energy (DOE)**
  - DOE participated in the July ‘21 IEEE PES GM via the Late Breaking News Supersession. Michael Pesin, Deputy Assistant Secretary presented on behalf of the DOE. Presentation in the PES Resource Center is [linked here](#).
  - Meetings were held in February, April, June, and September (other follow-up calls held as projects required). Next remote meeting planned for January 2022.

- **North America Electric Reliability Corporation (NERC)**
  - NERC participated in IEEE PES General Meeting and ISGT North America panels.
  - Meetings, led by IEEE SA, held in January and May (other follow-up calls held as projects required). Next remote meeting planned for January 2022.

- **Panama National Secretariat of Energy (NSE)**
  - MOU was signed between IEEE & NSE in Q3 2021.
  - Kick-off web-meeting took place between IEEE & NSE and cooperative initiatives were reviewed to begin work together focusing on the start of 2022.
  - Key leadership in IEEE P2800, 1547 and other related standards.

- **National Association of Utility Regulatory Commissioners (NARUC)**
  - A non-MoU collaborative committee has been formed comprising of ITS LC representatives and NARUC staff team to coordinate, participate and cross promote joint activities. An inaugural meeting was held in September 2021 with quarterly meetings planned in 2022.

**Corporate Engagement Program (CEP)**

- The CEP program has presently 7 members: Australian Energy Market Operator (AEMO), Burns & McDonnell, ComEd, ISO New England, National Grid, Quanta Technology, and VELCO. AEMO and Burns & McDonnell joined the program in 2021
- Pending Corporate MOUs:
  - Panama Canal Authority (ACP)
  - Siemens
- Continuing to review process of implementing the “Corporate Engagement Program (CEP)” within this leadership committee. The “Basic Package” offerings is the foundation of the CEP,
with many of the benefits of joining originally focused on the opportunities for panel sessions and meet and greets at in-person IEEE PES events.

- In 2020 - 2021 CEP changed the focus and benefits to fit the “virtual world” and started its webinar series for CEP participants:
  - March 31, 2021: Coordinated GT&D Planning and Investment Prioritization
  - June 22, 2021: Intro to IEEE PES Technical Activities: How Do I Get Involved?
  - December 8, 2021: Addressing Extreme Weather Events
- July 2021: IEEE PES General Meeting Panel Session produced by the IEEE PES CEP leads in the PES Resource Center [linked here](#)
- Web-Meetings with CEP liaisons are held 3x per year – Jan., June, and Nov/Dec.

**Organization Structure Update**

- ITSLC Structure & Implementation Plan Updated, including assigning more regional leads to expand global participation and collaboration – [click here to view structure document](#)
- ITSLC was restructured to assign additional regional leads to provide more global participation and collaboration
- Established the Award(s) Committee (Aleksi Paaso, Marianna Vaiman, and Nirmal Nair)
- Aleksi Paaso, Vice Chair, will move into the Chair role in 2022
- Nirmal Nair was appointed to the Vice Chair for 2022