IEEE Power and Energy Society
Entity Annual Report
2021

Entity: **IEEE Insulated Conductors Committee**
Website: **https://pesicc.org/ICCWP/**
Chair: Henk Geene
Vice-Chair: Yingli Wen
Secretary: N.A.
Immediate Past Chair: Earle C. (Rusty) Bascom, III

1. Significant Accomplishments:

Past year 2021 is the second year in which we were unable to have an onsite meeting, due to the COVID-19 pandemic. Instead of our usual Spring and Fall meeting we had two online E-sessions on 21 April 2021 and 25 October 2021, attended by respectively 185 and 145 participants.
We also organized our administrative meetings online, as the majority of the working groups did, continuing the work on their PAR's.

Since our Fall 2021 virtual meeting, two Standards were approved by IEEE SA Standards Board.

- New standard - IEEE 400.5 *Guide for Field Testing of Shielded DC Power Cable Systems Using High Voltage Direct Current (HVDC)*
- Revised standard - IEEE 1407 *Guide for Accelerated Aging Tests for Medium-Voltage (5 kV - 35 kV) Extruded Electric Power Cables Using Water-Filled Tanks*

Six PAR requests were extended and one new PAR for a standard revision was approved by IEEE SA Standards Board:

- P404 –*Standard for Extruded and Laminated Dielectric Shielded Cable Joints Rated 2.5 kV to 500 kV*

In addition, ICC has accepted two Entity PARs submitted through IEEE's Entity Process. This is a new process for ICC and we look forward to supporting IEEE's newly established EPM committee.

- P3148 *Guide for Field Detection of Metallic Sheath Current of Single-conductor Shielded and Cross-linked Polyethylene (XLPE) Insulated Alternating Current (AC) Cable*
- P3150 *Guide for Testing the Semi-Conductive Water Blocking Tape in Cross-Linked Polyethylene Insulated Alternating-Current Power Cables*

2. Benefits to Industry and PES Members from the Committee Work:

The documents above will be beneficial to the respective groups, generally in the area of utility power systems, industrial / petroleum plants, and nuclear facilities.

3. Benefits to Volunteer Participants from the Committee Work:

Volunteers involved in ICC work have the ability to influence the standards and guides used in the industry in which they work. ICC participation also provides opportunities to hear interesting and often educational presentations on relevant industry activities.

4. Recognition of Outstanding Performance:

Insulated Conductors Committee Certificates of Appreciation

At each ICC meeting, Certificates of Appreciation are presented for the best presentation at a Subcommittee, Working Group, Discussion Group or Educational Program meeting. Unfortunately, in 2021 we were not able to have onsite meetings due to COVID-19; therefore, no certificates were issued. However, the following will be presented at our next in-person meeting:

Recipient	Citation
James Steele	for Best Presentation at the Fall 2019 Subcommittee A Meeting *Extending the Life of Secondary Service Cables with Silicone-Gel Injection*
Dave Busby	for Best Presentation at the Fall 2019 Subcommittee A Meeting *Extending the Life of Secondary Service Cables with Silicone-Gel Injection*
Rodrigue Tonfack	for Best Presentation at the Fall 2019 Subcommittee A Meeting *Extending the Life of Secondary Service Cables with Silicone-Gel Injection*
Nathan Laurie	for Best Presentation at the Fall 2019 Subcommittee A Meeting *Extending the Life of Secondary Service Cables with Silicone-Gel Injection*
David Hughes	for Best Presentation at the Fall 2019 Subcommittee B Meeting *Update on Deadfront Separable Arrester Activity in IEEE Standard C62.11 and IEC 60099-4*
Brian Korves	for Best Presentation at the Fall 2019 Subcommittee B Meeting *Update on Deadfront Separable Arrester Activity in IEEE Standard C62.11 and IEC 60099-4*
David Campilii	for Best Presentation at the Fall 2019 Subcommittee C Meeting *Implementation of SCFF/HVED Transition Joints for Partial Replacement of 115 kV SCFF Cable System*
Milan Uzelac	for Best Presentation at the Fall 2019 Subcommittee C Meeting *Implementation of SCFF/HVED Transition Joints for Partial Replacement of 115 kV SCFF Cable System*
Sarajit Banerjee	for Best Presentation at the Fall 2019 Subcommittee F Meeting *Overview and Illustration of Technical Factors Influencing Medium Voltage Cable PD Assessment Outcomes*

IEEE PES Technical Committee Certificates of Appreciation

Likewise, the following IEEE PES Technical Committee Certificates of Appreciation will be presented at our next in-person meeting to all outgoing Subcommittee, Working Group and Discussion Group Chairs and Vice Chairs, or upon publication of their IEEE standard or guide:

Recipient	Citation
Earle C. (Rusty) Bascom, III	for Services Rendered as Chair, Insulated Conductors Committee Spring 2018 – Fall 2019
Yingli Wen	for Services Rendered as Chair, Subcommittee A *Cable Construction and Design* Spring 2017 – Fall 2019
Michael Mueller	for Services Rendered as Chair, Subcommittee C *Cable Systems* Fall 2016 – Fall 2019
Sudhakar Cherukupalli	for Services Rendered as Chair, Subcommittee F Field Testing and Diagnostics Spring 2017 – Fall 2020
Detlef Wald	for Services Rendered as Chair, Discussion Group A06 *Accelerated Electrical Aging*
Paul Caronia	for Services Rendered as Chair, Working Group A07 IEEE 532-2021 Guide for Selecting and Testing Jackets for Power, Instrumentation, and Control Cables
Michael Wright	for Services Rendered as Vice-Chair, Working Group A07 IEEE 532-2021 Guide for Selecting and Testing Jackets for Power, Instrumentation, and Control Cables
Brent Richardson	for Services Rendered as Chair, Discussion Group A14 *Power Cable Standards*
Bob Fleming	for Services Rendered as Chair, Discussion Group A16 Characteristics of EPR Cables
Bill Taylor	for Services Rendered as Chair, Working Group B1 *IEEE 48-2020 Standard for Test Procedures and Requirements for Alternating-Current Cable Terminations Used on Shielded Cables Having Laminated Insulation Rated 2.5 kV through 765 kV or Extruded Insulation Rated 2.5 kV through 500 kV*
Aaron Norris	for Services Rendered as

	Vice-Chair, Working Group B1 *IEEE 48-2020 Standard for Test Procedures and Requirements for Alternating-Current Cable Terminations Used on Shielded Cables Having Laminated Insulation Rated 2.5 kV through 765 kV or Extruded Insulation Rated 2.5 kV through 500 kV*
Michael Lauxman	for Services Rendered as Chair, Working Group B9 *IEEE 1493-2006 Guide for the Evaluation of Solvents Used for Cleaning Electrical Cables and Accessories*
Jason Fosse	for Services Rendered as Vice-Chair, Working Group B9 *IEEE 1493-2006 Guide for the Evaluation of Solvents Used for Cleaning Electrical Cables and Accessories*
Bill Taylor	for Services Rendered as Chair, Working Group B10 IEEE 1637-2020 - Guide for Selection and Application of Terminations for Shielded Alternating-Current Power Cable Rated 5 kV - 46 kV
Ankur Gupta	for Services Rendered as Chair, Working Group B10 IEEE 1637-2020 - Guide for Selection and Application of Terminations for Shielded Alternating-Current Power Cable Rated 5 kV - 46 kV
Eugene Weaver	for Services Rendered as Chair, Working Group B24 *IEEE 495-2007 Guide for Testing Faulted Circuit Indicators*
Brieana Reed-Harmel	for Services Rendered as Vice-Chair, Working Group B24 *IEEE 495-2007 Guide for Testing Faulted Circuit Indicators*
Dave Purnhagen	for Services Rendered as Chair, Working Group C5 *IEEE 1406-2020 Guide for the Use of Gas-in-Fluid Analysis for Paper and Laminated Paper-Polypropylene Insulated Cable Systems*
Dennis Johnson	for Services Rendered as Vice-Chair, Working Group C5 *IEEE 1406-2020 Guide for the Use of Gas-in-Fluid Analysis for Paper and Laminated Paper-Polypropylene Insulated Cable Systems*
Dennis Johnson	for Services Rendered as Chair, Working Group C23 *IEEE 1793-2012 Guide for Planning and Designing Transition Facilities between Overhead and Underground Transmission Lines*
John E. Merando, Jr.	for Services Rendered as Chair, Working Group D5 *IEEE 1185-2019 Recommended Practice for Cable Installation in Generating Stations and Industrial Facilities*
William G. Bloethe	for Services Rendered as Vice-Chair, Working Group D5

	IEEE 1185-2019 Recommended Practice for Cable Installation in Generating Stations and Industrial Facilities
Herb Stansberry	for Services Rendered as Vice-Chair, Working Group D8 *IEEE 634-2005 Standard for Cable-Penetration Fire Stop Qualification Test*
John E. Merando, Jr.	for Services Rendered as Chair, Working Group D14 *IEEE 422-2012 Guide for the Design of Cable Raceway Systems for Electric Generating Facilities*
William G. Bloethe	for Services Rendered as Vice-Chair, Working Group D14 *IEEE 422-2012 Guide for the Design of Cable Raceway Systems for Electric Generating Facilities*
Herb Stansberry	for Services Rendered as Chair, Working Group D15 *IEEE 1202-2006 Standard for Flame-Propagation Testing of Wire & Cable*
Herb Stansberry	for Services Rendered as Vice-Chair, Working Group D21 *Standard Test for Determining Circuit Integrity Performance of Fire Resistive Cable Systems in Passenger Rail and Road Tunnels*
Mick Bayer	for Services Rendered as Chair, Working Group D22 IEEE 2740-2020 Guide for the Selection and Installation of Electrical Cables and Cable Systems in Hazardous (Classified) Locations on Oil and Gas Land Drilling Rigs

5. **Coordination with Other Entities (PES Committees, CIGRE, standards, etc.):**

IAS/PCIC, PES/NPEC, and PES/PGC. In addition, coordination with CSA, Mexico, and UL takes place on a working group level for some selected standards for which there is mutual interest.
We also have a liaison with CIGRE Group B1 that also focuses on insulated conductors.
Also, the involvement of ICC in the Entity Proposal Management and coordination with Satellite Committees, mainly in China, has become significant part of our coordination activities.

6. New Technologies of Interest to the Committee:

Subjects of specific interest:

- HVDC cable systems and the impact of renewables on the cable network.
- HVAC submarine cable to connecting off-shore windfarms to the main grid

7. Global Involvement

There are many guides and standards coming up for revision within the ICC. The group plans to work toward revisions to these documents as required.

The global involvement can be demonstrated by the attendance of our meetings as tabled below for our 2019 meetings (no onsite meeting in 2021).

	North America	Euro[e	Asia	Africa	South/Central America	Total
Spring 2019	494	27	3	0	0	524
Fall 2019	462	25	8	0	0	495

The global involvement will be increase further due to the involvement of ICC in the Entity Proposal Management and coordination with Satellite Committees, around the world (mainly China).

8. Significant Plans for the Next Period:

To increase the involvement of the utilities as they are the driving force behind our work.

Submitted by: __Henk Geene, ICC Chair **Date: 27-Jan-2022**