

Meeting Notes:

Chair: John Randolph
Vice Chair: Vinod Simha (absent)
Secretary: Donald Moore (excused)

1. Meeting called to order by Chair, John Randolph, and each attendee introduced themselves. There were 28 attendees (10 members and 18 guests). John was requested to change Boris Shvartsberg back to a Member, and also add new guest Darren Barnett as a member. And, Ryan Grof had requested to become a Member via email after our prior meeting.

The following 10 members were in attendance (of the 17 members on the roster):

Bruce Dietzman	Alan Gaetz
Arthur Graves	Ryan Grof
Marty Niles	Shashikant Patel
John Randolph	Oscar Santos
Hamid Sharifnia	Diane Watkins

Members excused via communication ahead of time: Kevin Buhle, Kamran Khan, Don Moore, and guest Huan Dinh.

The following 18 guests were in attendance:

Greg Ardrey	Darren Barnett	Matt Bauer
Prudhvi Anand Bhattiprolu	Michael Gallion	Adrian Graham
Chuck Haahr	Terri Hopkins	Terry Krieg
Steven McCarley	Romain Migne	Karl Mosbacher
Rick Nugent	Ted Orrell	Don Rogers
Rene Salvaleon	Boris Shvartsberg	Heather Sudduth

2. John showed and reviewed the IEEE pre-PAR patent slides.
3. On behalf of Secretary Doc Moore, John reviewed the notes he recorded from the May 8, 2017 meeting in Richmond, Virginia.
4. Ryan Grof from Roxtec provided a valuable technical presentation on options to seal openings to prevent rodent entry, especially small mice—chewing, and urine/feces contamination. There was some discussion about the fire protection aspect of sealing, and recognition that mice chewing could undermine certain systems as well (IEEE Std 979-related). Ryan mentioned Roxtec uses an industry reference known as “Rodent Mitigation Test”, via a lab in the UK. Ants and wasps also can enter via small openings.
ACTION -- Ryan (Roxtec) will provide some draft text for sealing, as utility/standard documents may be silent on this approach. Roxtec will also provide a copy of the Rodent Mitigation Test document, which might be a good reference within IEEE Std. 1264.
5. Industry/Animal updates from members and guests:
 - a. Southern Company mentioned snakes entering substation, attracted by bird eggs. There’s a snake deterrent available in small pellets, spread like fertilizer. It’s made from newspaper, and the ink bothers the snake’s digestion.

- b. Good housekeeping was mentioned as an important practice, to remove attractive food crumbs or full garbage cans.
 - c. PG&E mentioned both wasp and bird nests up in the cavities created by 230 kV breaker CT housings.
 - d. PSE&G mentioned a 69 kV unit bushing destroyed by a raccoon contact, and a past instance of a \$2.5M transformer loss from an earlier raccoon contact.
 - e. PG&E described the efforts to improve animal spacing for FACTS designs, including a decision to set 4 feet as the minimum height above ground for any energized components at 60 kV or less.
6. Michael Gallion from Bird Barrier provided a valuable technical presentation on numerous options to deter birds, including some newer designs using wire or optical gel. John displayed a photo of these recent innovations on a new 500 kV series capacitor platform at PG&E, to aggressively (and hopefully) deter starling flocks from roosting.
7. Survey Planning / Contact List: John still hasn't made any progress on the 2nd aspect of the survey. Steve McCarley is a good contact for Southern Company, and will provide more contact names.
8. Future Meetings:
- Anaheim, CA (JTCM likely!) January 14th – 17th, 2018 (actual day TBD)
- San Francisco, CA June 3, 2019
9. Round Table Discussion / Future needs: no contributions made.

Meeting adjourned at 3:30.