

Special Committee 1 - Smart Grid Support and EMC Issues

Online at <https://www.emcs.org/technical-committees/sc1-smart-grid-support-and-emc-issues/>

IEEE EMC + SIPI 2023 Grand Rapids Conference Unconfirmed Minutes

SC 1 Meeting Minutes

Prepared by:

Mike McInerney, Chair

Monday, 31 July 2023

Meeting from 17:37 – 18:35 (U.S. Eastern Daylight Time)

1. The meeting was opened by the Chair, Mike McInerney, at 17.37 EDT. Mike McInerney presented the proposed agenda, and it was approved.
2. Mike reminded the attendees of the scope of the special committee, which is to coordinate within the EMC Society on Smart Grid issues. As a coordinating committee SC 1 does not actively solicit papers and abstracts for IEEE EMC conferences, however, if an abstract or paper clearly addresses a Smart Grid issue then SC 1 will review it.

There were six attendees at this meeting: Tom Hartman, Mike McInerney, Niel Moonen, Bill Radasky, Jerry Ramie, and Leonardo Sandrolini. Leonardo attended via Webex.

All present are considered members of SC 1. Membership may be terminated if there has been no participation for several years.

3. Mike McInerney reviewed the 2022 Spokane meeting minutes and asked if there were any corrections. The minutes were approved with no comments. There was a brief discussion of technical committee co-sponsorship for tutorials and workshops, specifically by TC 7 (Low Frequency EMC). Mike will look into this for future tutorials and workshops.
4. Report on committee participation at the 2023 Grand Rapids EMC Symposium. SC 1 reviewed one technical paper and one abstract for the 2023 EMC conference. The technical paper was reviewed by three TC 5 technical experts and the abstract by four SC 1 technical experts. The technical paper was accepted with changes.

“Wire Mesh Radiated EM Shielding Effectiveness: Time Domain Measurement and Theory Verification”

(to be presented Thursday at 9:30 AM in session TC5 HIGH POWER ELECTROMAGNETICS, ESD AND TRANSIENTS, EMP, IEMI AND LIGHTNING, GEOMAGNETIC STORM EMC)

The abstract was rejected. It was rated average or below average in all four categories: Technical Content, Clarity, Originality, and Importance to the EMC Community

“Fault location estimation under the parameter uncertainty of transmission line”

One SC 1 tutorial, “Smart Grid And EMC Issues” was presented at the 2023 Grand Rapids EMC Symposium on Monday 31 July from 1:30 PM - 5:30 PM. There was upward of thirty people attending. The following topics were presented:

Introduction to the IEEE EMC Society Special Committee 1 (SC 1) and an Introduction to this Tutorial

Michael McInerney

SEPA (Smart Electric Power Alliance) Electromagnetic Interoperability Issues Sub-Group (EMIISG) - Its History, Accomplishments and Status

William Radasky

Standardized Testing Requirements for Devices with Communications Functions

Jerry Ramie

From Susceptible Static Energy Meters to Electromagnetic Compatible Energy Measurements

Thomas Hartman

5. Review of action items:

ACTION ITEM 2022-1: Jerry Ramie volunteered to provide link to SEPA white papers on Smart Grid. See attachment to 2022 minutes for this information. **[Closed 2023].**

ACTION ITEM 2022-2: Dave Thomas will consider organizing an in-person SC 1 committee meeting at EMC Europe 2022. Dave was not able to arrange this meeting. **[Closed 2023].**

6. Reports:

Bill Radasky reported on a scholarship in honor of Don Hierman by the United States National Committee (USNC) of the IEC <https://www.ansi.org/usnc-iec/usnc-overview/> See attachment.

Abstract:

As a way to honor the late Don Heirman, one of the most prominent experts on electromagnetic compatibility (EMC), the USNC Communications Committee recommends offering an annual scholarship opportunity for students and young professions interested in EMC. We hope through this scholarship program, we can encourage further involvement in EMC, and keep the memory of Don Heirman alive within the USNC community.

Bill Radasky updated the group on SEPA. The Smart Electric Power Alliance is an association of utilities and manufacturers. One of their missions is to examine EMC issues in the smart grid and produce white papers on conformity assessment for equipment to qualify for smart grids. See Bill's briefing which will be given on Wednesday.

7. The group discussed the possibility of having either a joint (with another TC) or separate SC-1 tutorial dealing with Smart Grid topics at the 2024 EMC Symposium in Phoenix.

8. Coordination of EMC TCs with SC 1:

Reminder for IEEE EMC Society TCs to coordinate with SC 1 when they have any Smart Grid issues. This coordination has not always been effective, but some TCs have members who have attended the annual SC 1 meeting including TC 2, TC 4, TC 5, and TC 7. We remind the TC officers of the need for coordination at the annual TAC meetings.

9. Any Other Business:

No other business.

10. The next in-person SC 1 committee meeting will be at the 2024 IEEE EMC Symposium in Phoenix, Arizona U.S.A.

11. Officer election was held. The new / old officers are Mike McInerney, Chair; Bill Radasky, Vice Chair; and Leonardo Sandrolini, Secretary. Officers will serve a three-year term from 1 January 2024 through 31 December 2026.

12. Adjournment:

The meeting was adjourned at 18:35 EDT.

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Attachment

USNC Communications Committee

An Electromagnetic Compatibility (EMC) themed Annual Scholarship Opportunity in honor of Don Heirman

Abstract:

As a way to honor the late Don Heirman, one of the most prominent experts on electromagnetic compatibility (EMC), the USNC Communications Committee recommends offering an annual scholarship opportunity for students and young professions interested in EMC. We hope through this scholarship program, we can encourage further involvement in EMC, and keep the memory of Don Heirman alive within the USNC community.

Structure

The following structural details are recommended:

- Audience: the target audience for the USNC paper competition is open to students enrolled full- or part-time in associate, undergraduate, or graduate programs during the period of September 2023 to June 2024 in U.S. higher education institutions.
- Advertising: USNC will use the following outlets: press release, colleges/universities, professional associations, and the USNC Current.
- Timing: The USNC paper competition will run annually from the first Monday in November to the first Friday in June.
- Topic: EMC is the general topic for this paper competition. The group brainstormed ways to make this topic more specific without discouraging participation. Some ideas discussed were:
 - Why is EMC important?
 - Share EMC practice
 - Discuss EMC policy
 - Pressing EMC issue
 - Future need within EMC
 - Current challenges in EMC
 - If you could change one thing about EMC what would it be?Additional discussion is needed to determine the topic/prose each year.
- Criteria: The group has decided on the following criteria:
 - Under 2,000 words (no abstract needed)

- Single author, original work of the author
- Submitted in English, electronic format, 12 point font
- Submission: Applications will be submitted electronically to USNC staff. Along with confirmation of receipt, applicants should receive information on how they can become engaged with the USNC. This would include YEP Committee and Mentoring Program information for professionals (or soon-to-be professionals), and a link to the USNC website and resources/training for students.
- Judging: Judging of this paper competition will be shared between the USNC Communications Committee and the YEP Committee. Interested subject matter experts will also have the opportunity to participate in the judging process.
- Award: Winners will receive a cash prize of \$1,000, a certificate, their article published in the USNC Current, and recognition on the USNC webpage.

Needed Resources:

The Communications Committee recommends awarding one annual recipient with a \$1,000 cash reward, for a duration of 10 years. If funding allows, the scholarship could extend beyond the proposed 10 years.

Monitoring Process

To ensure the scholarship program meets the desired goal of supporting young and emerging professionals interested in or entering the EMC field, the Communications Committee will remain amendable to structural modifications. Application numbers and quality of submissions will be monitored and structural adjustments will be made as necessary, on an annual basis, to facilitate a strong audience appeal.