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**6 August 2024**

## Agenda

Committee: TC-2; Electromagnetic Compatibility (EMC) Measurements  
Place: Room 123B, Phoenix Convention Center,  
100 N 3<sup>rd</sup> St, Phoenix, AZ, United States.  
Date: 6 August 2024 (Tuesday)  
Time: 7:00 to 9:00 AM MST  
Webex login info: <https://ieee.webex.com/ieee> Meeting number = 2632 243 1463

### 1.0 Call to Order/Introductions

Quorum Check: TC-2 Meeting Quorum shall be 20% of the membership. Ballots for new officers shall have minimum voting participation of 50% and may include email ballots in the participation count. Candidates (those who have attended only a single meeting on or after 2021 prior to the start of this meeting) who are attending this meeting may be considered now considered members.

\_\_\_/\_\_\_ or \_\_\_% of membership attended.

### 1.1 Charter

The committee reviews the adequacy of measurement procedures and measurement instrumentation specifications for radiated and conducted emission and immunity tests. Also discussed is the rationale for product emission limits and immunity test levels including performance requirements. The committee also supports EMC standards and procedures that deal with measurements and their uncertainty and how they are interpreted and applied.

### 2.0 Approval of Minutes from IEEE EMC TC-2 meeting (1 Aug 2023) at the IEEE EMC+SIPI 2023 Grand Rapids Symposium.

### 3.0 TC-2 Election Status

TC-2 officer election was held in person during the August 1<sup>st</sup> 2023TC-2 meeting and the members have elected the following officers: Monrad Monsen (Chair), Ahalya Srikanth (Vice Chair) and John Kraemer (Secretary). Our next election will be held in summer of 2026 with the next officer transition occurring on 1 January 2027.

### 4.0 Privacy

Personal data will be handled in accordance with the IEEE Privacy Policy which can be found at: <https://www.ieee.org/security-privacy.html> . The TC-2 minutes will have list attendee names unless you contact the TC-2 secretary to ask for your name to not be mentioned. The information you provide in the sign-in roster (including email and company) will be used by the chapter officers for TC-2 related notifications/communications.

*Note: For any attendees that are participating remotely, please ensure that your full name appears on the Webex call. Also, please send the secretary an email ([John.Kraemer@ieee.org](mailto:John.Kraemer@ieee.org)) with your name, company and email address prior to the adjournment of today's meeting. (This will ensure that you are included in the attendance and will be on the distribution list for future TC-2 email news and meeting announcements).*

## 5.0 Committee Membership Status

### 5.1 Removal of non-active participants from membership roster.

Membership indicates that you have attended the TC-2 committee meeting at least two (2) or more times in the last four (4) years; candidates are shown as attending a single meeting on or after 2021 and no other. By committee rules, these candidates are not members of TC-2 unless they attend a second TC-2 meeting within a four-year period.

All attendees will initial the sign-in roster. After the August 2024 TC-2 meeting, those that have not attended a TC-2 meeting since 2021 will no longer be a TC-2 member but will remain on the list for one additional year (2025) to receive meeting announcements. Those that have not attended a TC-2 meeting since 2018 are removed from the list. Any of those that are dropped from the membership list can rejoin TC-2 by attending the requisite number of meetings in the time frame noted above.

## 6.0 Current Symposium Activity (IEEE EMC+SIPI 2024), August 2024

### 6.1 Symposium paper review status (top paper, top TC-2 paper, Round 2 reviewing, etc).

#### 6.1.1 FULL PAPERS

- 1<sup>st</sup> round number submitted: 15
- Accepted: 15
- Rejected: 0

#### 6.1.2 ABSTRACT REVIEW PAPERS

- 1<sup>st</sup> round number submitted: 13
- Accepted: 13
- Rejected: 0

### 6.2 Symposium Sessions sponsored by TC-2 as shown in the final program. TC-2 is to be congratulated for sponsoring or participating in the **eight** sessions/tutorials and workshops listed below.

- 01:30 PM-5:00 PM, Monday (8/05/2024): “Basic EMC Measurements”, Tutorial, 5 presentations, Monrad Monsen (Chair), Location: Room 127A
- 10:30 AM-12:00 PM, Tuesday (8/06/2024): “EMC Measurements for PCBS and Memory Components”, Technical, 3 presentations, Ghery Pettit (Chair), Ahalya Srikanth (Co-chair), Location: 127B.
- 01:30 PM-3:00 PM, Tuesday (8/06/2024), “EMC Measurements for Wireless Communications, Pulsed Interference and Transistors”, Technical, 3 presentations, Tom Braxton (Chair), Location: 127B.

- 03:30 PM-5:00 PM, Tuesday (8/06/2024), “EMC Measurements – Probes”, Technical, 3 presentations, Ghery Pettit (Chair), Monrad Monsen (Co-chair), Location: 127B.
- 08:30 AM-12:00 PM, Tuesday (8/7/2024), “EMC Testing Basics”, Technical, 5 presentations, Jack McFadden (Chair), Bob Mitchell (Co-chair), Location: 125AB.
- 08:30 AM-10:00 AM, Thursday (8/8/2024): “EMC Measurements – VHF-LISN Termination, Current Coupling and Capacitive Coupling”, Technical, 3 presentations, Monrad Monsen (Chair), Ahalya Srikanth (Co-chair), Location: 125AB.
- 10:30 AM-12:00 PM, Thursday (8/8/2024): “EMC Measurements: Pulsed RFI in Motors, Multi-Tone Susceptibility Impact, and Bench to On-Vehicle Emissions Comparisons”, Technical, 3 presentations, Ahalya Srikanth (Chair), John Kraemer (Co-chair), Location: 125AB.
- 01:30 PM-5:00 PM, Friday (8/9/2024): “Effectively Navigating Measurement Uncertainties in the Real World”, Workshop, 6 presentations, Janet O’Neil (Co-Chair), Dennis Lewis (Co-Chair). Location: 127A.

## 7.0 Standards Sponsorship Support Review

Below is an excerpt of information from the full matrix from the EMC Society site.

Here is the part that standards play in Technical Committee activity. It is from the EMC Society Bylaws and in particular clause 10.3 which states:

### 10.3 Functions:

Each Technical Committee shall promote activities in its field of interest and shall provide expert knowledge and assistance to:

- Receive, generate, and review technical papers within its scope in cooperation with the Transactions Editor and/or the Technical Papers Committee.
- Organize and host sessions at meetings of the IEEE at all levels and at meetings of other organizations with which the Society is desirous of cooperating, in accordance with the rules in effect at such meetings.
- Arrange for publishing pertinent papers in IEEE publications.
- Generate and develop appropriate standards in its field for processing by the IEEE Standards Committee, through the Society’s Standards Committee and in accordance with IEEE policies.
- Evaluate "state of the art" in the area of committee interest.

Clause 10.3 d above is directly applicable to TC-2 (EMC Measurements).

A status of the EMCS standards as of July 9, 2024 is attached at the end of this agenda.

Note that by far the number of standards devoted to measurements is the vast majority.

## 8.0 iNARTE Exam Question Review Activity

The IEEE standing committee on updating EMC professional certification processes (formerly known as iNARTE) is still working the issue. They are back in touch with three potential administrative partners to confirm that they’re still interested in working with IEEE to administrate this professional certification process. They continue to collect new EMC

multiple-choice questions. However, there is no estimated timeline for how soon a professional certification process will be put in place.

## 9.0 Future Symposium Activity

### 9.1 Future topics and call for special sessions for the IEEE EMC+SIPI 2025 symposium in Raleigh, NC, USA on August 18 – 22, 2025.

#### Special Session Proposal Schedule

- Tentative deadline: TBD

#### Special Session Papers

- Tentative deadline: TBD

### 9.2 Technical Program Responsibilities and session chair reminders

We will not know how many sessions we will have at each symposium until the paper reviews are completed.

### 9.3 2025 Paper Review Deadlines

Proposed papers (full papers) due by about TBD.

Acceptance or accept conditioned on changes will be issued by about TBD.

Abstract review paper due about TBD.

Revised full paper due about TBD.

Final decision notification is about TBD

Final paper (adding author names, etc.) is due about TBD.

### 9.4 Paper reviewers

TC-2 members are welcome to be paper reviewers. Please send Monrad your resume along with your subject matter strengths/expertise so we can identify the best papers for you to review. The TC-2 leadership team will send out the ScholarOne Abstracts link to the TC-2 distribution list to register for paper reviews.

### 9.5 New membership

We are always looking for more members that engage in the activities noted above.

### 9.6 New areas of interest

In discussion, suggestions included adding topics like Measurement uncertainty, vehicle wireless charging, solar power from space beamed to earth and cell phone charging systems within vehicles.

## 10.0 Any other business?

### 10.1 An update from TAC is that 2024 will be the last year that TAC will use ScholarOne for the paper submission and reviews.

## 11.0 Action Items

None

12.0 Set meeting and agenda for next meeting(s)

12.1 Raleigh, North Carolina, USA, August 19<sup>th</sup>, 2025.

13.0 Adjournment

*John G. Kraemer*

*Secretary, IEEE EMC TC-2 (EMC Measurements)*

ATTACHMENT – IEEE EMC Standards Status Summary as of July 9, 2024



Standards\_status\_2  
0240709.pdf