



15 May 2018

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Meeting Minutes

Committee: TC-2; Electromagnetic Compatibility (EMC) Measurements
Place: Suntec Convention and Exhibition Center
Date: 15 May 2018 (Tuesday)
Time: 7:00 to 8:30 AM
Room: Room 328

1.0 Call to Order/Introductions

Meeting was opened by Secretary, Monrad Monsen, at 7:02AM (Singapore). The vice chair (Tom Fagan) had a weak phone connection, so he asked Monrad to run the meeting. All in attendance introduced themselves.

Table with 3 columns: Name, Company, Member. Rows include Carlo Carobbi, Tom Fagan, Ed Hare, Monrad Monsen, Ghery Pettit.

2.0 Approval of 2017 Minutes from IEEE EMC TC-2 meeting (8 August 2016) in National Harbor, Maryland, USA at the IEEE EMC+SIPI Symposium.

Approved by unanimous vote.

3.0 Committee Membership Status

3.1 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 2015 and no other. By committee rules, these candidates are not members of TC-2 unless they attend a second face-to-face symposium meeting within a four year period.

All attendees will initial the sign-in roster. Two TC-2 meetings will be held this year (one in Singapore on 13 May and another in Long Beach on 31 July). After the Long Beach TC-2 meeting, those that have not attended a face-to-face TC-2 meeting since 2015 will no longer be a TC-2 member but will remain on the list for one additional year to receive meeting announcements. Those that have not attended a face-to-face TC-2 meeting since 2014 will be removed from the list.

(See the 2018 membership list which is also the meeting sign-in roster.)

4.0 Current Symposium Activity, May 2018

4.1 Symposium paper review status (top paper, top TC-2 paper, Round 2 reviewing, etc).
TC2 has three sessions plus one shared session (TC1/TC2/TC3). They will all be held in room 333. Ed Hare is chairing the first of the Thursday afternoon TC2 sessions.

- TUE Morning: 1 hour 40 minutes (starts 8:30am)
- WED Morning: 2 hours (starts 10:30am)
- THU Afternoon: 2 hours (starts 1:30pm)
- THU Afternoon (shared): 1 hour 40 minutes (starts 3:50pm)

5.0 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:

- a. Receive, generate, and review technical papers within its scope in cooperation with the Transactions Editor and/or the Technical Papers Committee.
- b. 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.
- c. Arrange for publishing pertinent papers in IEEE publications.
- d. 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.
- e. Evaluate "state of the art" in the area of committee interest.

Clause 10.3 d is directly applicable and hence the meeting was brought up to date by the VP for Standards—Ed Hare

IEEE Standard	Title	Expiration Date	Status	Chair and Sponsor Contact	Notes	SDECom Priority
Std.139-1988	IEEE Recommended Practice for the Measurement of RF Emission from ISM Equipment on User's Premises	Expires: 12/31/2022	Status: Current standard. Status: Reaffirmed 2012. No active PAR.	Sponsor contact: Ed Hare Past Chair: Daniel Weinberg	No action required.	Low
Std. 187-2003 Project 187	Standard Measurement Methods of Emissions from FM and Television Broadcast Receivers in the Frequency Range of 9 kHz to 40 GHz	Expires: 12/31/2018	Status: Current standard. Status: Reaffirmed 2008. Being updated. IEEE PAR approved 10/27/2014, expires 12/31/2018.	Chair: David Traver Vice Chair: Mark Arthurs Secretary: Sponsor contact: Ed Hare	100% drafted. In final IEEE edit before publication.	High

Std. 299-2006	IEEE Standard Method for Measuring the Effectiveness of Shielding Enclosures (ANSI Recognized)	Expires: 12/31/2022	Status: Current standard. Status: Reaffirmed 2012. No active PAR.	Sponsor contact: Ed Hare Past Co-Chair: Dale Svetanoff Past Co-Chair: Maria Sarto	No action required.	Low
Std. 299.1-2013	IEEE Standard Method for Measuring the Shielding Effectiveness of Enclosures and Boxes Having Dimensions Between 0.1 and 2m	Expires: 12/31/2023	Status: Current standard. No active PAR.	Sponsor contact: Ed Hare Past Chair: Maria Sarto	No action required.	Low
Project 370	Electrical Characterization of Printed Circuit Board and Related Interconnects at Frequencies up to 50 GHz	New project	Status: Drafting in progress. IEEE PAR approved 6/11/2015, expires 12/31/2019.	Chair: Xiaoning Ye Vice Chair: Sam Connor Vice Chair: Brice Achkir Secretary: Alistair Duffy	60 members. 20 meetings in last year. 80% drafted. Work in progress on target.	Medium
Std. 377-1980	IEEE Recommended Practice on the Measurement of Spurious Emissions from Land-Mobile Comm. Transmitters (ANSI Recognized)	Expires: 12/31/2018	Status: Current standard. No active PAR.	Chair: Larry Cohen Sponsor contact: Ed Hare Past Chair: Joseph Koepfinger	Needs revision. SDECom formed a study group to look for best ways to update standard.	Low
Project 473	Recommended Practice for an Electromagnetic Site Survey (10 kHz to 40 GHz)	Withdrawn New project	Status: Withdrawn 2005 In progress. IEEE PAR approved 6/30/2016, expires 12/31/2020.	Chair: Chad Kiger Sponsor contact: Ed Hare	5 members. 3 meetings in last year. Draft is 60% complete. Parallel development with C63.24,	High
Std. 475-2000	Measurement Procedure for Field Disturbance Sensors, 300 MHz to 40 GHz (ANSI Recognized)	Expires: 12/31/2022	Status: Current standard. Reaffirmed 2012. No active PAR.	Past Chair: Hugh Denny Sponsor contact: Ed Hare	No action required. TC7 is preparing a PAR to consider using some of this material in a standards document that would address measurements of near-field radiation below 400kHz.	Medium
Std. 1128-1998	IEEE Recommended Practice for RF Absorber Evaluation in the Range of 30 MHz to 5 GHz	Expires: 12/31/2022	Status: Current standard Reaffirmed 2012	Past Chair: Jose Perini Sponsor contact: Ed Hare	No action required.	Medium
Std. 1140-1994	Test Procedures for the Measurement of Electric and Magnetic Fields from Video Display Terminals from 5 Hz to 400 kHz	Expires: 12/31/2016	Status: Current standard Reaffirmed 2006.	Past Chair: Dheena Moongilhan Sponsor contact: Ed Hare	TC7 preparing a PAR that could use some of this material for near-field measurements <400kHz.	Low
Std. 1302-2008 Project 1302	Guide for the Electromagnetic Characterization of Conductive Gaskets in the Frequency Range of DC to 40 GHz	Expires: 12/31/2018	Status: Current standard. Status: Revision in progress. IEEE PAR approved 3/27/2014, expires 12/31/2018.	Chair: Davy Pissoot Vice Chair: Secretary: Sponsor contact: Ed Hare	30 members. 2 meetings in the last year. Draft complete and in final WG editorial review. Will be provided to SDECom for MEC December 2017.	Low
Std. 1309-2013	Standard for Calibration of Electromagnetic Field Sensors and Probes, Excluding Antennas, from 9 kHz to 40 GHz	Expires: 12/31/2023	Status: Current standard. No active PAR.	Past Chair: Zhong Chen Sponsor contact: Ed Hare	No action required.	Low
Std. 1560-2013	Methods of Measurement of Radio Frequency Interference Filter Suppression Capability in the Range of 100 Hz to 10 GHz	Expires: 12/31/2023	Status: Current standard. No active PAR.	Past Chair: Kermit Phipps Sponsor contact: Ed Hare	No action required.	Low
Std. 1597.1-2008 Project	Standard for validation of CEM Computer Modeling (CEM) and Simulation	Expires: 12/31/2018	Status: Current standard. Status: Revision in progress.	Chair: Alistair Duffy Vice Chair: Secretary:	25 members. 1 meeting in the last year. Will be	Low

1597.1			IEEE PAR approved 12/5/2015, expires 12/31/2019.	Sponsor contact: Ed Hare	submitted for ballot by the end of May 2018.	
Std. 1597.2-2010	Recommended Practice for Computational Electromagnetics (CEM) Computer Modeling and Simulation Applications	Expires: 12/31/2020	Status: Current standard. No active PAR.	Past Chair: Andy Drozd Sponsor contact: Ed Hare	No action required.	Low
Std. 1642-2015	Recommended Practice for Protecting Public Accessible Computer Systems from Intentional EMI	Expires: 12/31/2025	Status: Current standard. No active PAR.	Past Chair: Bill Radasky Sponsor contact: Ed Hare	No action required.	Low
Std. 1688-2016	Standard for Module Electromagnetic Interference (EMI) Testing	Expires: 12/31/2026	Status: Current standard. No active PAR.	Past Chair: Fred Heather Sponsor contact: Ed Hare	No action required.	Low
Project 1848	Techniques & Measures to Manage Risks With Regard to Electromagnetic Disturbances	New project	Status: In progress. IEEE PAR approved 2/5/2016, expires 12/31/2020.	Chair: Keith Armstrong Vice Chair: Alistair Duffy Secretary: Niklas Briest	31 members. 1 meeting in the last year. Draft sent to IEEE for ballot.	Low
Project 1897	Resolution of Power-Line Gap-Noise Reports	New project	Status: In progress. IEEE PAR approved 9/22/2016, expires 12/31/2020.	Chair: Mike Gruber Vice Chair: Brian Cramer Secretary: Jerry Ramie	15 members. 8 meetings in the last year. Draft is 90% complete. Work in progress on target.	Low
Project 2425	Standard for Electromagnetic Compatibility Testing of Electrical and Instrumentation and Control Equipment at Nuclear Power Generating Stations and Other Nuclear Facilities	New project	Status: In progress Sponsor: Nuclear Power Engineering Committee (PE/NPE) Co-sponsor: EMC Society SDECom IEEE PAR approved 4/12/2016, expires 12/31/2020.	Chair: Suresh Channarasappa Vice Chair: Secretary: Sponsor contact: Ed Hare Co-Sponsor contact: Ed Hare	12 members. 2 meetings in the last year. No recent report received.	Medium
Project 2710	Electromagnetic Shielding Performance of Enclosures for Portable Electronic Devices	New project	Status: In progress. IEEE PAR approved 2/5/2016, expires 12/31/2020.	Chair: Alistair Duffy Vice Chair: Secretary:	10 members. 1 meeting in the last year. Draft is 0% complete. Work in progress on target. <i>Proposing to create a new project for RFID screens for credit cards.</i>	Medium
Project 2715	Guide for the Characterization of the Shielding Effectiveness of Planar Materials	New project	Status: In progress. IEEE PAR approved 6/30/2016, expires 12/31/2020.	Chair: Alpesh Bhobe Vice Chair: Davy Pisssoort Secretary: Yoeri Arien	Work in progress on target. Round robin testing in progress.	Medium
Project 2716	Guide for the Characterization of the Effectiveness of Printed Circuit Board Level Shielding	New project	Status: In progress. IEEE PAR approved 2/17/2017, expires 12/31/2021.	Chair: Davy Pisssoort Vice Chair: Andy Marvin Secretary: Yoeri Arien	18 members. 1 meeting in last year. Work in progress on target.	Low
Project 2717	Low Level Intermodulation	New project	Status: Forming WG. IEEE PAR approved 2/17/2017, expires 12/31/2021.	Chair: Yihong Qi		Low
Project 2718	Nearfield Emissions	New project	Status: Forming WG. IEEE PAR approved 2/17/2017, expires 12/31/2021.	Chair: Dave Thomas		Low

Note that the yellow highlighted standards topics are considered most applicable to TC2 as they are measurement standards.

Additional details available at the below web address.

New: <http://www.emcs.org/status-of-emc-standards.html> (Not yet updated. Format is tough to read.)

Old: http://www.emcs.org/standards/sdecom/Standards_Matrix.html (Up to date. Better format.)

6.0 iNARTE Exam Question Review Activity

No updates. Ed Hare will contact iNARTE to get an update for the Long Beach TC2 meeting.

7.0 Future Symposium Activity

7.1 Future topics for IEEE conferences in Long Beach, CA, on July 30 – August 3, 2018 and in New Orleans, LA, on 19-26 July 2019.

7.2 Technical Program Responsibilities and session chair reminders

If you would like to be on the paper review committee, please let Don know what your areas of expertise are so he can send appropriate papers to you for review. We attempt to have three people review each paper.

Ed Hare, Ghery Petit, Tom Fagan and Monrad Monsen volunteered during the meeting. We invite additional volunteers to contact Don Heirman.

7.3 Paper Review Deadlines (Long Beach)

Preliminary full paper manuscript is due by 1 November 2017.

Acceptance notification will be issued by 26 February 2018.

Final paper is due 3 May 2018.

7.4 Paper Review Deadlines (New Orleans)

Preliminary full paper manuscript is due by __ Nov 2018.

Acceptance notification will be issued by __ Feb 2019.

Final paper is due __ May 2019.

7.5 Paper reviewers

TC2 members are welcome to be paper reviewers. Don has a reviewer list from the past. But there is always need for reviewers. Contact Don and state the expertise that you have on EMC topics so that you are assigned papers to review in your discipline.

7.6 Need session chairs

TC2 has __ sessions in Long Beach.

7.7 New membership

We are always looking for more members.

7.8 New areas of interest—None identified

8.0 Set meeting and agenda for next meeting(s)

8.1. Long Beach, CA, Tuesday, July 31, 2018 at 7:00AM

8.2. New Orleans, LA, Tuesday, July 23, 2019 at 7:00AM

9.0 Adjournment

Meeting adjourned at 7:32AM (Singapore).

Monrad L. Monsen
Secretary, IEEE EMC TC-2