



**IEEE Electromagnetic Compatibility Society
Technical Advisory Committee**

Meeting 2 (Minutes)

Thursday, 9 August 2013

Denver Convention Center Rm 401

0700 to 0900 (2 hours)

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| 1. (5 min) Call to Order, Introductions/Opening Remarks | Archambeault |
| 2. (60 - 90 min) TC1-TC11, SC1-3 3-5 Min Presentations
Activities/Plans/Status Changes
TC Officers, Web sites, Charter | All |
| 3. Future meeting schedule | All |
| 4. New Business | All |
| 5. Review action item list | |
| Adjourn | All |

Attendees

Chuck Bunting, TAC Secretary
Xiaoning Ye, TC10 Chair
Sam Connor, TC9 Chair
Michael A. Hoffman, TC1/TC3 (member)
Doug Kramer, TC1 Chair
Elya Joffe, TC1 (member)
Vignesh Rajamani, TC9 Vice Chair
Ross Carlton, TC4 Secretary
Emmanuel Decrossas, TC11 Secretary
John G. Kraemer, TC4 Vice Chair
Phil Berger, TC4 Chair
Bruce Archambeault, TAC Chair
Karen Dyberg, TC6 Chair
Cliff Hauser, TC6 Vice Chair/TC2 Secretary
Sarah Seguin, TC6 Secretary
Don Heirman, TC2 Chair/SC1 Chair
Tom Fagan, TC2 Vice Chair
Dave Thomas, TC7 Vice Chair
Magnus Olofsson, TC7 Chair
Bill Radasky, TC5 Chair/SC1 Vice Chair

1. Call to order, 7 am., Introduction/opening remarks

2. TC reports (Highlights - see PowerPoint slides for full reports posted on TAC forum after the meeting). Due to other commitments some TC chairs had to leave early, so the discussion in the minutes may not be in order.

- TC2: Some discussion of RABQSA questions of commercial vs. military. Paper review planning for Raleigh (addressing what constitutes a good paper: completeness, references, etc.). Raised concern leading to:

ACTION: Bruce - Drop the word "Preliminary" in the Call for Papers when stating what is to be submitted to the symposium.

- TC5: No change in leadership, discussion of tutorial (Intro to EM Information Leakage). There was some impact of sequestration on attendance at the tutorial session. Good attendance at lunch (40). Keeps a five year roster due to years off/on of attendees. Standards activity P1642 (IEMI) frustrated due to bureaucracy issues. Updated scope presented (italics contain new) - emphasis on clarifying language (removing ultra-wideband and adding information security). Updated scope was approved by TAC.

- TC11: Discussion of special sessions, summary of activities for the past year, meeting highlights: discussion of future of nanotechnology - some concern over overlapping nanotechnology conferences that draw away speakers (new) from participating. Bruce remarked - newsletter vs. magazine, send updated officer information.

- SC1: Discussion of officers (vacancy in Secretary due to the Kermit Phipps passing). The emphasis of SC1 is coordinating Smart Grid EMC activities as opposed to publishing papers and organizing sessions (SC1 does not solicit papers). Galen Koepke gave update on NIST activity to SC1 meeting. ACTION: "Subcommittee" vs "Special Committee on the website". Bruce to look into it.

- TC1: Updated new officers this year (two stepped down), next officer change in 2015. Risk management (harmonization of standards impact on manufacturing a growing concern) and ethics to be the major emphasis for 2014. MRA = mutual recognition agreement (for regulatory compliance between countries). Issues- TC teleconferences not well attended due to scheduling, exploring free

ACTION: (Chuck) Guidance document from TC1 should be on the agenda for October.

- TC3: Working on STD 473, meeting highlights included workshop on Nuclear Power Plant EME and coordinating with TC6. Concern - some concern over low attendance (2 attendance) Bill - radio telescopes EME (20 papers) at APEMC in Australia, IEC 61000-2-5 (updated information on EME).

- TC4: Sub-committee for EMI gaskets - STD 1302 (under SDECom) - standards work on gaskets.

ACTION: TC4 to work with Don (TC2) to interact on overlapping scope issues. Plans for "Impact of materials on EMC" (nano tech interested in participating).

- TC6: Name change and discussion of scope discussed, examining the right kind of forum to share information, changing "Call for Papers" item. (Bruce - it's too late to change call for papers for EMC 2014 printed copies. Web site has been updated).

ACTION: TC6 to discuss with 2014 committee to make the change to Call for Papers info.

Poster recruitment opportunity (TC highlights mentioned at earlier TAC meeting) to be exploited.

Motion to change scope presented.

Motion tabled to change the scope (Concern over breadth - essentially covering all of EMC)

ACTION: TC6 to review Scope to modify to obtain the right specificity and present to the next TAC meeting.

- TC7: Accomplishments – COST (Cooperation in Science and Technology) proposal (IES - Integration of Energy efficient systems in the Smart Grid), good activities via teleconferences, good attendance at each activity, ESAC student paper award in TC7 area, moderate attendance at TC meeting (10), but they were the right people including a distinguished professor in the PES area. Concern over point system and TC7 issues. TC7 is planning to work with EPRI.

- TC9: Discussion of paper review system (combined special sessions with multiple TCs a concern. Which TC takes the lead?) - TC9 to bring up as an agenda item.

Will move away from Intro to modeling workshop, lower attendance and diminishing need. Some concern over commercialism in a presentation.

- TC10: Wants to change charter and name, Charter language was approved by the TC. Want a name change as well. Action for TC10: Develop a motion for name change and charter change. 41 attendees at TC meeting and 231 members on LinkedIn. Plans for next year: SIPI2014 conference embedded Signal Integrity and Power Integrity conference within EMC 2014 Raleigh)). Tutorials and Workshops for 2014 planned, and want to expand Experiments and Demo engagement. Some discussion of changing Transaction name to include SIPI (Signal and Power Integrity) - Bruce: Society Name change needed to come first. Steering committee discussion (SIPI) - an additional step in Call for Papers (early engagement) to provide PI. Bruce comment BoD need to approve.

- SC3 disbanded at Mark Steffka's request due to lack of membership participation.

- Special committees formed:

SC5 – Power Electronics EMC:

Chair: Djilali Hamza (dhamza@ieee.org)

Vice-Chair: Jiang-Qi He (jiangqi.he@intel.com)

Secretary: Daryl Beetner (daryl@mst.edu)

Charter: This committee is concerned with power electronics converters EMI/EMC issues. These are mainly, converters that use switching frequency schemes to control the output parameters, such as voltage and current. These converters, including inverters, can be found as interface between the raw power and the electrical grid to provide the end-user with the desired operating power. Applications can range from grid-connected PV systems, wind farms, automotive, aerospace, and communication systems.

SC6 – Unmanned Aircraft Systems (UAS EMC)

Chair: Chuck Bunting (reverb@okstate.edu)

Co-Vice-Chairs: Irina Kasperovich (ikasperovich@androcs.com) and Sarah Seguin(seguin@ku.edu)

Secretary: Vignesh Rajamani (vignesh.rajamani@okstate.edu)

Charter: This committee is concerned with design, testing, modeling/simulation required for system level EMC for unmanned aircraft systems that will be engaged in all weather autonomous single and cooperative flight. Special emphasis is on spectrum management on intra and inter-system interactions (platform integration), mission specific data security and bandwidth requirements, and robust performance in the presence of high intensity radiated fields (HIRF). Engagement in the development of standards will be a key role of this special committee.

3) Future meeting schedule: October, March, May, and August

4) New Business

- Chris Holloway: Technical Chair – Thanks to all the TCs for the help reviewing papers!

5) Review Action Item List:

TAC Action items:

- ACTION: May 2013. Bruce to work with Tori to implement a simplified version of email contact system. DONE between May and August meeting.
 - ACTION: May 2013. Chuck to make sure that Paper Review Software is on the agenda for October. DONE.
 - ACTION: May 2013. Bruce to recommend that TC1 invite TC chairs to a special topic meeting to deal with paper review issues.
 - ACTION: May 2013. Don to develop two sets of instructions for reviewers and TC chairs that will be displayed for Round 2. [THIS was done in June – see appendix below]
- ACTION: Bruce - Drop the word "Preliminary" in the Call for Papers when stating what is to be submitted to the symposium.
- ACTION: TC4 to work with Don (TC2) to interact on overlapping scope issues. There are plans for an "Impact of materials on EMC" (nano tech interested in participating).
- ACTION: TC6 to discuss with 2014 committee to make the change to Call for Papers info.
- ACTION: TC6 to review Scope to modify to obtain the right specificity and present to the next TAC meeting.
- ACTION: Chuck to review Excel spreadsheet for modification of reporting procedures for August 2014 meeting.
- ACTION: TAC officers review particulars: Charter or Scope? Done following August meeting.

Appendix A

Additions to clause 8.0 in Instructions to TC Chairs and Reviewers

8.0 Second Round of Reviews and Decision Process

8.1 Introduction

Second round reviews take place only when the first round reviewers have found serious issues with the paper and feel that if their changes are made the paper may be acceptable. But if the paper is found in round 1 to have serious issues not readily corrected, the paper is rejected.

8.2 TC chair instructions for going to Round 2

The TC chair makes the decision to have mandatory changes needed and hence a round 2 review based on his/her overall assessment of the validity of the reviewer decision to go to a round 2 review. So the chair has to be convinced that the suggested mandatory changes are persuasive enough to go to round 2 based on all the reviewer comments. If for example a super majority of the reviewers indicate that round 2 is not needed, the chair should not override that decision. If there is a super majority of the reviewers indicate that round 2 is needed as mandatory changes may save the paper, the chair should agree. There may be however a strong argument by a reviewer to either stop with the round 1 review and not go to round 2 or vice versa, the chair has the discretion to accept that suggestion and not have a super majority opinion.

The software for round 2 reviews allows the TC Chair to 'clone' the reviewers for all papers, or change reviewers. If the same reviewers are used, then the reviewer will see both his/her comments from the first round of reviews, plus the TC chair final comments to the authors. The scoring will be identical to the first round of reviews. Because of the added complexity of changing reviewers, it is suggested that the same reviewers are used for rounds 1 and 2. In fact if different reviewers are added to the reviewer pool, this amounts to adding additional reviewer comments to be considered which may or may not be useful. In fact on face value, it would be not be as useful. The only obvious reason for adding a new reviewer, however, would be if an impasse is presented with near equal initial reviewer arguments indicating conflicting directions to take.

8.3 Round 2 Reviewer Instructions

The deliberations for the reviewers in round 2 should lead to their making one of these two decisions:

1. If the mandatory changes were not made. The reviewer should reject the paper; this decision requires a definitive statement from the reviewers that mandatory changes were not made and state the particular change that was required. This would be part of the feedback to the author.
2. If the majority of the key mandatory changes were made, the paper should be accepted as modified

There should be limited or no suggested changes as the reviewers (as passed along by the TC chair) already told the author what should be done in round 1. If we continue to suggest changes, there will be no finality of our decision and in any case there cannot be any further rounds of reviews per the decision of the EMC Society Board of Directors.

8.4 TC Chair Final Decision Instructions

When the feedback from the paper reviewers are received, the TC Chair will see:

- a. All reviewer scoring from the first round
- b. All reviewer scoring from the second round

- c. Reviewer comments to the author from the first round
- d. Reviewer comments from the second round

Of all of these, the round 2 reviews are the most critical and form the major basis for a TC chair decision.

The TC Chair then reviews the aggregate input from the reviewers of each paper to make the final decision on the disposition of the paper. At this time the TC chair can only accept, accept with (minor) suggestions, or reject. If the TC Chair sees that one or more reviewers identifies a significant (affects the result of the paper's conclusion for example) required change that has not been made, then the paper is rejected. MINOR suggested changes are allowed (beyond those identified in round 1 reviewing) to be sent to the authors, but if the changes are not minor as decided by the TC chair, then the paper must also be rejected.

Note that the TC chair must add explicit reasons for rejection that are derived from the reviewer inputs. The most common one is that the author did not modify the paper to accommodate the mandatory changes citing specifics that were not changed.