



**IEEE Electromagnetic Compatibility Society  
Technical Advisory Committee**

**TAC officers: Jun Fan (Chair)  
Chuck Bunting (Vice-Chair)  
Xiaoning Ye (Secretary)**

**Meeting 1 Minutes (Approved 10/15/2015)  
Monday, 17 August 2015**

Attendees:

Sarah Seguin: TC6, EDCOM  
Sal Agnello: Exemplar Global – INARTE  
Chuck Bunting: TAC VC  
Petre-Marian Nicolae: TC7 VC  
Cees Keyer: TC7 Sec  
Vignesh Rajamani: TC9 Chair  
Frank Sabath: Pres Elect  
Colin Brench: VP Tech Services  
Ross Carlton: TC4 Sec  
Bruce Archambeault: VP Conferences  
Alessio Tamburrano: TC11 Chair  
Don Heirman: VP Standards, TC2 Chair and SC1 chair  
Bill Radasky: TC5 Chair  
John Kraemer: TC4 VC  
Kimball Williams:  
Bob Scully: President  
Matthias Troescher:  
Tom Braxton: TC1 Chair

Not represented: TC3, TC10

1. Review Agenda

2. Review Minutes from March TAC meeting

- To be reviewed via email before the fall TAC teleconference

3. SC application by Bob Scully: “Special Committee on Aeronautics and Space EMC”  
Proposal for SC on Aeronautics/Space EMC

- Presentation from Bob Scully
- Discussion about going straight to TC
- Create SC7
- Action: Bob to send Bruce info for web site
- Action: Bruce to ask Kris Hatashita for Call for Papers for Ottawa conference to include SC7
- Action: Chuck to update TAC forum, email list etc.
- 5 year plan already developed

#### 4. Dresden paper review feedback

- Challenges with co-chairs from two organizations. Some co-chairs did not do the work. Some did not read the instructions to do the correct responses to authors. Should there be some mandatory training? The Technical Paper Chair of conference should take responsibility of communication of process. Perhaps withholding access to review system until trained.
- ACTION: VP Conf: Communicate to organizing committee when co-chairs are used.
- ACTION: TAC officers to train new chairs (ongoing action)
- Maybe need BoD decision to use EMCS paper review system for joint conferences –
- Action for VP of Con. to bring to board policy to use EMCS paper system for joint conferences

#### 5. Need to monitor TC proposals for W/T more carefully (Bruce)

- Issue with poor content in some proposals
- TC chairs need to carefully review proposals for quality of speakers – A special committee was discussed but then discouraged since this is an ongoing activity.

#### 6. One-round vs. two-round paper review (Xiaoning's proposal)

Regarding the proposal, Xiaoning in our recent conference call with Bruce, you and me mentioned that many other symposia/conferences only do one-round paper review. Our two round process on one hand helped save a few papers, but on the other hand is time-consuming and puts more burden on the TAC and reviewers. Given the trend that paper submission and review processes are significantly being shortened/simplified elsewhere, we may need to revisit our process.

- Many other conferences moving to abstract review process
- Many seem to think 2nd review is a lot of work with little benefit
- Papers should not need 're-writing' by EMCS
- Our quality is higher than some other societies with only abstract review
- Recommend tougher decisions by TCs
- This year was special because of two conferences and we should not change our process because of two conferences in one year

#### 7. New “Practical” Journal (Bruce)

- Frank Sabath – new journal aimed at practical applications, publish electronically only. Papers do not go to IEEE Xplore. Use abstract reviewed papers as input to journal. TAC to attend conference presentation and recommend which ones to go forward, and then TC reviews paper before publishing.
- Maybe do not put papers into Xplore, but have them available only to members thru web site.
- This also allows papers in Xplore to focus on theory and possibly improve EMCS Transactions impact factor
- This might be attractive for authors since the review process is less rigorous than normal transactions review process

#### 8. Exemplar (Sal Agnello)

- Most new certifications from Japan/Korea
- Plan for more visibility in US – Incompliance mag ads
- Presentation given
- Urgent to get questions to allow TCs to review. When will we get questions?
- Continue this on Friday with specific plans for TCs to review questions
- See attached notes (following)

TAC members expressed significant concern after many years that nothing was happening other than briefings from Exemplar regarding iNarte. There was a strong discussion that something has to change.

#### 9. Requirements for TC reports for Friday meeting.

- Status (Officers, membership, meeting schedule)
- Inclusion of standards activities
- Plans for W/T and/or Special sessions for 2016
- Important points from 2015 TC meeting
- Officer progression plans

#### 10. New Business & Agenda for Friday TAC meeting

Vignesh—sister societies being signed up. TC chairs should consider holding events at the sister society events. Vignesh to identify the list of SS. ESDA has already done two workshops in our conferences. We should do something in return

#### 11. Review action item list.



**IEEE Electromagnetic Compatibility Society  
Technical Advisory Committee**

**TAC officers: Jun Fan (Chair)  
Chuck Bunting (Vice-Chair)  
Xiaoning Ye (Secretary)**

**Meeting 2 Minutes (Approved 10/15/2015)**

Friday, 21 August 2015

Attendees:

Sarah Seguin: TC6, EDCOM VC  
Sal Agnello: Exemplar Global – INARTE  
Chuck Bunting: TAC VC  
Vignesh Rajamani: TC9 Chair  
Bruce Archambeault: VP Conferences  
Marina Sabrina Sarto: TC11 VC  
Alessio Tamburrano: TC11 Chair  
David Thomas: TC7 Chair  
Don Heirman: VP Standards, TC2 Chair and SC1 chair  
Bill Radasky: TC5 Chair  
John Kraemer: TC4 VC  
Bob Scully: President  
Tom Braxton: TC1 Chair

No representation for: TC3 and TC10

1. (5 min) Call to Order, Introductions/Opening Remarks
2. (60 - 90 min) TC1-TC11, SC1-6, 3-5 Min Presentations  
Activities/Plans/Status Changes  
TC Officers, Web sites, Charter

TC12, SC1, TC2, TC5 --- present early

Globespace discussion: VP Conferences presented the TCS results of the board actions regarding GlobeSpace. VP Conf solicited responses regarding outstanding questions from TAC. TC 5 expressed concern regarding the communication from the BoD. Why vote if the BoD will overrule and not provide equal treatment? TC5 suggested that the TCS process is in need of review regarding the communication of when BoD diverges from TAC recommendation.

Each TC presented (miscellaneous notes follow)

- TC5 : Action: Chuck: Extract Slide 28, from TC5 presentation, to circulate for approval at the next meeting.

- Action: Chuck will attach Exemplar response for discussion at the next TAC meeting.

- TC1: Action: Tom to follow through with TC signage for next year.

- TC7: The paper review process must be clarified for TC chairs. The need to “cut and paste” seems unnecessary and that all comments should automatically be transferred. Sabrina expressed concern that there be a consistent process. Explicitly sharing the reviewer comments is standard for EMC transactions. Don indicated that sharing contradictory reviews do not support a single acceptance criteria.

TC10 recommends to bring categories back to aid in assigning papers to reviewers.

ACTION: Chuck to amplify and communicate to TC chairs that they are to include a summary.

ACTION: Chuck to add an agenda item - discuss Paper review details.

ACTION: TAC to solicit changes to paper review system.

- iNarte - The President strongly addressed the TAC to review Exemplar Global/iNArte and to provide its recommendation. It is clear from both meetings (refer to August 17 minutes) that many TAC members felt that Exemplar was not doing its job (not providing questions for 5 years while giving the exam and "certifying exam takers" with poor unreviewed questions). There is some uncertainty as to what further review TAC needs. Perhaps it is as simple as providing Exemplar with a deadline and if they do not respond according to the schedule, that we recommend to the BoD that the iNarte exam be stopped until the quality of the questions is upgraded.

ACTION: Chuck to add agenda item for next TAC meeting.

Webex url:

[https://www.ieee.org/about/volunteers/remote\\_conferencing/index\\_remote\\_conferencing.html](https://www.ieee.org/about/volunteers/remote_conferencing/index_remote_conferencing.html)

EMCS Teleconference:

The link below shows the teleconference number schedule. If someone wants to make a reservation, they need the password, and will need to let VP Conferences know to get the password.

<http://www.emcss.org/teleconferenceline.html>

### 3. Future meeting schedule

- 1) Teleconference in late October or early November this year
- 2) Teleconference in March 2016

3) Face-to-face meeting in May to organize the papers and sessions for Ottawa

4. New Business

5. Review action item list

Adjourn

**Subject:** FW: Ongoing EMC Test Item Review Suggestion  
**Date:** Friday, August 21, 2015 at 8:05:54 AM Central Daylight Time  
**From:** Agnello, Salvatore J.  
**To:** reverb@okstate.edu  
**CC:** bruce.arch@ieee.org, 'robert.c.scully@nasa.gov'  
**Priority:** High

Hi Chuck,

As a follow up to Monday's TAC, I proposed an approach to Bruce (see email below) to share for consideration by the Committee. This was a response to comments about having an ongoing process to clean up the iNARTE question inventory. I am completely in support of this and appreciate the offer to help.

As described below, we can provide the questions in the current inventory for the members' ongoing/phased review. We are open to variations on schedule or mechanics. We have also offered to provide training on question writing to help the participants. This is as specific as I can get without some Committee feedback and discussion.

As a comment, I cannot speak for past issues/problems, but I have tried to be as communicative as I can; this needs to be a 2-way, ongoing, and positive endeavor.

I look forward to your response and direction as to how you would like me to proceed.

Thanks.

**Sal Agnello** / General Manager, iNARTE

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**From:** Agnello, Salvatore J.

**Sent:** Thursday, August 20, 2015 7:48 AM  
**To:** 'bruce.arch@ieee.org' <bruce.arch@ieee.org>  
**Subject:** Ongoing EMC Test Item Review Suggestion  
**Importance:** High

Hi Bruce,

I have consulted with Patty Roselle on how we could go about updating the item pools for EMC. We offer the following for your consideration and discussion with the TAC members.

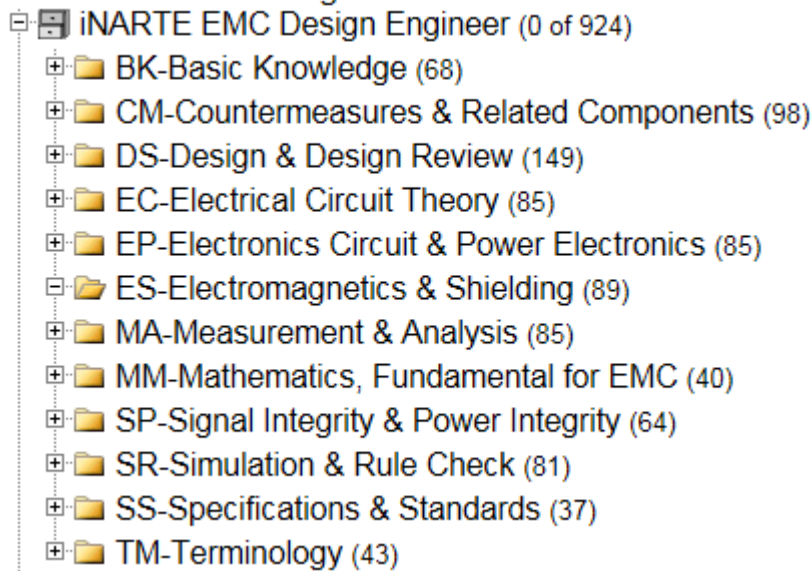
We currently have the following EMC related certifications: EMC Technician, EMC Engineer, EMC Design Engineer, and EMC Senior Design Engineer. The largest are EMC Technician and Engineer. The design engineer certifications have been of more interest in Japan recently. Our priority right now is to clean up the EMC Tech and Engineer.

Below are the total number of questions that are currently in each item pool:

EMC Engineer	293
EMC Technician	222
EMC Design Engineer	924
EMC Senior Design Engineer	168

Each certification's pool is categorized by specific topics. For example, the following is a screen shot of the EMC Design Engineer, the question categories and the number of questions in parentheses in each category that comprise the total of 924 questions for that particular certification:

### Item Banks and Categories



An approach involving all committee members in making changes to the questions, updates, and designation for deletion could be as follows:

- We could send out word documents containing the particular exam type's question pools, separated by category (as illustrated above). The chairman could then assign each category to the reviewers



with the appropriate expertise/interest.

- The reviewers make changes in the word documents using “tracked changes” which will show staff the original text, the changes they make, and any comments.
- This would allow for multiple reviewers working on the different questions at the same time, based on their respective areas of expertise, and throughout a specified timeframe, such as throughout the year or a 6 month period etc.
- Actual scheduling could be flexible and involve flagging to make sure that changeable\* questions are reviewed periodically, say once every 2 years or whatever, to make sure that they are up to date.

Benefit: This approach would thus phase out the old questions and make available additional validated/new questions on an ongoing basis. There would be no need for deadlines for specific exam administration dates.

Note: A logistical variation of the above approach is to provide the reviewers access to specific question pools in FastTestWeb (our automated question inventory) and they could make the changes directly into the system. But only 2 people at a time could be conducting the reviews at this time due to licensing restrictions. But this too is an option.

(\*Kimball has recently suggested that within each category, certain questions that relate to knowledge that never changes, such as basic physics, could be so-designated so that they would not have to be reviewed again.)

We would also be happy to give the TAC members (and any others involved) training on question writing and related processes via WebEx or other real-time communication. If the reviewers don't have time for such a session, or scheduling is an issue, we can also send a PowerPoint presentation describing the methods.

Again, the main priorities right now are the EMC Tech and Engineer questions, since they are currently the most frequent and probably have the oldest questions in the overall pools. Please note that the above is just a suggestion and that we are happy to work on what the TAC considers feasible and desirable. And of course, we are extremely grateful for this tremendous help.

Thanks

Sal

**Sal Agnello** / General Manager, iNARTE

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- [-] iNARTE EMC (0 of 515)
  - [+] 0-unclassified (0)
  - [+] E-Amplifiers (6)
  - [+] E-Antennas (34)
  - [+] E-Coupling (25)
  - [+] E-Electrical Networks (8)
  - [+] E-EMC Design (29)
  - [+] E-EMC Management (15)
  - [+] E-EMI Prediction and Analysis (8)
  - [+] E-EMP (10)
  - [+] E-ESD (26)
  - [+] E-Field Theory (14)
  - [+] E-Filters (8)
  - [+] E-Grounding and Bonding (9)
  - [+] E-Lightning (6)
  - [+] E-Mathematics (15)
  - [+] E-Military Specifications (0)
  - [+] E-Safety (5)
  - [+] E-Shielding (7)
  - [+] E-Signal and Transforms (5)
  - [+] E-Special Devices, Materials, and Components (5)
  - [+] E-Specifications and Standards (25)
  - [+] E-Spectrum Analysis (9)
  - [+] E-Terminology (9)
  - [+] E-Test and Measurement (8)
  - [+] E-Transmission Line (7)
  - [+] T Amplifiers (6)
  - [+] T Antennas (13)
  - [+] T Coupling (9)
  - [+] T Electrical Networks (16)
  - [+] T EMC Management (10)
  - [+] T EMP (5)
  - [+] T ESD (24)
  - [+] T Filters (8)
  - [+] T Grounding and Bonding (7)
  - [+] T Lightning (10)
  - [+] T Safety (5)
  - [+] T Shielding (5)
  - [+] T Signal and Transforms (3)
  - [+] T Special Devices, Materials, and Component (6)
  - [+] T Specifications and Standards (45)
  - [+] T Terminology (22)
  - [+] T Test and Measurement (28)