

 MEETING NOTES

**TC1 EMC Management Meeting – 2023 EMC-SIPI Symposium**

**Wednesday August 2, 2023, 7:30 a.m. EDT (UTC-4)**

**Meeting Location:** Meeting held during the 2023 EMC-SIPI Symposium at Grand Rapids Michigan

**MEETING NOTES**

* Welcome to new and returning TC1 participants.
* **2023 Symposium** – Workshop and Tutorial Status
	+ Workshops & Tutorials at the Conference under TC1 purview/sponsorship
		- American National Standards Committee (ANSC) C63 – Electromagnetic Compatibility – Tutorial
		- Engineer Soft Skills - Tutorial
		- EMI can cause functional safety (and other) risks that can’t be covered by EMC testing alone- so we need EM resilience – Tutorial.
		- Getting to the root of it: Tools and techniques to enhance root cause analysis – Workshop.
	+ **Amateur Radio:** Conference attendees are encouraged to provide amateur radio call sign if they have the HAM license.
	+ **TC Show Case Ideas:** Ideas were discussed on how to garner greater attention to the technical committee show case stalls/booths.
		- Unfortunately, this year the showcase stall was put into a corner of the exhibit hall and hence failed to garner greater attention. The area surrounding the stall was very noisy.
		- In the coming years it might be worthwhile to explore doing a demo using test or training equipment at the TC1 showcase stall.
		- The conference committee could have done better advertising and notifications for the TC Showcases
		- **Volunteers**: More volunteers and staff for the IEEE EMC Society could make this showcase stall much livelier and more attractive. Unfortunately, a lack of volunteers is always a problem at all conferences. It may be worthwhile to consider having a paid position specifically dedicated to hosting the booths/stalls.
* **Career training and education**
	+ **Prototype Boards**
		- The material for the prototype board work is developed to a sufficient level of satisfaction. The material is ready to be uploaded onto the webpage after a few modifications, final reviews, and checks. The intent of this endeavor is to make the development and usage of the boards for learning and training opportunities in an inexpensive manner. Each module is developed as a full-fledged self-sufficient module that can stand on its own.
		- The IEEE EMC website was being re-done as of this meeting date. It was reported by Vignesh in the board meeting that the access controls are being re-allocated so the information such as the TC1 meeting agenda and notes could be uploaded.
		- Technical Committee leadership is encouraged to access the webpage and make sure the content stays updated and relevant.
		- Everyone has expressed their satisfaction over the fact that the IEEE EMC webpage now is being very well maintained with updates refreshed every 24 hours.
* **Global University**
	+ - The attendees agreed that the Global university content needs an overhaul. It might be worthwhile bringing this matter to Mark Steffka’s notice.
		- Unfortunately, much of the content speaks to the traditional EMC concepts while giving little weight to the newer developments. There’s a need to re-think the schedule and content of this GU. It may be worthwhile to have a live rotating agenda with a good mix of historical and latest developments.
		- The content could be structured in a way that 1/3rd of the content is dedicated to latest development while remaining speaks to the fundamentals and historical information.
		- However, the team appreciates that identifying appropriate speakers and allowing sufficient time and resources for the speakers to develop a new material might pose challenges to this endeavor. Normally it might be considered a safer bet to fall back on the tried and tested presentation material.
		- **Action:** Tom Braxton to talk to Mark Steffka about Global University and convey the team’s feedback about its content, structure, and agenda.
* **iNARTE - IEEE EMC Certification**
	+ - There’s a commonality between the EMC Certification requirements and the Global University. It may be worthwhile to explore whether these 2 could be linked somehow for EMC certification.
		- A Japanese non-profit organization KEC, which is a top-level organization that encompasses a few member companies operates like EIA (electronics industries Association), deals with the cooperation between different industries. One of their mandates is pertaining to certifications with the main objective of improving the quality of the workforce. They happen to be the major income source for Exemplar Global who are the owners of the iNARTE certification.
		- Unfortunately, it appears that iNARTE did not update the test questionnaire in a long while. The exam still has questions about closed standards while newer standards are out in the market.
		- **IEEE EMC Adhoc Committee:**
			* The IEEE EMC Adhoc committee that was formed to develop a certification program has made good progress in developing the examination outline, identifying required qualifications and release RFIs to companies to manage the administrative side of things.
			* The IEEE EMC board voted to appoint a committee to take this work further. Tom Braxton is the chair of this committee.
			* ACIL has been mediating the discussions between Exemplar Global and IEEE. There were a few meetings prior to this meeting. However, Exemplar Global has expressed little interest in making any updates to their program. They, however, have agreed to appoint an industry advisory panel whose efficacy is yet to be seen.
			* Next Step for IEEE EMC Committee is to issue an RFP to the interested companies to handle the administrative aspects of the certification process.
			* A mechanism on how this certification be carried out within the IEEE EMC Society must be established. Activities including but not limited to reviewing questions, adding newer questions, updating the qualifications with changing technology etc., should be carried out.
			* The security & privacy of the candidates must be carefully maintained. The short-listed companies that responded to the RFI should be wetted with this in consideration.
			* The IEEE EMC certification process may adopt the good practices within the iNARTE certification such as having a Main EMC Certification followed by specialization topics such as ESD etc. and have a separate certification pathway for Engineers and Technicians. While the Engineering pathway focusses on the theoretical aspects of the topic, the technical pathway deals with more practical aspects of EMC.
			* The IEEE EMC Certification could include endorsements from different industries such as telecommunications, defense, aerospace etc., Spectrum certification, if exists, should be made globally/internationally relevant.
			* Engineering Ethics could be added as one of the topics in the examination.
			* The examination questions must be developed rigorously with little scope for ambiguity.
			* The questions should not contain choices such as “all of the above”, “None of the above”, “Yes”, “No”, “Correct”, “incorrect”.
			* While the number of questions in the examination isn’t finalized yet, in broad terms the test could contain about 50 questions.
			* Vignesh has given his nod to execute this work with full steam ahead.
			* NAVLAP a laboratory certification body, relies on the iNARTE certification to certify the laboratories. They may benefit greatly from the IEEE EMC Certification. This endeavor might evolve to a certain level of sophistication that the test takers would have a choice of taking either iNARTE or IEEE or Both.

* 1848 standard development update
	+ Work on this standard front is progressing as expected.
	+ The conference has few meetings/training/workshops scheduled pertaining to the 1848 standard.
	+ Medical version of IEEE 1848
		- The IEC Version of this standard was allotted a serial number. It appears that this standard may be approved.
		- A recommendation may be made to the IEC to ensure that this standard when translated to other languages conveys the similar level of technical gravity as that of English version.
* Other Topics
* Review of action items

Action Items:

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| **Owner** | **Action Item** | **Status** |
| Tom Braxton | Tom to speak with Mark Steffka to convey the feedback about the structure, content, and agenda of the Global University.  | Open - New |
| Randy Jost | Develop outline for mid-carrier training TC1 to coordinate with EdComm | Open- awaiting acceptance of previous proposals  |
| ~~Sarah Seguin~~Tom Braxton | TC1 to contact GU team to look at updates and expanding and updating GU topics | Open |
| Tom Braxton | Bring question to BoD on dual track | Add a virtual component to Symposium; request BoD to poll members of EMCS.Open |
| Kimball Williams | Ask Keith Frazier from Ford about speaking on testing variability | Open – Workshop coming up – In progress  |
| Tom Braxton | Work with Janet to publish available EMC courses/tutorials in EMC website cleared by TC1. As part of TC1's Mid-career training item.  | Open |
| Tom Braxton | Ask Janet to update the website with the details about the newly elected VPs and other members | Open – new website in progress |
| Kimball Williams & Randy Jost | Develop the idea about soft skills/team building and send to Tom. This could potentially be valuable to a newly appointed manager who needs to make a cohesive team with the people assigned to him/her | Open – In progress |
| Tom Braxton | To receive a copy of spread sheet with dates, paper submissions and Technical Committees involved for 2023 Symposium.  | Open – In progress  |
| Karen Burnham | To check about the standards relevant to ham radio operators. | Open |
| Louann Mlekodaj | proto board development | In-Process |
| Tom Braxton & K. Williams  | Work on angel support. | Open – prelim spreadsheet done – progress to close  |
| Mark Steffka/ Tom Braxton | To find out whether these sessions are recorded and made available to the EMC society members later | Open  |
| Randy Jost | To distribute the drafts of the prototype boards presentation materials within the next 2-3 weeks to receive everyone’s feedback and comments. | Open |
| Kimball Williams  | To develop and send initial proposal for the special committee to Randy and others for feedback and suggestions. This would eventually be submitted to EMC society board. | Open – In progress – set to go to BOD soon.  |

Closed Action Items:

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| **Owner** | **Action Item** | **Status** |
| Dom | To share the new EU directive about no uncertainty with the TC1 members | Closed |
| ~~Doug Kramer~~Tom Braxton | Talk to Rachel Norrod regarding Podcast and EMC Society promotion | Closed |
| Tom Braxton | To talk to Vignesh about IEEE withdrawal from iNARTE MoU and ask for a public announcement about it. | Closed |
| Tom Braxton | TC1 to review existing letters and draft a letter for engineers to use to get approval for attendance | Closed |
| Tom Braxton | To talk to Sarah and John Lasselle to propose that TC1 being a clearing house/directory of the training material available in the public domain. Instead of creating new training altogether.  | Closed  |
| Tom Braxton | To contact Karen Burnham about making a proposal on this topic.  | Closed |
| Keith | To explore opportunities to carry a demonstration kit to the 2023 symposium. | Closed – Done. |
| Tom Braxton | To send acknowledgements and status updates to the companies that have responded to our RFI submission.  | Closed - Done |
| Keith & Davy | Keith and Davy to discuss and determine whether combining both IEEE 1848 meetings at the 2023 Symposium would be more beneficial.  | Closed – Done – only 1 3 Hour meeting |
| Dan Hoolihan | To contact Janet about an event/workshop, news, and updates on activities on C63.  | Website has all info needed at [www.c63.org](http://www.c63.org)  |
| Kimball Williams | Recruit amateur radio volunteers for EMCS 2023 in Grand Rapids | Closed |

* Adjourn