



# TC-1 – EMC Management: A Committee Overview

By Dan Hoolihan, TC-1 (EMC Management) Chair

## INTRODUCTION

There are 10 technical committees in the Electromagnetic Compatibility (EMC) Society of the IEEE. The first of these technical committees is TC-1 which is devoted to EMC Management.

TC-1 attempts to develop tools that would help EMC managers, it is busy developing some ideas on management training, it looks at video future ideas, web sites for EMC Society members, and leadership training and succession. It works on a 5-year plan (as do all the other technical committees) and it is very involved in sponsoring workshops, sessions, and special sessions on EMC Management issues for the annual IEEE International Symposium on EMC. It also reviews papers proposed for the International Symposium in the EMC Management area.

## CHARTER

The Charter for EMC Management reads as follows:

*This committee is concerned with the development and dissemination of Best Practices and Methodologies for the successful leadership, supervision, and guidance of EMC related activities. These Best Practices and Methodologies shall be structured so as to provide assistance to all managers and engineers. Appropriate and convenient tools shall serve as a foundation to these Best Practices and Methodologies.*

One of the highlights of this year's efforts was the transfer of two of the EMC video tapes to DVD format. With the help of Bruce Archambeault, the video tape "EMC Society Promotional" from November of 1990 and the video tape "Electromagnetic Interference...A Global Engineering Challenge" from 1992 have been converted to a more modern format. These DVDs were shown at the IEEE-EMCS booth

in Chicago during the 2005 IEEE EMC Symposium. Dave Staggs, EMCS Membership Chair, indicated there was a very strong demand for these tapes at the EMC Society booth. Dave is in the process of duplicating the DVDs for distribution to the EMC chapters around the world.

TC-1 is involved with the discussions on reviewing technical papers for IEEE-EMC symposiums. This remains a topic of great interest, particularly now that we have gone to a full paper format. It is thought that the papers for the 2005 symposium were of better quality because the full-paper review forced authors to prepare their inputs earlier, and to provide better presentations. TC-1 is also interested in the process used to identify the Best Paper for the Symposium. This year, for example, the Technical Committees were asked to recommend a Best Paper from their reviews. Approximately 10% of the submitted papers fell under this recommendation. From these recommendations, a subset of 10 papers was selected by three members of the Symposium Technical Committee, aided by Bill Strauss and Jim Drewniak. The final selections were based largely on scoring and opinion of the aforementioned group. TC-1 discussed this process at its annual meeting in Chicago and no recommendations for changes were forthcoming.

The TC-1 Committee meets once a year, usually on Wednesday morning, at the IEEE International Symposium on EMC. The meeting is usually a breakfast meeting lasting about two hours. A formal agenda is published before the meeting and minutes are kept of the meeting. There are usually about 15 people present at the meeting. The meeting is open to those wishing to attend.

## FIVE-YEAR PLAN

The 5-year plan is always discussed at the annual TC-1 meeting. Some of the

highlights of the 5-year plan are Workshops and Special Sessions in the EMC Management area. In 2005, TC-1 sponsored three sessions at the Chicago Symposium. The first one was on Monday, August 8th, and it was entitled "EMC Directive in Europe" and it was chaired by Gary Fenical of Laird Technologies. The session addressed the NEW European Union Directive on EMC. The second session was entitled "EMC Management" and was held on Thursday morning (August 11th). It was chaired by Dan Hoolihan, chairman of TC-1. It covered a variety of EMC Management topics. The third session was entitled "Product EMC Design Strategies and Practices" and was held on Friday morning, August 12th. It was chaired by Kwok Soohoo of IBM. This session was a workshop that was devoted to the presentation of product EMC design strategies and practices that deal with personal computer as well as large-scale computing system developments. Topics covered included "Keeping Up with EMC Standards in Product Design" by John Maas of IBM; "Product Design using PCB and EMI Modeling Software" by Andrew Drozd of ANDRO Computational Solutions; "Personal Computer and Small Server EMC Design Logistics" by Bruce Archambeault of IBM, and "Large Computing System/Server EMC Design Logistics" by Kwok Soohoo of IBM.

Special Sessions sponsored by TC-1 in the past few years have included a Dedicated Session at the 2004 Santa Clara symposium entitled "25 Years of Change – FCC and Digital Devices" and a Special Session at the 2002 Minneapolis Symposium entitled "Managing EMC Semi-Anechoic Facilities."

TC-1 reviews papers for the annual symposiums in the area of EMC Management. This usually consists of about 10 papers of which 5 or 6 are selected for presentation at the symposium.

## LEADERSHIP CHANGE

There was a change of leadership this year in the TC-1 organization. Dan Hoolihan resigned as chair after about six years in that position. Dave Southworth moved up from his Vice-Chair position and will become chairman for the next three years. Bob Scully, the secretary of TC-1, will be the new Vice-Chair. Doug Kramer was elected Secretary of TC-1. Both Bob and Doug will serve for three years in

their new positions.

TC-1 is looking forward to the next three years under their new leadership and will be executing their latest 5-year plan to the fullest of their capabilities. They are also planning on special sessions in Portland, Oregon for the 2006 symposium and in Hawaii in July of 2007 (remember the Society's 50th anniversary celebration will peak at that time).

For more information on TC-1 activities, or to learn how you can get

involved, please contact the officers of TC-1 as below:

*Chair*

*Dave Southworth, Department of Defense, d.southworth@ieee.org*

*Vice Chair*

*Bob Scully, NASA, bob.scully@ieee.org*

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# EMC 2006 Technical Program: A Unique Balancing Act

## Commentary from the EMC 2006 Technical Program Committee

Over 1,000 people are expected to attend the 2006 IEEE International Symposium on EMC in Portland, Oregon next August. But, what do they want once they get there?

"There's no question that the IEEE International EMC Symposium has been the pre-eminent technical forum for the Society for many years," says Derick Skouby, chair of the EMC 2006 technical program. "But, the question has been raised 'how technical' material is maybe 'too technical' and how do we balance the program to address the broad range of attendees who come with a wide variety of expectations?"

It might seem like a question that has a simple answer: just offer it all, or at least something for everyone. But, as with any major symposium, scheduling is a serious challenge, and an attendee's time is a limited resource that must be shared between the technical program, the exhibition, and social events in order for the symposium to be a total success. For the technical program committee, there are obvious external conflicts to address, such as ensuring major events on the exhibition floor occur during breaks instead of during someone's presentation. But, even seemingly minor scheduling decisions within the technical program can have an effect on the experience that the committee is targeting for attendees.

For example, Skouby notes, a large number of attendees will come with a strong interest in practical EMC subjects, looking to build their knowledge on topics like test procedures, standards development, and troubleshooting. As some support of this view, attendance at the Monday and Friday workshops, which tend to focus on the more practical subjects, has outpaced daily average attendance at the Tuesday through Thursday technical sessions by 43% in 2004, and 71% in 2005. Skouby agrees that this is a potential trend that cannot simply be ignored by the symposium committee in trying to gauge the types of presentations people want to see when they come to EMC 2006.

However, other committee members are quick to add that just because the balance of session attendance has shifted somewhat in recent years doesn't necessarily mean that people are coming to the symposium solely for the nuts and bolts of EMC. "All engineers like to be challenged," says Clark Vitek, Co-Chair of the technical papers committee, "and EMC engineers are no different. The symposium committee has to be sure that we continue to offer sessions that delve into difficult topics." Vitek adds that just because attendance may be lower at sessions on the more esoteric subjects, they are no less important to the symposium experience, even for those who may attend or favor the workshops. "People might go to only one presentation the whole week and say 'aha!' And that could be a critical piece of new knowledge for them." Vitek believes that judging the importance of sessions to the attendees solely based on attendance at individual sessions is dangerous. "Everyone knows that a subject like 'How to Turn Your EMC Lab into a Microbrewery' would draw more people than another session on mutual coupling calculations, or on even more obscure subjects. However, at the same time, I think nearly everyone that comes to the symposium wants to attend a few difficult to comprehend papers that they hope will address a gnawing question for them. That's part of the fun."

Bob Olsen, technical papers chair for EMC 2006, goes further and notes that many important, now mainstream, concepts in EMC got their start either in a symposium paper, or from the IEEE EMC Society's Transactions on EMC.

He notes, "This is, for example, the venue where Clayton Paul developed his crosstalk theories that are now part of mainstream EMC. Having a good symposium, with high powered technical presentations and poster sessions, is key to retaining a vibrant research community in EMC."

With the support of the committee, Skouby promises "Our technical program will achieve a good balance of both the 'research' and the 'nuts and bolts'. Everyone in EMC will feel they will have a place at the 2006 IEEE International Symposium on EMC in Portland, Oregon." **EMC**