

## **APPROVED MINUTES**

### **OF THE IEEE EMC SOCIETY BOARD OF DIRECTORS MEETING**

**International Congress Center**

**Dresden, Germany**

**August 15, 2015**

#### **MEMBERS PRESENT (22)**

B. Archambeault

H. Benitez

C. Brench

C. Bunting

F. Canavero

A. Duffy

H. Garbe

K. Hatashita

D. Heirman

D. Hoolihan

I. Kasperovich

J. LaSalle

D. Lewis

M. Montrose

J. Norgard

J. O'Neil

G. Pettit

V. Rajamani

F. Sabath

C. Sartori

C. Schuster

R. Scully

#### **ABSENT (7)**

R. Davis

E. Hare

R. Koga

W. Lumpkins

M. Oliver

V. Rodriguez

D. Sweeney

#### **GUESTS (7)**

C. Chan

H. R. Hofmann

F. Leferink

J. Hill

M. Violette

K. Williams

J. Wolf

## **1.0 THE PRESIDENT'S OPENING REMARKS**

President Bob Scully called the meeting to order at 9:00 am. A round of introductions was made. He reviewed Board meeting protocol, the IEEE code of ethics, and upcoming activities (see President's Introductory Remarks). He reminded Board members of the material on the Board FTP site and asked that everyone remember to review this prior to the Board meetings (<ftp://ewh.ieee.org>).

## **2.0 CONSENT AGENDA MOTIONS**

The meeting agenda was presented for review. (See Draft Agenda dated August 15.) The consent agenda motions included the following items:

- a. Approve August 2015 Meeting Agenda – Scully
- b. Approve Secretary's Report – November 2014 Meeting Minutes – O'Neil
- c. Approve Promotion of SC4 (Wireless EMC) to TC12 - Brench

**Frank Sabath moved to approve the consent agenda as presented. The motion was seconded and approved.**

## **3.0 PRESIDENT'S REPORT**

Bob Scully reviewed the activity of the Excom meeting held the previous evening. The meeting addressed administrative points including the agenda review, motions to be presented, etc. All items discussed are included on the meeting agenda. (See President's Report.)

Regarding the status of electronic motions made since the last Board meeting in November, Bob Scully noted these included:

1. Approved Dr. Podgorski remaining on the ballot for BoD elections 2016-2018
2. Approved slate of candidates for BoD elections 2016-2018
3. Approved new joint publication with MTT and AP Societies (J-MMCT)

Review of the Past Year's External Activities in Summary – this included the symposium in Santa Clara and staffing an EMC Society membership booth at IMS Phoenix, APEMC Taiwan, APS Vancouver, IEEE R10 Congress '15, INCEMIC, EMC Europe, ICCE Berlin, EMC Compo, and ESDA.

Sister Society Status with APS, MTTs – Bob elaborated on this new agreement with the MTT and AP Societies to cross promote each other's symposium by providing barter ad space in each other's publications, allocating a free membership booth at each other's symposium, etc. There will be a Sister Society Tag-Up Meeting during the Dresden Symposium.

The EMC Society Status Report is due in early 2016; this is for the IEEE Society Review that takes place every five years.

Expectations of Board Members, Part 1 – Need for Support – New Board members need to fill a role on the Board and help out. Bob requested that new Board members consult with the EMC Society VPs to learn how to get more involved.

## **4.0 IMMEDIATE PAST PRESIDENT REPORT**

Ghery Pettit discussed the election of directors at large for 2016-2018. (See IPP Report.) The nomination committee included Will Lumpkins, Don Heirman, Bruce Archambeault, Francesca Maradei, Kimball Williams and

Bob Hofmann. The ballot was distributed electronically to all EMCS members on August 14. The election closes and members must vote by October 1.

## **5.0 TREASURER'S REPORT**

John LaSalle presented a report on EMC Society finances. (See Treasurer's Report.) He reviewed the EMC Society travel policy related to reimbursement for Dresden symposium travel. The 2014 IEEE financials are for the period ending FM14. The planned budget was a deficit of \$74.2K. Society finances finished strongly with an actual ending of \$141.0K. There was a positive variance of \$215.2K. Society finances overall finished strongly through FM14: Committee/Other is \$78.1K under budget; Meetings & Conferences are \$107.9K above the forecasted budget; we had a deficit of -4.2K that was a result of IEEE Investments returns; Periodicals revenue is \$39.9K above the forecasted budget.

As of the end of June 2015, the EMC Society is operating under budget. The target budget is a deficit of \$0.5K. The EMC Society is currently operating at \$188K; that is \$239.3K above the planned budget for this period (positive variance).

The report included a status of new initiatives, a listing of symposium surpluses from 2008-2015, a summary of travel expenditures, as well as a review of the 2016 budget highlights and timeline.

## **6.0 CONFERENCE SERVICES**

Bruce Archambeault presented his report. (See VP Conferences Report.)

His report includes a review of current activity for the Dresden 2015 symposium. The report includes a review of future symposiums EMC 2017 in Washington DC thru EMC 2019 in New Orleans.

Bruce moved to approve technical co-sponsorship of ESA 2016. The motion was seconded. Frank Sabath suggested this be a co-sponsorship, and not be limited to a technical co-sponsorship. A co-sponsorship requires a financial investment/commitment to the conference. Frank moved to amend the motion to approve co-sponsorship of ESA 2016 with an EMCS financial commitment limited to \$2,000 USD. Frank Sabath moved to postpone the motion discussion until the Thursday night Board meeting. The motion to table was seconded and approved.

Regarding GlobeSPACE 2016, Bruce advised that the chair of this conference was not able to attend the Board meeting today and present personally on this conference. Bruce will postpone the motion until Thursday when he has received more information from the chairman.

On the EMC Symposium site selection committee, they are evaluating Orlando, Atlanta, Calgary, Vancouver BC, and Reno for EMC 2020.

On technically co-sponsored symposia (TCS), Alistair Duffy noted that the following TCS applications were received since the last Board meeting:

- 2016 European Space Agency workshop on Aerospace EMC (ESA2016) 23-25 May 2016, Valencia, Spain
- GlobeSPACE, 20-22 March 2016, Tel-Aviv, Israel

Discussion and voting on these two applications was postponed until the Thursday evening Board meeting.

Currently there are two MoU's on technical co-sponsorship in preparation:

1. APEMC 2018 (Joint with EMC2018)
2. EMC Europe Multi-year

Since the last Board meeting, the following MoUs have been finalized and are fully executed:

- ESD Association Multi-year to 2019. Xplore cost sharing equally with IEEE/CPMT and IEEE/EDS. CPMT takes the lead on Xplore submissions.
- APEMC Multi-year (2016, 2017, 2019, 2020) Xplore cost sharing on a sliding scale

In addition, the following technical co-sponsored conferences took place since the last Board meeting:

- APEMC 2015, Taipei, Taiwan, May 2015. Several Board members attended. The total number of attendees was some 500 people, with 450 technical registrations.
- INCEMEC (India) December 2015. Vignesh Rajamani attended. It was the first time it was held at a university. The goal was to outreach to students and encourage attendance. Bob Scully thanked Vignesh for using his vacation time in India to attend INCEMIC and give a keynote presentation and a reverb chamber workshop.

The report concluded with a review of GEMCCON in Australia and the activities of the exhibitor liaison and the regional conference coordinator. The EMC 2015 Symposium survey results were also reviewed in the report.

## **7.0 COMMUNICATION SERVICES**

Heyno Garbe presented the Communications report. (See Communication Services Report.) Regarding the Periodicals Review and Advisory Committee (PRAC), the last periodical report was provided in June 2010. A face-to-face meeting was held on June 18, 2015 with EMC Society attendees including the President, President-elect and VP Communications. The editors-in-chief participated by telecom. The report was received on June 30, 2015 with a deadline given to complete the report by September 2, 2015.

Plans for a new joint APS/EMC/MTT Society Journal continue. This will be titled "IEEE Journal on Multiscale and Multiphysics Computational Techniques". Those involved in the planning from the EMC Society include Bob Scully, Christian Schuster, and Heyno Garbe. An MoU has been signed; IEEE TAB agreed at its June 2015 meeting. The elected editor-in-chief is Prof. Qing Huo Liu of Duke University.

On the Impact Factor (IF) of the Transactions on EMC, the report showed a yearly IF rating from 2009 (90) to 2014 (112).

A Practical Paper Journal is being discussed as a separate electronic only publication. This would include application oriented papers or papers presenting case-studies.

## **8.0 MEMBER SERVICES**

Vignesh Rajamani, Vice President for Member Services, presented his report. (See VP Member Services Report.)

Vignesh noted we are now at 85 Chapters globally. The newest chapters are in India and Japan. A Chapter training event was held at the Santa Clara symposium and at the APEMC conference in Taipei at the end of May 2015. A representative from IEEE Headquarters attended the Santa Clara symposium and led a senior member elevation event. A Chapter training event will be held during the Dresden symposium as well as a senior member elevation event.

Plans are underway for a membership survey. This is separate from the symposium survey, following the IEEE HQ suggestion, this will be a general survey (common to all IEEE Societies) so baseline comparisons are provided.

Regarding EMC Society Awards, Vignesh advised Mike Oliver will be replaced by Perry Wilson as the Awards Program Chair after the Dresden symposium.

Vignesh noted we have active Sister Society agreements with India – SEMCEI; UK – IET (new); ESD Society (new); Australia – EMCSA. We are working on a Sister Society agreement with Japan – IEICE.

On Young Professionals activities, Chair Caroline Chan reported a social and technical event will be held at the Dresden Symposium. Successful YP events were held in Santa Clara during the March Symposium. In Taiwan during the APEMC conference, the YP events were not as well attended as hoped. This could be due to the fact that the IEEE Taiwan Section does not have a YP committee.

The Distinguished Lecturers for 2015-2016 include Ram Achar, Scott Piper, Jan Niehof, and Marco Klingler. A summary of lectures provided to date is included in the report.

Vignesh circulated a list of Chapter Angels. He asked Board members to review the list and let him know if they are willing to continue acting as an angel.

Regarding the IEEE Fellow Evaluation Committee, Jim Knighten reported that seven Fellow nominations were received from IEEE for evaluation this year. A committee of eight current Fellows was assembled to conduct a technical evaluation of each nomination. The committee results were submitted to the IEEE for further evaluation by the IEEE Fellow Committee.

The Membership report also included information on the Sections Coordinator and PACE activity.

## **8.0 EXPECTATIONS OF NEW BOARD MEMBERS**

Bob Scully noted that there are several areas where the Board Vice Presidents need help, including:

<u>Position</u>	<u>Vice President Contact</u>
Public Relations/Marketing	Heyno Garbe
Chapter Angels, Sister Society Agreements	Vignesh Rajamani
New Webmaster	Bruce Archambeault
Video Content Coordinator	Bruce Archambeault

New Board members may be interested in one of these areas; if so, they should contact the Vice President directly for further discussion.

## **9.0 STANDARDS SERVICES**

Don Heirman, Vice President for Standards, noted leadership of the Standards Development and Education Committee (SDECom) includes Alistair Duffy as Chair, Craig Fanning as Vice Chairman, and Ghery Pettit as Secretary. SDECom will be meeting in Dresden and is coordinating their activities with the EMC Education Committee.

Regarding the Standards Advisory and Coordination Committee (SACCom), leadership includes John Norgard as Chairman, Andy Marvin as Vice Chairman, and Don Heirman as Secretary. SACCom is also planning to meet in Dresden.

The EMC Standards Committees will have a booth during the Dresden symposium in order to promote their activities and recruit new volunteers. The booth will be staffed by SDECom members who are available to be on duty. To advertise the standards meetings throughout the week, the booth will have a flyer so indicating. This flyer will also be present at the registration area for the symposium.

Don will present a thorough report on the Standards Committee activities during the Dresden Symposium at the Thursday evening, August 20 Board meeting.

## **10.0 TECHNICAL SERVICES**

Colin Brench, Vice President for Technical Services, presented his report. (See VP Technical Services Report.) He noted the Technical Advisory Committee (TAC) is very busy with the Dresden Symposium. The TAC Officers include Jun Fan (Chair), Chuck Bunting (Vice Chair), Xiaoning Ye (Secretary), and Bruce Archambeault (Past Chair). The report included a detailed summary of the technical program at the IEEE EMC Santa Clara Symposium. Regarding the IEEE EMC Dresden Symposium, the first round of paper reviews included 413 paper submissions (TC1: 12; TC2: 92; TC3: 16; TC4: 81; TC5: 36; TC6: 3; TC7: 25; TC9: 54; TC10: 39; TC11: 8; SC1: 4; SC4: 23; Special Track: 20). The final program includes 180 oral papers, 72 poster papers, five special-session papers, 28 half-day workshop/tutorial sessions, one keynote speech by Dr. Siegfried Fiebig, 18 experiments and demonstrations, and eight lectures as part of the Global EMC University. On the Best Symposium Paper award, 13 finalist papers were recommended by the TC/SC chairs. The papers were then sent to the following committee members for review: Heyno Garbe, Bruce Archambeault, Jun Fan, Davy Pissoort, Stefan Dickmann, and Colin Brench. The Dresden Symposium Technical Papers Chair Frank Gronwald did the final score summary.

SC4 on EMC for Emerging Wireless Technologies applied to become a new TC at the Santa Clara TAC meeting. After the proposed committee charter was reviewed and approved by the TAC, the TAC unanimously supported the application, and recommended the Vice Chair for Technical Services to present a motion to the Board to consider this application in Dresden.

Regarding the Education and Student Activities Committee (ESAC), the committee name changed from "ESAC" to "Education Committee" to add emphasis to all education and not just student education. The intent is to demonstrate a commitment to education beyond university students. While this was always true, the name ESAC did cause some confusion. The Education Committee officers include Mark Steffka (chair), Sarah Seguin (vice chair), and Matt Juszczyk (secretary). The committee has been meeting twice per month to get business done. They have implemented several new strategic initiatives, including a short-term goal related to providing on-line educational material with a longer-term goal for the committee to offer a number of certificate gaining opportunities within the EMC Society. The EMC Experiments manual has been updated, with two new experiments added. It is hosted on the EMC Society webpage. The Standards Development and Education Committee (SDECom) and the Education Committee are continuing their initiatives to refocus the educational emphasis within the EMC Society.

Education Committee member Chuck Bunting continues to coordinate the Society's Best Student Paper competition. Arturo Mediano chaired the Dresden student hardware design completion. Flavio Canavero chaired the Global EMC University. The Education Committee sponsored a "Fundamentals of EMC" workshop for all Dresden Symposium attendees; it was chaired by Arturo Mediano. The Education Committee also hosted the EMC Society's James C. Klouda Memorial Scholarship, worth \$1000 to the winner. Undergraduate and graduate students who are United States citizens are eligible for this merit based scholarship.

The Education Committee continued the annual John Howard Memorial University Grant Award program in which \$10,000 (USD) is awarded to the sponsor of the winning proposal. The winner is then able to establish a new university course in electromagnetic compatibility at their academic institution. It is planned to make the

university grant an official EMC Society award. For now this will remain a line item in the technical services budget until it is finalized.

## **11.0 OLD BUSINESS**

There was no “Old Business” to discuss.

## **12.0 NEW BUSINESS**

The following items were discussed under “New Business”:

**Marketing Position** – Bob Scully introduced Mike Violette for the marketing/public relations position vacated by Jim Blaha. Eventually Bob would like to see this become a VP position on the Board.

**Locations and Dates for Next Meetings** – President-Elect Frank Sabath presented the following dates for Board meetings in 2016 and 2017. (See 2016-2017 Board Meetings.)

### **2016 – EMCS Board**

- May 23-25 in San Francisco, CA
- July 23 and 28 in Ottawa, Canada during the IEEE EMC Symposium
- November 12-14 in Phoenix, AZ

### **2017 – EMCS Board**

- May 8-10 in Hamburg, Germany
- August – in Washington, DC during the IEEE EMC Symposium
- Nov 12-14 – in Red Bank, NJ (at IEEE HQ)

On the IEEE TAB Meetings, these are scheduled as follows:

### **2016 – IEEE TABs**

- February 10-15 in San Diego, California
- June 15-20 in New Brunswick, NJ (near IEEE HQ)
- November 16-21 in New Brunswick, NJ (near IEEE HQ)

### **2017 – IEEE TAB**

- February 8-13 in San Diego, California
- June 21-26 in New Brunswick, NJ (near IEEE HQ)
- November 15-20 in New Brunswick, NJ (near IEEE HQ)

**IEEE Tulsa, OK Section Regional Event** – Vignesh Rajamani noted the Tulsa, OK Section would like to organize a one-day EMC event that is aerospace based since they are close to Cessna and Boeing. This will be held at the Oklahoma University in Tulsa. Vignesh asked Board members to contact him if they would like to help with this event, contribute as a speaker, etc.

## **13.0 ADJOURNMENT**

The meeting adjourned at 5:00 pm.

**Continuation of the BoD meeting, Thursday, August 20, 2015:**

Bob Scully welcomed everyone and called the meeting to order at 6:00 pm. He presented the agenda for review and approval. (See Board agenda dated August 20, 2015.) **Don Heirman moved to approve the agenda. The motion was seconded and approved.**

**VP Conferences Report** - Bruce Archambeault, Vice President for Conferences, presented information on the requests for Technical Co-Sponsorship for the following conferences:

- 2016 European Space Agency workshop on Aerospace EMC (ESA2016) 23-25 May 2016, Valencia, Spain
- GlobeSPACE, 20-22 March 2016, Tel-Aviv, Israel

**Bruce moved to approve-co-sponsorship of the ESA 2016 workshop with a financial contribution limit of \$2,000 USD. The motion was seconded and approved.**

**Bruce moved to approve technical co-sponsorship of GlobeSPACE 2016 in Israel. The motion was seconded and approved.** Henry Benitez abstained from voting.

Symposium Chairman Prof. Dr. Hans Georg Krauthäuser presented a brief update on EMC 2015 in Dresden. There were over 800 technical registrations, 75 exhibitors, and over 400 papers submitted (285 papers accepted). All congratulated Hans Georg on a successful symposium.

**VP Standards Report** - Don Heirman, Vice President for Standards, presented his report. (See VP Standards Report.) Don Heirman reported on standards activity during the symposium week.

SDECom heard updates on activity related to 17 EMC Society standards. For more information on these standards, see [http://www.emcs.org/standards/sdecom/Standards\\_Matrix.html](http://www.emcs.org/standards/sdecom/Standards_Matrix.html). New or in process projects discussed during the meeting included:

- P1897 Recommended Practice for reporting of power line noise complaints - PAR pending
- P370 Electrical Characterization of PCB interfaces up to 50 GHz - PAR approved

SDECom discussed new study groups (with PARs pending) on the following topics:

- Planar shielding effectiveness measurement
- Measurement of shielding of PCB shields
- Shielding measurements of forensic bags and pouches
- Risk management of EMI

SDECom is seeking input on four standards, including TV and FM emission measurements (HDTV Std. 187) which measures receiver spurious emissions; RF absorber evaluation (Std. 1128) – there is interest in work up to 18 GHz, efforts are underway to form a working group to revise this standard; VDT emissions (Std. 1140) is current until 2018 – this applies to near field measurements between 5 Hz and 400 kHz, but there is interest in using this for any near field measurement; and computational electromagnetics (Std. 1597) which has several areas to update. SDECom is holding its series of meetings in Ottawa in 2016 as usual.

SACCom heard the reports from several EMC related organizations, including CISPR, ANSI C63, AAMI, ITIC, and IEC TC65/SCA/WG4. For more information, see <http://www.emcs.org/standards/saccom/sac-memberreports.html>. SACCom is planning to hold a committee meeting during the IEEE EMC Symposium in Ottawa in 2016. The committee will continue to feature one or two “hot topic EMC standards” used in their respective EMC committees and modify their report form to show this. They will also prepare a short summary of these topics for the IEEE EMC Magazine and also seek out other EMC standards development organizations to join SACCom.

At the EMC Standards booth on the exhibit floor during the symposium, Don noted he participated in a video interview by Espresso Engineering that covered the work of SDECom standardization.

The video can be viewed on [https://www.youtube.com/watch?v=CzAH3G-4\\_-8](https://www.youtube.com/watch?v=CzAH3G-4_-8)

**IEEE Women in Engineering Society** - Irina Kasperovich reported on the Woman in Engineering luncheon meeting held on August 20. The IEEE provided a speaker, Kirsten Russell, from the Women in Engineering (WIE) Society. She introduced the mission of and work accomplished by the WIE. The meeting was well attended. They will include an article on their activity for the EMC Magazine. They are planning their next meeting to be held during the IEEE EMC Symposium in Ottawa.

**EMC Related Conferences** - Bob Scully noted there were several calls for papers distributed near the registration desk. He asked for ideas to help spur activity in the EMC Society.

**Symposium Photos** - There was a discussion on the symposium photos taken during the week. This led to a larger discussion on symposium photos in general and how to receive these, maintain these, etc. Bob Scully suggested Membership Services prepare an MoU for photography services with those taking photos during the annual symposium. He is also interested in receiving a recommendation from the History Committee on the digitization and retention of these photos.

**Financial Impact of Approved Motions** - Ghery Pettit summarized the financial implications of the co-sponsorship and technical co-sponsorship motions:

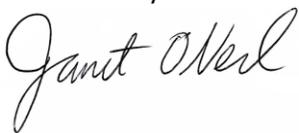
ESA 2016 - \$2,000

GlobeSPACE 2016 – Ghery clarified there is no financial impact for this motion since the conference will be paying for the cost of putting papers on Xplore.

**Action Item Review** - Secretary O’Neil reviewed the action items discussed during the meeting. An updated, consolidated list of action items will be sent to the Board following the meeting.

**Adjournment** – Bob Scully noted the next Board meetings will be over Dec 2-4 in Orlando, Florida. He thanked everyone for attending the meeting and for contributing. The meeting adjourned at 9:00 pm.

Submitted by:



Janet O’Neil  
Secretary, EMC Society Board of Directors