

APPROVED MINUTES

OF THE IEEE EMC SOCIETY BOARD OF DIRECTORS MEETING

The Embassy Suites Biltmore Hotel

Phoenix, AZ

November 13 and 14, 2017

MEMBERS PRESENT (27)

B. Archambeault

T. Braxton

C. Bunting

R. Carlton

C. Chan

L. Cohen

R. Davis (via telecom)

A. Duffy

J. Fan

H. Garbe

E. Hare

K. Hatashita

H. Inoue

I. Kasperovich

J. LaSalle

F. Leferink

D. Lewis

J. McLellan

M. Montrose

J. Norgard

J. O'Neil

V. Rajamani

F. Sabath

C. Sartori

M. Violette

T. Wu

X. Ye

ABSENT (2)

V. Rodriguez

R. Scully

GUESTS (4)

C. Brench

A. Drozd

K. Williams

L. Campanale

1.0 THE PRESIDENT'S OPENING REMARKS

President Frank Sabath called the meeting to order at 9:00 am on Monday, November 13. A round of introductions was made. He reviewed Board meeting protocol, the IEEE code of ethics, the EMC Society Field of Interest and Strategic Plan Goals (see President's Introductory Remarks). He reminded Board members of the material on the Board Forum site and asked that everyone remember to review this prior to the Board meetings (<http://ieee.emc-center.org/emcbod/login.aspx>). A moment of silence was observed to honor the passing of Warren Kesselman, a past president of the EMC Society, and Sue Archambeault, wife of our president-elect Bruce Archambeault.

2.0 CONSENT AGENDA MOTIONS

The meeting agenda was presented for review. (See Draft Agenda.) Frank Sabath noted that Kristen Russell, the IEEE speaker on the TAB Committee on Diversity and Inclusion, was not able to attend the Board meeting. This topic will be removed from the agenda. The consent agenda motions included the following motions:

- Approve November 2017 Meeting Agenda
- Approve Secretary's Report - August 2017 National Harbor Meeting Minutes
- Approve Certificate of Appreciation for GEMCCON 2017 Committee

The motion to approve the consent agenda was seconded and approved.

3.0 PRESIDENT'S REPORT

Frank Sabath noted the approved motions since the last meeting include the \$20K payment to cover the outstanding expenses of the 2017 IEEE EMC+SIPI Symposium in National Harbor, Maryland. (See Motion for Emergency Loan.)

Dr. Sabath provided a welcome to the new Board members present (Kris Hatashita, Dennis Lewis, and Tzong-Lin Wu) and thanked the outgoing Board members present (Irina Kasperovich and Mark Montrose).

Regarding the Excom meeting held on November 12, there was a discussion on how the Board can be more involved in monitoring symposium finances. The Marketing plan for the EMC Society was reviewed. Reductions of the Vice-President budgets was discussed.

On the FinCom meeting also held on November 12, Dr. Sabath noted all motions must be submitted 30 days in advance of Board meetings to enable FinCom to perform a financial assessment, to provide the Board with financial implications to the EMC Society and to assess download numbers for conference proceedings (a source of revenue to the EMC Society).

Regarding the finances of the EMC Society, for 2017 the net deficit is expected to be negative -\$279,000 or some \$87K greater than originally budgeted for our deficit. In general, Periodicals (Transactions and EMC Magazine) are operating a little over break even, Membership dues generate an income of \$90,000/year; however, EMC Society membership declines by 4% per year. Conferences generate the major income; however, we have not generated the expected surpluses from our annual symposium. The EMC Society depends on a single source of income (the annual symposium). We need to research alternate revenue sources.

4.0 PAST PRESIDENT'S REPORT

Immediate past President Bob Scully was not in attendance to present a report.

5.0 PRESIDENT-ELECT REPORT

Bruce Archambeault advised help is needed with promoting the Distinguished Lecturer and Video on Demand program. These videos have been edited and are available now on line.

Bruce advised attendance at the Operational Planning Meeting is a REQUIREMENT. He expects ALL Board members to attend these meetings in the future. The FinCom and ExCom meetings are also open to attend, but attendance is optional.

Regarding the 2017 EMC+SIPI online symposium, Bruce shared the report of ITEM Media. (See EMC+SIPI 2017 Online Symposium -Post Show Analysis.) In summary, the goal was 3000 registrations; actual year to date is 1909 registrations. This equals 102 paid, plus 885 free, plus 922 other. There were 268 live attendees from August 7 to 11. Of the paid attendees, 74% were from the USA, 5% Canada, 4% India, 3% China, and 3% Australia. Website traffic from Jan 1 –Sept 20 totaled 20,933 visits, 13,644 users, and 48,340 page views. ITEM is conducting post show marketing to generate new paid registrations. Lessons Learned included: 1. Better integrate onsite/online symposium and sponsorship sales and 2. Expand marketing efforts outside the USA. Following the symposium through September 20, the numbers were provided for total unique registrants: 39; the total unique All Access Registrants (PAID): 1; the total unique Limited Access Registrants (FREE): 38; the total unique Other Contacts (FREE –Newsletters, Content Download): 51; and total all unique (All Access + Limited Access + Other): 90. Originally, the goal was to generate 1,091 additional registrations and contacts. The actual number through September 20 is 90 additional registrations and contacts.

6.0 TREASURER'S REPORT

John LaSalle presented his report. (See Treasurer's Report.) He clarified the Board member travel reimbursement policy. Regarding the EMC Society's operations overview for 2017, the target budget is a deficit of \$192,700 (-\$192,700). This includes the Initiative spending of \$60,000. As of October 31, the EMC Society is currently operating at a deficit of \$93,600 (-\$93,600).

The report included the financial status of immediate past and future conferences. The financial surplus/loss for the annual symposiums from 2008-2016 is included in the report. The amount of EMC Society reserves from 2005-2017 was reviewed. Currently, reserves amount to approximately \$2,000,000.

The report also included a review of unanticipated items that negatively affected the budget (higher expenses than anticipated as well as lower revenue than expected). In general, AdCom travel expenses have increased while symposium revenue has decreased.

John then presented several motions. He noted that each year the Society's Temporary Employees and Independent Contractors need to be approved by the Board of Directors for the 2018 performance year. **John moved to approve temporary employees of the EMC Society (note Mark Chandler provides marketing graphics). The motion was seconded and approved. Bruce Archambeault abstained from voting.**

John LaSalle discussed adjusting the Board of Directors travel reimbursement policy to compensate for higher than expected usage and budget concerns. He noted that IEEE expects the Board to revise this policy in light of the Society being on the IEEE financial "watch list". **John presented a motion to adjust the BoD travel**

reimbursement policy. It was moved and seconded to postpone the motion until after lunch. The motion to postpone was seconded and approved.

Following lunch, John moved to adjust the Board of Directors travel reimbursement policy to compensate for higher than expected usage and budget concerns. The subsidy shall be capped at a maximum allowance of \$600 USD for meetings held during the annual symposium, \$1,000 USD for intra-regional non-symposium travel (includes regions 1-7), and \$2,000 USD for inter-regional non-symposium travel. The motion was seconded and approved.

Frank Sabath then talked about inviting past presidents to join us at a FinCom meeting to educate us on monitoring our finances. (See Financial Awareness Report.) The EMC Society could use their experience. His recommended actions moving forward to protect EMC finances include 1. Establish a VP financial reporting, 2. Establish a financial risk management (by FinCom), 3. Conference budgets need to be reviewed, approved and monitored by FinCom, and 4. FinCom should quarterly brief the Board on the financial situation, forecast, and risk.

Frank Sabath moved that:

- **Conference and event budgets are presented to FinCom six months after the venue is approved by the BoD**
- **A budget update report is provided yearly at the August Board meeting**
- **Board approves the budget, including warning levels based on FinCom recommendation**
- **FinCom reports to Board on the financial status of conferences and indicates warnings**

The motion was seconded and approved.

7.0 IEEE STRATEGIC RESEARCH

Lesleigh Campanale of IEEE reported via WebEx on the recent membership survey. (See EMC 2017 Research Results.) As a bit of background, she explained that in 2013 and 2014, the Member and Conference Survey were combined. In 2015, the All Society Research Project (ASRP) was conducted in lieu of an EMC Member Survey; however, we also did the Conference Survey. The ASRP allowed IEEE to compare EMC findings to other Societies. In 2016 and 2017, IEEE conducted three surveys for the EMC Society of EMC Society members, exhibitors and conference attendees.

Regarding the member survey, the data was collected in November 2017. This sampled 3,278 Active EMC Members. The response was 522 (16% is the overall response rate). The margin of error is ± 3.9 .

The survey questions addressed the past two-year participation in EMC in areas such as accessing publications, attending a Chapter meeting or annual symposium, participated in technical committees, visiting the website, etc. On reasons for joining the IEEE EMC Society, the top three answers were to remain technically current, obtain publications and continuing education. Lesleigh said this is consistent with IEEE all the other IEEE Societies. Overall, the member satisfaction with the EMC Society indicated 74% were satisfied, 23% were neutral and 3% were not satisfied. Lesleigh recommended that the EMC Society explore the neutral scores in 2018 to understand why they are neutral.

Other questions addressed the importance of and satisfaction with the offerings provided by the EMC Society, the total content read of the EMC Magazine and the Transactions on EMC, and the status of member activity at the local level.

Regarding the survey of the IEEE EMC + SIPI Symposium attendees, this data was collected in September 2017 of sample 721 people. The EMC Society scored high marks in all major categories (as compared to other Societies) with 85% satisfied with the conference, 92% of respondents were likely to recommend the conference, and 89% indicated the material presented at the conference was relevant. The report also shows replies to questions about specific aspects of the conference.

Regarding the IEEE EMC + SIPI Symposium Exhibitors Survey, the data was collected in September 2017 of 117 exhibitors. Only 31 exhibitors responded (26%); Lesleigh noted a general rule of thumb is that approximately half of a small population or more provides high confidence in the findings. In this case, about one-quarter of the population responded so interpret the results cautiously. She shared the data that 61% were satisfied with the exhibitor experience, 70% were likely to exhibit at the next symposium, and 59% were likely to recommend exhibiting at the conference.

8.0 MEMBER SERVICES

Vignesh Rajamani, Vice-President for Member Services, presented his report. (See VP Member Services Report.) He noted a call for Awards nominations will be sent out in late November. The major awards will be distributed at the Singapore symposium. **Regarding the James C. Klouda Award, Vignesh moved to include an annual travel grant stipend to the scholarship recipient, not to exceed \$700 USD, so the awardee may attend the annual EMC Symposium and Award Ceremony. The award donor will provide the funds, managed by the IEEE Foundation, subject to the EMC Society approval. The motion was seconded and approved.**

Vignesh noted the prize Item section of the IEEE TAB ARC Manual will have an additional bullet reading, "Awardee will be reimbursed for expenses associated with traveling to and participating in the IEEE EMC Society Annual Symposium, up to a maximum of \$700 USD."

On Chapter activity, Caroline Chan reported that there are 84 Chapters, of which a few are at risk of being dissolved. Many are inactive. Angels and others are needed to help the Chapters in distress. An Excel sheet was shared to show Angels, Chapter Chairs, and number of meetings held in 2016/2017 for each Chapter. Angels can see the trends on where the Chapter is heading (healthy or unhealthy). If a Chapter has less than two technical meetings in three consecutive years, the Chapter will be dissolved.

Heyno Garbe reported on the activity of the Fellow Evaluation Committee. A guide "How to Write an Effective Nomination" was published in September 2017. This document explained the requirements for writing a fellow nomination. Together with the more formal "Operations Manual," it is a significant step forward towards successful nominations. Please keep in mind that the rule "3 out of 5 reviewers (9.1.1)" will not be valid for the upcoming class 2019. The guide may be found at https://www.ieee.org/membership_services/fellows-nominations-2017.pdf. Moving forward, the deadline for submitting nominations for the Fellows Class 2019 is March 1, 2018. Anyone interested in serving as an evaluator of IEEE EMC Fellows should send an email to Heyno Garbe at heyno.garbe@ieee.org.

Vignesh Rajamani reported total IEEE Membership down 1.4% since this time last year; total Society Memberships is down 1.5 % since this time last year. EMC Society Membership is down 4.3% (163) to 3,500 (with Affiliates) since this time last year. EMC Society Student Membership is up 27% (10) to 48 since this time last year. Eleven Senior Member grade elevations occurred since the March 2017 Board meeting.

On the Distinguished Lecturer (DL) Program, Ram Achar reported the three DLs for 2016-2017 are completing their terms: Kate Remley (US), Farhad Rachidi (Europe), and Chunfei Ye (USA). The DLs for 2017-2018 include Prof. Andy Marvin (UK), Prof. En-Xiao Liu (Singapore), Dr. Zhiping Yang (US), and Kris Hatashita (Canada). From

January to June 2017, approximately \$23,210 has been spent on the DL program for travel. The report included a list of DL program videos available to Chapters. Four DLs are proposed for 2018-2019: Zhong Chen, Director of RF Engineering, ETS-Lindgren, Inc., Dr. Ihsan Erdin, Engineering Design Manager, Frederik Johannes Karel Buesink (Frits Buesink), Senior EMC engineer, Thales in the Netherlands, and Dr. Richard Xian-Ke GAO, Group Manager / Senior Scientist, A*STAR Institute of High Performance Computing, Singapore. **Vignesh reviewed the bios and presentation titles of each proposed DL. Vignesh moved to approve the appointment of Zhong Chen as a DL for the term 2018-2019. The motion was seconded and approved. Vignesh moved to approve the appointment of Dr. Ihsan Erdin as a DL for the term 2018-2019. The motion was seconded and approved. Vignesh moved to approve the appointment of Dr. Richard Xian-Ke GAO as a DL for the term 2018-2019. The motion was seconded and approved.** The Board felt they did not know enough of the background on Frits Buesink in order to approve his appointment.

Vignesh discussed plans to empower the IEEE EMC Society Respected Speakers Bureau (ESRB) to be active as well as to use its standing/network to further the EMC Society mission. Vignesh proposed that universities could invite the speakers from ESRB, provided they share at least half the cost of the related travel expenses. Such trips are subject to the approval from the DL chair. For the year 2017, the DL Chair along with the VP Member Services will look into requests and support up to four requests of this kind from the existing DL budget. Depending on its success, we may include this as a separate budget item in the next year's budget.

Caroline Chan reported on the Young Professionals (YP) activities. At the IEEE International Symposium on EMC+SIPI in Washington DC, several YP events were held, including a scavenger hunt, a social networking event, and speaker luncheon. The goal is to increase participation overall each year in the YP social events, speaker luncheons, and volunteering in related activities. The vast majority of YPs are aware of our events. Notifications of events and opportunities are distributed through email and social media. Feedback from the YPs helped with website modifications.

Regarding the Professional Activities Committee (PACE), Vignesh noted that at the August 2017 BOD meeting, Kimball Williams proposed folding the PACE activity completely into the Education Committee (EdCom) and into TC1, EMC Management, for development and dissemination of PACE materials. That proposal assumed that both the Education and TC1 Committees were alive, well, and active. However, EdCom and TC1 have not shown any activity since the August Board meeting. As a result, Vignesh retracted the proposal to fold PACE into EdCom and TC1. Vignesh and Kimball have reconsidered what needs to happen in order to actually achieve the PACE goals and objectives as outlined in the following motion for a 'Charter' for a PACE Committee. The PACE activity has existed in the form of a 'Director' of PACE activities within the Membership area for several years but needs more hands working toward its defined goals. In order to expand its ability to achieve its goals, **Vignesh moved to create a committee to focus on PACE goals and objectives. This would solidify the intent and direction of the proposed PACE Committee through the review and approval of its 'Charter'. The motion was seconded and approved.**

On the New Students Initiative, this created a stipend to encourage and increase the involvement of graduate students and young scientists in the field of Electromagnetic Compatibility. The stipend provided the equivalent of up to \$2,000 USD per person, for no more than five full-time students, to cover expenses associated with attendance at an EMC symposium for which they are the presenter of an accepted paper and a first timer at the conference. Students needed to apply for the stipend; recommendations from supervising professors were required. Four students were awarded this scholarship to attend the 2017 IEEE EMC+SIPI Symposium in Washington, DC.

Vignesh noted the following Sister Society Agreements are currently active:

- India - SEMCEI
- UK – IET
- ESD Society
- Australia – EMC Society
- APS, MTT and EMC officially signed sister society agreements
- Japan – IEICE – Signed the MoU during the Ottawa symposium
- PSES – Product Safety Engineering Society
- CPMT?

Invitation letters were sent to the Sister Societies to participate in the Washington, DC Symposium. Some took advantage of this opportunity. Reciprocal booths are also offered at the Sister Society symposiums and events. Vignesh will send invitation letters to the Sister Societies for the Long Beach symposium. The Sister Societies agreement details need to be updated on the EMC Society website. A special “Sister Society” tab will be added so all the details can be found in one place. This will also help to advertise what we do and identify the other societies we work with (following the model of the Communications Society).

Dan Hoolihan provided a report on the History Committee. On the EMC Legacy I and II projects, 600 sets of smart drives were distributed to the attendees of the 2017 IEEE EMC+SIPI Symposium; the package contained a card of explanation, an EMC Legacy I smart drive, and an EMC Legacy II smart drive. Dan has received a bid from the IEEE for EMC Legacy III project, which would contain EMC Europe historical legacy files from 1975 – 2010. It would consist of 6,272 articles (28,600 pages); the bid includes OCR scanning for metadata capture of titles and authors, creation of an eGuide on USB drives, and XML submission to IEEE Xplore. The bid is for \$29,000 and it is anticipated that it will be submitted for the 2018 budget. The Board requested a detailed breakdown on the \$30K expense.

Dan noted the History Committee of the EMC Society has been working with the History Committee of the IEEE and the IEEE Foundation to support the REACH Program. REACH stands for “Raising Engineering Awareness through the Conduit of History.” It covers all engineering, not just IEEE technologies. The EMC Society can help attract the next generation of engineers while raising the understanding and technological literacy of the broader young population. It will help demonstrate the underpinning of EMC technology; remember our original name was the “Professional Group on Radio Frequency Interference.” An EMC Society investment could help complete the radio videos and support the upcoming drone unit with its heavy reliance on wireless communications. Due to the EMC Society’s current budget crisis, unfortunately there is no funding available at this time to support this effort.

Vignesh reported on some of our affiliate IEEE activities. IEEE Women in Engineering (WIE) is one of the largest international professional organizations dedicated to promoting women engineers and scientists and inspiring girls around the world to follow their academic interests to a career in engineering. Irina Kasperovich is leading the effort from the EMC Society. EPICS, Engineering Projects in Community Service in IEEE, empowers students to work with local service organizations to apply technical knowledge to implement solutions for a community’s unique challenges. In this way, EPICS in IEEE not only assists communities in achieving their specific local community improvement goals but also encourages students to pursue engineering for community improvement as a career. Regarding the Special Interest Group on Humanitarian Technology (SIGHT) program, this is a network of IEEE volunteers around the globe that collaborate with underserved communities and local organizations to leverage technology for sustainable development. Vignesh noted the MTT and AP Societies are heavily involved in SIGHT. The EMC Society should get involved as well.

Regarding the free first year membership in the EMC Society that is offered during the annual IEEE EMC Symposium, Vignesh suggested ending this initiative. This would avoid paying for IEEE memberships from

symposium revenue, which resulted in minimal return on investment. **Vignesh moved to discontinue offering the first year free membership in the EMC Society at the annual EMC+SIPI symposium. The motion was seconded and approved.**

Vignesh discussed revising the annual symposium registration fee structure. He proposed differential symposium registration pricing so that EMC Society members see a tangible benefit from being a member. He suggests an EMC Society member category, an IEEE member (not EMC Society) category and a general member category (with the variants for students, etc.). The price difference between EMC Society and IEEE registration fees should only be sufficient to make it attractive for someone to join the EMC Society (such as \$85). Budgets should be based on the registration categories given that about 2/3 of the attendees are IEEE members and 3/4 of the IEEE member attendees are EMC Society members. **Vignesh moved to revise the annual symposium registration fee structure so that EMC Society members see a tangible benefit from being a member. The motion was seconded and approved.**

9.0 TECHNICAL SERVICES

Chuck Bunting reported on Technical Services activities. (See Technical Services Report.) He noted the Technical Advisory Committee (TAC) officers include Xiaoning Ye (Chair), Antonio Orlandi (Vice-Chair), Zhiping Yang (Secretary) and Chuck Bunting (Past Chair).

TAC August 2017 meeting highlights included Jun Fan reporting on APEMC EMC 2018 coordination, a vote to approve technical co-sponsorship of the 2018 Radar Conference (posed by Larry Cohen), and the merger of SC6 and SC7 merger. There was extensive discussion on whether SC5 should merge into TC7. The opinions are split among TAC officers. TC7 and SC5 officers will continue to engage with each other to resolve the issue no later than the next TAC meeting in Singapore (May 2018). Discussion was held on how to attract more members, especially a younger generation. TAC continues to address strategic planning. For more information, see <https://drive.google.com/drive/u/0/folders/0B1JGrYbys-YZUkFHcEYxaExERG8>

TAC October 2017 meeting highlights included the TC 12 charter update request, technical co-sponsorship procedure change request, and officer succession (Bunting early transition). TAC approved Technical Co-Sponsorship for the 2018 IEEE 21st Workshop on Signal and Power Integrity (SPI).

Regarding the Education Committee (EdCom), Bob Scully is the Chair. The positions of Vice Chair and Secretary are not yet filled, but discussions are underway with suitable candidates for the position of Vice Chair. No meetings have been held since the DC Symposium. A telecom meeting is being planned for January. The committee's goal is to have a "unified" curriculum fully coordinated and supported by EdCom that will include "Fundamentals" and "Global University" (GU). Currently Frank Leferink is coordinating for Singapore activities, and Lee Hill is coordinating the Fundamentals session for Long Beach. A Global University Chair has not yet been identified. Previous discussions within the committee were to the effect the curriculum would be fully put into place for the 2018 conference. EdCom will develop a "Mission Statement" and various materials gathered to aid in transition between successive years for GU and Fundamentals activities.

On the EMC Experiments Manual, Larry Cohen and Sarah Seguin are working on the hardware experiments update; CJ Reddy, Matthias Tröscher, and Randy Jost are updating the electromagnetic modeling content. Other input is invited from the Board.

On the Student Hardware Design Competition, EdCom is actively seeking and examining options for this competition in 2018.

On the Student Paper Competition, Tzong-Lin Wu performed admirably well as lead for the paper competition in 2017. A search for a new lead is underway for Long Beach.

10.0 CONFERENCE SERVICES

Alistair Duffy presented his report. (See VP Conferences Report.) He noted his committee includes:

- International Conference Committee Chair: Tom Braxton
- Symposia Finance Chair: open
- Site Selection Committee Chair: Darryl Ray
- Symposium Publicity Committee Chair: open
- Global EMC Symposia Co-Sponsorship Chair: Dennis Lewis
- Global Post Conference Liaison: Ross Carlton
- Exhibitors' Liaison Chair: Martha Hallman
- Regional Conferences Chair: Janet O'Neil
- Symposium Continuity Committee:
 - John LaSalle
 - Janet O'Neil
 - Bob Davis
 - Rhonda Rodriguez
 - Bonnie Brench
 - Bruce Archambeault

On EMC Society technical co-sponsorship requests, there are two motions to vote upon at this meeting. Two requests have been approved by TAC, including: 1) The IEEE Workshop on Signal and Power Integrity (SPI), May 2018, Brest, France, financially sponsored by the CPMT society. SPI has previously been co-sponsored by the EMC Society and 2) IEEE Radar Conference, April 2018, Oklahoma City, Oklahoma. Larry Cohen is the EMC Society Liaison to this conference.

Alistair moved to approved technical co-sponsorship of the IEEE Workshop on Signal and Power Integrity (SPI), May 2018, in Brest, France. The motion was seconded and approved.

Alistair moved to approved technical co-sponsorship of the IEEE Radar Conference, April 2018, in Oklahoma City, Oklahoma. The motion was seconded and approved.

GEMCCon was held in Sao Paulo, Brazil on November 8-10; Carlos Sartori was the Chair. Alistair would like to recognize the efforts of the GEMCCon 2017 IEEE Global Electromagnetic Compatibility Conference committee members in coordinating and executing a successful Symposium.

Alistair moved to approve awarding the GEMCCon 2017, IEEE Global Electromagnetic Compatibility Conference (GEMCCon) committee members the Certificate of Appreciation and Certificate of Recognition awards. The motion was seconded and approved.

The report included the list of names of committee members to receive these respective awards. Some preliminary figures from GEMCCon 2017 include 230 web-site users (registered), 83 registrants (budget was based on 81), 25 oral papers, 11 posters, and 11 workshop presentations.

GEMCCon 2018 will be held in South Africa (Stellenbosch) with tentative dates of November 7 – 9. The tentative venue is the Stellenbosch Institute for Advanced Studies (STIAS). Planning for GEMCCon 2019 has not started. The Board is invited to comment on a preferred location; India is under consideration.

Alistair reviewed some highlights from the EMC Society strategic plan for 2016-2020. This addresses Goal B: Technology Presence, Visibility and Excellence. Examples of innovative conference participation include the digital symposium and abstract reviewed papers. Conferences is looking at separate ‘tracks’ for standards meetings and TC meetings to “add authenticity”, respond to feedback, and provide additional reasons to “sell” attending the conference to managers. Regarding the goal of a visible global presence, examples include GEMCCon, partnering with the APEMC and EMC Europe conferences, a future proposal for “Electromagnetics – Latin America” as a legacy from GEMCCon, and taking the “mini symposia” to IEEE Regions 8-10.

Regarding Goal C: Engaging Young Professionals in the EMC Society, Young Professionals were invited to co-chair sessions at the 2017 IEEE International Symposium on EMC+SIPI in Washington DC.

Regarding Goal D: Improve EMC Membership Development and Retention; examples include outreach to underserved regions with GEMCCon and expanding the “mini symposia.” A proposal for monthly webinars will be presented in the near future.

There were 1,639 total registrations for the 2017 IEEE International Symposium on EMC+SIPI at the Gaylord Hotel and Convention Center. A combination of high venue costs and the digital symposium expenses have resulted in a net financial loss on the symposium.

The 2018 Joint IEEE International Symposium on Electromagnetic Compatibility and Asia-Pacific Symposium on Electromagnetic Compatibility will be held in Singapore over May 14-17. The General Chair is Er-Ping Li; Liu Enxiao (IHPC) and Bruce Archambeault are the co-chairs. The technical program chair is Jun Fan. The organizing committee consists of EMC Society members and local Singapore APEMC members. Regarding the technical program committee (TPC), an overwhelming number of workshop/tutorial proposals were received. Workshop/tutorial Chairs John Maas and Martin Leong are working with TPC chairs to finalize the selection of proposals. Fifteen special session proposals were received, thanks to Special Sessions Chairs Richard Gao and Bob Davis’s diligent efforts. This would translate to 100 papers if all the sessions were scheduled as planned.

The report includes a review of future symposiums EMC 2018 in Long Beach thru EMC 2021 in Glasgow (International with EMC Europe) and Raleigh, NC (National). The cities of Spokane and Portland are under consideration for the location of the 2022 symposium. These cities are more cost effective than nearby Seattle. Tampa is under consideration for the 2023 symposium.

A summary of yearly total registrations received at the 2002-2017 EMC Symposiums is included in the report.

Regarding the post conference liaison, Ross Carlton advised conference reports are generally received on time or with a little prompting. A significant issue with GLOBESPACE 2016 resulted in the EMC Society not pursuing submission of the papers to IEEE Xplore.

The report included a review of regional conference activity as prepared by Janet O’Neil, Regional Conference Coordinator. This is an area where we can grow our regional presence. Discussions are underway about ‘packaging’ these events to deliver more events in Regions 8, 9 and 10.

Alistair closed his report with comments on the IEEE Society/Technical Council 4th quarter meeting. Regarding CrossCheck, plagiarism checking is *mandatory*, phasing in for all conferences starting January 1, 2020. The goal is

to ramp up as quickly as possible. CrossCheck is the IEEE preferred tool. It is a product of iThenticate and compares against the largest database of papers. It detects similarities to other publications for both *Plagiarism* and *Republication*. CrossCheck is available to all IEEE conferences (FCS and TCS) at no charge. The cost is recovered as conference publication overhead. CrossCheck can be run at any time during the conference publications process. The recommendation is to run it as early as possible, even before papers are sent to reviewers. The fallback is to run it immediately before papers are uploaded to Xplore. The *recommended* similarity threshold is 30% (this can be changed by the user). For republication issues, this should be handled at the conference level. Authors can be asked to revise and resubmit their paper. For plagiarism, this a serious offense that must be submitted to IEEE for adjudication.

The meeting adjourned for the day at 5:30 pm.

Continuation of meeting on Tuesday, November 14. President Frank Sabath called the meeting to order at 8:30 am.

11.0 MARKETING REPORT

Mike Violette presented a marketing report. (See EMC Society Marketing.) The objective is to support the EMC Society's Strategic Goal A in addressing emerging technologies, investigating alternative modes of communication and engaging with IEEE Initiatives. He reviewed some of the marketing activity during the 2017 IEEE International Symposium on EMC+SIPI including the "Grog" campaign. To facilitate EMC outreach in China, Mike attended the EMC Beijing conference held at the Beijing University of Post and Telecommunication over October 28-31, 2017. Over 180 people attended the conference, which featured 15 sessions, 150 papers and 15 exhibiting companies. This conference is held every two years; the next EMC Beijing will take place in 2019. Mike prepared a summary of this conference, which is technically co-sponsored by the EMC Society, for publication in the IEEE EMC Magazine. He attended the EMC Beijing Chapter meeting on October 29 and provided an overview on EMC Society activity, including the IEEE IoT Initiative. He also promoted the online symposium and access to the technical content presented at the 2017 IEEE International Symposium on EMC+SIPI.

There are two wireless events coming up in March 2018 where the EMC Society could have a presence: EDICON in Beijing over March 20-22 and the AMTA regional event (March date TBD). EDICON is organized by Microwave Journal magazine and has suggested collaborating with the EMC Society on this event. These events would provide good exposure for the EMC Society. **Mike moved to provide Technical Co-Sponsorship to EDI CON Beijing March 20-22, 2018. The motion was seconded and approved.** The benefits of technical co-sponsorship of EDI CON are outlined in the report.

Mike discussed activity with the Israel and Shenzhen EMC Chapters. The Israel EMC Chapter will hold a local conference at Holton Hil Israel on May 10, 2018. Topics will cover basic and applied EMC. The contact is Jacob Gavan (jacobg@sce.ac.il).

Moving forward with Marketing, the goal is to expand and develop tactical objectives, coordinate with our Sister Societies and Technical Committees, develop/maintain a budget for Marketing and identify contractors, as well as oversee co-sponsorships/develop more co-sponsored activities. The draft budget for EMC Society is \$25K for advertising plus \$10K for branding.

The tactical plan for 2018 is to expand online media activities and assess the effectiveness of print media and online harvesting. Collateral materials for trade shows will be developed and other opportunities will be explored.

Mike noted he and Larry Cohen would continue as the EMC Society liaisons to the IEEE IoT Initiative.

12.0 COMMUNICATION SERVICES

Heyno Garbe presented the Communications report. (See Communication Services Report.) Tom Braxton and Kelly Scott-Olson provided an update on the new EMC Society website. They showed the new “look” of the site with the new graphics and photos. A remodeled and consistently branded website is a necessary tool in achieving the Society’s strategic goals. The complete redesign is being done by ATG Productions, working with the site administrator to populate the redesigned pages. The plan is to go live with the new site before the end of the year.

Regarding the new IEEE Journal on Electromagnetic Compatibility Practice and Applications (J-EMCPA), the IEEE TAB Periodicals Committee (PerCom) approved the Phase 1 proposal on June 23, 2017. Phase 2 will be submitted for the TAB November 2017 meeting. The next step is to establish an editorial board to provide an oversight responsibility body for all matters relating to the J-EMCPA. An Editorial Board is needed for the Phase 2 Proposal. **Heyno moved to approve the J-EMCPA Editorial Board Charter. The motion was seconded and approved.**

Phase 2 is the final step to launching this new journal, which is a publication for practitioners and a future source of income to the EMC Society. Phase 2 includes a summary of the financial production costs for this electronic only publication for editor fees, etc. **Heyno moved to submit the J-EMCPA Phase 2 Proposal to IEEE TAB PerCom. The motion was seconded and approved.**

On the Transactions on EMC, Editor-in-Chief Antonio Orlandi reported on downloaded and published papers. There has been an increase of more than 71% of published papers (2014 vs. 2016). However, the number of downloads per paper has decreased over the same time by 35%. In 2017, the downloads per paper is coming back to the numbers of 2014. The publication of papers requires more effort than increasing the number of downloads. A large numbers of downloads will increase the Impact Factor. Associate Editors whose terms end in 2017 include Dr. C. Holloway, Prof. M.S. Sarto and Prof. D. Pissoort. New Associate Editors for 2018 include Prof. C. Carobbi (Univ. of Florence, Italy), Prof. N. Dikhaminjia (Univ. of Ilia, Georgia), Prof. C. Sartori (Univ. of Sao Paulo, Brazil) and Dr. E. Liu (A*Star, Singapore).

For the EMC Magazine, Editor-in-Chief Janet O’Neil confirmed the plan to move forward with the email blasts to members promoting the top papers downloaded and provide the links for these papers. The goal is to increase the number of downloaded papers. The EMC Magazine is now available for download of the complete issue. This is offered in the quarterly email blast from IEEE HQ for each issue of the EMC Magazine.

Joanna McLellan gave a brief report on the Society’s Social Media activities with Facebook and LinkedIn. Ray Perez gave a brief report on the “Small Books Initiative”. An ad for this new initiative will appear in the EMC Magazine.

13.0 STANDARDS SERVICES

Ed Hare, Vice-President for Standards, presented his report. (See Standards Report.) He noted leadership of the Standards Development and Education Committee (SDECom) has not changed and includes Alistair Duffy as Chair, Craig Fanning as Vice-chair, and Ross Carlton as Secretary. The report included a list of the current Standards Committee members (21).

The SDECom met on 12 November 2017 in Phoenix, Arizona. Eleven members attended. All work was reviewed and progress was made on all standards with problems. SDECom voted to seek co-sponsorship on the P1613 smart-grid immunity standard, to help keep it from derailing on EMC issues. Four Project Authorization Requests (PAR) were approved to submit to NesCom. The four PARs included P1848 - Change in title, "risk management" to "manage functional safety and other risks"; Std. 1128 – PAR to revise RF-absorber standard, Zhong Chen to chair; P2665 – PAR to develop standard on statistical processes (Kimball Williams); and PXXXX – PAR to develop standard for on-site test of immunity (Kimball Williams).

On the status of Standards, Ed noted 27 standards are the active responsibility of SDECom, including five new standards just beginning and nine existing standards that are being revised. The P2425 standard is jointly sponsored with NPEC (nuclear). The P1613 standard is sponsored by PES (power substations, smart-grid immunity). SDECom voted to seek to join as co-sponsor. A list of standards and the current status may be found on the SDECom web page. Thanks to good monitoring by SDECom, there are plans going forward for all of our standards. Currently the EMC Society has a record number of standards under active development or revision. Working groups are making better use of webinars and other tools to address their activity.

SACCom leadership includes John Norgard, Chairman; Andy Marvin, Vice-Chairman; and Don Heirman, Secretary. SACCom met on Sunday, 12 November 2017. You can find the membership list at <http://www.emcs.org/standards/sacom/sac-members.html>. The reports received will be uploaded soon to the SACCom web page <http://www.emcs.org/standards/sacom/sac-memberreports.html>

Selected reports of interest included:

- CISPR/I: CISPR 20, 22 and 24 are being withdrawn, replaced by content in CISPR 35
- CISPR/D: Developing CISPR 36, measurement of automotive radiated emissions below 30 MHz
- AIAA: AIAA S-121A-2018, Electromagnetic Compatibility Requirements for Space Equipment and Systems has been published
- AIAA offered that because IEEE does not have a related standard, this could be a candidate for a joint project/publication

Ed noted it is critical that these reports be reviewed prior to the meeting and information provided to interested parties. In the future, Ed suggested holding the SACCom meeting ahead of the SDECom meeting in case items need to be considered during SDECom.

Moving forward, SACCom will be tracking non-IEEE standards development organization (SDO) meetings. A matrix will be updated of meeting dates and venues of EMC standards meetings represented by SACCom members. SACCom will encourage EMC Society standards members to attend non-IEEE SDO meetings for ideas of possible joint projects.

On outreach, SACCom and SDECom will submit articles on standards activity to the EMC Magazine and consider a standards track at the symposia.

For more information on EMC Society Standards, see:

<http://www.emcs.org/standards/sdecomindex.html>

http://www.emcs.org/standards/sdecom/Standards_Matrix.html

14.0 CONSTITUTION AND BYLAWS

Frank Sabath presented on this topic since Bob Scully was not present. Andy Drozd expressed his opinion that past presidents should not be allowed to run for president. Frank noted the governance committee did not

provide enough new information on the three motions from the last Board meeting so we are not able to vote. The motions related to Amend Article V, Section 1, paragraph 2; Amend Article V, Section 2; and Amend Bylaws, Section 5.1 are consequently dead.

15.0 OLD BUSINESS

STEAM PROGRAM INITIATIVE - Andy Drozd spoke about STEAM – the immersion-learning program. The goal is to stimulate engagement in STEM cross-disciplines. IEEE is becoming engaged in STEAM through IEEE Engineering Projects in Community Service (EPICS). Section-level support/endorsement is encouraged. Andy noted STEAM is entering into an MOU with IEEE EPICS to sponsor a Smart City of STEAM projects (\$5,000-\$10,000) where he hopes to incorporate EMC principles in the context of The Internet of Everything and new technologies. He would like to engage the IEEE Women in Engineering and Young Professionals in the STEAM activity.

Andy provided an update and suggested working on the TED program. The key topic is RF pollution. He will work with Mike Violette on this. It is likely these activities will not culminate until mid-2018 or 2019. More pieces need to fall into place before he can present any form of new initiative or motion for project/funding to the EMC Society Board of Directors

16.0 NEW BUSINESS

IEEE and ARRL - Kimball Williams talked about the link between the American Radio Relay League (ARRL) and IEEE. (See IEEE and ARRL Report.) He reviewed the core values of each organization. For IEEE STEM (Science, Technology, Engineering, Math) classes at many levels are part of the IEEE and stress a ‘Hands On’ approach to learning. Likewise, Amateur Radio has always been a ‘Hands On’ activity and a training ground on many levels. Amateur Radio can give IEEE STEM classes a clear objective for students. Examples of possible class topics were presented. If you have ideas and/or suggestions, please contact Malcolm Lunn, KD8TPO (lunmalcolm@me.com) and Kimball Williams, N8FNC (K.williams@ieee.org).

17.0 FINANCIAL IMPACT OF MOTIONS

Bruce Archambeault summarized the financial implications of the approved motions:

Conferences - TCS for SPI 2018 \$1000

Conferences - TCS for Radar Conference 2018 \$1000

Certificates for GEMCCON committee - \$130

2018 EMC Society standard contracts and purchase orders - \$117,000

Membership – Conference registration (income only)

Editors Meeting – For new J-EMCPA: \$2,000 for editor travel to IEEE Panel of Editors meeting, +\$3,000 for the editor fee, +\$12K for journal editorial work provided by IEEE

Klouda Award - \$700 (comes from Klouda family)

18.0 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.

19.0 SUMMARY AND CLOSING REMARKS

President Frank Sabath thanked everyone for attending the meeting. The next series of Standards and Board meetings will take place over April 10-12, 2018 at IEEE Headquarters in Piscataway, NJ.

The meeting adjourned at 12:00 pm.

Submitted by:

A handwritten signature in black ink that reads "Janet O'Neil". The signature is written in a cursive, flowing style.

Janet O'Neil
Secretary, EMC Society Board of Directors