

APPROVED MINUTES

OF THE IEEE EMC SOCIETY BOARD OF DIRECTORS MEETING

**The Hilton Ballpark St. Louis
St. Louis, MO
October 27-28, 2018**

MEMBERS PRESENT (25)

B. Archambeault
T. Braxton
C. Bunting
R. Carlton
C. Chan
J. Drewniak
A. Duffy
J. Fan
H. Garbe
E. Hare
K. Hatashita
H. Inoue
S. Kaule
J. LaSalle
F. Leferink (via telecom)
D. Lewis
J. McLellan (via telecom)
J. Norgard
J. O'Neil
V. Rajamani
F. Sabath
C. Sartori
M. Violette
T. Wu
X. Ye

ABSENT (2)

R. Davis
L. Cohen

GUESTS (4)

G. Alcala
D. Pissoort (via telecom)
Y. Fukumoto
K. Williams

1.0 THE PRESIDENT'S OPENING REMARKS

President Bruce Archambeault called the meeting to order at 9:12 am on Saturday, October 27. A round of introductions was made. He asked each person present to identify their role on the Board (i.e. what activity they support). 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>).

2.0 CONSENT AGENDA MOTIONS

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

- Approve October 27-28, 2018 Meeting Agenda – Archambeault
- Approve Secretary's Report – July 29 and August 2, 2018 Meeting Minutes – O'Neil

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

3.0 PRESIDENT'S REPORT

President Bruce Archambeault presented his report. (See President's Report.)

He reviewed the Excom meeting discussion. The Excom approved the appointment of Sergio Pignari for the position of Ombudsman for the EMC Society. The next Board meeting will be in late March/early April at ETS-Lindgren in Cedar Park, Texas (just north of Austin). The secretary will circulate date options to the Board once the hotel availability is known.

4.0 PAST PRESIDENT'S REPORT

Immediate past President Frank Sabath presented his report. (See Immediate Past President's Report.) He announced the results of the last election: Henry Benitez, Tom Braxton, Ross Carlton, Caroline Chan, Yuki Fukumoto and Davy Pissoort were all elected for a three-year term for 2019-2021. The Board congratulated the newly elected Board members.

Frank Sabath reviewed the modifications made to the EMC Society bylaws. He talked about the need to define the process for electing a new president should the sitting president pass away while in office, such as what happened recently to the MTT Society.

Frank presented a motion to add Section 5.8 Vacancies to the EMCS Bylaws. The motion was seconded and approved. (See Motion for CBL Vacancies report.)

Frank summarized the status of IEEE temporary employees and independent contractors for discussion during the treasurer's report. He noted all positions and financial summaries shown were approved during the FinCom meeting held on October 26, 2018.

5.0 TREASURER'S REPORT

John LaSalle presented his report. (See Treasurer's Report.) He clarified the Board member travel reimbursement policy. As a reminder, only travel (plane or equivalent) and hotel are allowed. Board members must complete the Volunteer Travel Form and submit it to the President and the Treasurer at least one month before the Board meeting. IEEE has modified the due date for expense report processing. They will not accept an expense report after 60 days post travel.

Regarding the 2018 EMC Society Operations Overview, to date the target budget is a deficit of \$47,800 (-\$47,800). This includes the Initiative spending of \$11,000. As of the September financial report, the Society is currently at a net positive of \$208,400. The variance is \$256,200.

John LaSalle noted that at the end of each year, the Society's Temporary Employees and Independent Contractors required approval by the Board of Directors for the following performance year. John showed the list of IEEE temporary employees and independent contractors for 2018, including their respective fees, which require Board approval to continue their work in 2019.

Heyno Garbe moved to revise the motion to approve the temporary employee term for the EMC Magazine Editor in Chief, Janet O'Neil, from 2016-2018 to 2019-2021. The motion was seconded and approved.

John LaSalle then moved to approve the list of temporary employees and independent contractors for their services in 2019 at the fees shown. The motion was seconded and approved. Janet O'Neil and Bruce Archambeault abstained from voting. John noted the Vice Presidents are responsible for finalizing the necessary paperwork with their respective independent contractors by the end of November.

6.0 GDRP REPORT

Susanne Kaule, the Board's General Data Protection Regulation (GDRP) Officer, presented a report. She explained that the EMC Society follows the IEEE Privacy Policy and IEEE GDPR. Since May 25, 2018, the European 2016/679 GDPR came into effect. It aims to protect the rights and freedoms of persons with respect to the processing of personal data by establishing guidelines determining when the processing is lawful. The guidelines mainly relate to: The quality of the data; the legitimacy of the processing; the processing of special categories of data; information to be given to the data subject; the data subject's right of access to data; the right to object to the processing of data; the confidentiality and security of processing; and the notification of the processing to a supervisory authority. Susanne will write an article on the policy for publication in the EMC Magazine. Anyone who has questions about GDRP should contact Susanne.

7.0 MEMBER SERVICES

Vignesh Rajamani, Vice-President for Member Services, presented his report. (See VP Member Services Report.) On membership, total IEEE membership is up 1.1%, since this time last year. Total EMC Society Membership up 1.9% (66) to 3,626 (with Affiliates), since this time last year. EMC Society Student Membership is down 20% (10) to 37, since this time last year. There have been nine senior grade elevations since the April 2018 Board meeting. Vignesh noted that this year at the awards luncheon, senior members received special recognition.

Regarding EMC Society awards, all the awards were distributed at Singapore and Long Beach. Perry Wilson has retired as the Awards Chair and Farhad Rachidi has taken over after the Long Beach Symposium. Nominations for 2019 awards are due March 1, 2019. An email of solicitation of 2019 EMC Society Award Nominations will be

sent out in early December 2018, and reminders sent out in early February 2019. Farhad Rachidi will put together a committee of five persons to select awardees from the nominations submitted.

Vignesh presented the new Distinguished Lecturer candidates. These include Dr. Marcos Rubinstein (based in Europe; topics include lightning and EMC), Dr. Xiaoxiong (Kevin) Gu (based in the USA; topics include silicon, RF, antennas, package integration and SI/PI/EMC), Prof. Seungyoung Ahn (based in Asia; topics include wireless power transfer and EMC), and Prof. Liang Zhou (based in Asia; topics include HPEM and IEMI). **Vignesh moved to approve Dr. Rubenstein as a DL for the term 2019-2020. The motion was seconded and approved. Vignesh moved to approve Dr. Gu as a DL for the term 2019-2020. The motion was seconded and approved. Vignesh moved to approve Prof. Ahn as a DL for the term 2019-2020. The motion was seconded and approved. Vignesh moved to approve Prof. Zhou as a DL for the term 2019-2020. The motion was seconded and approved.** Xiaoning Ye suggested getting the DLs more involved in the TAC.

On EMC Chapter activity, Vignesh noted we have 85 Chapters plus two Student Chapters in India. New Chapters include the Pakistan joint Chapter and the Shenzhen Chapter. Angels and others are needed to help the Chapters in distress. ANGELS MUST BE PRO-ACTIVE. Please review the Angel list and reach out to the Chapters.

On the Fellows committee, Heyno will continue for now as chair and Chris Holloway will be the vice chair. Their names will be posted to the EMCS website. Kimball Williams discussed the "Professional Activities Committees for Engineers" (PACE) goal: "...promote the professional interests of the IEEE members..." On PACE activity, as he reported earlier, the experiments initiated by Caroline Chan to bring PACE related presentations to the Chapter level looked promising, and the initial reaction for all Chapters visited was encouraging. However, the execution of the steps of that plan was dependent on the continued activity of two of our primary committees, TC1 and Education. Since that time, it appears that both committees have either gone dormant, or have decided to exclude the PACE Director from their meeting announcements. The effect has stalled any PACE related activities. Kimball recommends that the annual Symposium technical programs should continue to feature PACE related workshops and tutorial experiences for interested members.

Regarding the Young Professionals, Louann Mlekodaj noted the YP region reps are meeting (about every 4-5 weeks) to discuss the strategy for the group including developing a mission statement. The group is working to be more visible not only in Social Media (Facebook, Twitter, LinkedIn) with weekly posts on all social media platforms, but also working to develop a home for EMC YP representative presentations to provide at the local level (society or at the university) to attract young engineers into the electromagnetic field. YP representatives are being encouraged to consider helping create new EM demos and labs for the Education Committee effort led by John McCloskey with NASA.

Regarding the Women in Engineering (WIE) activity, the WIE event at Long Beach was not well attended. Irina Kasperovich is looking for a new format for a meet and greet during the Symposium in New Orleans. She is planning to place the WIE banner and promotional materials in the EMC Society booth in New Orleans to reduce expenses.

On the History Committee activity, Dan Hoolihan reported on the EMC Legacy Projects. Regarding EMC Legacy III (European EMC Symposium Records), initial discussions have begun with the IEEE department that produced EMC Legacy I and II media. The digitized material, compliments of Frank Leferink, has been sent to the IEEE for their review and analysis. The most important is that these papers will be available for the next generation, and IEEE Xplore is the most effective way to achieve this goal. The organizers/copyright-owners already agreed. Any costs associated with this project are expected to be expensed in 2019 or 2020. We could cut costs by not producing USB sticks, as it is much more important that the papers are available on IEEE Xplore.

On historical photo storage, this issue will continue to be worked on in the 2019-2020 timeframe.

EMC Society funding issues have led to the investigation of additional income avenues for the EMC Society exhibits at the National Electronics Museum.

Vignesh Rajamani reported on the active Sister Society agreements, including:

- India - SEMCEI
- UK – IET
- ESD Society
- Australia – EMCSA
- APS, MTT and EMC officially signed sister society agreements
- Japan – IEICE
- PSES – Product Safety Engineering Society – they are planning to submit a workshop proposal for presentation at the Symposium in New Orleans.

He is working on securing CPMT as a Sister Society and signing a MoU with the URSI community.

8.0 OFFICER ELECTIONS

Frank Sabath reviewed the election process and procedures. The officer elections will take place on October 28 with voting by secret ballot. He accepted nominations from the floor, starting with the president elect position. This includes Chuck Bunting and Alistair Duffy. There were no nominations from the floor. The next positions were for Secretary and for Treasurer. The candidates were Janet O’Neil and John LaSalle, respectively. There were no nominations from the floor. Next on VP Communications, there were no nominations from the floor; Heyno Garbe was the sole candidate. (Jim Drewniak withdrew his nomination for this position.) On VP Standards, Ed Hare was the sole candidate as there were no nominations from the floor. On VP Conferences, the candidates included Dennis Lewis and Caroline Chan.

Frank Sabath moved to close the slate of candidates for the EMCS executive officers election for the term 2019-2020. The motion was seconded and approved.

Candidates then presented their statements on why they were interested in running for their respective positions.

9.0 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 changed since Craig Fanning asked to step down as Vice-chair. Alistair Duffy continues as Chair and Ross Carlton continues as Secretary. The report included a list of the 21 current Standards Committee members. The Standards Committee held a meeting on October 26.

On SDECom, Ed noted there are teams with the following tasks:

- Monitor existing standards projects
- Seek new projects
- Ensure current standards are kept current
- Develop an “EMC Standards Week” at symposia
- Address Web and Social media

- Review operations and audit
- Act as a liaison to other Standards Development Organizations (SDO)

Ed reviewed the 27 standards that are the active responsibility of SDECom. Five are cosponsored standards (or a cosponsor is being sought) and 16 standards are being developed or revised. Standard P2425 is jointly sponsored with NPEC (nuclear). At the request of the working group chair, SDECom voted to withdraw the PAR on P2667, Immunity Site Survey, because it is essentially a duplication of ANSI C63 work. The Standards committee leadership can now directly maintain the status of the standards page on the SDECom web page. Looking at EMC related standards beyond the SDECom, Ed provided a list of standards with an EMC component being developed by other IEEE Societies. The committee is also preparing a list of IEEE EMC Standards to take to the IEC for possible joint publication.

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

For more information on EMC Society Standards, see:

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

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

Ed's report concluded with a financial summary showing the VP Standards budget and expenses incurred to date.

10.0 TECHNICAL SERVICES

Chuck Bunting reported on Technical Services activities. (See Technical Services Report.) Regarding the Education Committee (EdCom), the Chair is Bob Scully, Vice Chair is Frank Leferink, and Kimball Williams is the Secretary (Acting). A strong effort has been pursued by L. Hill, M. Steffka, T. Hubing, and B. Scully to restore the Global University experience to the vision of program founder Clayton Paul. Multiple telecoms have been held to discuss the topics to be taught, length and curriculum content of said topics, cost/benefit, possible instructors, student cost, interface and interrelationship to the EMC Fundamentals course, etc. Excellent progress has been made. On the EMC Experiments Manual, John McCloskey has accepted the role of lead for completion of the document. He has been holding periodic telecoms with a group having stake, including Larry Cohen, Sarah Seguin, Randy Jost, and others.

Regarding the Round Robin demonstration project, Kris Hatashita is organizing this effort with assistance from Vignesh Rajamani. The equipment for a given demonstration is provided by rental companies, with one set of demonstrators being shipped to IEEE Sections for their regular Chapter meetings. Demonstration materials including a set of PCBs have been sent to Kris Hatashita. Interest in this activity appears to be growing, and additional sets may be introduced. EdCom is also working to provide Do It Yourself (DIY) EMC demonstration kits. Some universities have indicated they want 25 demonstration kits; some consultants are interested in obtaining a kit. EdCom has the PCBs, and discussions are in process regarding a cost model. The University of Twente provided PCBs have been redesigned and now carry the EMC Society logo, making it clear they are an EMC Society product. EdCom will formulate a budget request in the near future and submit this to the VP of Technical Services.

Regarding the Education Committee (EdCom), Chuck noted the student design competition is funded at \$2,000. It is unclear if the intent is to fund an award amount or to fund travel. In the current round, EdCom

has not provided sufficiently clear guidance as to the process for distributing the award. The student design competition has provided an award amount (\$900 for first, \$500 for second) and authorized travel for the first place team. Chuck hopes to provide coverage for the entire amount after the budget reconciliation following the symposium.

Xiaoning Ye reported on the Technical Advisory Committee (TAC) activity. (See TAC Report.) TAC helped to send invitations to the authors of abstract reviewed papers for the Joint IEEE EMC and APEMC Symposium in Singapore as well as the IEEE EMC Symposium in Long Beach to submit full papers to the new IEEE EMC Society publication Letters on EMC Practice and Applications (L-EMCPA). The TAC chair, Xiaoning Ye, joined the EMC+SIPI 2019 committee as Technical Papers Chair. The TC10 chair also joined as the TPC chair for the embedded SIPI-2019 conference. TAC worked with Confex on the 2019 abstract reviewed papers decided by the corresponding TC chairs. After much discussion, TAC has decided to keep the two round paper review process. The motion to disband TC 3 (EM Environment) due to poor performance for a few consecutive years was tabled until October 31, pending receipt of the TC 3 written plan of activity in 2019. A small committee was set up to improve the TAC handbook.

The deadlines for the technical program submittals (workshops, tutorials, special sessions, papers, experiments and demonstrations) were shown for the 2019 IEEE International Symposium on EMC+SIPI in New Orleans.

The TC 2 (EMC Measurements) charter change proposal was discussed. Following is the existing charter for TC 2:

The committee reviews the adequacy of measurement procedures and measurement instrumentation specifications for radiated and conducted emission and immunity tests. Also discussed is the rationale for product emission limits and immunity test levels including performance requirements. The committee also supports EMC standards and procedures that deal with measurements and how they are interpreted.

The proposed NEW charter is as follows (text in italics is new)

The committee reviews the adequacy of measurement procedures and measurement instrumentation specifications for radiated and conducted emission and immunity tests. Also discussed is the rationale for product emission limits and immunity test levels including performance requirements. The committee also supports EMC standards and procedures that deal with measurements *and their uncertainty* and how they are interpreted *and applied*.

Chuck moved to approve the new charter for TC 2. The motion was seconded and approved.

The TC 4 (EM Interference) charter change proposal was discussed. Following is the existing charter for TC 4:

This committee is concerned with design, analysis, and modeling techniques useful in suppressing interference or eliminating it at its source. Bonding, grounding, shielding, and filtering are within the jurisdiction of this committee. These activities span efforts at the system, subsystem, and unit levels.

The proposed NEW charter is as follows:

This committee is concerned with design, analysis and modeling to minimize undesired electromagnetic energy to achieve EMC, both emissions and immunity. Items within the scope of this committee include design

techniques and implementation associated with component packaging, PCB layout, shielding, bonding, grounding or referencing, interconnects and filtering.

Following considerable discussion on the TC 4 charter change, **Chuck moved to approve the new charter for TC 4. The motion was seconded and approved.**

Chuck reviewed the papers submitted for the symposiums located in Singapore and Long Beach this year. For Singapore, 271 papers (not including the topical meetings and special sessions) were submitted. The bulk of these papers were reviewed by TC 2 (EMC Measurements), TC 4 (EM Interference), and TC 10 (Signal/Power Integrity). Authors from China and Japan submitted the majority of the papers. For Long Beach, 155 papers were submitted. The bulk of these papers were reviewed by TC 2 (EMC Measurements), TC 4 (EM Interference), and TC 10 (Signal/Power Integrity). Authors from the USA followed by China submitted the majority of the papers.

Regarding the Technical Services budget, there has been discussion on the Board regarding a re-alignment of TAC meetings due to budget constraints. TAC is mindful of the budget constraints and aims to streamline and increase its effectiveness.

11.0 MARKETING REPORT

Mike Violette presented a marketing report. (See EMC Society Marketing.) He addressed marketing activities, advertising and branding, IoT and 5G, and events. The objective is to support the EMC Society's Strategic Goal A in addressing emerging technologies (and people), investigating alternative modes of communication and engaging with IEEE Initiatives. The new ads to promote membership in the EMC Society were shown.

Mike noted he and Larry Cohen would continue as the EMC Society liaisons to the IEEE IoT Initiative. The goal with this initiative is to make IEEE the "Thought Leader and Premier Resource" to the 300+ organizations that currently "do" IoT. The report includes a summary of 5G activity, including a 5G Standards database under development, see <http://consensii.com/ieee5g/>.

The meeting adjourned for the day at 5:00 pm. The meeting continued on Sunday, October 28, with a call to order at 9:00 am.

12.0 ELECTION PROCEEDINGS

Immediate Past President Frank Sabath reviewed the officer election process. He noted John LaSalle, Janet O'Neil, and Heyno Garbe required a waiver of term limits to be placed on the ballot for their respective positions. **Ed Hare moved to waive the term limit for John LaSalle, Treasurer. The motion was seconded and approved. The motion to waive the term limit for Janet O'Neil, Secretary, was seconded and approved. The motion to waive the term limit for Heyno Garbe, VP Communication Services, was seconded and approved.**

The candidates for the office of President-elect, Chuck Bunting and Alistair Duffy, discussed their respective goals and objectives as president of the EMC Society. The result of the secret ballot indicated Alistair Duffy was elected to the position of President-elect for the term 2019.

It was moved to approve by acclamation the candidates of VP Membership (Vignesh Rajamani), VP Communications (Heyno Garbe), VP Standards (Ed Hare), Secretary (Janet O'Neil), and Treasurer (John LaSalle) for the term 2019-2020. The motion was seconded and approved.

The candidates for the office of VP Conference Services, Dennis Lewis and Caroline Chan, discussed their respective goals and objectives as VP Conferences for the EMC Society. The result of the secret ballot indicated Dennis Lewis was elected to the position of VP Conferences for the term 2019-2020.

It was moved and approved to re-elect Chuck Bunting as VP Technical Services for the term 2019-2020.

13.0 COMMUNICATION SERVICES

Heyno Garbe presented the Communications report. (See Communication Services Report.)

Regarding the Transactions on EMC (T-EMC), Editor-in-Chief Tzong Lin Wu reported that the number of paper submissions have steadily increased over the past few years. The quarterly statistics indicate the number of paper submissions in 2018 has increased, but not quite as rapidly as in previous years. As of June 30, 2018, we have received 284 new paper submissions in the first six months, with an additional 145 papers received since then. Among these 429 submissions from January 1 to September 30, 2018, the number of papers from China is 149, accounting for the largest portion of papers at 34.7%. The next highest number of papers are from the United States, followed by papers from India. Professor Wu provided information on the number of submitted papers, accepted papers, and rejected papers in the past eight years. It was noted that the number of submitted papers to T-EMC has steadily grown from 2010 to 2017. It reached the record high of 580 submitted papers in 2017. The acceptance rate, which is the ratio of the number of accepted papers to the successfully submitted papers, has gradually increased in the past four years (2014-2017). It was approximately 56% in 2017, which is the first time in the past eight years that the paper acceptance rate was higher than 50%. We may need to keep the acceptance rate to approximately 45% in the future. The time to publication and impact factor statistics were reviewed and are included in the report.

Regarding special issues and sections of the T-EMC, the Special Issue on the 2017 IEEE EMC+SIPI Symposium held in Washington DC was published in the August 2018 Part II issue. It has 13 published papers. The Special Section on "Nature-Inspired Algorithms for EMC and Signal & Power Integrity Applications" is ready for publication in the October 2018 issue. The Guest editors were Dr. E. Liu and Prof. A. Orlandi. It has nine accepted papers. The Special Section on "Advanced Measurements and Diagnostic Techniques for EMC" will be published in the December 2018 issue. The Guest editors include Dr. Yihong Qi, Prof. C. Carobbi and Prof. S. Li. It has 17 accepted papers. A Special Section on "Advances in lightning, modeling, computation and measurement" has been proposed by Prof. Renato Procopio, with Guest Editors R. Procopio, Dr. Y. Baba and Prof. A. Piantini. The deadline for the submission is December 1, 2018 and the estimated publication date will be June 2019. The Special Issue on the 2018 IEEE EMC Symposia in Singapore and Long Beach is now inviting authors to submit their extended work from the Singapore symposium. The Guest editors are Enxiao Liu, Xian Ke Gao, and John Maas. The deadline for the submission is December 15, 2018 and the estimated publication will be in August 2019.

Janet O'Neil, EMC Magazine Editor-in-Chief, reported the 3rd Quarter 2018 issue was published at 116 pages. Frank Sabath provided information on changes to the EMCS Constitution and Bylaws. He also provided a call for papers for the new IEEE Letters on Electromagnetic Compatibility Practice and Applications (L-EMCPA). There is an extended report on the 2018 Joint IEEE EMC and APEMC Symposium in Singapore. The Completed Careers article featured Shuichi Nitta and Yougang Gao. The Personality Profile is on Wen-Yan Yin. The balance of the issue features regular content. The 4th Qtr 2018 issue is currently under production. This is the annual US EMCS Symposium issue; the content will focus on the EMC+SIPI Symposium in Long Beach, California. We will have a review on Standards committee activity during the symposium week, an article on the HAMS visit to the Queen Mary, info on the Youth Technical Program, a summary of the Experiments and

Demonstrations, an iNARTE symposium activity update, and a Chapter Chair Training review. The EMC Society Awards review will include many photos of the awardees along with the Awards Program listing the EMC Society Awards presented in Singapore AND in Long Beach. The “regular” columns will also be published, such as Chapter Chatter, Practical Papers, Theme Papers, etc. The Spotlight column for this issue will feature the papers that were identified as candidates for the Long Beach Symposium Best Paper Awards. Jerry Ramie provided a flash drive of the symposium photos so we have plenty of material to choose from for visual interest.

The EMC Magazine page count target is 100 pages per issue in 2019. The total page count will be reduced in 2019 to lower expenses and help the EMC Society budget. Our Technical Editor, Kye Yak See, and AE for Theme Papers, Christos Christopoulos, have identified technical topics to address in 2019. These have been relayed to IEEE Media to support their ad sales efforts. The topics for the Practical Papers section includes Electromagnetic Absorber Design Challenges, Antenna with EBG Structure for Radiation Suppression, Medical EMC, and Power Electronics EMC. The topics for the Theme Papers section includes, EMC - Looking Ahead, EMC in Power Electronics and Motor Drive Systems, the Internet of Things and EMC, and Automotive/Aerospace/Railway - Transportation EMC. We will have a new AE for Book Reviews. Frank Gronwald will assume the AE position for Book Reviews effective with the next issue. The financial spreadsheet provided showed the ad revenue and expenses (not including editor and design fees) for the three EMC Magazine issues produced to date in 2018.

Ray Perez reported as IEEE Press Liaison. He noted royalties are only reported once/year for the previous year and reported in June-July. The next report will be provided in December 2018 for the last six months of 2017. *Handbook of Aerospace EMC* is in production and may be published in the last quarter of 2018. The book *Electromagnetic Reciprocity in Antenna Theory* by Martin Stumpf is in progress for publication in 2018. It is part of the Small Books Initiative. Ray is currently editing the book *Handbook of Aerospace EMC*. The IEEE EMCS sponsored book *Grounds for Grounding* will go through a Rev A publication in the future. A new call for authors for the “Small Book Initiative” is being published each quarter in the IEEE EMC Magazine. Ray attended the annual IEEE Press Board of Directors meeting in August 2018 as well as the 2018 IEEE EMC+SIPI Symposium in Long Beach.

Tom Braxton reported on the EMC Society website. The redesign of the site has been well-received for its appearance and its ease of navigation. ATG Productions has provided an update tool for committee chairs and secretaries that has been sent to all committees for their use. The proposal for advertising sales will involve click-through ads at the bottom of the page that will be offered to EMC equipment manufacturers. After two months, the level of customer click-through traffic will be reviewed to check for effectiveness and value to the advertisers.

Joanna McLellan provided a report on Social Media. Mobileye owned by Intel still leads our Facebook page posts (1081) with a video of their autonomous vehicle ignoring a clearly visible red light. The top post during this reporting period (324) is about the UK Azuma train not being allowed to use the electric motors, as the signaling equipment along the track is susceptible to the EMI radiated and conducted from the train. The report includes the top EMC Society Facebook posts as ranked by people reached. This reporting period has been a challenge for the Social Media team as media platform operations can change without notice. On the positive side, the number of Facebook “likes” and comments have notably increased.

Heyno reported on the following new publications:

- *IEEE Journal on Multiscale and Multiphysics Computational Techniques (JMMCT)* – Per EiC Ross Stone, J-MMCT, the President of the Nominating Society, MTT-S, upon input from the search committee, has

appointed Costas Sarris of the University of Toronto as the next Editor-in-Chief of the IEEE Journal on Multiscale and Multiphysics Computational Techniques (J-MMCT). Ross acknowledged Qing Liu for the outstanding job he has done as founding Editor-in-Chief of J-MMCT and welcomed Costas Sarris to his new position. J-MMCT will undergo its first review by the Periodicals Review and Advisory Committee (PRAC) in November. This is the two-year review that all new publications undergo. Ross is working with Qing on getting the report completed. The Financial Partners of this journal include AP-S, MTT-S, and EMC-S.

- *IEEE Journal on EMC Practice and Applications (J-EMCPA)* – EIC Frank Sabath reported the Phase 2 Proposal to launch the IEEE Letters on Electromagnetic Compatibility Practice and Applications (L-EMCPA) was endorsed by TAB PerCom on 21 June 2018 and approved by TAB on 23 June 2018. During Phase 2, the journal was transferred to a Letters publication. The remaining step required is to replace the word “Journal” with “Letters” in the publication title. TAB is expected to approve this change at its November 2018 meeting. The IEEE L-EMCPA is a rigorously peer-reviewed forum for rapid publication of articles describing practice, lessons learned and applications of the disciplines electromagnetic compatibility (EMC) and signal and power integrity (SIPI) as well as all relevant methods to predict, assess and prevent electromagnetic interference (EMI) and increase device/product immunity. For 2019, the overall objective is to publish at least 20 papers as this will initiate the indexing procedures. The planned issues for 2019 include: February 2019 dedicated to EMC Standardization; May 2019 Abstract-Reviewed Papers (from EMC/SIPI Symposium); August 2019 special issue on new equipment and features with pre-publication at the New Orleans Symposium; and November 2019 (content to be announced). The list of associate editors includes Bruce Archambeault, Don Heirman, Robert Kebel, Frank Leferink, Davy Pisssoort, Bob Scully, and Mike Violette. The guest editor for abstract reviewed papers is Alistair Duffy. The ScholarOne manuscripts system will be set up for the L-EMCPA after the title change has been approved by TAB PerCom and TAB in November 2018. The estimated costs for this service are provided in the report.
- *IEEE Transactions on Signal & Power Integrity (T-SIPI)* - Due to the financial situation of the EMC Society, this activity is on hold. Frank Sabath, Heyno Garbe, and Jun Fan will work on a letter of intent for this journal so it is ready when the activity resumes. Jim Drewniak will take over the position of Editor-in-Chief from Bruce Archambeault. He will submit the proposal for Phase I of this new publication at the February 2019 TAB meeting. He expects a one-year process from submitting the proposal to the first issue coming out in early 2020.

14.0 CONFERENCE SERVICES

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

- Symposia Finance Chair: open
- International Conference Committee Chair: Tom Braxton
- 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

Alistair noted his presentation concentrates on matters inviting Board discussion. Other items are contained in his report located on the Board repository.

First, he reviewed GEMCCon activity. GEMCCon 2018 in Stellenbosch, South Africa, will be held on November 7 – 9. The General Chair is Gideon Wiid. The invited speakers include Keith Armstrong, Sarel van der Merwe, Ferran Silva, Frank Leferink, and Paul van der Merwe. The website for more info: <https://sites.google.com/view/gemccon2018>

GEMCCon 2019 will be held in Bengaluru (Bangalore), India on November 6 – 8. The General Chair is Dr. Pande with Dr. Dipanjan Gope taking on the role of Technical Chair. The venue will be the IEEE India Headquarters in the World Trade Center. The host hotel will be the nearby Sheraton Brigade Hotel. GEMCCon 2019 will be ready to issue the call for papers in November 2018, approximately coincident with the South African GEMCCon. He reviewed the budget for the conference, which projects a \$6,000 surplus. **Alistair moved to approve the GEMCCon 2019 budget as presented. The motion was seconded and approved.** **Alistair moved to approve a loan of \$5,000 to the GEMCCon 2019 organizing committee. The motion was seconded and approved.**

Regarding GEMCCon 2020, this is being considered as a part of “The first IEEE Ukrainian Microwave Week” in Kharkiv, which consists of several conferences. These include MSMW (International Kharkiv Symposium on Physics and Engineering of Microwaves, Millimeter and Submillimeter Waves), DIPED (International Seminar/Workshop on Direct and Inverse Problems of Electromagnetic and Acoustic Wave Theory), ICATT (International Conference on Antenna Theory and Technique), UWBUSIS, and MRRS (Microwave Radar and Remote Sensing Symposium). The period would be in May-June 2020. (We may want to consider another event in the November slot, perhaps in China). Alistair requested a Board member negotiate this GEMCCon 2020 activity with the Ukrainian Joint Chapter.

Alistair next reviewed attendance for the annual IEEE EMC+SIPI Symposiums held in the US. Other than the 2017 symposium held in Washington, DC, the 2018 symposium in Long Beach had the best overall attendance since 2012. He reviewed the registration categories and percentages of tickets issued/used for the various social functions (welcome reception, gala banquet, and awards luncheon). He also reviewed the number of tickets purchased for the Monday to Thursday companion tours.

Regarding the on line symposium managed by ITEM Media, as of mid-September the paid attendee income was \$18,000 (versus \$20,000 in 2017), sponsorship income was \$120,000 (versus \$87,000 in 2017), and advertising income was \$30,000 (versus \$32,000 in 2017). Our financial commitment includes \$150,000 for the on-line component; \$10,000 for ITEM travel; \$20,000 in sales commission (18% sponsorship commission); and an \$8,000 contested amount. The surplus is -\$43,000. The best attended virtual sessions involved wireless and automotive EMC topics.

Currently there is no commitment to hold an online symposium in 2019. Alistair suggests we survey our membership about an online symposium, or online content in general, to determine the level of interest in on line content and what topics are of most interest. For example, are webinars possibly on line content that would appeal to members? Would standards updates be of interest in addition to the popular topics from recent symposiums?

Alistair talked about the evolving symposium structure. For several years, we have had the International Symposium on EMC and SIPI (in various representations). This was intended to appeal to two related but largely separate communities. There is also an industry-based community covering both EMC and SIPI that may not consider attending (or might not secure funding for) what might be seen as a predominantly academic conference. There is a clear need to grow the attendance, and particularly the paid attendance. Should we look to appeal to those communities more directly? If so, how?

This year, the 2019 IEEE International Symposium on EMC and SIPI is being constructed as our traditional International Symposium on EMC, the International Conference on Signal and Power Integrity, as well as the new “Standards Week”. Standards Week has grown out of several years of EMC Standards working group meetings taking up the whole week and is intended to be directly attractive to the practicing engineer who might secure funding to come to the symposium (as well as our regular attendees).

Briefs updates were provided for the upcoming symposiums in New Orleans (2019), Reno (2020), Glasgow and Raleigh (2021) and Spokane (2022). All are proceeding according to the appropriate timelines.

Alistair noted that Caroline Chan has been leading an initiative to gather ideas and suggestions for symposium improvement. Various suggestions are included in the report.

Regarding the EMC Society approving Technical Co-Sponsorship of a conference, the current approach is a choice between ‘technical’ co-sponsorship where the IEEE Xplore costs are funded by the Society and/or the Conference OR ‘financial’ co-sponsorship where the EMC Society earns a small financial share in the conference (typically 2% - 3%). This can help defray the IEEE Xplore costs when the conference makes a surplus (such as the recent INCEMIC and ESA Aerospace conferences). Alistair asked if this now the most appropriate model or should we look at different arrangements moving forward? For example, should the interested conference pay the IEEE Xplore fees if that is the key reason for co-sponsorship? We should actively seek to increase our financial and technical involvement in long standing conferences of strategic importance to the Society (due to geography, sector, etc.). Perhaps we could offer a promotional ‘barter exchange’ from technically sound conferences that are of relevance to our members, simply looking for wider publicity. These are all ideas we should consider moving forward with the technical co-sponsorship requests we receive.

Alistair noted a revision of the Symposium Manual for the EMC Society is currently underway with a working group led by Bonnie Brench.

The report included a review of regional conference activity as prepared by Janet O’Neil, Regional Conference Coordinator. A budget review for VP Conferences was summarized in the report.

15.0 FINANCIAL IMPACT OF MOTIONS

Frank Sabath summarized the financial implications of the approved motions. (See Financial Implications of Approved Motions.) This includes:

- Approve temporary employee/independent contractor salaries and suppliers (per Treasurer’s report) - \$125,000
- Approve GEMCCon 2019 Target Budget Surplus - \$6,000
- Approve GEMCCon 2019 Loan - \$5,000

16.0 ACTION ITEM REVIEW

Janet O'Neil reviewed the action items discussed during the meeting. An updated, consolidated list of action items will be sent to the Board members following the meeting.

17.0 SUMMARY AND CLOSING REMARKS

President Bruce Archambeault thanked everyone for attending the meeting. The next series of Standards and Board meetings will take place the March/April 2019 timeframe. Details will be communicated to the Board in the near future.

The meeting adjourned at 3:30 pm.

Submitted by:

A handwritten signature in cursive script that reads "Janet O'Neil".

Janet O'Neil
Secretary, EMC Society Board of Directors