APPROVED MINUTES

OF THE IEEE EMC SOCIETY BOARD OF DIRECTORS MEETING

ETS-Lindgren and Spring Hill Suites Hotel
Cedar Park, Texas
April 8-9, 2019

MEMBERS PRESENT (28)

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

ABSENT (0)

GUESTS (2)

G. Alcala
K. Williams

1.0 THE PRESIDENT'S OPENING REMARKS

President Bruce Archambeault called the meeting to order at 1:00 pm on Monday, April 8 at ETS-Lindgren. 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 included the following motions:

- Approve April 8-9, 2019 Meeting Agenda – Archambeault
- Approve Secretary's Report – October 2018 St. Louis Meeting Minutes – O'Neil

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

3.0 PAST PRESIDENT'S REPORT

Immediate past President Frank Sabath presented his report. (See Immediate Past President's Report.) He reviewed the recent activity of the Nominations and Appointments Committee (N&A), Constitution and Bylaws Committee (C&BL), and the Financial Committee (FinCom).

Regarding the N&A committee, the new Board members for 2019-2021 have been elected and include Henry Benitez, Tom Braxton, Ross Carlton, Caroline Chan, Yuki Fukumoto, and Davy Pissoort. The N&A committee includes:

Frank Sabath	(Chairperson)
Tzong-Lin Wu	(BoD, 2018-2019)
Davy Pissoort	(BoD, 2019-2020)
Irina Kasperovich	(2018-2019)
Liuji Koga	(2018-2019)
Frank Gronwald	(2019-2020)

Frank Sabath moved for the Board to appoint Davy Pissoort and Frank Gronwald as new members of the N&A Committee for the term 2019-2020. The motion was seconded and approved.

Nominations for Director-at-Large Candidates are due on or before 31 May 2019. The nomination form was published in the EMC Magazine in the 4th Qtr 2018 and in the 1st Qtr 2019 issues.

Regarding the C&BL committee, changes in the Constitution were approved by the EMCS Board in April 2018. They were approved by IEEE TAB in June 2018 and published in the 3rd Qtr 2018 issue of the EMC Magazine. They became effective on 1 November 2018. Changes in the Bylaws were approved by the EMCS BoD in October 2018 and submitted to IEEE TAB Management. They were published in the 4th Qtr 2018 issue of the EMC Magazine and became effective on 1 February 2019.

4.0 PRESIDENT'S REPORT

President Bruce Archambeault presented his report. (See President's Report.) He reviewed the motions voted upon since the last Board meeting in October 2018 in St. Louis:

- Motion to approve Technical Co-Sponsorship of EMC of Integrated Circuits (EMC Compo) - passed
- Motion to approve Technical Co-Sponsorship of Asia Pacific Microwave Conference (APMC) - passed
- Motion to approve Technical Co-Sponsorship of IEEE Radio and Antenna Days of the Indian Ocean 2019 (Radio) - failed

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, the target budget is a deficit of $47,800 [-$47,800], this includes the Initiative spending of $11,000. As of the December Report, the Society is currently at $113,000. The variance is $160,700. The Society came in better than the planned budget. This is attributed to higher than projected revenue from Periodical sales and Conferences. Committee expenses were significantly underspent by $111,800.

For the 2019 Operations Overview, the target budget is $12,700. There are no Initiatives budgeted for 2019. As of the February Report, the Society is currently on track at a net positive $160,760.

The report includes tracking information on symposium expenses and revenue as well as a review of the level of reserves. Since 2015, the net surplus of the symposiums and the Society reserves have considerably declined in value. This is why the EMC Society is on the IEEE's financial watch list.

Regarding requests for reimbursement, IEEE is now using Concur to process expense reports, effective February 11, 2019. If you have questions on using Concur, please visit concurfeedback@ieee.org.

John noted IEEE Finance has selected NetSuite, a cloud-based web application, to ensure that processes are streamlined and that audit requirements are met across the IEEE Enterprise. The default budget structure does not currently align with our Excel-based budget structure. NetSuite should be in place for 2020.

6.0 MEMBER SERVICES

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

Regarding EMC Society awards, Farhad Rachidi has taken over as chair of this committee following the Long Beach Symposium last year. Nominations for 2019 awards were due March 1, 2019. An email solicitation of 2019 EMC Society Award Nominations was sent in early January 2019 to EMCS members; awards nominations were accepted thru mid-March 2019. Farhad Rachidi put together a committee of five persons to select awardees from the nominations submitted. The awardees recommended by the Awards Committee were then reviewed. As a result of discussion, several awards were approved, including:

- Vladimir A. Rakov for the Richard R. Stoddart Award (Jim Drewniak abstained from voting on this award); Sam Connor, Ryan From (Jun Fan, Dennis Lewis and Frank Sabath abstained from voting on this award), Richard Gao, Dragan Poljak, Bo Zhang, Jianmin Zhang and Jianqing Wang for the Technical Achievement Award;
- Christos Christopoulos for the Hall of Fame Award;
- Francesca Maradei for the Honored Member Award;
- Lin Biao Wang for the Young Professional Award;
- Ray Adams and En-Xiao Liu for the Symposium Chair Award;
- Gideon Wiid, Cees Keyer and Frank Leferink for a Certificate of Acknowledgement.

On the EMC Society President's Memorial Award, Kurt Michael Coetzer (student of Electrical and Electronic Engineering, Stellenbosch University, South Africa) was approved as the recipient. (Gideon Wiid abstained from voting.). The Board agreed to honor Warren Kesselman with the President's Memorial Award.

Regarding the Completed Careers Committee, chair Don Heirman has provided a detailed report on his committee's activity and the material needed to feature a deceased EMCS member in the Completed Careers column of the IEEE EMC Magazine. Recently the EMCS lost one of the Society's original founders, James P. McNaul. His contributions to the EMC Society during his long career were featured in the EMC Magazine, 1st Qtr 2019.

On EMC Chapter activity, Chapter Coordinate Caroline Chan provided a detailed report. She noted we have 85 Chapters plus two Student Chapters in India. New Chapters include the Pakistan joint Chapter and the Guangzhou (China) Joint EMC/AP Chapter. The report shows the list of Chapters in danger of being dissolved since they have held less than two technical meetings in three consecutive years. Note that 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. Potential new chapters include S. Korea and Reno/Las Vegas. Both potential chapters do not have enough members to create a Chapter or Student Chapter at this time. Plans are underway for the Chapter Chair luncheon and training in New Orleans during the symposium. Germany was selected as the "Chapter of the Year" and Turkey was selected as the "Most Improved Chapter." These awards will be presented in New Orleans.

On the Fellows Evaluation Committee, chair Heyno Garbe has invited eight EMC-S Fellows to serve as an Evaluator. Four have formally accepted the assignment. He will post an announcement about the FEC on our website. (Note Heyno as the FEC chair is not allowed to act as evaluator.) The nomination period ended on March 1, 2019. Heyno received the names of ten individuals nominated on behalf of the EMCS. Each nominee will be assigned a minimum of five evaluators. The new EMCS Fellows will be announced at the end of this year.

Regarding membership development, Vignesh reported total IEEE membership is down 1.2%, since this time last year, total Society memberships are down 0.4%, since this time last year. EMC Society membership is down 3.1% (123) to 3,005 (with Affiliates), since this time last year. EMC Society Student membership is down 32% (28 to 19), since this time last year. We have had nine senior grade elevations since the October 2018 Board meeting.

Reports were reviewed for EMC Society activity in Regions 8-10. Frank Leferink reported on Region 8. EMCS promotional material (and in some cases the EMCS membership booth) was provided at GEMCCON 2018 in South Africa, at EMV in Stuttgart 19 - 21 March 2019 (we shared a booth with the German EMC Chapter), and at the 2019 ESA Workshop on Aerospace, 20 - 22 May 2019 in Budapest, Hungary. Promotion at the SPI workshop on June 18-21 in France is unknown as they were Technically Co-Sponsored by EMCS until and including 2018. On the SPI 2019 edition, only MTT and EPS (packaging) are mentioned on their conference advertising. Ross Carlton is trying to find out what happened. No reports were received from Region 9 (South America) and Region 10 (Asia).

Vignesh discussed the IEEE membership survey. He noted that IEEE HQ recommended that the membership survey not be conducted every year, as the results do not change much from year to year. A separate, IEEE survey was conducted; however, to obtain input specifically about the online symposium held during the 2017 and 2018 symposiums. This was directed at the general membership to gauge their interest in the online symposium. Highlights of the survey results are included in the report, including information on awareness of the online symposium, number of attendees, benefits of attending, etc.

The summary of Distinguished Lecturer (DL) activity is included in the report. The current plan is to offer the video DL talks only EMCS members via EMCS membership number protection as a streaming video. The list of available DL video topics is included in the report.

Kimball Williams' reported on PACE "Professional Activities Committees for Engineers" and reiterated their goal to "…promote the professional interests of the IEEE members…" He will not be able to attend the 2019 Symposium in New Orleans. He suggests the Board identify a new Director of PACE activities who can take over this job and lead the effort in new, different, and perhaps, successful directions.

Henry Benitez reported as the Sections Coordinator. His plans for 2019 include providing Section liaison support for all regions as needed and requested and to participate in local Section Activities. He suggested having an EMCS presence (booth and promotional materials) at the 2020 Sections Congress in Ottawa, Canada.

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

On the History Committee activity, Dan Hoolihan reported on the EMC Legacy Projects. For EMC Legacy III – (Europe 1975-2010) – no further work is planned at this time due to the financial situation of the EMC Society. On historical photo storage, this issue will continue to be worked on in the 2019-2020 timeframe. For the EMC Society Museum, a contract for 2019 exhibits and equipment storage for zero dollars is pending signatures by the EMC Society and the National Electronics Museum in Maryland.

Regarding Young Professionals, Louann Mlekodaj noted the committee is holding monthly telecoms to plan activities. Currently there are 20 YP individuals who receive the monthly telecom invitations. Typically, they have four to six participants every month. They are finalizing plans for two YP events to be held during the New Orleans symposium to promote networking and socializing. Louann has asked all YP team members to contribute to YP social media including Facebook, Instagram and LinkedIn. More info is available at https://www.facebook.com/ieeeypemc/ and on the New Orleans symposium webpage: https://www.emc2019.emcss.org/programs/social/young-professionals-social-events

Regarding the Women in Engineering (WIE) activity, Susanne Kaule has taken over this activity from Irina Kasperovich. Susanne has organized a WIE event on July 24 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.

Vignesh concluded his report with information on the traveling one-day workshop. The drawings for the demo boards were sent to Jim Drewniak to get quotes for making a set. Getting a cost effective price for creating the demo boards has been a challenge. The offer from Gabe Alcala and ATEC still stands – i.e. we can barter the test equipment we need to run the demos in exchange for “promotional considerations”. The PowerPoint package for the training sessions that go with the boards is progressing.

7.0 TECHNICAL SERVICES

Chuck Bunting reported on Technical Services activities. (See Technical Services Report.) Regarding the Technical Advisory Committee (TAC), current leadership includes Chair Xiaoning Ye, Vice-chair Zhiping Yang, Secretary Sam Connor and Immediate Past Chair Chuck Bunting. TAC reports are current on the EMC BoD Repository. TAC recently held an online meeting. Activity included the introduction of Sam Connor as the new secretary.

The annual symposium paper review is on schedule with 131 regular papers, 12 special session papers and 58 abstract reviewed papers submitted for the New Orleans symposium. The report shows the breakdown of paper submittals by country with the top five countries including USA (101 papers), China (34 papers), South Korea (13 papers), Japan (11 papers) and Germany (eight papers). Regarding the areas of interest, the most papers were submitted for review by TC 10 Signal and Power Integrity (37 papers), TC 2 Measurements (22 papers), TC 4 Interference Control (15 papers) and Computational EM (13 papers). The key paper deadlines coming up at the end of April were reviewed.

Chuck noted the plan to disband TC3 did not happen as there has been a significant increase in TC3 activity recently. They are holding monthly meetings, have organized a Special Session, workshop and tutorial for the New Orleans symposium and are participating in standards development.

TAC is communicating with the MTT Society AdCom Chair on collaboration opportunities. One suggestion from TAC is to reserve special session slots at the EMC symposium for MTTS. There was a discussion on the proposal of setting up a “future direction committee”. TAC emphasized that “Future Direction” and “Standards Development” are critical topics for each TC. On the TAC handbook improvement, a few review sessions have been completed with TAC officers (including previous officers). A status report will be given at the next TAC meeting in July. One area to address are the special committees and the need to identify the criteria for creating a Special Committee, the path for elevation to TC, etc.

Regarding the Education Committee (EdCom), the Chair is Bob Scully, Vice Chair is Frank Leferink, and Kimball Williams is the Secretary (Acting). The committee has organized a Student Paper competition. This will be handled via the same paper review process used last year. They have also organized a Student Design competition; more information on this may be found on the Symposium website. Bogdan Adamczyk will be helping to stay on top of this activity.

Regarding New Orleans Symposia Support, Frank Leferink is handling the EMC Fundamentals tutorial. He has identified a series of presenters and is in the process of soliciting and obtaining commitments. A number of these individuals are also potential speakers for Global University, and both Frank Leferink and Lee Hill are in the process of collaboration to identify presenters for these two tracks.

For the Clayton R. Paul Global University, Lee Hill is in charge of this effort. The registration fees are similar to the fee structure originally charged at the first Global University held in 2007 at the EMC symposium in Hawaii. Chuck presented two motions to complement the GU program; one on organizing a social event for the attendees and speakers and two, for providing a $50 stipend for each GU speaker. These motions failed. **Chuck moved to provide a certificate for GU attendees; it was moved and seconded to table this motion. The motion to table passed.**

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. EdCom will formulate a budget request in the near future and submit this to the VP of Technical Services.

John McCloskey is providing the update to the Experiments Manual. Randy Jost is handling the education/curriculum for EdCom. Bruce suggested Chuck prepare a succession plan for the EdCom.

Chuck closed his report by showing 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.

8.0 COMMUNICATION SERVICES

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

Regarding the Transactions on EMC, Heyno reviewed the conduct within the T-EMC editorial board in 2018. This started in April 2018 when an anonymous claim was submitted to members of EMC-S, including the VP Communication Services, stating that in 2017 one person within his organization published more than 26 papers in the T-EMC. The VP Communications initiated an investigation of this case. As a result, the Editor-in- Chief (EiC) was replaced by Tzong-Lin Wu on May 1, 2018. Information gathered on this claim was sent to IEEE staff in publications, which investigated the case for almost a year. They then retracted 29 papers and terminated IEEE membership for the EiC and for two Associate Editors. The press release IEEE published on this may be found in the VP Communications report. IEEE then formed an oversight committee (OC) which is chaired by William J. Emery. This OC is now in charge of the case. They have acted on the 29 papers to enable coauthors to revise and resubmit. They are also examining all papers in a 2-3 year period that were submitted to the past TEMC for editorial review. A separate team will review of the re-submitted papers.

We have learned a number of lessons from this investigation as summarized in the report. In general, we must strictly follow the IEEE publication rules as published in the IEEE Publication Services and Products Board Operations Manual 2018. Further information on this investigation will be provided in the future it becomes available.

Regarding administrative matters for the T-EMC, Tzong-Lin reports the number of paper submissions has been steadily growing over the past several years. The quarterly statistics on new paper submissions are provided in the report; note we received 628 new submissions in 2018 versus 580 in 2017. Among these new submissions in 2018, the number of papers from China is 210, accounting for the largest portion with 33.4%. Submissions from United States and India are in second and third place, respectively. The report shows the trend of the number of the submitted papers, accepted papers, and rejected papers since 2010. The time to publication is also provided in the report. The time to publication is excellent; it is significantly shorter than other related journals such as T-MTT, T-AP, T-CPMT, TMag, T-PD, and T-PE. On the Impact Factor (IF), the report includes the 5-year impact factor (5-yr IF) for the T-EMC and other EM related IEEE journals. The latest IF results for 2017 are also shown. It shows the IF has decreased from a record high IF of 1.658 in 2016 to 1.52 in 2017. However, the other related journals such as those published by MTT, AP, CPMT, and Mag Societies have all increased in both index in 2017 compared to 2016. We need to track the IF closely for the T-EMC.

Regarding future special issues, "Advances in lightning modeling, computation and measurement" was proposed by Prof. Renato Procopio (I) with Guest Editors Prof. R. Procopio (I), Dr. Y. Baba (J) and Prof. A. Piantini (Br). The estimated publication will be June 2019. There were 31 papers submitted for this issue. The Special Issue on 2018 IEEE EMC Symposia in Singapore and Long Beach is now inviting the authors for submission of their extended work. The Guest editors are Enxiao Liu, Xian Ke Gao, and John Mass. The estimated publication will be Aug. 2019. There were 23 papers submitted for this issue. Finally, a special issue "EMC for Wireless Power Transfer and Power Electronics" was proposed by Guest Editors Prof. Jun Fan, Prof. Joungho Kim, and Prof. Nuno Borges Carvalho. The deadline of full paper submission is April 30, 2019. Final report and publication is planned for the December 2019 issue.

Janet O'Neil, EMC Magazine Editor-in-Chief, reported on the 4th Quarter 2018 (special symposium issue) and 1st Qtr 2019 issue. Elya Joffe has resigned from iNARTE so Christian Thorton will be the new Associate Editor effective with the 2nd Qtr 2019 issue. Heyno Garbe and Frank Sabath attended the IEEE Panel of Editors (POE) meeting in Chicago in early April and represented the EMC Magazine. Our new AE for Book Reviews, Frank Gronwald, will provide a review for the 3rd Qtr 2019 issue. IEEE provided a financial summary showing revenue and expenses for all four issues for the EMC Magazine in 2018. Total IEEE 2018 expenses were $43,642 with ad sales revenue of $40,289 (net revenue, i.e. less payment of sales commission to IEEE staff, was $26,432). This was for four (4) issues at 432 pages total and 13,569 total copies printed in 2018. We are targeting 100 pages per issue in 2019 or 400 pages total for the year. The total page count has been reduced in 2019 to lower expenses and help the EMC Society budget.

Tom Braxton reported on the EMC Society website. The website www.emcs.org is in its second year of redesign. Activity continues at a steady level with 5,856 users from December 2018 through mid-March 2019. Of those, 5,490 were new visitors; 1,030 were returning visitors. The most frequently visited pages are those for the symposium and conferences. A content management tool has been provided to committee chairs so that the committees can update sub-pages directly, without having to submit updates to the webmaster. As an extension of the website, mailings were sent to our contact list encouraging participation in the technical committees. The response was encouraging, and names of those interested have been forwarded to the TC chairs. Efforts are underway to solicit advertisers for the site. Tom's report includes more information on website usage and click thrus. His report is available via the BoD repository.

Joanna McLellan provided a report on Social Media. Copyright and personal privacy laws are diverging globally as various legal jurisdictions try to catch up with the global online world. In some parts of the world social media platform companies such as YouTube, Facebook and LinkedIn are being tasked with legal requirements to enforce locally generated laws. The stated intent is to protect copyrighted material and personal privacy within the globally generated internet where content is generated in one legal jurisdiction and seen in a different jurisdiction in less than a second. In some jurisdictions, content is being monitored to provide a personal score of social character. These scores are then being used to enable or disable personal liberty of movement and access to community services. Another requirement being considered is specific percentages of local and global content. Joanna will continue to monitor these developing requirements and report out issues as necessary to protect the interests of the IEEE EMC Society.

Heyno reported on the following new publications:

- *IEEE Journal on Multiscale and Multiphysics Computational Techniques (JMMCT)* – no report received.

- *IEEE Journal on EMC Practice and Applications (J-EMCPA)* – EiC Frank Sabath reported that the request to change the title to IEEE Letters on Electromagnetic Compatibility Practice and Applications was approved by TAB in November 2018. Since he received the approval, he has worked with IEEE Staff to set up the ScholarOne Manuscripts for the L-EMCPA. A first test site is available at https://mc.manuscriptcentral.com/l-emcpa-ieee. For 2019, the plan is to publish 30 to 40 papers in four issues. The issues include:
    1. February 2019 - Dedicated to EMC Standards. Due to the review of manuscripts, this issue will be delayed.
    2. May 2019 – Content is mainly Abstract-Reviewed Papers
    3. August 2019 – Special Issue on new Equipment and Features; Pre-publication at the EMC 2019, New Orleans (LA), USA
    4. November 2019 - TBD

  To solicit papers, a general Call-for-Letters was published in the EMC Magazine. This resulted in receiving four manuscripts, three of which are accepted with revision and one is under revision.

  The third quarter issue of the L-EMCPA is dedicated to application letters describing application of new measurement equipment, e.g. new oscilloscopes or spectrum analyzer, as well as the application of added new features or functions that are newly introduced in 2019. This dedicated issue will be officially published in August 2019. Participants of the 2019 IEEE International Symposium on EMC+SIPI in New Orleans, Louisiana will get free access to a pre-publication copy.

  The list of associate editors includes Bruce Archambeault, Don Heirman, Robert Kebel, Frank Leferink, Davy Pissoort, Bob Scully, and Mike Violette. The guest editor for abstract reviewed papers is Alistair Duffy.

- *IEEE Transactions on Signal & Power Integrity (T-SIPI)* – A letter of intent has been drafted and is being discussed by a sub-group of the BoD that includes the VP for Communications, Jun Fan (prospective first Editor-in-Chief), Xiaoning Ye, Frank Sabath, and Jim Drewniak. Among the critical issues to be resolved is joint technical, financial, and editorial sponsorship of the proposed T-SIPI with the IEEE Electronics Packaging Society, and the possibility of being an open access publication. These issues will be resolved in the upcoming weeks and at the Board of Directors meeting so that the letter of intent can be submitted to the IEEE Periodicals Committee for its June meeting. Jim Drewniak attended the February meeting of the IEEE Periodicals Committee meeting where open access was discussed in detail. He also met with IEEE staff members associated with open access as well as with initiating a new journal. The EMC Society has currently not committed to any actions for the Transactions on EMC for open access or a hybrid journal, or a section in IEEE Access for EMC. This process is ongoing. After discussions among the sub-group, the incoming EMCS president Alistair Duffy, and colleagues in the IEEE Power Engineering Society that have initiated an open access journal with some history, it is clear that it is not prudent to propose the new T-SIPI as an open access journal. It will be proposed as a traditional journal with a target launch in 2020.

The meeting adjourned for the day at 5:00 pm. The meeting continued on Tuesday, April 9, with a call to order at 9:00 am. This meeting was held at the Spring Hill Suites Hotel.

9.0 CONFERENCE SERVICES

Dennis Lewis presented his report. (See VP Conferences Report.) He started by presenting the VP Conferences budget for 2019. He then reviewed the registration numbers for the annual EMC+SIPI symposiums since 2002. Other than the symposium in Washington DC in 2017, the symposium in Long Beach, CA in 2018 had the best overall attendance since 2012. He showed the actual attendance on site in Long Beach at the main catering events (welcome reception, gala, and awards luncheon) and the tickets redeemed versus issued at these events. He also showed the attendance at the companion events.

Next, he reviewed the upcoming symposiums:

- 2019 New Orleans, Louisiana
- 2020 Reno, Nevada
- 2021 Raleigh, North Carolina (National) and Glasgow, Scotland (International)
- 2022 Spokane, Washington

Regarding the 2019 symposium in New Orleans, Dennis shared the list of organizing committee members. He also discussed the structure of the symposium. The 2019 IEEE International Symposium on EMC and SIPI is constructed as:

- The International Symposium on EMC
- The International Conference on Signal and Power Integrity
- NEW - Standards Week - Standards Week has grown out of several years of working group meetings held over the entire symposium week. This content is intended to be directly attractive to the practicing engineer (as well as our regular attendees) who might secure funding to come to this

It has been suggested that we look to more formally adopt this approach as follows:

The 20xx IEEE EMC and SIPI Week:
- The *xth* International Symposium on EMC
- The *yth* International Conference on Signal and Power Integrity
- The *zth* Standards Week

The host hotel and venue for the New Orleans symposium were reviewed. Details on the technical program were shared. To date, $33,040.00 has been secured in sponsorships. He noted the increased role of social media this year in promoting the symposium to elevate IEEE_ESP's social media presence, increase symposium attendee and exhibitor numbers, and establish IEEE_ESP as *the* industry conference to attend by creating and sharing posts about its three pillars, board, volunteers, employees, programs, presentations, social events, and attendee base interests. The report includes an extensive review of social media metrics and outlines the business plan. Friday afternoon of the symposium week includes a tour of the NASA Stennis Space Center.

Dennis shared the planning activity to date for the 2020 symposium in Reno, Nevada. Chair Darryl Ray will promote this symposium in New Orleans. The main social events have been planned. The budget is being closely monitored. Photos of the host hotel and convention center were shown to acquaint the Board with this new symposium location.

Dennis provided a preliminary comparison of venues for the 2023 and 2024 EMC+SIPI symposiums. Tampa, Florida was the preferred location for 2023; however, we cannot get the conference rooms needed in the exhibit hall. We would be required to use the rooms in the hotel across the street. This is not ideal as it greatly separates the papers from the exhibits. This problem applies for both 2023 and 2024. Other locations evaluated include Charleston, SC; Montreal, Canada; Providence, Rhode Island; and Grand Rapids, MI. Grand Rapids (recommendation for 2024) will work for 2023. Therefore, for 2023, the recommendation is to hold the symposium in Grand Rapids, MI (not Tampa).

Dennis moved to approve Grand Rapids, MI as the location for the 2023 Symposium. The motion was seconded. Henry Benitez moved to table the motion. The motion to table was seconded. The motion to table failed. The motion to approve Grand Rapids, MI for the 2023 symposium was put back on the table for voting. Henry voted against the motion. Caroline Chan and Xiaoning Ye abstained from voting. The motion passed.

The site selection committee will need to regroup and focus on 2024 with the goal of having a recommendation by the July board meeting in New Orleans. The site selection committee includes Darryl Ray, Tom Braxton, Bob Hofmann, Ross Carlton and Rhonda Rodriguez. The "Criteria for Site Selection" includes a desirable location (low crime, modern, family friendly, etc.); geographic rotation desired from year to year; co-located hotel to convention center preferred; close proximity of papers, exhibits, committee meetings; local attractions and night life within walking distance; reasonable food and beverage costs (a gallon of coffee is used as a figure of merit) - high food and beverage minimums may require ALL social functions in the convention center or hotel; hotel room night cost and room block guarantees.

Dennis then discussed the six upcoming regional events, aka tabletop shows organized by the EMC Chapters located in Regions 1-6. Tentative plans are being made for a regional event later this year in Mexico.

Regarding GEMCCon 2019, this will be held in Bangalore, India over November 6-8. A social event is planned for November 9. The report provides details on this global event. There are many leading international companies in Bangalore (IBM, Intel, Cisco, Bosch, etc., to name a few) to support this conference, along with local industry (India Space Research Organization) and academia (Indian Institute of Science). The venue is the IEEE headquarters office for India located at the World Trade Center.

For GEMCCon 2020, this is proposed to take place in conjunction with "The first IEEE Ukrainian Microwave Week" in Kharkiv during the May-June timeframe. The week consists of several conferences, including 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).

Dennis noted that Caroline Chan led an initiative to gather ideas and suggestions for symposium improvement. These were presented; the Board was invited to consider these and comment on whether any are attractive for further investigation.

The VP Conferences report concluded with a review of the EMCS technical co-sponsored conferences. The TCS committee includes Dennis Lewis, Ross Carlton, Alistair Duffy, Susanne Kaule, Frank Leferink, and Gideon Wiid. Dennis reviewed the purpose and review process of this committee. The current approach is:

- ‘Technical’ co-sponsorship where the IEEE Xplore costs are borne by the Society and/or the Conference
- ‘Financial’ co-sponsorship where we have a small financial share in the conference (typically 2% - 3%)*

*This approach can help defray IEEE Xplore costs when the conference makes a surplus (such as the recent INCEMIC and ESA Aerospace conferences).

Frank Sabath noted our society is one of the few organizations, in his experience, that carefully review technical co-sponsorship requests.

10.0 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/.

11.0 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) includes Alistair Duffy as Chair, Ross Carlton as Vice-Chair, Henry Benitez as Secretary and Ed Hare as Liaison. The report included a list of the 21 current Standards Committee members.

The Standards Committee held a meeting on April 7. Discussion was focused on preparation for the new Standards Week during the Symposium in July. SDECom created “Maintenance Teams” in order to monitor completed standards and determine when and if changes are needed. The committee approved P1302 (conductive gaskets) and P370 (high frequency interconnects) be sent to IEEE for Mandatory Editorial Coordination (MEC) and ballot. They also discussed long-range planning for standards activity.

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)
- Teams are required to report out at every meeting

Ed reviewed the 25 standards that are the active responsibility of SDECom. These are listed in the report. He noted five standards are co-sponsored or co-sponsorship is desired (power/energy or nuclear power). Sixteen standards are being developed or revised; two standards were approved (as above) to send to MEC and ballot. SDECom can now directly maintain the status of standards on the SDECom web page. Ed noted the working groups are making better use of webinar and other tools, although this could be done better. As learned at the last meeting, SDECom and SACCom still need to work on the ability to hold webinars at its future meetings.

Following is a status report on the four existing standards that are currently being updated:

1. Std. 473 (withdrawn), Site Survey (Chad Kiger): Work underway. Regular webinars held, coordinated by Don Heirman. Significant common ground with C63.24, on-site immunity evaluation. Standard is on track. PAR expires 2020.
2. Std. 1128 (2022), RF absorber (Zhong Chen): Being extended to 40 GHz, on target. Cosponsored by APS. Met at Symposium.
3. Std. 1302 (2018), Conductive gaskets to 40 GHz (Davy Pissoort): Approved by SDECom to send to MEC and ballot
4. Std. 1597.1 (2018), Computational electromagnetics (Alistair Duffy): Approved to be sent to IEEE for sponsor ballot. Additional late but important information received. This project is behind schedule and needs some dedicated attention. SDECom will need to re-approve additional content.

Following are the 10 new standards currently under development and the working group chair:

1. P370 (2019), Characterization of PB boards and interconnects to 50 GHz (Xiaoning Ye)
2. P1848 (2020), Manage EM disturbance risks (Keith Armstrong)
3. P1897 (2020), Power-line interference resolution (Mike Gruber)
4. P2425, Instrumentation in nuclear facility (Jointly sponsored with Nuclear Power Engineering Committee)
5. P2665 (2021), Statistical process control for EMC (Kimball Williams)
6. P2710 (2020), EM shielding for portable electronic devices (Alistair Duffy)
7. P2715 (2020), Shielding effectiveness of planar materials (Alpesh Bhobe)
8. P2716 (2020), Shielding effectiveness PC-level (Davy Pissoort)
9. P2717 (2021), Passive Intermodulation (Yihong Qi)
10. P2718 (2021), Near-field characteristics, stochastic radiators (Dave Thomas)

Ed noted the Standards "with problems" include Std. 377, Spurious from Land-Mobile, which expires in 2018. It is functionally obsolete and last revised in 1980, covering only analog technologies. Std. 475, Field Disturbance Sensors, 300 MHz to 40 GHz, expires in 2022. SDECom wants to extend the scope to <300 MHz, but no working group has been identified. Regarding Std. 1140 on Video Display Terminals, TC-7 reports that the information in this standard will be used in two standards it is working on proposing, involving measurements of WPT devices and another measuring electric-field emissions of busses.

Most new and revised standards are under active and on-target development, but closer monitoring is needed for several of these. A few standards need updating, especially extending frequency range. A "call to action" on these was announced in the Standards Activity column in the EMC Magazine. We still need to identify areas needing standardization work and find people able and willing to do such work. Examples include topics such as the Internet of Things and dynamic spectrum allocation.

The SDECom report also includes an update on their work with the Power and Energy Society (PES) specifically on P1613 and the C37.90 series of PES standards. SDECom is also working on P2425 with the Nuclear Power Engineering committee.

Regarding SACCom, leadership includes John Norgard, Chair; Vice-Chair vacant; and Don Heirman, Secretary. SACCom met on Sunday, April 7. Reports were received from 10 organizations, of which eight were from the EMCS regular SACCom meeting attendees. It was noted two entities, the ESD Society and the FCC, are inactive. This is a concern because the FCC is major industry organization and the ESD Society is a related IEEE Society and sponsor of standards. You can find the membership list at http://www.emcs.org/standards/saccom/sac-members.html. The reports received will be uploaded to the SACCom web page at http://www.emcs.org/standards/saccom/sac-memberreports.html. To further this activity, the committee has invited SACCom members to attend our symposia and to possibly give workshops on their EMC work. Three SACCom members have accepted the invitation and will present at the symposium in New Orleans.

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 summary of work in progress, long range planning activity, and a financial summary showing the VP Standards budget and expenses incurred to date.

12.0 OLD BUSINESS

These agenda items (Transactions on SIPI, IoT Initiative Status, and MOU with EPS) were not discussed since they were addressed previously in the reports above. Frank Sabath advised he is updating the EMCS Policy and Procedures handbook accordingly.

13.0 NEW BUSINESS

The following items were discussed under New Business:

EdCom EMC Demonstration Boards – Chuck Bunting provided some background on the EdCom plan for the EMC demonstration boards. (See Technical Services Motion for Demo Boards.) The University of Twente produced a set of EMC boards that demonstrate fundamental EMC principles. The EMC Society has been granted permission to brand the boards with IEEE and EMCS logos and to use them for education and for sales purposes. The University of Twente produced and sold 50 sets without marketing them. Potential customers have come forward from academia and industry requesting these boards. EdCom would like to manufacture ten sets of boards. They would use two sets for a traveling EMC demo with test instrumentation provided as a no-charge rental from ATEC in exchange for "promotional considerations". EdCom will sell eight sets as demonstration kits. The cost for each blank board is $33. The total cost for each board once populated with components will average $100. The total cost per kit will be $1,000. Kits will be sold with presentation material (PowerPoint, course handouts, exam questions, etc…) for $4,500. The total projected revenue generated will be 8 x $4,500 = $36,000. **Chuck moved to provide up to $12,000 for the manufacture of ten sets of ten EMC demonstration boards including the purchase of packaging and shipping / storage cases. The motion was seconded and approved.**

Competing Publications in Symposium Registration Bags – Bruce Archambeault reviewed the content policy for the EMC Symposium registration bags. IEEE TAB management advised non-IEEE publications should not be placed in the symposium registration bags (magazines, brochures, flyers, etc.) that show symposium content (schedules, papers, etc.) and contain ads for companies that exhibit at the annual symposium and/or have ads in the IEEE EMC symposium publication. In other words, competing publications to the IEEE should not be given symposium content to include in their publications that include paid ads for the same companies that the symposium committee is selling ad space to in their advance and final programs. Susanne Kaule will check into this further to see if there is a copyright applicable to the advance and final program symposium content and if there are GDRP compliance issues with other publications using IEEE symposium content.

SPI 2019 in Chambery, France, June 18-21 - Dennis Lewis discussed the oversight in not extending Technical Co-Sponsorship to the 23rd IEEE Workshop on Signal and Power Integrity (SPI 2019) conference as the EMC Society has done in the past. **Dennis moved to approve TCS of the SPI 2019 conference in France. The motion was seconded and approved.**

14.0 FINANCIAL IMPACT OF MOTIONS

Frank Sabath summarized the financial implications of the approved motions. (See Financial Implications of Approved Motions.) This includes for the VP Conferences budget planning, Technical Co-Sponsorship of SPI 2019 in an amount not to exceed $2,000.

15.0 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.

16.0 SUMMARY AND CLOSING REMARKS

President Bruce Archambeault thanked everyone for attending the meeting. The next series of Standards and Board meetings will take place during the 2019 IEEE International Symposium on EMC+SIPI in New Orleans on Sunday, July 21 and on Thursday evening, July 25.

The meeting adjourned at 3:30 pm.

Submitted by:

Janet O'Neil

Janet O'Neil
Secretary, EMC Society Board of Directors