# **APPROVED MINUTES**

## OF THE IEEE EMC SOCIETY BOARD OF DIRECTORS MEETING

The Westin Hotel Ottawa, Ontario, Canada July 24 and July 28, 2016

## **MEMBERS PRESENT (25)**

- B. Archambeault
  - T. Braxton
  - C. Brench
  - C. Bunting
  - R. Carlton
  - C. Chan
  - L. Cohen
  - R. Davis
  - Garbe
  - E. Hare
  - D. Heirman
    - J. Hill
  - I. Kasperovich
    - R. Koga
    - J. LaSalle
    - D. Lewis
  - M. Montrose
  - J. Norgard
  - M. Oliver
  - J. O'Neil
  - V. Rajamani
    - F. Sabath
  - C. Sartori
  - R. Scully
  - D. Sweeney

## ABSENT (3)

- H. Inoue
- W. Lumpkins
- V. Rodriguez

## GUESTS (12)

A. Duffy	F. Maradei
R. Hofmann	W. Moses
D. Hoolihan	J. Ramie
E. Joffe	M. Violette
F. Leferink	B. Weeks
J. Lukash	Q. Ye

## 1.0 THE PRESIDENT'S OPENING REMARKS

President Frank Sabath called the meeting to order at 9:00 am. A round of introductions was made. He reviewed Board meeting protocol, the IEEE code of ethics, 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 FTP site and asked that everyone remember to review this prior to the Board meetings (ftp://ewh.ieee.org). A moment of silence was held in memory of the late Bill Duff, who was President of the EMC Society from 1982-1983.

## 2.0 CONSENT AGENDA MOTIONS

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

- Approve July 2016 Meeting Agenda
- Approve Secretary's Report May 2016 Meeting Minutes
- Approve Certificate of Appreciation for the EMC 2016 Symposium Committee
- Approve Certificate of Appreciation for Sergio Pignari
- Approve Certificate of Appreciation to Noel Sargent "For his commitment to the EMC discipline and his unflagging support of the IEEE EMC Society as demonstrated by 40 years of continuous annual attendance at the IEEE EMC Symposia"
- Approve an award to Advanced Test Equipment Corp. for their unstinting support of the experiments and demonstrations

The agenda was approved by acclamation.

## 3.0 IMMEDIATE PAST PRESIDENT REPORT

Bob Scully advised he submitted the election ballot to IEEE. The names on the ballot include: Benitez (Region 6), Duffy (Region 8), Fan (Region 5) Leferink (Region 8), Norgard (Region 5), Sartori (Region 9), Violette (Region 2), Hatashita (Region 7), and Ye (Region 6).

Frank Sabath reminded those present that Board officer elections will be held at the November meeting. Board members interested in running for an officer position should submit a nomination form to Bob Scully.

## 4.0 PRESIDENT'S REPORT

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

He reviewed the motions made since the last Board meeting. These included:

- Dr. Qi and Dr. Knighten were approved as members of the Transactions on EMC Advisory Board for a period of six years
- The slate of candidates was approved for the 2016 election to the EMC Society Board of Directors for Member-at-Large positions

The President's Report includes information on Strategic Activities, suggestions for new awards and conference offerings, as well as technology and public policy statements.

Frank Sabath led a discussion on the Internet of Things (IoT) Multi-Society Technical Group. He reviewed the inventory of IoT Initiative activities and IoT assets at IEEE. He also reviewed the organization and focus of future IoT activities. At our last Board meeting in May 2016, the Board approved the EMC Society becoming a major sponsor of the IoT Multi-Society Technical Group at a cost of \$30,000.

Bob Scully moved to rescind the \$30,000 IoT motion approved at the May Board meeting. The motion was seconded and approved.

Bob Scully moved that the EMC Society joins the IoT Multi-Society Technical Group as a participating sponsor at a level of \$5,000. The motion was seconded and approved.

Mike Violette and Larry Cohen will be the EMC Society representatives to the IoT Multi-Society Technical Group. Sabath will sign the MoU with IEEE so this activity can move forward.

Frank Sabath reviewed the IEEE Environmental Engineering Initiative activity, including their goals, scope and future plans. He will track this activity for the Board in order to see if the EMC Society should get involved with this group.

At the June 2016 IEEE TAB meetings, Frank Sabath attended and noted the EMC Society Review Report has been approved by TAB. He attended the TAB Strategic Planning Session. There was much discussion of the proposed 2016 IEEE Constitutional Amendment during the TAB meetings. He wrote an article on this that appeared in the EMC Magazine (2<sup>nd</sup>Qtr 2016 issue). TAB approved the addition of URSI RSB (an Open Access periodical) to IEEE Xplore.

## 5.0 TREASURER'S REPORT

John LaSalle presented a report on EMC Society finances. (See 4<sup>th</sup> Qtr Treasurer's Report.) He provided an overview of 2016 Operations noting:

- The target budget is a deficit of \$84,600 [-\$84,600]
- As of end of June, the Society is operating at \$90,400; under budget
  - Variance of \$95,400
  - Periodicals income is above budget by \$23,600
  - Committee/Other expenses are under budget by \$77,200

The report provides a review of travel expenses in 2015 and to date in 2016.

John LaSalle noted that as of the end of July, we have budgeted \$355,900 for Comm/Other expenses plus \$94,700 for new initiatives. The result is a \$450,600 deficit. The report reviews the new initiatives planned for 2016 and provides a conference surplus history for the years 2008 – 2015.

John LaSalle reviewed the travel authorization procedure and provided expense report guidelines.

The 2017 budget has been submitted to IEEE. Under CA 1900 Committee/Other, IEEE HQ recommended - \$391,600 while the EMC Society submitted -\$425,700. Overall, the EMC Society submitted -\$136,200, while IEEE HQ recommended -\$94,000.

Frank Sabath noted the audit has been completed by the organizing committee of the joint 2015 IEEE EMC and EMC Europe symposium in Dresden.

Bruce Archambeault noted the Singapore bank account has been opened for the joint 2018 IEEE EMC and APEMC symposium.

John LaSalle closed his report by noting a \$52,000 surplus is shown from GEMCCON in Australia, but this amount has not been confirmed. It has been difficult to connect with the committee to confirm the final report and surplus.

#### 6.0 MEMBER SERVICES

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

Total IEEE Membership up 0.5% since this time last year; total Society Memberships is down 0.2% since this time last year. EMC Society Membership is slightly down 3.9% (146) to 3,564 (with Affiliates) since this time last year. EMC Society Student Membership is also down 14.3% (7) to 42 since this time last year. Six Senior Member grade elevations occurred since the May 2016 Board meeting. The Senior Member elevation event was a huge success last year. Another elevation event is being organized in Ottawa as well. There will be an informational presentation from IEEE HQ (presented by Bob Scully) at this year's event. The EMC Society membership application has been translated into Chinese.

Regarding Eta Kappa Nu, an EMC Technical/Career presentation was given by Dan Hoolihan at the HKN leadership conference in Berkley following the Santa Clara Symposium last year. HKN publishes "The Bridge Magazine" for all HKN members. The EMC Society has reserved a slot in their October 2016 issue to feature EMC in The Bridge Magazine. This will be a good way to reach high potential students. Heyno Garbe, VP of Communications, will be taking the lead on this effort, form a committee, appoint a guest editor and define/propose the scope.

There will be an on-line Membership Survey in September 2016 with more focused questions on areas where we did not score well last year. Lesleigh Campanale from IEEE HQ is helping with the questions. The plan is to use the same incentive (raffle) as last year to encourage people to participate in the survey.

Dr. Perry Wilson has taken over as the Awards Program Chair after the Dresden symposium. He has the certificates and plaques ready for the Awards Luncheon.

On the Distinguished Lecturer program, the Lecturers for 2016-2017 include Dr. Kate Remley (US), Dr. Farhad Rachidi (Europe) and Dr. Chunfei Ye (USA).

On EMC Chapters, we currently have 83 chapters. The newest chapter is located in Istanbul, Turkey.

Following is a list of the active Sister Society agreements:

- India SEMCEI
- UK IET
- ESD Society

- Australia EMCSA
- Signed agreement between APS and MTT

The Japan – IEICE sister society agreement will be signed in Ottawa.

Caroline Chan reported on the Young Professionals (YP) activities planned during the Ottawa Symposium week. Moving forward, she is providing training for her successor next year (Al Frye, <a href="mailto:allanfrye5@gmail.com">allanfrye5@gmail.com</a>). She is also mentoring Student Liaison Joseph Vas (<a href="mailto:ivvas@ieee.org">ivvas@ieee.org</a>). She is planning to attend the YP Society Representatives meeting on October 1, 2016. IEEE MGA will fund her travel expenses.

The report concludes with updates on PACE, the Fellows Evaluation Committee, Sections Coordinator activity, the new Student Initiative and the History Committee.

## 7.0 TECHNICAL SERVICES

Colin Brench reported on Technical Services activities. (See VP Technical Services Report.)

He noted the Technical Advisory Committee (TAC) officers include Jun Fan (Chair), Chuck Bunting (Vice-Chair), Xiaoning Ye (Secretary) and Bruce Archambeault (Past Chair). TAC has no material new to report for this meeting since the work for the symposium is now completed. The TAC and several of the technical and special committees will be meeting in Ottawa. Colin showed a chart that listed the number of symposium papers reviewed by the different Technical Committees (TCs). The TCs reviewing the most papers included TC-10 on SI/PI with 72 papers, TC-4 on EMI Control with 28 papers and TC-9 on Computational Electromagnetics with 25 papers. See the TAC Report for more information.

Regarding the Education Committee, Sarah Seguin is the new Chair. However, the other officer roles are not confirmed. This committee is in desperate need of encouragement, support and new members.

The Global University has been a struggle up to and including the time of this report. Some speakers are still completing their presentations. The shortage of available speakers is an issue and personal/work issues have impacted those that are presenting. Many thanks are due to Randy Jost and Mark Steffka who continue to encourage and support these presenters.

#### 8.0 EXECUTIVE SESSION

All non-Board members were asked to leave the room. Bob Scully noted support of the iNARTE program. He is satisfied by the response received from iNARTE to the Board's concerns with the program. However, he would like to see the random sample of questions approved by the EMC Society, not by iNARTE. Don Heirman suggested the questions be reviewed in light of new technologies, such as SMART Grid. He volunteered to have TC-2 review the questions related to EMC measurements upon request. The MOU with iNARTE was modified in real time to reflect these changes. Frank Sabath will present the MOU for approval at the Thursday Board meeting. A straw vote was taken and all members present approved the motion. There were no votes against the motion. There was one abstention from Ruiji Koga.

## 9.0 INARTE/EXEMPLAR GLOBAL

Brian Weeks and Elya Joffe of iNARTE (Exemplar Global) discussed the iNARTE program. (See iNARTE Report.)

They would like to have a regular iNARTE column/editorial in the EMC Magazine. During the annual EMC symposia, they plan to attend and report at the Board meeting(s), at the TAC meetings, at the TC1 meeting, and at the Education Committee meeting. The report includes the plans for iNARTE product and market development. The iNARTE activity timeline includes the Board approving a renewed engagement with iNARTE in May 2016, publicizing an iNARTE article in the EMC Magazine and sending an email blast on iNARTE activities at the Ottawa Symposium in June 2016. In July 2016 during the Ottawa EMC Symposium week, the iNARTE activities include a workshop, exam, reception and luncheon, signing the new iNARTE -EMCS MoU, and attending the TAC, TC1 and Education Committee meetings.

## 10.0 COMMUNICATION SERVICES

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

Heyno moved to approve the letter of intent for the new 3rd Publication Channel with the discussed changes and to request a final version for presentation at the November Board meeting. The motion was seconded and approved. Ray Perez attended and presented his report as IEEE Press Liaison. Fifteen books have been published within the past 15 years. There are three "small books" in the pipeline. He has received three proposals for additional small books that were received in response to the call for small book authors published in the IEEE EMC Magazine.

Heyno discussed the report of the new Editor-in-Chief of the Transactions on EMC, Antonio Orlandi. The number of submissions has been steadily growing over the past decade. In 2014, the total number of submissions exceeded 400 for the second year in a row, reaching 419. The statistics on new paper submissions are included in his report. The number of submissions in 2015 also increased. Over the first six months of the year, 255 new submissions were received. Note that this number is in line with the total number of submissions for the first six months of the preceding year. In terms of production, the six issues of 2015 and the first three of 2016 were mailed on time. The electronic versions of the new issues, now fully paginated, were all posted on IEEE Xplore ahead of schedule. The fourth issue of 2016 (August) will be finalized in July 2016 due to the presence of two volumes: one for the regular papers and one for the special issue on the 2015 Santa Clara and Dresden symposium papers.

The special issue on the 2015 IEEE EMC and SI Symposia in "Santa Clara and Dresden" will be published in the August 2016 issue. The special section honoring the memory and technical achievements of Prof. Paolo Corona was published in the June 2016 issue. A special issue on "EMC in the Near-Field: Theory, Measurements, and Applications" has been approved by the T-EMC Advisory Board (AdB). The deadline for the submissions is October 1, 2016 and the planned publication is April 2017. Thirty papers are expected for this issue. The guest editors are M. D'Amore, P. Wilson, E. Lee, and W.Y. Yin. The special issue on the 2016 IEEE EMC&SI Symposium has started. The nominated guest editors are Dr. S. Bokhari and Dr. X. Ye. The proposal for a special issue in 2018 on "Advances in Modeling, Measurement and Design of Discontinuities and Their EMC and SI/PI Effects on Wired Communication Links" from Professor Christian Shuster has been accepted by the AdB.

Regarding the EMC Magazine, Editor-in-chief Janet O'Neil noted we have a special issue coming up in 2016 on the Santa Clara industry papers, now known as abstract reviewed papers. (This was moved and approved by the Board at its March 2015 meeting in Santa Clara.) We have been talking with IEEE about posting the low res version of the complete issue of the EMC Magazine to Xplore. EMC Magazines were shipped for distribution this year wherever the EMC Society Membership booth was set up. IEEE Media will have an employee attend the Ottawa symposium. It will either be Mark David (formerly with IEEE TV) or Mindy Belfer. They will attend to help sell advertising in the EMC Magazine.

We are working on the following schedule of technical topics for publication in 2017 in the practical papers and theme paper sections:

- 1st Qtr: Resilience to EMI in Safety Critical Systems, Computational EM Model Validation
- 2nd Qtr: IoT and IEEE 5G Initiative; EMC Testing for Medical Devices
- 3rd Qtr: Architectural Shielding
- 4th Qtr: EM Immunity Testing; Annual IEEE EMC Society Symposium Review

Ray Perez, IEEE Press Liaison, reported on royalties for IEEE publications. There are no books in production for 2016. Development continues on the Handbook of Aerospace EMC. Ray attended the annual IEEE Press Board of Directors meeting held in Chicago in August 2015. A "Call for Authors" was published in the IEEE EMC Magazine in response to the IEEE Press-Wiley "small books initiative." By December 2015 we had received seven inquiries of interest from prospective authors for writing book proposals for small books. In February 2016 the small book proposal guidelines were submitted to the seven individuals who expressed interest. As of today we have received two proposals, which were both reviewed and the prospective authors were requested to update before submission to IEEE-Press Wiley for consideration and approval. The two small book proposals have been updated and are presently under independent review by IEEE Press/Wiley.

On the EMC Society website, Tom Braxton is the website contact for updates, changes, and requests. Shannon Archambeault maintains and administers the site and provides technical support. The IEEE EMC Society website is a useful tool for information and for promotion of the EMC Society and its activities. Updates to the site have been more frequent this past year as more effort has gone into its maintenance and the timeliness of its text. More changes are planned to make the site a more effective resource. Some will require structural changes which have been discussed and are being tested. Among the changes being discussed:

- Home page layout redesign
- EMC education links and interactive references
- An interactive Distinguished Lecturer appearance calendar
- Standards tabs
- EMC Society Magazine links

Joanna Hill reported the EMCS Social Media effort has opened Facebook and LinkedIn pages. The growth of the EMCS Social Media readership effort continues. Her report included the top twenty EMCS Facebook posts as ranked by people reached. Post reach is the number of people who have seen the post. Figures shown are for the first 365 days after a post was created and include people viewing the post on desktop and mobile platforms.

Heyno Garbe concluded his report by noting on the 3rd Publication Channel LoI, a proposal for the Letter of Intent has been completed. Heyno moved to approve the letter of intent with the discussed changes and request a final version at the November Board meeting. The motion was seconded and approved. Regarding the IEEE Transactions on Signal & Power Integrity (T-SIPI), a proposal for the Letter of Intent has been completed. A dedication ceremony was held on July 16, 2016 at the radio transmitter station Königs Wusterhausen. The IEEE was represented by the IEEE President and CEO Barry L. Shoop; the chair of the IEEE German Section, Jens Haubrock; and Heyno Garbe representing the IEEE EMC Society and the IEEE German EMC Chapter.

#### 11.0 CONFERENCE SERVICES

Bruce Archambeault presented his report. (See VP Conferences Report.) He noted his committee includes:

• International Conference Committee Chair: Tom Braxton

- Symposia Finance Chair: Bob Hofmann
- Site Selection Committee Chair: Darryl Ray
- Symposium Publicity Committee Chair: open
- Global EMC Symposia Co-Sponsorship Chair: Alistair Duffy
- 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

His report included a review of current activity for the Ottawa 2016 symposium. Plans for EMC 2016 are progressing well with no issues approaching "crisis" or "emergency" or even "urgent" status. Finances are healthy. We have fulfilled our hotel quotas and are ahead of all previous symposiums in our registration numbers to date, booth sales and original papers accepted for presentation.

For EMC 2017, the committee is fully formed and on a bi-monthly meeting schedule. Conference Direct has been selected as the meeting planner. Technical themes planned include SI/PI, Wireless, and the Internet of Things. The committee is considering live broadcast of some sessions for a reduced registration fee.

In 2018, the IEEE EMC Symposium will be jointly held with the APEMC conference in Singapore. The symposium general chair is Erping Li; the technical program chair is Jun Fan. Bruce discussed the importance of the EMC Society coordinating technical activity with the growing EMC Community in Asia.

The report includes a review of future symposiums EMC 2018 in Long Beach thru EMC 2020 in Reno. For 2021, Bruce suggested a combined IEEE EMC Symposium with EMC Europe, as held in 2015 in Dresden.

On the GEMCCON activity, the audit for the conference in Adelaide, Australia (held in November 2015) has been completed. A surplus transfer is expected soon. The next GEMCCON is planned for November 7-8, 2016 in Argentina. Brazil is the location planned for November 2017 and South Africa (Stellenbosch) is planned for March 2018.

Alistair Duffy's report as the Global Symposia Coordinator was then reviewed. There is one pending request for technical co-sponsorship from the INCEMIC conference in India. TAC will make a recommendation during the symposium week.

A policy was proposed for use of EMCS advance and final program content by other industry publications. The proposed policy states the content is not for republication until after the official final program has been posted and made publicly available on the EMCS symposium website. The complete policy is shown in the report.

Alistair moved for the Board to accept this policy related to industry publication of EMCS symposium program content. The motion was seconded and approved.

The report concluded with a review regional conference activity as prepared by Janet O'Neil, Regional Conference Coordinator.

## 12.0 STANDARDS SERVICES

Don Heirman, Vice-President for Standards, presented his report. (See Standards Summary Report.) He noted leadership of the Standards Development and Education Committee (SDECom) includes Alistair Duffy as Chair, Craig Fanning as Vice-chairman, and Ghery Pettit as Secretary. See: http://www.emcs.org/standards/sdecomindex.html

Several standards working groups will be meeting in Ottawa during the IEEE EMC Symposium to further their activity. Please see the symposium website for the schedule of meetings. They are listed in the final program and are open to all interested in attending. A leaflet was created showing the schedule of standards meetings during the Ottawa symposium week. This leaflet will be included in every registration bag. The report includes the status of several active standards. The entire list of EMCS standards are found on this page: http://www.emcs.org/standards/sdecom/Standards Matrix.html

The approved new standards projects (WG chair shown at the far right) include:

- P370 Signal Integrity of PCB interconnects to 50 GHz Chair: Xiaoning Ye
- P1848 Risk Management Manage Risks With Regard to Electromagnetic Disturbances Chair: <u>Keith</u>
   Armstrong
- P1897 Recommended Practice for reporting of power line noise complaints Chair: Mike Gruber
- P2710 Shielded Bags and Pouches Chair: Alistair Duffy
- P2716 PCB Board Level Shielding Chair: Alpesh Bhope
- P2715 Shielding Effectiveness of Planar Materials Chair: Davy Pissoort
- P2425 Electromagnetic Compatibility Testing of Electrical and Instrumentation and Control Equipment at Nuclear Power Generating Stations and Other Nuclear Facilities - Joint with PES/Nuclear - Chair: <u>Suresh</u> Channarasappa

The Standards Development and Education Committee (SDECom) is especially seeking input and working group members for the following new projects:

- Planar shielding effectiveness measurement (P2715)
- Measurement of shielding effectiveness of PCB shields (P2716)
- Shielding measurements of forensic bags and pouches (2710)
- Risk management of EMI (P1848)
- In-situ (RF site survey) measurements (Standard 473)
- Passive intermodulation measurements (new today)

Regarding the Standards Advisory and Coordination Committee (SACCom), leadership includes John Norgard as Chairman, Andy Marvin as Vice-chairman and Don Heirman as Secretary. The SACCom membership list is available at <a href="http://www.emcs.org/standards/saccom/sac-members.html">http://www.emcs.org/standards/saccom/sac-members.html</a>. Reports presented include:

- CISPR/A (Instr., methods, statistics)
- CISPR/I (Multimedia emissions)
- ANSI ASC C63 (Emission measurements)
- ISO TC20 (Space systems and operation)
- ISO TC22 (Automotive EMC)
- IEC TC65/SCA/WG4 (process control)
- SAE AE4 (EM Environmental effects)

Other reports were received and will be added to website button. See <a href="http://www.emcs.org/standards/saccom/sac-memberreports.html">http://www.emcs.org/standards/saccom/sac-memberreports.html</a>

#### 13.0 MARKETING REPORT

Mike Violette presented a marketing report. (See EMCS Marketing.) The objective is to support the EMC Society's strategic goals. He reviewed marketing plan elements (such as industry alliances, among others) and products of value (such as emerging technologies like IoT and employer positivity, among others). A key element of the program is branding. His report included several new ads created to promote the EMC Society and new booth designs. They will continue to expand the on line presence of the EMCS.

#### 14.0 OLD BUSINESS

PACE - Vignesh Rajamani noted that PACE Chair Kimball Williams feels ethics is covered in TC1 and shouldn't be addressed in PACE.

Angel Program - Vignesh Rajamani updated the Board on Angel activity. He is working with Ross Carlton on this activity. He will report at the Board meeting on Thursday night July 28.

#### 15.0 NEW BUSINESS

EMC Education Center - Vignesh Rajamani discussed the possibility of a new EMC Education Center in Bangalore, India. He has been working with the IEEE office in Bangalore and a nearby university on this potential center.

#### 16.0 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.

## 17.0 ADJOURNMENT

The meeting adjourned at 5:00 pm.

## The meeting resumed on July 28, 2016

President Frank Sabath called the meeting to order at 6:00 pm. The following topics were addressed:

iNARTE - Frank Sabath noted the iNARTE MOU that was discussed at the Board meeting on Sunday, July 24 has been finalized and distributed to the Board for review. It was moved, seconded and approved to sign the iNARTE MOU. A signing ceremony took place and photos were taken to commemorate the signing. Elya Joffe gave a report on the iNARTE level of interest during the symposium week. He noted there was an iNARTE workshop on Monday, July 25; 12 people attended and took a practice exam. Over 40 people are signed up to take the iNARTE exam on Friday, July 29.

**VP Conferences Report** – Bruce Archambeault presented his report. (See VP Conferences Report – Thursday.) He discussed the INCEMIC conference in Bangalore, India from December 6-9, 2016. TAC recommends approval of technical co-sponsorship.

Bruce moved to approve technical co-sponsorship of INCEMIC. The motion was amended to instead make this a financial co-sponsorship. The motion was seconded and approved.

Bruce reported on financial numbers from EMC 2016. The number of full registrations is higher than in previous years. Regarding the conference categories, registrants were asked if they were interested in EMC and/or SI/PI. There were 730 responses which indicated:

- EMC only 468, or 64%
- SI/PI only 27, or 4%
- Both EMC & SI/PI 235, or 32%

In terms of demographics of registrants in Ottawa, there were more attendees from Canada and fewer attendees from the US, as compared to EMC 2014 in Raleigh, North Carolina. The percentage of total attendees from other countries, including China, Japan, and Europe, was very similar to that at EMC 2014 in Raleigh.

Bob Hofmann noted there were no requests from authors to request travel assistance to attend the symposium. Vignesh Rajamani noted some \$10K was allocated to student authors as incentive money to attend and present papers. This funding helped offset the travel expenses for these authors.

**VP Member Services Report** - Vignesh Rajamani presented his report. (See VP Member Services – Second Board Meeting.) He reported that the Young Professionals events in Ottawa were well-attended. The Senior Member Elevation event was not well-attended. This needs to be re-evaluated before holding again next year. On the EMC Society annual awards, he asked if it is worthwhile to offer honorable mention awards for the students at the symposium. Heyno Garbe suggested students get a certificate that notes they were considered as a best paper candidate. Dennis Lewis asked about giving some of the bigger awards at the Wednesday evening gala. Vignesh agreed to bring these ideas back to the awards committee.

VP Technical Services Report – Colin Brench provided a report on the technical committees and their respective areas of activity. (See TAC Report – EMC 2016.) TAC Chair Jun Fan provided details on the number of EMC 2016 symposium papers submitted for each TC to review. Between the TCs and the Special Committees (SCs), 197 papers were submitted of which 164 were accepted and presented. On the abstract reviewed papers, this year was the second attempt with these papers; formerly these were called "Industry Papers" and are now referred to as "Abstract Reviewed Papers". This year, 35 of these papers were submitted, among them, 18 are EMC related and 17 are SI/PI related. TAC accepted 33 papers. On the workshops/tutorials, 24 proposals were submitted of which 19 were accepted. There is concern with SC 5 (Power Electronics EMC) since there has been no activity in two years. The officers have been replaced; TAC will continue to monitor this SC. Jun Fan noted there were would be a change in TAC leadership. The new TAC officers starting August 1, 2016 include Chuck Bunting (Chair), Xiaoning Ye (Vice-Chair), and Antonio Orlandi (Secretary).

On the Education Committee, Colin mentioned the leadership is still under review. It is too early to say how the committee will move forward. New people attended the meeting so there may be fresh input. Bob Scully noted he will be heading an ad hoc committee under Education with the approval of Chair Sarah Seguin. Changes in the committee and activity will be forthcoming.

**VP Standards Report** – Don Heirman noted there were several standards committee meetings during the symposium week. (See July 28 Standards Report.) The report reviews the committees that met and the standards that were addressed. He has asked members to continue to cite one or two "hot topic EMC standards" used in their respective EMC committees; he plans to modify the report form to show this. He will prepare a short

summary of these topics for publication in the EMC Magazine. The next meeting of the Standards Committees will be in November in Arizona.

**Marketing Report** – Mike Violette talked about the digital symposium. Don Heirman asked that the Standards Committee booth be located next to the EMC Society booth at EMC 2017.

**Women in Engineering** – Irina Kasperovich talked about this booth during the show. Some 22 people attended the luncheon meeting they held. It was well received. There are 17,000 members of the IEEE Women in Engineering organization. Frank Sabath attended the meeting to show support of the organization.

**Old Business** – Frank Sabath noted that Tzong-Lin Wu accepted filling the position on the Board of Directors vacated by Will Lumpkins. Bob Scully noted that he will pull Tzong-Lin Wu from the current Board of Directors election ballot.

**New Business** – Bruce Archambeault updated the Board on the abstract reviewed papers. The review of these papers has been completed. Eight papers are accepted and five were rejected. The accepted papers will be published in the EMC Magazine.

Tom Braxton spoke about the website. He will provide an updated report on the website at the November Board meeting. He met with an IEEE Standards person about updates that can be made. Bob Scully thanked Tom and Shannon for adding the new Board candidates' information to the website in a timely manner.

Bob Scully will distribute an email to the Board about the officer nominations process and deadlines. Officer elections will be held in November.

**Financial Implication of Approved Motions** – Bob Scully noted this amounted to \$2,500 for the technical/financial co-sponsorship of the INCEMIC conference in Bangalore, India.

The meeting was adjourned at 8:50 pm.

Submitted by:

Janat Older

Janet O'Neil

Secretary, EMC Society Board of Directors