EMCS Educational and Student Activities Committee (ESAC)

Minutes of annual meeting in Long Beach, CA   8/17/11

Prepared by Bogdan Adamczyk 8/31/11

Attendees:

Bogdan Adamczyk, Bruce Archambeault, Daryl Beetner, Chuck Bunting, Tom Jerse, Randy Jost, Doug Kramer, Jerry Meyerhoff, Vignesh Rajamani, Bob Scully, Chris Semanson, Mark Steffka, Kimball Williams, Qiubo Ye

Introduction

1) Draft agenda was reviewed and approved.
2) The minutes of the last meeting in Ft. Lauderdale were reviewed and approved.

Subcommittee Reports:

1) **Experiments Manual**

Ed Wheeler not present. He has resigned from ESAC and moved into out of EMC into the microwave world. Replacement is needed.

Bogdan Adamczyk volunteered to work on the experiment manual. A motion was made to make Bogdan a chair of the Experiments Manual subcommittee. The motion was voted on, and approved.

Bogdan will contact Ed Wheeler to obtain the file containing existing seven experiments. Six additional experiments have been developed by Mark Steffka and Chris Semanson. Bogdan will contact Chris for electronic file with the experiments.

Bob Scully reiterated the importance of incorporating the original experiments developed by Henry Ott and Clayton Paul. These experiments will be reviewed, modernized as needed and incorporated into the Experiments Manual by Bogdan.

The goal is to have a comprehensive Experiments Manual reachable from the ESAC website (operated by Todd Hubing). Deadline for this endeavor: next ESAC meeting in Pittsburgh, PA, August 2012.

New experiments will be periodically added, as they become available. Experiments and hardware demonstrations that will be submitted and accepted for the future EMC Symposia will be evaluated for their potential for an inclusion in the Experiments Manual.Bogdan will work with Bob Scully to create the Call for Experiments for the next Symposium that includes the language addressing this issue.

It has been suggested that maybe the best way of soliciting the experiments suitable for the Experiments Manual is by contacting the Symposium's hardware demo presenters, and asking them whether they are willing to provide additional documentation.

2) **University Grant Committee:**

In 2010 one proposal was received from Dave Michelson of University of British Columbia.

2010 University Grant in the amount of $5,000 was subsequently awarded to Dave Michelson of University of British Columbia.

2011 Call for Proposals will be released by Tom Jersein September. One award for $5,000 has been allocated. Applicants must submit proposal by first week of November. Committee reviews due first week of December.

Chuck Bunting asked if the future grants could be awarded for an EMC course development (or significant portion of it). Maybe we should modify the original rules and requirements? Mark Steffka will spearhead this issue.

Jerry Meyerhoff asked if the material developed by the grant awardees can be made available to the general EMC community (unless protected by the intellectual property rights).

Daryl Beetner suggested that the list of the awardees and their email contact is put on the ESAC web site. 2007 paper by Mark Steffka and Tom Jerse on the University Grant should also be posted. Mark will contact Todd Hubing about the postings.

Mark Steffka made a proposal to rename the University Grant to John Howard (perished in plane crash) Memorial University Grant. John Howard was the He was the founding father of the University Grant.

Motion was made to this effect and was approved.

Randy Jost nominated Daryl Beetner to be chair of John Howard Memorial University Grant subcommittee. Daryl was elected by acclamation and will send out the 2011 Call for Proposals and administer the program.

3) Student Activities

Student Paper Competition update from Randy Jost:

Student Paper Competition

- 55 received for 2011 Symposium
- 2 rejected
- Receiving verification from professor is often an issue
- Best Student Paper selected
- ESAC needs to establish a more timely paper review process and communicate it to the TPC

We need more reviewers. Tom Jerse will send out a call for reviewers.

Student Paper Timeline was put together by Randy Jost:

Activity	Completion Date (tent)
Solicit paper evaluators	At current symposium (8/18/2011)
Full papers due to Tech committee	29 weeks before symposium (1/15/2012)
Student papers verified by professor/school rep (we should probably set a deadline for this although it should be accomplished with paper submission)	24 weeks before symposium (2/20/2012)
Initial evaluation complete by tech committee	22 weeks before symposium (3/05/2012)
Notification of paper acceptance	21 weeks before symposium (3/12/2012)

March 5 is an important deadline.

Several meeting participants mentioned that a new (better) submission/review system is going to be introduced in the near future. Details are sketchy at present.

Bob Scully nominated Chuck Bunting be the chairman of the Student Paper subcommittee.

4) Student Hardware Competition

Tom Jerse presented an update:

- Restarted in 2011
- Radiated emissions from a hardware pseudo-random number generator.
- Lexmark International did *pro bono* testing of student prototypes at their facility in Lexington, KY.
- 8 entries made—4 circuits returned for test.

- Shipping parts kits to other countries proved more difficult than expected.
- New project needed for 2012.
- Lexmark has agreed to provide testing services again next year.

Winner of 2011 Competition came from Missouri University of Science and Technology.

Call for submission for 2012 Competition will be created by Bogdan Adamczyk and Mark Steffka. The project will focus on the conducted emissions from a SMPS. Bogdan will create the project description and will submit it to Tom Jerse by November. Projects will be tested at Grand Valley State University EMC lab by Bogdan.

5) 2012 Tutorial

Originally ESAC planned to submit a proposal for 2012 Symposium nominating Daryl Beetner to be in charge of the tutorial sessions. At the end of the meeting Bob Scully informed the attendees that2011 tutorial sessions organized by Henry Ott were a smashing success and therefore in 2012 Henry Ott will be in charge of the tutorials.

Few questions were raised by Bogdan Adamczyk: "Who has the authority to nominate speakers for the tutorial sessions? Is it the person in charge of tutorial sessions or is it the Board of Directors?" Daryl Beetner will try to find the answers.

6) K-12 Outreach:

Elya Joffe reported no activities in the past year. Vignesh Rajamani will talk to Elya about the next year activities and will report back to the committee.

7) ESAC Website

Minutes have been posted from the last two meetings. Kimball Williams noted that we are missing the minutes from 2005-2008. If anyone has copies of the minutes please send them to Tom Jerse. Tom will put a general call for missing minutes.

8) EMC Curriculum

ESAC needs to create a proposal for the Board of Directors of the comprehensive EMC curriculum to be offered to the Symposia attendees over the span of roughly 2-4 years. Exact span of time will be determined after the scope and the sequence of topics is agreed upon.

Current educational activities offered at the Symposia consist of EMC fundamentals, tutorials, and the global university. Bob Scully mentioned that an average member of EMC community needs some guidance as to what activity and in what sequence is appropriate. The benefits of the educational activities should be pointed out.

Kimball Williams suggested that we delineate an "educational progression" for an entry-level EMC person.

Qiubo Ye asked that the EMC standards be included in the comprehensive EMC curriculum.

To deal with this issue a subcommittee was formed. It consists of: Daryl Beetner, Kimball Williams, Vignesh Rajamani, Randy Jost, Chuck Bunting, Bogdan Adamczyk, Mark Steffka and Tom Jerse. Tom will chair this committee.

It has been suggested that the subcommittee should communicate via emails and a biweekly or monthly teleconference. Mark Steffka will set up the teleconference call numbers and schedule.

Randy Jost will create a draft to be used as a starting point for the discussion.

Bob Sully requested a list of subcommittee members, each person's responsibilities, subcommittee work plan, tasks and milestones, a copy of the initial draft and subsequent plan (in writing) so that he can present it to the Board of Directors meeting in November.

9) ESAC Activities

These activities consist of: student paper, student hardware design, student ethics, and EMC educator award. The last two are currently unfunded.

10) Current ESAC Officers

Tom will step down from the chair position after 2012 EMC Symposium. ESAC chair is appointed by the Board of Directors. At the next Symposium a new chair will be chosen.

Current vice-chair, Randy Jost is heavily involved in TC3 and would like to be relieved of his duties.

Randy proposed that Bogdan Adamczyk assumes the position of vice-chair. Bob Scully proposed Mark Steffka for the vice-chair position. It has been agreed that the election needs to take place.

Election took place and Bogdan Adamczyk was unanimously elected to be the vice-chair.

Bob Scully then nominated Mark Steffka to be the secretary. Mark was unanimously elected.

Daryl Beetner agreed to become chairman of the University Grant Committee and as elected by acclamation. He will release the 2011 Call for Proposals and administer the program.

The meeting adjourned at 8:51 am.