

Report IEEE CAS Society CASEO TC Annual Meeting 2015

Date: May 27, 2015

Time: 12:50-14:10

Place: Lisbon ISCAS

Proposed meeting Agenda

1. Opening of meeting
2. Introduction of CASEO TC officers and members
3. Approval of the 2015 CASEO TC meeting agenda.
4. Approval of the 2014 CASEO TC meeting report.
5. Report of accomplished technical activities/ yearly report
6. Brainstorming on the CASEO relevant issues and innovations
7. Organization and planning of CASEO (May 2015-May 2016)
8. Opportunities for collaboration system IEEE CAS google
9. CASEO officer election for the period May 2015-May 2017
10. Introduction and Approval of new CASEO TC members
11. Other business.
12. Meeting adjourned.

*The list of participants attending the meeting:(CASEO members marked with *)*

Babak Ayazifar* (chair) ayazifar@berkeley.edu

Josef Nossek* josef.a.nossek@tum.de

Sergio Callegari* Sergio.callegari@unibo.it,

Mattia Frasca mattia.frasca@dieei.unict.it

Vedat Tavsanoglu vtavsanoglu@yahoo.co.uk

Georgios Sirakoulis gsirak@ee.duth.gr

Tokunbo Ogunfunmi* tokunbo@ieee.org, togunfunmi@scu.edu,

Yun He* hey@tsinghua.edu.cn,

Ricardo Reis* Reis@inf.ufrgs.br

Arjuna Madanayake* arjuna@uakron.edu

Joos Vandewalle* (secretary) Joos.Vandewalle@esat.kuleuven.be

1. *Opening of the meeting.* Babak Ayazifar (CASEO Chair 2013-2015) opened the meeting.

2. *Introduction of CASEO officers, members and the guests.*

All those present gave a short introduction.

3. Approval of the 2015 TC meeting agenda.

Under any other business, the item of “distinguished lecturers” was added.

4. Approval of the 2014 TC meeting minutes

The draft report is approved.

5. Report of accomplished technical activities/ yearly report/instructions & template (May 2014 to May 2015)

Based on the input collected from the members with an email invitation, Babak Ayazifar has prepared the annual report and circulated this among the officers. The report was transmitted to CAS VP Technical Activities on May 22, 2015.

A remarkable achievement in the past year is the publication of a special issue of the IEEE CAS Magazine in the Fall of 2014 with the papers related to a successful workshop held after ISCAS in 2013 “ReThinking Circuits and Systems Education: Exploring New Pedagogies and Approaches”. Our three members members Tokunbo Ogunfunmi, Joos Vandewalle, and Ravi P. Ramachandran were the guest editors.

The report will be distributed to the members and posted on the CASEO webpage.

6. Brainstorming on CASEO relevant issues and innovations

-The important role of CASEO is clarified. CASEO can definitely dig more deeply into the CAS scientific aspects of CAS education than the IEEE Education Society, that is more interested in the didactics, questionnaires, learning analytics and the evaluation of the didactics. The latter is broader and generic and more influenced by the pedagogical methods of research, while CASEO can smoothen the transfer of CAS research innovations towards the EE students and textbooks. It was felt that the generic nature and the systems orientation of CAS Society are particular advantages for developing educational activities within CAS in the framework of CASEO.

-While historically ‘circuits’ were first taught in EE before signals are introduced to students, then the adagio was ‘DSP first’, and later it was considered that ‘circuits and systems’ should be taught initially together. That is not the end of the story. At UC Berkeley the initial EE course 16A “Designing information devices” deals with modules like locationing, touchscreen, imaging and wireless communication. This is a low level entry course that does not expect much mathematics but that includes the relevant math of linear algebra, that is needed for the lab and design activities. At MIT 4-5 initial courses are reduced to two 6.01 robotics and 6.02 bits and bytes. There is also a move away from the use of Matlab towards Python, that is openly available.

7. Organizing and planning of activities of CASEO (May 2014 to May 2015).

An important part of the yearly CASEO activities is related to the CAS Education track at ISCAS 2016 in Montreal. These include:

-Suggestions for special sessions, demo sessions, are welcome, and contributions to regular sessions, and poster sessions are stimulated. With respect to last year a definite increase in the number of submissions is desired. In fact there were 37 attendees at the only session of our track at ISCAS 2015; which proves that there is an audience and interest in the contributions. In view of the brainstorming discussion under point 6, it was decided to propose a special session or tutorial on “Disruptive innovations in CAS education”. Based on the attendance in the session,

there is definite preference to have a special session. In addition an educational demo session with good material can be very attractive.

-Education of Circuits and Systems track paper handling, and reviewing. The Track chair activities are typically done by the chair and the chair-elect/secretary and the CASEO members will be invited to review the submitted papers.

Other initiatives for the coming working year have been discussed, and will be further explored with the related volunteers and CASEO officers, and CAS Excom members

-The CASEO webpage <http://iee-cas.org/community/technical-committees/caseo-tc> could benefit by having more attractive material like relevant undergraduate CAS education documents, and data, and education related contributions from CAS members.

Some items of last year can also be considered :

- There are good reasons for CASS to be more involved in the Concepts Inventory and to bring these issues also to the attention of non-US related accreditation activities. Moreover certain CAS items still need to be extended. Support for a proposal for a special session at ISCAS 2016 on “Black CAS holes in the Concepts Inventories” can be given to Tokunbo Ogunfunmi.

-CASEO could stimulate a session at ISCAS 2015 on “MOOC’s and online learning of CAS items”.

-CASEO has the ambition to bring CAS items already to high school students as outreach activities. In the UK IET has an outreach activity to start from kindergarten, in order to attract more women into engineering. [More.women.into.engineering](http://www.morewomenintoengineering.org). Concrete proposals can be submitted for support to the CAS Outreach program 2016 <http://iee-cas.org/iee-cass-2015-2nd-call-outreach-initiative-results>

8. IEEE initiatives with Opportunities for CASEO

Under the initiative of Gianluca Setti, IEEE VP publications, a google workspace for collaborative efforts within IEEE is being developed. It provides collaborative workspace with 30Gbyte storage, with tools and collaborative editing of reports and working documents. TCs are being invited to participate. Sergio Callegari volunteered for setting up such a workspace for CASEO. Members that are interested can contact him.

Another initiative of the VP publications is to augment the papers published by IEEE in Xplore with supporting material like measured data sets, pictures, video, sound, simulations, and software. Such material will enhance the attraction to the papers, and will also make the research results of the papers more reproducible. Educational material would also be valuable in this context.

9. Officer election CASEO TC

The meeting elected Joos Vandewalle as chair and Yun He as chair-elect/secretary for the period May 2015-May 2017. Babak Ayazifar is the past-chair for this period. Tokunbo Ogunfunmi is thanked for his contributions to CASEO in consecutive duties of chair-elect/secretary, chair, and past-chair.

10. Introduction and Approval of new TC members

In view of the lively discussions during the meeting three guests (Mattia Frasca mattia.frasca@dieei.unict.it, Vedat Tavsanoglu vtavsanoglu@yahoo.co.uk, Georgios Sirakoulis

gsirak@ee.duth.gr) were motivated to become new members. They situated their research and education work. They are prepared to contribute actively to CASEO TC. The meeting accepted them unanimously as new CASEO TC members.

11. *Other business.*

The Distinguished Lecturers Program DLP should involve more topics related to innovations and good practices in CAS education, and members of CASEO are invited to suggest to the CASEO officers good candidates for DLP. The new CASEO chair will contact the DLP chair, Enrico Macii in order to enhance the CASEO participation.

12. *Meeting adjourned at 2:10pm*

Babak Ayazifar thanked all attendees and closed the meeting.

Procedure for further processing of the report:

- The draft version (date July 29, 2015) will be checked by the officers that were present (Babak Ayazifar, Tokunbo Ogunfunmi).
- The draft version (date .XX) will then be sent to all those present, so that they can send in corrections and additions.
- One week after the sending the corrected draft version will be frozen with the modifications, and posted on the webpage of CASEO.
- Next year at the CASEO TC meeting at ISCAS the report will be formally approved.