

Minutes of the Nonlinear Circuits and Systems Technical Committee meeting, ISCAS 2018

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:Location:

Firenze Fiera Congress and Exhibition Center, Villa Vittoria, room VV.G.7

Florence, Italy (during ISCAS 2018)

:Date:

28th May 2018

:Time:

13.15-14.15 UTC+01:00

****Members present at the meeting**** (27)

- Herbert Iu (Chair)
- Elena Blokhina (Chair-Elect)
- Sergio Callegari (Past Chair)
- Marco Storace (Secretary)
- Federico Bizzarri (Track Co-Chair for Nonlinear Circuits and Systems at ISCAS 2018)
- Chi Tsun (Ben) Cheng (Track Co-Chair for Nonlinear Circuits and Systems at ISCAS 2018)
- Jens Anders
- Fernando Corinto
- Mario Di Bernardo
- Manuel Dominguez-Pumar
- Abdelali El Aroudi
- Ahmed Elwakil
- Tyrone Fernando
- Dimitri Galayko
- Zbigniew Galias
- Geza Kolumban
- Francis Lau
- Xiang Li
- Yoshifumi Nishio
- Fabio Pareschi
- Zhihai Rong
- Hiroo Sekiya
- Ljiljana Trajkovic
- Michael Tse
- Yoko Uwate
- Yongxiang Xia
- Wei Xing Zheng

****Guests****

- Harry Weber (on behalf of Wolfgang Mathis)
- Marvin Sandner (on behalf of Marcus Prochaska)
- Tommaso Addabbo (newly approved member)
- Jiajing Wu (newly approved member)
- Aleksandra Lekic (guest of Ljiljana Trajkovic)
- Dusan Stipanovic (guest of Ljiljana Trajkovic)

This documents makes use of the following acronyms

CASS

Circuits and Systems Society

ISCAS

International Symposium on Circuits and Systems

NCAS

Nonlinear Circuits and Systems

TC

Technical Committee

TCAS (TCAS-I and TCAS-II)

IEEE Transactions on Circuits and System (-I and -II
respectively)

RCM

Review Committee Members

1. Call of order and welcome

At 13:15, the Chair of the Committee, Herbert Iu, opened the annual meeting of the NCAS TC and welcomed all participants. He presented the meeting agenda. The agenda was approved. The Chair introduced himself, the Chair-Elect (Elena Blokhina), the Secretary (Marco Storace), and the ISCAS 2018 Track Co-Chairs (Federico Bizzarri and Ben Cheng). The attending members of the TC and other participants introduced themselves and signed the attendance list.

2. Approval of minutes of the previous meeting

Herbert Iu advised that the minutes from the ISCAS 2017 meeting were sent by email by the Secretary prior to the meeting and were also available online at the TC website. Copies of the minutes were distributed by Marco Storace to the present TC members, with a request from Herbert Iu for comments or updates on the minutes. Herbert Iu called to approve the minutes. Minutes were unanimously approved.

3. Reports

TC Activities between ISCAS 2017 and ISCAS 2018

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Herbert Iu reported on the TC activities over the period between May 2017 and May 2018. He mentioned that a detailed draft was sent by Marco Storace to all TC members in electronic form prior to the meeting. Several printed copies were available at the meeting. Marco Storace distributed printed copies of the TC Activities Report. Herbert Iu thanked those who submitted the required information for the report and mentioned that only 15 members contributed to it. He also mentioned that the report contains the information that may be relevant to all CASS members. The TC members still have a couple of weeks to add further contributions.

The track record of TC members publications is significant. TC members received awards and honors and serve in technical and program committees and in leadership positions in CASS.

ISCAS 2018 Track organization (by Federico Bizzarri and Ben Cheng)

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Herbert Iu then invited the ISCAS 2018 Track Co-Chairs Federico Bizzarri and Ben Cheng to present their report on the organization of the ISCAS 2018 Nonlinear Systems and Circuit Theory Track.

Federico Bizzarri and Ben Cheng report that this year the Nonlinear Systems and Circuit Theory Track also had eight sub-tracks. The Review Committee was comprised of 35 members who were selected based on an online poll held in July 2017. The poll identified members who can serve in "problematic" areas traditionally lacking RCMs. The track had an increase in submitted papers from 55 in 2017 to 64 in 2018. Detailed numbers and distributions were presented on the slides.

Regarding the review process, not all RCMs received the same number of papers and this reflected a non-uniform distribution of submissions across the sub-tracks. Each RCM received between 1 and 3 papers. The review process went almost smoothly, even if two RCMs were removed because the Track Co-Chairs did not receive any response from them during the review process. Their papers were re-assigned to other RCMs and the Track Co-Chairs thanked them for their effort. In the future, it will be appreciated if, after declaring interests and availabilities, RCMs (and reviewers) can commit to the successful completion of tasks assigned to them. Apart from this case, each paper had four reviews on average and a large number of papers received good reviews. The acceptance rate was 53%, with 34 papers accepted, among which 4 were recommended for TCAS-II and 2 for TCAS-I invitations. The papers were organized in 4 lecture sessions and 2 poster sessions.

Herbert Iu thanked Federico Bizzarri and Ben Cheng for their report and the RCMs for their work during the review process.

4. Memberships

New applications

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Herbert Iu reminded about the CVs of candidates who wished to join the TC. Four applications were received (Tommaso Addabbo, Erivelton Geraldo Nepomuceno, Francesco Sorrentino, and Jiajing Wu). Two applicants were present at the meeting. Tommaso Addabbo and Jiajing Wu introduced themselves.

All applications were unanimously approved and the new members were congratulated.

Affiliate membership

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The TC member Geoffrey Coram officially requested conversion to affiliate member. The request was unanimously approved.

5. Election of the ISCAS 2019 Track Chairs

Herbert Iu reminded that the Track Chairs are elected among those who volunteered for this role. He further reminded that two self-candidatures were proposed prior to the meeting (Alberto Oliveri and Yongxiang Xia). As there were no other nominations from the attending members and no objections, Alberto Oliveri and Yongxiang Xia were approved and Herbert Iu congratulated them.

6. TCAS EDICS and emerging topics

EDICS update

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Herbert Iu reminded that an update of TCAS EDICS is in progress. For the section NOLIN - Nonlinear Circuits and Systems, a small committee (composed of Ben Cheng, Tyrone Fernando, Francis Lau, Marco Storace, and Herbert Iu) set up a first revised version of the EDICS. This version was sent to the TC on May 17, 2018. The second version (taking into account the received comments) was sent to the CASS Technical Activities Division (TAD), which already provided some comments.

This process will undergo several iterations before converging to the new EDICS list.

Elena Blokhina informed about the TCAS politics: the EDICS must reflect the activities of all TCs. It should also help to decide whether or not a submitted paper is out of scope for TCAS.

Discussion:

Ljiljana Trajkovic:

It is problematic to restrict the spectrum of topics suitable for TCAS. TCAS should be an inclusive journal as it has been up to now. The absence of a circuit application should not be a valid reason

for a priori rejection of a submitted paper.
Circuit theory should be brought back to our TC.

Mario Di Bernardo:

The CAS community has a very broad range of interests. Therefore it is right to be inclusive. An update of the EDICS is necessary. TCAS must be the journal one wants to publish in. Therefore, we could adopt a bottom-up approach by setting up an online form to collect opinions of our TC members about each EDICS from the list proposed by the TAD.

Federico Bizzarri:

ISCAS topics should be reflected in the TCAS EDICS as the flagship conference and the journal should be aligned. Some statistics about EDICS used by TCAS authors in recent years would help in selecting a reasonable set of EDICS. Too specific EDICS would make it difficult for the AEs to find reviewers.

Yongxiang Xia and Michael Tse:

Another source could come from a ranking of the most cited TCAS papers. Many of them are in our TC area and are concerned with nonlinear dynamics, networked control, and complex networks. TCAS should continue accepting papers in these areas even if they are not strictly related to circuits.

Elena Blokhina:

For some of these topics, there are specific journals such as the "IEEE Transactions on Network Science and Engineering," which are sponsored 50% by CASS and 50% by Computer Society.

Emerging topics

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Herbert Iu showed a list of possible examples:

- Security in hardware: cross-layer
- Quantum computing circuits
- Wireless networks-on-chip for manycore processors
- NanoSatellite electronics for energy and communications
- Complete bio-implants: distributed, event-driven, efficient compressed sensing
- AI efficient co-processor architectures IoT
- IoVT: video technology
- Autonomous systems: cyber-physical system encompassing distribution communications, wireless communications, and control

He encouraged the TC members to provide further suggestions.

7. New business: activities planning

Herbert Iu offered some critical aspects that our TC should focus on:

- Increase the number of ISCAS submissions in NCAS area
- Increase the number of ISCAS special sessions on emerging topics related to NCAS
- Increase the number of special issue proposals to JETCAS.

Ljiljana Trajkovic suggested to include also the Special Sessions organized by TC members at ISCAS in the statistics of our TC. All TC members agreed.

8. Communications

Herbert Iu asked the attendees for any other business.
There was no new business from the audience.

9. Adjournment

Herbert Iu thanked the meeting attendees. The meeting was adjourned
at 14.15.

Prepared by Marco Storace, June 2018