IEEE Circuits and Systems Society Sensory Systems Technical Committee

Annual Report 2017

(Activities for May 2016 through May 2017)

Officers

Chair: Piotr Dudek, University of Manchester, UK, p.dudek@manchester.ac.uk

Chair-Elect: Timothy Constandinou, Imperial College London, t.constandinou@imperial.ac.uk

Secretary: Amine Bermak, HKUST, Hong Kong, eebermak@ece.ust.hk

Secretary Elect: Shoushun Chen, Nanyang Technological University, Singapore, eechenss@ntu.edu.sg

Past Chair: Teresa Serrano-Gotarredona, National Microelectronics Center, Spain, terese@imse-cnm.csic.es

Website

http://ieee-cas.org/community/technical-committees/sensory-systems-technical-committee-sstc

Annual Meeting

2016 Meeting: was at ISCAS 2016, Montreal, Canada, Sheraton Center,

Salon 6, Tuesday 24th May, 12:00 to 13:30

2017 Meeting: will be at ISCAS 2017, Baltimore, MD, USA

Bristol Room, Baltimore Marriott Waterfront, Wednesday 31 May 2017, 12:30 - 13:30

1. Introduction

The goal of the IEEE Circuits and Systems Society (CASS) Sensory Systems Technical Committee (SSTC) is to foster research, development, education and industrial dissemination of knowledge relating to the emerging field of sensors and associated processing systems. The activity is multidisciplinary, drawing upon knowledge and expertise from fields such as biology, physics, mechanics and chemistry, in addition to areas more traditionally associated with the IEEE such as electrical and computer engineering, computer science and information technology.

2. TECHNICAL COMMITTEE MEMBERSHIP

Committee members are experts, who are active within the field and who contribute to the committee activities. We have recruited a group of TC members that cover all aspects of our TC. The committee has members from academia, national labs and industry.

The SSTC presently has 65 active members (see Appendix A). Seven new members joined the committee in 2016.

3. PARTICIPATION IN ISCAS TRACK PAPER REVIEWS

55 papers were submitted to Sensory Systems track for ISCAS 2017 (minus two redirected to other tracks), increase as compared to ISCAS 2015 (47 papers). Of the 55 papers submitted, 25 (47%) were accepted.

21 volunteer RCMs handled reviews and at least 3 reviews were arranged for each paper. Many thanks to RCMs and reviewers. The RCM's were:

Viktor Brea, Ricardo Carmona Galan, Gert Cauwenberghs, Shoushun Chen, Tobi Delbruck, Ralph Etienne-Cummings, Jorge Fernández Berni, Pantelis Georgiou, Tara Hamilton, Jeremy Hollemann, Man Kay Law, Juan Leñero-Bardallo, Alejandro Linares-Barranco, Shih-Chii Liu, Paula López Martínez, Andrew Mason, Nicola Massari, Nicole McFarlane, Christoph Posch, Themis Prodromakis, Hyunsurk Ryu, Milutin Stanacevic.

Best Paper Award

The top 5 papers in review (i.e. those with all "Accept" or two "Accept" one "Marginal accept" reviews) were distributed to 15 volunteer judges from SSTC, who ranked the papers. The best paper was chosen from these rankings and will be announced at the annual meeting in Baltimore and listed in the 2017 minutes.

The volunteer best paper judges were:

Jonne Poikonen, Ibrahim Elfadel, Victor Brea, Nicola Massari, Jim Harkin, Alexantru Serb, Tara Hamilton, Shoshun Chen, Jennifer Hasler, Shih-Chii Liu, Paula López Martínez, Milutin Stanacevic, Wei Tang, Jorge Fernández Berni, Christoph Posch, Nicola Massari

4. DISTINGUISHED LECTURER PROGRAMME

The Committee made two nominations for the 2017-18 distinguished Lecturer programme. Both were not accepted.

The Committee member Pantelis Georgiou has been nominated by another committee, and begun his service as Distinguished Lecturer (2017-2018). Arindam Basu, Jie Chen, Julius Georgiou and Shih-Chii Liu have continued serving as Distinguished Lecturers (2016-17).

5. COMMITTEE MEMBER ACTIVITIES

In addition to their research and scientific activities, the Committee members are contributing to the development of the field of Sensory Systems through of the organisation of many conferences & workshops, and other dissemination activities, including delivering numerous invited lectures and seminars. They are serving on Editorial Boards of many journals, including IEEE TCAS-I, IEEE TCAS-II, IEEE TBioCAS, IEEE Sensors, etc. and are active in a number of committees within IEEE and beyond. Many are also active in knowledge transfer and commercialisation activities, including publication of patens.

In particular, a number of members of the Committee have been involved in the organisation of ISCAS 2017:

General Co-chairs: Pamela Abshire, Ralf-Etienne-Cummings, **Special Session Co-Chairs**: Orly Yadid-Pecht, Tim Constandinou,

Tutorial Co-Chair: Amine Bermak,

Demo Co-Chairs: Jennifer Blain Christen, Shi-Chii Liu

Publicity Co-Chairs: Pantelis Georgiou, Arindam Basu, Nicole McFarlane

Sponsorship Chair: Eugenio Culurciello **Mobile App Chair:** Timir Datta-Chaudhuri

6. Publications

The committee members continue to publish books and influential papers in IEEE and other top journals and conference proceedings.

APPENDIX A. MEMBERSHIP LIST

- Pamela Abshire, University of Maryland (pabshire@umd.edu)
- 2. Andreas Andreou, Johns Hopkins University (andreou@jhu.edu)
- 3. Diego Barrettino, University of Applied Science of Southern Switzerland (diego.barrettino@supsi.ch)
- 4. Chiara Bartolozzi, Italian Institute of Technology (chiara.bartolozzi@iit.it)
- 5. Arindam Basu, NTU Singapore (arindam.basu@ntu.edu.sg)
- 6. Amine Bermak, The Hong Kong University of Science and Technology (eebermak@ee.ust.hk)
- 7. Victor Brea, Univ. of Santiago de Conpostela (victor.brea@usc.es)
- 8. Stephen Carey, University of Manchester (s.carey@manchester.ac.uk)
- 9. Ricardo Carmona-Galán, Sevilla Microelectronics Institute (rcarmona@imse-cnm.csic.es)
- 10. Sandro Carrara, EPFL (sandro.carrara@epfl.ch)
- 11. Gert Cauwenberghs, University of California, San Diego (gert@ucsd.edu)
- 12. Shantanu Chakrabartty, Michigan State University (shantanu@msu.edu)
- 13. Jie Chen, University of Alberta (jchen@ece.ualberta.ca)
- 14. Shoushun Chen, Nanyang Tech. Univ. (NTU) Singapore (eechenss@ntu.edu.sg)
- 15. Jennifer Blain Christen, Arizona State University (jennifer1@asu.edu)
- 16. Timothy Constandinou, Imperial College London (t.constandinou@ic.ac.uk)
- 17. Eugenio Culurciello, Purdue Univ. (euge@purdue.edu)
- 18. Timir Datta, Lawrence Livermore National Laboratory (tdatta@llnl.gov)

- 19. Tobi Delbruck, University of Zurich and ETH Zurich (tobi@ini.phys.ethz.ch)
- 20. Piotr Dudek, The University of Manchester (p.dudek@manchester.ac.uk)
- 21. Ibrahim (Abe) Elfadel, Masdar Institute (ielfadel@masdar.ac.ae)
- 22. Ralph Etienne-Cummings, Johns Hopkins University (retienne@jhu.edu)
- 23. Jorge Fernández Berni, Instituto de Microelectrónica de Sevilla (berni@imse-cnm.csic.es)
- 24. Alexander Fish, Ben-Gurion University (afish@ee.bgu.ac.il)
- 25. Roman Genov, University of Toronto, Canada (roman@eecg.toronto.edu)
- 26. Julius Georgiou, University of Cyprus (julio@ucy.ac.cy)
- 27. Pantelis Georgiou, Imperial College London (pantelis@imperial.ac.uk)
- 28. Viktor Gruev, Washington Univ. St. Louis (vgruev@seas.wustl.edu)
- 29. Philipp Hafliger, University of Oslo, Norway (hafliger@ifi.uio.no)
- 30. Tara Julia Hamilton, Univ. of Western Sydney (T.Hamilton@uws.edu.au)
- 31. Jim Harkin, Ulster University (jg.harkin@ulster.ac.uk)
- 32. John G. Harris, University of Florida (harris@ece.ufl.edu)
- 33. Jennifer Olson Hasler, Georgia Institute of Technology (jennifer.hasler@ece.gatech.edu)
- 34. Jeremy Hollemann, University of Tennessee (jeremy.holleman@utk.edu)
- 35. Zeljko Ignjatovic, Univ of Rochester (ignjatov@ece.rochester.edu)
- 36. Giacomo Indiveri, University of Zurich and ETH Zurich (giacomo@ini.phys.ethz.ch)
- 37. Mika Laiho, University of Turku (mlaiho@utu.fi)
- 38. Tor (Bassen) Sverre Lande, University of Oslo (bassen@ifi.uio.no)
- 39. Man Kay (Matthew) Law, University of Macau (MKLaw@umac.mo)
- 40. Eero Lehtonen, University of Turku (eero.lennart.lehtonen@utu.fi)
- 41. Juan Antonio Leñero-Bardallo, University of Seville (juanle@imse-cnm.csic.es)
- 42. Walter Daniel Leon-Salas, University of Purdue (wleonsal@purdue.edu)
- 43. Alejandro Linares-Barranco, University of Seville (alinares@atc.us.es)
- 44. Bernabe Linares-Barranco, Sevilla Microelectronics Institute (bernabe@imse.cnm.es)
- 45. Shih-Chii Liu, University of Zurich and ETH Zurich (shih@ini.phys.ethz.ch)
- 46. Paula López Martínez, University of Santiago de Compostela (p.lopez@usc.es)
- 47. Christoph Maier, UC San Diego (chmaier@ucsd.edu)
- 48. Andrew Mason, Michigan State University (mason@msu.edu)
- 49. Nicola Massari, FBK, Italy (massari@fbk.eu)
- 50. Nicole McFarlane, The University of Tennessee, Knoxville (mcfarlane@utk.edu)
- 51. Christos Papavassiliou, Imperial College (c.papavas@imperial.ac.uk)
- 52. Jonne Poikonen, University of Turku (jokapo@utu.fi)
- 53. Christoph Posch, Vision Institute, Paris (cposch@yahoo.com)
- 54. Themis Prodromakis, University of Southampton (t.prodromakis@soton.ac.uk)
- 55. Hyunsurk (Eric**) Ryu, Samsung Advanced Inst. of Technology (eric ryu@samsung.com)
- 56. Alexandru Serb, University of Southampton (A.Serb@soton.ac.uk)
- 57. Francisco Serra-Graells, Barcelona Microelectronics Institute (paco.serra@imb-cnm.csic.es)
- 58. Teresa Serrano-Gotarredona, Sevilla Microelectronics Institute (terese@imse.cnm.es)
- 59. Milutin Stanacevic, SUNY, Stonybrooke (milutin.stanacevic@stonybrook.edu)

- 60. Wei Tang, New Mexico State University (wtang@nmsu.edu)
- 61. Jonathan Tapson, University of Western Sydney (J. Tapson@westernsydney.edu.au)
- 62. Andre van Schaik, University of Western Sydney (a.vanschaik@uws.edu.au)
- 63. Orly Yadid-Pecht, Ben-Gurion University (orly.yadid-pecht@ucalgary.ca)
- 64. Jie (George) Yuan, Hong Kong Univ. Science & Techn. (eeyuan@ust.hk)
- 65. Akos Zarandy, Hungarian Academy of Sciences (zarandy@sztaki.hu)