IEEE Circuits and Systems Society
Sensory Systems Technical Committee

Annual Report 2018
(Activities for May 2017 through May 2018)

Officers

Chair: Timothy Constandinou, Imperial College London, t.constandinou@imperial.ac.uk
Chair-Elect: Amine Bermak, HKUST, Hong Kong, eebermak@ece.ust.hk
Secretary: Shoushun Chen, Nanyang Technological University, Singapore, eechenss@ntu.edu.sg
Secretary Elect: Ricardo Carmona-Galán, Sevilla Microelectronics Institute, rcarmona@imse-cnm.csic.es
Past Chair: Piotr Dudek, University of Manchester, UK, p.dudek@manchester.ac.uk

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

Annual Meeting

2017 Meeting: Was atISCAS 2017, Baltimore, MD, USA

2018 Meeting: Will be atISCAS 2018, Florence, Italy
VV1.8, Firenze Fiera Congress and Exhibition Center, Tuesday 29th May, 13:15 – 14:15
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 70 active members (see Appendix A). Five new members joined the committee in 2017. 34 people attended the 2015 annual meeting including 29 current members and 5 new members.

3. **PARTICIPATION IN ISCAS**

**ISCAS 2017, SS Track – Best Paper Award**

1. The top 5 ranked papers in review (minus conflict-of-interest) were ranked by 15 volunteer best paper judges: 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
2. Each volunteer ranked the papers and the paper with the highest average score was selected.
3. The paper with the best “average rank” was selected as the best paper of 2017:


**ISCAS 2018, SS Track – Review Committee and Participation**

- SS Track received 65 submissions for ISCAS 2018 (compared to 55 in 2017), 33 papers accepted (51%).
- 2 track chairs and 22 RCMs participated in the review process. Thanks to all RCM members for their great effort and help with review assignment, namely: Jennifer Blain Christen, Victor Brea, Ricardo Carmona Galán, Gert Cauwenberghs, Shoushun Chen, Jie Chen, Tobi Delbruck, Piotr Dudek, Jorge Fernández-Berni, Pantelis Georgiou, Tara Hamilton, Juan-Antonio Leñero-Bardallo, Daniel Leon-Salas, Alejandro Linares-Barranco, Shih-Chii Liu, Paula López, Andrew Mason, Nicole McFarlane, Christos Papavassiliou, Christoph Posch, Milutin Stanacevic, Wei Tang and Track co-chairs: Timothy Constantinou, Amine Bermak
- SSTC organized a total of 6 sessions at ISCAS 2018 (4 oral, 2 poster).
  - **Poster sessions:** Circuits & Systems for Sensors (B5P-V), Sensors for Imagers & Vision (B5P-W)
- SSTC organizing a best paper award for SSTC track at ISCAS 2018. Result TBA

4. **DISTINGUISHED LECTURER PROGRAMME**

SSTC currently has one Distinguished Lecturer 2017-18: Pantelis Georgiou
5. NEW IEEE FELLOWS

One committee member was elevated to IEEE Fellow status in 2018: Pamela Abshire

6. 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 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, and are active in a number of committees within IEEE and beyond, such as:

- New Editor-in-Chief of IEEE Sensors Journal (Sandro Carrara)
- CASS representative on IEEE Sensors Council (Pantelis Georgiou)
- CASS representative on IEEE BRAIN Initiative (Timothy Constadinou)

Many are also active in knowledge transfer and commercialisation activities, including publication of patents. Their work has been recognised by various awards. Below is a summary of individual member activities (34 members responded to requests for this information).

**SHORT COURSES, PLENARY SESSIONS, KEYNOTE SPEAKERS, INVITED LECTURES**

**Alejandro Linares-Barranco**

**Alexander Serb**
- UKDF (UK design forum), Talk, 2017.
- STFC analogue design flow course, trainee, 2018.
- MRS, chair and invited talk, 2018

**Arindam Basu**

**Christoph Posch**

**Diego Barretti**
- ST Microelectronics Distinguished Lecturer.
Gert Cauwenberghs

Giacomo Indiveri
- The 2017 Capo Caccia Cognitive Neuromorphic Engineering Workshop, Alghero, Italy (24.4.-6.5.2017), Organizer, 2017
- MemoCIS COST international workshop, invited talk: A mixed-signal neuromorphic computing architecture in 28 nm FD-SOI technology, Invited Speaker, 12.03.2018
- Huawei European Research Institute Symposium on Cloud and AI, invited talk: Neuromorphic processors for implementing low power spiking neural networks, Invited Speaker, 2018

Iraklis Anagnostopoulos
- TPC IEEE International Conference on Very Large Scale Integration (VLSI-SoC), Oct. 8-10, 2018, Verona, Italy
- TPC IEEE International Conference on Electronics Circuits and Systems (ICECS), Dec. 9-12, 2018, Bordeaux, France.
- TPC ACM Great Lakes Symposium on VLSI (GLSVLSI), May 23-25, 2018, Chicago, USA.

Ibrahim (Abe) M. Elfadel
- “IoT Platforms for Mobile Health,” Workshop at the UAE Society of Engineers, Dubai, UAE, April 17, 2018. Sponsored by the UAE IEEE Chapter and the UAE Society of Engineers.

Jorge Fernández Berni

Orly Yadid-Pecht
- “Sensing for Better Authentication”. The 4th ISPIA/CMSS Fall Workshop, University of Calgary, 15th November 2017
- “From idea to market: materializing innovation in information and communication technologies in academia”, ITHEA 2017 Conference, Varna, Bulgaria, 27th June 2017

Pantelis Georgiou
- “Bio-inspired Microchips for Improving Human Health”, IEEE NEWCAS conference Keynote, 28th June 2017

Ricardo Carmona Galan

Sandro Carrara
- Bio/CMOS interfaces for Ultrasensitive Memristive Biosensors, IEEE International Conference on Modern Circuits and Systems Technologies (MOCAST), Thessaloniki, Greece, 4-6 May, 2017
- Bio/Nano/CMOS interfaces for Ultrasensitive Memristive Biosensors, Summer School at the Technical University of Dresden, Germany, 11-15 September 2017. Lecture of the IEEE Distinguished Lecturers Program.
- Bio/Nano/CMOS interfaces for Remote Monitoring of Human Metabolism, University of Brescia (Italy), November 23rd, 2017
- Bio/Nano/CMOS interfaces for Ultrasensitive Memristive Biosensors, University of Manchester, Manchester, UK, 28 June 2017. Lecture of the IEEE Distinguished Lecturers Program
- Bio/Nano/CMOS interfaces for Ultrasensitive Memristive Biosensors, Politecnico di Torino, Turin, Italy, 5 July 2017. Lecture of the IEEE Distinguished Lecturers Program
- New technologies and approaches for personalized diagnostics, University of Geneva, Switzerland, Wednesday, June 21, 2017

Shih-Chii Liu
- Department of Electrical and Computer Engineering, National University of Singapore, Invited Talk, 2017

Themis Prodromakis
- Feb 2018 “Processing Data with Nanoscale Memristors”, School of Engineering, University of Glasgow, Glasgow, UK.
Dec 2017  “Enabling AI with Memristive Technologies”, DSTL, Portsmouth, UK.
Sep 2017  “Introducing the Nanoworld”, INTERACT - An Engagement Symposium for the Physical Sciences, Institute of Physics, Birmingham, UK.
Sep 2017  “Processing big-data with Memristive Devices”, MemoCIS 6th Workshop, Krakow, PL.
Sep 2017  “Processing big-data with Memristive Devices”, Manufacturing, Design, and Applications for Next Generation Memory Technologies workshop, Lausanne, CH.
May 2017  “Processing big-data with Nanoscale Memristors”, UK Design Forum (UDKF), Manchester, UK

Timir Datta-Chaudhuri
- Bioelectronic Medicine (graduate course) – Elmezzi Graduate School

Timothy Constandinou
- “Millimetre-scale implantable brain machine interfaces”, Universidad de la Republica (Montevideo, Uruguay), 22 March 2018.

Viktor Gruev
- “Bio-inspired Sensors: From the Ocean to the Operating Room,” University of Zurich, Zurich, Switzerland, June 2017.

CONFERENCES

Alejandro Linares-Barranco
- Program co-chair of IJCCI 2018 (INSTICC conference).

Arindam Basu
- Publicity co-chair, IEEE International Conference on Digital Signal Processing (DSP) 2018, China.
- International Coordinator, IEEE Life Sciences Conference 2018, Canada.
- Publicity co-chair, IEEE International Symposium on Circuits and Systems (ISCAS) 2017, USA.

Christoph Posch
- Member Advisory Committee IS Auto Europe 2018, Munich, April 2018.

Ibrahim (Abe) M. Elfadel
- General Co-chair, 25th IEEE/IFIP International Conference on Very Large Scale Integration (VLSI-SoC 2017), Abu Dhabi, UAE, Oct 23-25, 2017
- Technical Program Committee, CAD Track Co-chair, 35th IEEE International Conference on Computer Design (ICCD 2017), Boston, MA, Nov 5-8, 2017
• Review Committee Member, 51th International Symposium on Circuits and Systems (ISCAS 2018), Florence, Italy, May 27-30, 2018

Jorge Fernández Berni
• General Chair, Workshop on Architecture of Smart Cameras, Córdoba (Spain), June 2017. http://www.eunevis.org/wasc2017/

Maurizio Valle
• Special Session Co-organizer: IEEE NGCAS 2017 Conference, SS Title: Energy Efficient Autonomous Smart Sensory Systems
• Special Session Co-organizer: IEEE NGCAS 2017 Conference, SS Title: Gas Sensing Circuit Interfaces
• Special Session Co-organizer: IEEE NGCAS 2017 Conference, SS Title: Sensors and Systems for the Restoration of the Sense of Touch in Prosthetics
• Track Chair (Physical Sensors) of the IEEE Sensors Conference 2017
• Review Committee member of the IEEE Sensors Conference 2017

Orly Yadid-Pecht
• Member of the Technical Committee for the IEEE Workshop on CCDs and Advanced Image Sensors (2016-present)
• Member of IEEE ISCAS 2017 Program Committee (2015-2017)
• Member of the IEEE CAS Analog Signal Processing, Neural Networks and Sensors Technical Committees (1996-Present)
• Member of the Steering Committee for the IEEE ICECS (2003-present)

Pantelis Georgiou
• Demonstration Chair, IEEE Sensors conference, 2017 (Glasgow, UK)
• Special Session Chair, IEEE BioCAS conference, 2017 (Turin, Italy)

Piotr Dudek
• Track Chair, Sensory Systems, ISCAS 2017
• Co-organiser, UK Design Forum, 10-11 May 2017, Manchester

Ricardo Carmona Galan
• Co-organizer and Member of the Advisory board of the Workshop on Architecture of Smart Cameras (WASC 2017), Córdoba, Spain, June 5-6, 2017.

Sandro Carrara
• General Co-Chairman of the International IEEE MeMeA Symposium on Medical Measurements and Applications, Rome, Italy, June 11-13, 2018

Shih-Chii Liu
• Review committee member of IEEE ISCAS 2017.
• Co-organizer of Telluride Neuromorphic Cognition Engineering Workshop 2017, Telluride, Colorado.

Shoushun Chen
• Review committee member of IEEE ISCAS 2017/2018.

Teresa Serrano-Gotarredona
• Program Committee Member ICECS 2017.

Themis Prodromakis
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- International Conference on Memristive Materials, Devices & Systems (MEMRISYS), April 2017, Athens, Greece – General Chair

Timothy Constandinou
- BioCAS 2018, Technical Program co-Chair
- NeuroCAS 2018, General Chair

Víctor Manuel Brea
- Program Chair International Conference on Distributed Smart Cameras (ICDSC) at ICDSC 2017 and ICDSC 2018 (https://icdsc.org/)

Viktor Gruev
- IEEE ISCAS
- SPIE DSS

EDITORIAL BOARDS

Alejandro Linares-Barranco
- Associate Editor, IEEE Transactions on Circuits and Systems-II, Express Briefs.
- Review Editor, Frontiers in Neuroscience
- Review Editor, Frontiers in Nerorobotics

Arindam Basu
- Associate Editor for IEEE Sensors Journal (2015 - present)
- Associate Editor for IEEE Transaction on Biomedical Circuits and Systems (2016-18)
- Associate Editor for Frontiers in Neuroscience: Neuromorphic Engineering (2017 - present)

Christoph Posch
- Review Editor, Frontiers in Neuromorphic Engineering

Diego Barretino
- Associate Editor of IEEE Transactions on Instrumentation and Measurement.

Fernando Perez-Peña
- Review Editor, Frontiers in Nerorobotics.
- Reviewer, Sensors (MDPI)

Gert Cauwenberghs
- Editorial Board Member, IEEE Transactions on Biomedical Engineering, 2013-present.
- Associate Editor, Neuromorphic Engineering, Frontiers in Neuroscience, 2010-present.

Giacomo Indiveri
- N. Surname, Role (e.g. Associate Editor), Name of publication (e.g. IEEE Transactions on Circuits and Systems-I, Regular Papers)

Ibrahim (Abe) M. Elfadel
• Associate Editor: IEEE Transactions on VLSI
• Editor: Microelectronics Journal (Elsevier)

Jorge Fernández Berni
• Associate Editor, International Journal of Circuit Theory and Applications

Juan Antonio Leñero-Bardallo
• Member of the University of Cádiz Editorial Chapter from June 2017 to February 2018.

Nicola Massari
• Guest editor of a special issue on “Image Sensor” on MDPI journal

Orly Yadid-Pecht
• Member of the Editorship Board, International Journal Information Models and Analysis (2013 – present)
• Associate Editor, Journal for Low Power Engineering Applications (2011 – Present)

Pantelis Georgiou
• IEEE Transactions on Biomedical Circuits and Systems (TBioCAS), Associate Editor
• IEEE Sensors Journal, Associate Editor

Piotr Dudek
• Associate Editor, IEEE Transactions on Circuits and Systems II – Express Briefs

Ricardo Carmona Galan
• Reviewer for ISCAS, IET electronics Letters, TCAS-I, TCAS-II, IJCTA, IEEE Sensors.

Sandro Carrara
• Vice Editor-in-Chief of the IEEE Sensors Journal
• Named Editor-in-Chief of the IEEE Sensors Journal (term started January 1st, 2018)
• Associate Editor of the IEEE Transactions on Biomedical Circuits and Systems

Shih-Chii Liu
• IEEE Trans. on Biomedical Circuits and Systems Associate Editor
• Frontiers in Neuromorphic Engineering Associate Editor
• Neural Networks Journal Associate Editor

Shoushun Chen
• Jun 2012 - Present, Associate Editor of IEEE Sensors Journal

Tara Julia Hamilton
• Frontiers in Neuroscience.
• Engineering Mathematics and Applications Conference.

Teresa Serrano-Gotarredona
• Associate Editor IEEE Transactions on Circuits and Systems, part 1 until December 1997.

Themis Prodromakis
• Associate editor of Frontiers in Neuromorphic Engineering
• Associate editor of IEEE Sensors
• Associate editor of Nature Scientific Reports

Timir Datta-Chaudhuri
• Associate Editor – Bioelectronic Medicine (Springer Nature)

Timothy Constantinou
• IEEE Transactions on Biomedical Circuits & Systems, Associate Editor

Víctor Manuel Brea
• Advisory Board Workshop of Architecture of Smart Cameras (WASC), (http://eunevis.org/wasc2018/about-wasc/)

Viktor Gruev
• IEE BioCAS

OTHER IEEE SERVICE AND PROFESSIONAL ACTIVITIES

Alejandro Linares-Barranco
• Associate Editor of International Journal in Computing and Digital Systems
• ISCAS’17 and ISCAS’18 RCM and reviewer at IJCNN’18, ICECS’17

Alexander Serb
• TC member, {NSATC, SSTC}

Christoph Posch
• Review Committee Member (RCM) - ISCAS 2018

Gert Cauwenberghs
• G. Cauwenberghs, featured in: ”Retinal prosthesis could enable blind to see shapes, even text,” San Diego Union Tribune, September 5, 2017.

Giacomo Indiveri
• G. Indiveri, Participant, IEEE NSATC, IEEE BCAS, IEEE SSTC.
• G. Indiveri, Director of the Institute of Neuroinformatics (Dept. Head)

Ibrahim (Abe) M. Elfadel
• Program Manager, Singapore TwinLab on MEMS, May 2014 – present.

Iraklis Anagnostopoulos
• Reviewer IEEE Transactions on Computers, IEEE Transactions on Very Large Scale Integration Systems, IEEE Embedded System Letters

Jie Chen

Jim Harkin
• Research Council UK (EPSRC) Panel Member for Research Proposal Assessments
• Research Proposal Assessments for Swiss National Science Foundation
• Commercialisation: Established start-up company www.airbrio.com

Juan Antonio Leñero-Bardallo
• Reviewer, IEEE Transactions on Biomedical Circuits and Systems, TBIODAS.
• Reviewer, IEEE Transactions on Circuits and Systems, TCAS-I.

Milutin Stanačević
• Organizer of a special session on “Circuits and Systems for Autonomous IoT Devices”, ACM Great Lakes Symposium on VLSI (GLSVLSI), Chicago, IL, 2018.
• ETF BAFA Vice President, Scholarship Awards Program

Nicola Massari
• Review Committee member of PRIME conference
• Review Committee member of ISCAS conference
• TPC of NGCAS conference

Nicole McFarlane
• CASS BoG (From Jan 2018)
• Reviewer/RCM ISCAS 2018, Technical Program Committee member MWSCAS 2017

Orly Yadid-Pecht
• Member of IEEE Mac Van Valkenburg Award selection committee, 2018

Pantelis Georgiou
• IEEE Sensors Council, Circuits and Systems Representative.
• Biomedical Circuits & Systems (BIOCAS) Technical Committee Member

Paula López Martínez
• Reviewer of the IEEE Trans. On Biomedical Circuits and Systems
• Reviewer of the BioCAS 2017, ISCAS 2017, ISCAS 2018

Ricardo Carmona Galan
• Reviewer of the Spanish National Agency for Evaluation and Prospective (ANEP).
• Secretary-Elect for the IEEE CASS Sensory Systems Technical Committee.
Sandro Carrara
- Member elected of the IEEE CAS Board of Governors
- Member at large of the IEEE Sensors Council

Shih-Chi Liu
- Member of the IEEE CAS Sensory Systems and Neural Systems and Applications Technical Committees
- Chair of IEEE Swiss CAS/ED Chapter
- Reviewer for IEEE TCAS, IEEE TNN, IEEE TBioCAS journals
- Reviewer for IEEE BioCAS, ISCAS conferences

Shoushun Chen
- Secretary (Jun 2017 - Present), Technical Committee on Sensory Systems of IEEE circuit and Systems Society

Tara Julia Hamilton
- Reviewing for IEEE journals and conferences.

Themis Prodromakis
- Member of the Neural Systems and Applications Technical Program Committee
- Member of the Nano-Giga Technical Program Committee
- Member of the Sensory Systems Technical Program Committee
- Member of the BioCAS Technical Program Committee

Timir Datta-Chaudhuri
- Assistant Professor - Center for Bioelectronic Medicine - Feinstein Institute for Medical Research
- Assistant Professor - Zucker School of Medicine - Hofstra/Northwell
- Assistant Professor - Elmezzi Graduate School of Molecular Medicine – Hofstra/Northwell

Timothy Constandinou
- IEEE CAS Society, Board of Governors (BoG)
- IEEE CAS Society, Sensory Systems TC Chair
- IEEE BRAIN Initiative, Steering Committee

**AWARDS, HONORS**

Alejandro Linares-Barranco

Giacomo Indiveri
- ERC Consolidator Grant on Neuromorphic Agents, EU ERC, 2017.

Christoph Posch
- ISSCC 2018 Technology Innovation Award

Ibrahim (Abe) M. Elfadel
- Best Paper Award with my student Rupesh Karn at the 2018 UAE Graduate Student Research Conference, April 2018.

Nicole McFarlane
- Elevated to Senior Member
Orly Yadid-Pecht
• American Institute for Medical and Biological Engineering, AIMBE Fellow

Pantelis Georgiou
• IEEE Sensors Council Technical Achievement Award 2017
• IEEE Circuits and Systems Distinguished Lecturer 2017-2018.

Sandro Carrara
• Gold Leaf Prize at the 1st IEEE/NGCAS Conference, Genoa, IT, in September 2017
• Best Poster Award at the EMBEC’17 Conference, Tampere, Finland, in June 2017

Tara Julia Hamilton

Themis Prodromakis
• Royal Society Industry Fellowship, The Royal Society, 2017
• Lloyd’s Register Foundation 100A1 ambassador, 2017
• Fellow Member (FInstP), The Institute of Physics
• Fellow Member (FIET), The Institution of Engineering & Technology
• Member of the IEEE Nanotechnology Council – representing CAS
• Member of the Emerging Research Devices working group for shaping the ITRS
• ArC Instruments Ltd (www.arc-instruments.co.uk), Founder and Director

Timothy Constandinou
• IEEE Biomedical Circuits and Systems (BioCAS) Conference Best Paper Award (3rd Place) for “Millimeter-Scale Integrated and Wirewound Coils for Powering Implantable Neural Microsystems” (Authors: P Feng, P Yeon, M Ghovanoo, TG Constandinou)

Wei Tang
• National Science Foundation Faculty Early Career Award 2017

PATENTS

Arindam Basu

Diego Barrettino

Gert Cauwenberghs

Juan Antonio Leñero-Bardallo
• Juan Antonio Leñero-Bardallo, Spanish patent number 201601091. Filed in September 2017. Title: ‘Sensor solar y método para detectar la posición del sol con respecto al eje transversal del mismo’.

Ibrahim (Abe) M. Elfadel

Milutin Stanačević

Orly Yadid-Pecht

Paula López Martínez
• Industrial protection title of a semiconductor’s topography, “High speed operational amplifier with differential input pair implemented with enclosed layout transistors”. OEPM- T201299990011983
• Software registry. Title: vTrack4VC: Tracking system for counting and classifying vehicles. Inventors: Manuel Mucientes Molina, Víctor M. Brea Sánchez, Mauro Fernández Sanjurjo, Paula López Martínez, Diego Cabello Ferrer Nº: 03/2016/754

Sandro Carrara

Shoushun Chen
• Shoushun Chen, "Pixel acquisition circuit, image sensor and image acquisition system", application number US20180013969A1

Tara Julia Hamilton

Teresa Serrano-Gotarredona

Timir Datta-Chaudhuri
• AURICULAR STIMULATION DEVICE, SYSTEM AND METHODS OF USE – Provisional Filed

Timothy Constandinou
Victor Manuel Brea

Wei Tang
- Hardware efficient digital signal processing for on-the-fly delta sigma bit stream linear operator and compressor circuits, US Patent 9484950B1

8. PUBLICATIONS

In order to provide a “curated” list of publications, the members were asked to highlight their three most important publications of the past year (31 members responded to requests for this information).

Alejandro Linares-Barranco

Alexander Serb

Arindam Basu

Bernabe Linares Barranco

Diego Barrettino

Fernando Perez-Peña

Gert Cauwenberghs

Giacomo Indiveri
- M.V. Nair, L.K. Muller, G. Indiveri, A differential memristive synapse circuit for on-line learning in neuromorphic computing systems Nano Futures 1:(3) , 2017
- Ning Qiao, Chiara Bartolozzi, Giacomo Indiver, An Ultralow Leakage Synaptic Scaling Homeostatic Plasticity Circuit With Configurable Time Scales up to 100 ks IEEE Transactions on Biomedical Circuits and Systems 11:(6) 1271-1277, 2017

Ibrahim (Abe) M. Elfadel

Iraklis Anagnostopoulos
• J. S. Koduri and I. Anagnostopoulos, “SPA: Simple Pool Architecture for application resource allocation in many-

Jie Chen
• Xiaoxue Jiang, Xiaoqian Yu, Kambiz Moez, Duncan G. Elliott and Jie Chen, “High-Efficiency Charge Pumps for Low-Power On-chip Applications”, (invited paper). It was selected as one of the top-ranked articles from 1000+ submitted proceeding papers to IEEE Symposium on Circuits and Systems, May 28-31, 2017, Baltimore, USA. It was also included in the special issue of IEEE Trans. on Circuits and System – TCAS-I, 65(3), 1143-1153, 2018

Jim Harkin

Jorge Fernández Berni

Juan Antonio Leñero-Bardallo


Maurizio Valle


Milutin Stanačević


Nicole McFarlane


Orly Yadid-Pecht


• R. Wilkes, G. Wang, C. Huang, O. Yadid-Pecht, M.P. Mintchev, "Minimally Invasive Pseudo-Continuous Blood Glucose Monitoring: Results from in-Vitro and in-Vivo Testing of the eTac", accepted for Lecture presentation at the 2018 IEEE International Symposium on Circuits and Systems, to be held in Florence, Italy from May 27-30, 2018

Pantelis Georgiou


Paula López Martínez

• E. Ferro, V.M. Brea, P. López, D. Cabello, Dynamic Model of Switched-Capacitor DC-DC Converters in the Slow-Switching Limit including Charge Reusing, IEEE Transactions on Power Electronics, vol: 32; Nº: 7, pp.5293-5311; 2017 . DOI: 10.1109/TPEL.2016.2607800


Piotr Dudek


Ricardo Carmona Galan


Sandro Carrara

• Ioulia Tzouvadaki, Nima Aliakbarinoddehi, Giovanni De Micheli, Sandro Carrara, Memristive Effect as a Novelty in Drug Monitoring, Nanoscale, 9(2017) 9676-9684

• Tugba Kilic, Valerie Brunner, Laurent Audoly, Sandro Carrara, A novel psychoanalytical approach: an electrochemical ligand-binding assay to screen antipsychotics, Biosensors and Bioelectronics 100(2018) 139-147

• Sara S. Ghoreishizadeh, Irene Taurino, Giovanni De Micheli, Sandro Carrara, Pantelis Georgiou, A Differential Electrochemical Readout ASIC with Heterogeneous Integration of Bio-nano Sensors for Amperometric Sensing, IEEE Transactions on Biomedical Circuit and Systems, TBCAS 11(2017) 1148-1159

Shih-Chii Liu


Shoushun Chen


Tara Julia Hamilton


Teresa Serrano-Gotarredona


Timir Datta-Chaudhuri

• Selective electrical stimulation of vagus nerve induces specific cytokine response (In preparation – Bioelec. Med.)

• Characterization of an active micro-electrode array with spike detection and asynchronous readout (MWCAS)

Timothy Constandinou
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Victor Manuel Brea

Viktor Gruev

Wei Tang
APPENDIX A. MEMBERSHIP LIST

1. Pamela Abshire, University of Maryland, pabshire@umd.edu
2. Iraklis Anagnostopoulos, Southern Illinois University, iraklis.anagno@siu.edu
3. Andreas Andreou, Johns Hopkins University, andreou@jhu.edu
4. Diego Barretino, Lucerne University of Applied Sciences and Arts (HSLU), diego.barrettino@hslu.ch
5. Geoffrey Barrows, Centeye Inc., geof@centeye.com
6. Chiara Bartolozzi, Italian Institute of Technology, chiara.bartolozzi@iit.it
7. Arindam Basu, NTU Singapore, arindam.basu@ntu.edu.sg
8. Amine Bermak, The Hong Kong University of Science and Technology, eebermak@ee.ust.hk
9. Victor Brea, Univ. of Santiago de Compostela, victor.brea@usc.es
10. Stephen Carey, University of Manchester, s.carey@manchester.ac.uk
11. Ricardo Carmona-Galán, Sevilla Microelectronics Instastitute, rcarmona@imse-cnm.csic.es
12. Sandro Carrara, EPFL, sandro.carrara@epfl.ch
13. Gert Cauwenberghs, University of California, San Diego, gert@ucsd.edu
14. Shantanu Chakrabartty, Michigan State University, shantanu@msu.edu
15. Jie Chen, University of Alberta, jchen@ece.ualberta.ca
16. Shoushun Chen, Nanyang Tech. Univ. (NTU) Singapore, eechenss@ntu.edu.sg
17. Jennifer Blain Christen, Arizona State University, jennifer1@asu.edu
18. Timothy Constandinou, Imperial College London, t.constandinou@ic.ac.uk
19. Eugenio Culurciello, Purdue Univ., euge@purdue.edu
20. Timir Datta, The Feinstein Institute for Medical Research, tdatta@northwell.edu
21. Tobi Delbruck, University of Zurich and ETH Zurich, tobi@ini.phys.ethz.ch
22. Piotr Dudek, The University of Manchester, p.dudek@manchester.ac.uk
23. Ibrahim (Abe) Elfadel, Masdar Institute, ielfadel@masdar.ac.ae
24. Ralph Etienne-Cummings, Johns Hopkins University, retienne@jhu.edu
25. Jorge Fernández Berni, Instituto de Microelectrónica de Sevilla?, berni@imse-cnm.csic.es
26. Alexander Fish, Ben-Gurion University, afish@ee.bgu.ac.il
27. Roman Genov, University of Toronto, Canada, roman@eecg.toronto.edu
28. Julius Georgiou, University of Cyprus, julio@ucy.ac.cy
29. Pantelis Georgiou, Imperial College London, pantelis@imperial.ac.uk
30. Viktor Gruev, Washington Univ. St. Louis, vgruev@seas.wustl.edu
31. Philipp Hafliger, University of Oslo, Norway, hafliger@ifi.uio.no
32. Tara Julia Hamilton, Univ. of Western Sydney, T.Hamilton@uws.edu.au
33. Jim Harkin, Ulster University, jg.harkin@ulster.ac.uk
34. John G. Harris, University of Florida, harris@ece.ufl.edu
35. Jennifer Olson Hasler, Georgia Institute of Technology, jennifer.hasler@ece.gatech.edu
36. Jeremy Holleman, University of Tennessee, jeremy.holleman@utk.edu
37. Zeljko Ignjatovic, Univ of Rochester, ignjatov@ece.rochester.edu
38. Giacomo Indiveri, University of Zurich and ETH Zurich, giacomo@ini.phys.ethz.ch
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