ASPTC 2011-2012 activities report

June 5th, 2012

The following members contribute to the content of this year report:


1. IEEE Service
   • Gregorio Cappuccino, CASS representative for the IEEE Transportation Electrification Project (TEP);
   • Tony Chan Carusone, Member of SSCS Adcom & CASS BoG as the "SSCS Representative to CASS"
   • Tony Chan Carusone, CASS VP Regions 1-7 (ended Jan 2012)
   • Ramesh Harjani, IEEE Circuits & System Society IEEE Fellow Evaluations Committee (2011)
   • Ramesh Harjani, IEEE Circuits & System Society IEEE Meritorious Service Award Committee (2011)
   • Gaetano Palumbo, Member of IEEE CASS Committee for evaluation of the Fellow Nomination. in 2011
   • J. Silva-Martinez, Member of the 2012 IEEE CASS Fellow Evaluation Committee
   • M. Sawan, Chair of the Distinguished Lecture Program of the IEEE CAS Society
   • M. Sawan, Elected Distinguished Lecturer of the IEEE Solid-State Circuits Society
   • M. Sawan, Editorial Board of the IEEE Life Sciences Portal
   • W. A. Serdijn, Member of the CASS Vision Ad-hoc Committee (2011 -- 2012)
   • W. A. Serdijn, Member of the BioCAS Steering Committee (2010, 2012 -- 2014)
   • W. A. Serdijn, Mentor in the IEEE Mentoring Program
   • W. A. Serdijn, Member of the Board of Governors (BoG) of the IEEE Circuits and Systems Society (IEEE CASS), 2006--2011 (two terms)
   • W. A. Serdijn, Member of the Conference Division of the IEEE CASS BoG (2006 -- 2011)
   • W. A. Serdijn, Member of the Editor-in-Chief Selection Committee for IEEE TCAS-I, TCAS-II, TCSVT and Circ. Syst. Mag. (2011)
• R. B. Staszewski, IEEE Prize Papers/Scholarship Awards Committee
• Albert Wang, President-Elect for IEEE EDS.
• Albert Wang, TPC members for IEDM, RFIC, BCTM.

2. Invited Talks
• Tony Chan Carusone, "Multi-Gbps Optical Receivers with CMOS Integrated Photodetectors", IEEE Solid-State Circuits Society Chapter, McGill University, Montreal, 06/2011
• Tony Chan Carusone, "Multi-Gbps Optical Receivers with CMOS Integrated Photodetectors", Invited Lecture, University of Southern California, Los Angeles, 10/2011
• I. M. Filanovsky, Tutorial MWSCAS’11.
• Maysam Ghovanloo, “From Implantable Microelectronic Devices to Modern Assistive Technologies” Invited talk, Weldon School of Biomedical Engineering, Purdue University, West Lafayette, IN, Mar. 2012.
• Maysam Ghovanloo, “Tongue Drive System: Accessing the world via tongue motion.” Invited talk, No Barriers University, No Barriers USA Summit, Winter Park, CO, July 2011.
• Viktor Hruev, “High resolution Polarization Imaging Sensors” – IEEE BME chapter in St. Louis, MO, USA
• Viktor Hruev, “Advances in Spectral-Polarization Imaging” – University of Arizona, Tucson, AZ, USA
• Viktor Hruev, “Real-time and high resolution Polarization Imaging” – IEEE Conference on Computational Photography, Seattle, WA, USA
• Viktor Hruev, “Advances in Imaging Technologies” – Air Force institute of Technology, Patterson AFB, Ohio, USA
• Vadim Ivanov, Three talks on power IC design in UC Santa Cruz, Lausanne EPFL, and National Semiconductor (through MEAD).
• Byunghoo Jung, "Low power wireless sensor network design," Samsung Advanced Institute of Science and Technology, Korea.
• Byunghoo Jung, "Wireless magnetic tracking for cancer radiotherapy," Yonsei University, Seoul, Korea.
• Dongsheng Ma, “Monolithic 3V-Input Switched-Capacitor Power Converter on 65nm CMOS”, FUSION Board Meeting, Dallas, TX, March 22, 2012.
• Dongsheng Ma, “Adaptive Data Prediction Based Ultrasound Receiver and Beyond”, invited talk, Samsung Research Lab, Richardson, TX, Feb. 28, 2012.
• Dongsheng Ma, "High-Efficiency LED Driver IC with Quasi-Fixed Frequency and Accurate Current Control," PCIM Asia 2011 International Exhibition and Conference for Power Electronics, Intelligent Motion and Power Quality, Shanghai, China, June 2011.

• M. Sawan, “Intracortical Interfaces for Multichannel Sensing and Subsequent Treatment”, Keynote at The Annual BETRC-NCTU Workshop, Taiwan, 3 Dec 2011.
• M. Sawan, “Smart Brain Interfaces for Diagnostic and Subsequent Treatments”, Invited Seminar, Shanghai Jiao Tong University, Shanghai, 28 Sept 2011.
• W. A. Serdijn, Moving diagnostic, monitoring and therapeutic devices onto and into the body -- will we all become cyborgs? Invited talk, The Sense of contact, Soesterberg, April 11, 2012.
• W. A. Serdijn, Moving diagnostic, monitoring and therapeutic devices onto and into the body, invited talk, ProRISC/ICT.Open 2011, Veldhoven, November 15, 2011.
• W. A. Serdijn, Wearable and Implantable Medical Devices: towards better monitoring, treatment and care, invited talk, University of Sao Paulo, May 12, 2011.
• W. A. Serdijn, Power Aware Adaptive Multi-Standard Analog Circuits and Systems, invited talk, University of Sao Paulo, May 12, 2011.
• W. A. Serdijn, Structured Design of High-Performance Low-Power Analog Integrated Filters, invited talk, University of Sao Paulo, May 12, 2011.
• Robert Sobot, Université Pierre et Marie Curie (Paris 6), France, Canadian research
• Robert Sobot, Université Pierre et Marie Curie (Paris 6), France, Brain to machine interface
• Robert Sobot, Université Pierre et Marie Curie (Paris 6), France, Analogue circuits and layout techniques
• Robert Sobot, Swiss Federal Institute of Technology (EPFL), Lausanne, Switzerland: Memristors - rise of intelligent machines?
• R. B. Staszewski, “Recent Advances in Digital Polar and I/Q Transmitters,” Tutorial (1-hr) presented at IEEE Radio Frequency Integrated Circuits (RFIC) Symp. Workshop WSP, Montreal, Quebec, Canada, 17 June 2012. (upcoming)
• R. B. Staszewski, “Recent Advances and Future Directions in Digital RF and Digitally-Assisted RF,” Tutorial (1-hr) presented at IEEE Radio Frequency Integrated Circuits (RFIC) Symp. Workshop WSI, Montreal, Quebec, Canada, 17 June 2012. (upcoming)
• R. B. Staszewski, “RF scaling: Can it keep up with digital CMOS? Should it?,” Panel presentation and discussion (1-hr) at IEEE Radio Frequency Integrated Circuits (RFIC) Symp. (RFC-2012), Montreal, Quebec, Canada, 19 June 2012. (upcoming)
• R. B. Staszewski, “Digital RF,” Graduate-level for-credit class (14 x 2-hr lectures with projects and exams) at Delft University of Technology (TU Delft), Delft, the Netherlands, April-June 2012.
• R. B. Staszewski, “Digital RF and Digitally-Assisted RF,” Short course presentation (6-hr) at IEEE Solid-State Circuits Society, Taiwan Chapter, National Chiao Tung University (NCTU), Hsinchu, Taiwan, 10 Apr. 2012.
• R. B. Staszewski, “Time-Domain Analog and RF Signal Processing,” Seminar (1-hr) presented at University of Science and Technology of China (USTC), Hefei, China, 3 Apr. 2012.
• R. B. Staszewski, “Time-Domain Analog and RF Signal Processing,” Seminar (1-hr) presented at University of Electronic Science and Technology of China (UESTC), Chengdu, China, 1 Apr. 2012.
• R. B. Staszewski, “Digital RF and digitally-assisted RF transceiver design,” Plenary talk (1-hr) presented at IEEE Symposium on Radio-Frequency Integration Technology (RFIT’11), Beijing, China, 1 Dec. 2011.
• R. B. Staszewski, “Digital RF Architectures for Wireless Transceivers,” Tutorial (3-hr) presented at IEEE Symposium on Radio-Frequency Integration Technology (RFIT’11), Beijing, China, 30 Nov. 2011.
• R. B. Staszewski, “The future of M2M,” Panel presentation and discussion (1-hr) at International Workshop on M2M Technology, National Taiwan University, Taipei, Taiwan, 1 Nov. 2011.
• R. B. Staszewski, “Digital RF,” Keynote speech (1-hr) presented at International Workshop on M2M Technology, National Taiwan University, Taipei, Taiwan, 31 Oct. 2011.
• R. B. Staszewski, “What is the limit of multi-radio integration ... or rather, is it 'disintegration'?” Panel organization, presentation and discussion (1-hr) at IEEE International Microwave Symp. (IMS-2011), Baltimore, MD, USA, 7 June 2011.
• R. B. Staszewski, “Recent Advancements and Future Directions in Digital RF and Digitally-Assisted RF,” Distinguished Lecture presentation (2-hr) at IEEE Solid-State Circuits Society, South Brazil Chapter, University of Sao Paulo, Brazil, 19 May 2011.
• Orly Yadid-Pecht, “Wide dynamic range sensors – advances for biomedical applications”, University of Alberta, 22nd July 2011,
• Orly Yadid-Pecht, Bio-compatible polymer for a CMOS APS based fluorescence contact imaging system of live neurons”, CMOS ET Whistler, June 2011.

3. Media and Popular Press
• Gregorio Cappuccino, Radio Televisione Italiana, the research activities of his group on the field of the efficient energy storage both for stationary application and electric vehicles.
• Paul P. Sotiriadis, Interview, Lab presentation in ARTE G.E.I.E. (http://www.arte.tv/de), (ARTE is a major French-German TV channel)
• Robert Bogdan Staszewski, Article in a TU Delft student newspaper

4. Organizers: Conferences, Workshops, Special Sessions, Tutorials…
• Jorge Fernandes, Coordinator of the IEEE CE/CAS/BT Chapter of the IEEE Portugal Section
• Jorge Fernandes and Wouter Serdijn won the bid to host ISCAS 2015 in Lisbon, Portugal
• Maysam Ghovanloo, 2 times Track Co-Chair, IEEE EMBC, 2011.
• Joao Goes, Co-Organizer and Finance co-Chair of the Doctoral Conference on Computing, Electrical and Industrial Systems”, DOCEIS’12
• Ramesh Harjani, Education Session Chair, IEEE CICC
• Shahriar Mirabbasi, Special Sessions Co-chair: IEEE NEWCAS
• Thierry Taris, NEWCAS 2011 held in Bordeaux
• M. Sawan, General co-Chair of the IEEE Int’l NEWCAS Conference
• M. Sawan, General Chair of the IEEE Int’l Conf. on Electronics, Circuits and Systems
• M. Sawan, General co-Chair of the IEEE Int’l Conf. on Microelectronics;
• M. Sawan, General Chair of the Brain-Computer Interface Workshop (CAS-FEST 2010).
• Paul P. Sotiriadis, Two Special Sessions, ISCAS 2011
• Robert Bogdan Staszewski, WSI, RFIC Symp., 2012.
• Robert Bogdan Staszewski, Workshops, WSH & WSD, IEEE RFIC, 2011.

5. Conference Services: Technical Program Members, Session Chairs…
• Gregorio Cappuccino, Member of the Review Committee for ISCAS 2012
• Tony Chan Carusone, ISSCC TPC
• Tony Chan Carusone, VLSI Symposium TPC
• Pak Kwong Chan, TPC Member, ASQED 2011.
• A. Demosthenous, TPC Member – IEEE Life Sciences Grand Challenges Conference
• A. Demosthenous, TPC Member – VLSI-SoC
• A. Demosthenous, TPC Member – ESSCIRC
• A. Demosthenous, Session Chair – ESSCIRC 2011
• Jorge Ribeiro Fernandes, TPC Track Chair for IEEE ICECS 2012
• Jorge Ribeiro Fernandes, Chairman of the winning bid to organize ISCAS 2015
• I. M. Filanovsky, RCM and Session Chair ISCAS 11, TCM, and ISCAS’12.
• I. M. Filanovsky, Steering committee and Session chair, MWSCAS'11
• Joao Goes, TPC member, and RCM, ISCAS 2012;
• Joao Goes, Member of the TPC of the 3rd. International Workshop on Analog and Mixed-Signal Integrated Circuits for Space Applications (AMICSA’12), organized by the European Space Agency (ESA), June 2012.
• Joao Goes, Member of the TPC of the “Doctoral Conference on Computing, Electrical and Industrial Systems”, DoCEIS’12
• Joao Goes, Session chair (1 Poster's session + 1 Lecture's session) in ISCAS'12.
• Joao Goes, Reviewer for IEEE TIE (Transactions on Industrial Electronics).
• Ramesh Harjani, TPC ISCAS, CICC, Session Chair CICC
• Luis Hernandez, Review Committee Member ISCAS 2011
• Viktor Hruev, Chair for the ASPTC, IEEE ISCAS
• Viktor Hruev, Member of Sensory Systems TC, BioCAS TC
• Valdion Ivanov, Session chair on ISCAS
• Valencia J. Koomson, TPC for the 3rd IEEE Workshop on Optical Wireless Communications, IEEE GLOBECOM 2012
• Valencia J. Koomson, TPC for the IEEE International Conference on Electronics, Circuits, and Systems
• Dongsheng Ma, Session Chair, Special Session of Energy Harvesting Circuits and Systems, 19th IFIP/IEEE International Conference on Very Large Scale Integration VLSI-SoC, Kowloon, Hong Kong, Oct. 2011.
• Dongsheng Ma, TPC Chair, 2nd Annual Analog Symposium, Dallas, Nov. 2011.
• Dongsheng Ma, IEEE Analog Signal Processing Technical Committee (Circuits & Systems Society), 2011;
• Dongsheng Ma, IEEE Power Systems and Power Electronic Circuits Technical Committee (Circuits & Systems Society), 2011;
• Dongsheng Ma, RF & Analog and Mixed Signal Circuit Committee for International Technology Roadmap for Semiconductor (ITRS), 2011
• Shahriar Mirabbasi, TPC Member: IEEE CICC
• Shahriar Mirabbasi, Session Chair: IEEE ISCAS
• Shahriar Mirabbasi, Student Research Preview Program Committee: IEEE ISSCC
• Shahriar Mirabbasi, Member of IEEE Technical Committee on RFID
• Shahriar Mirabbasi, Symposium Co-chair: IEEE Canadian Conference on Electrical and Computer Engineering
• Shahriar Mirabbasi, Steering Committee: IEEE NEWCAS
• Luis Oliveira, TPC member, and RCM, ISCAS 2012;
• Luis Oliveira, Member of the TPC of the “Doctoral Conference on Computing, Electrical and Industrial Systems”, DoCEIS’12
• Luis Oliveira, IEEE TCAS I and II reviewer
• Luis Oliveira, Session Chair ISCAS 11
• Gaetano Palumbo, Associated Editor of IEEE Trans. on CAS part I (up to the end of 2011)
• Gaetano Palumbo, Review Committee Member of the ISCAS 2012.
• Gaetano Palumbo, TPC, ECCTD 11, Linköping, Sweden.
• Salvatore Pennisi, Review Committee Member for ISCAS 2012 and NEWCAS 2012
• Thierry Taris, Reviewer for ISCAS, ESSCIRC, NEWCAS and ICECS
• Jose M. de la Rosa, Review Committee Member of ISCAS (2011, 2012)
• Jose M. de la Rosa, Track Co-Chair, IFIP/IEEE VLSI-SoC 2011.
• Jose M. de la Rosa, Session Chair, ISCAS 2011, IFIP/IEEE VLSI-SoC 2011, IEEE EDUCON 2012
• Byunghoo Jung, TPC member of the IEEE Int. Sym. on Low Power Electronics and Design
• G.W. Roberts, Vice-General Chair of the IEEE International Test Conference, 2012, ad General Chair, 2013.
• M. Sawan, General co-Chair of the ACFAS-ReSMiQ’s Workshop
• W. A. Serdijn, Technical Program Chair for the IEEE International Symposium on Circuits and Systems (ISCAS) 2012
• Robert Sobot, Session Chair, IEEE Pacific Rim Conference on Communications, Computers and Signal Processing, Canada 2011
• Robert Sobot, Session Chair, ICSAS 2011
• Paul P. Sotiriadis, Session Chairs, ISCAS 2011
• Paul P. Sotiriadis, TPC BioCAS 2011, TPC SBCCI 2011
• Robert Bogdan Staszewski, Session Chair, ECCTD’11
• I.L. Syllaos, Reviewer Committee Member for ISCAS 2011
• I.L. Syllaos, Session chair ISCAS-2011: Session: Oscillators and frequency synthesizers
• Thierry Taris, TPC member of ESSCIRC and ISCAS
• Thierry Taris, Session chair : NEWCAS 2011
• Jie Yuan, Finance Chair, IEEE International Conference on VLSI -SoC
• Albert Wang, associate Editor for TCAS II,  

6. Editorial Services
• Gregorio Cappuccino, Associate Editor of the Journal of Circuits, Systems and Computers,
• Gregorio Cappuccino, Associate editor, Journal of Low Power Electronics and Applications
• Tony Chan Carusone, JSSC Associate Editor
• Pak Kwong Chan, Guest Editor, Journal of Circuits, Systems and Computers, SI on “Energy and Variability Aware Circuits and Systems”
• A. Demosthenous, AE for IEEE TCAS-I
• A. Demosthenous, International Advisory Board for Physiological Measurement, Institute of Physics
• I. M. Filanovsky, AE, TCAS-I and IJCTA
• Maysam Ghovanloo, AE IEEE TBME, TBioCAS, TCAS-II
• Maysam Ghovanloo, Guest Editor, IEEE TBioCAS, Special Issue on ISSCC 2012 (Tentative Dec. 2012) (with Alison Burdett)
• Maysam Ghovanloo, Guest Editor, IEEE JSSC, Special Issue on ISSCC 2011 (Jan. 2012) (with Alice Wang, Ken Takeuchi, Tanay Karnik, and Satoshi Shigematsu)
• Maysam Ghovanloo, Guest Editor, IEEE TBioCAS, Special Issue on ISSCC 2011 (Dec. 2011) (with Danhee Ham)
• Maysam Ghovanloo, Member of Subcommittee on Imagers, MEMS, Medical and Displays (IMMD), ISSCC
• Ramesh Harjani, Senior Editor: IEEE Journal on Emerging and Selected Topics in Circuits and Systems (JETCAS), 2011-2013
• Luis Hernandez, Associate Editor of Transactions on Circuits and Systems II
• Dongsheng Ma, AE & reviewer of TCAS – I, TCAS – II, TPE, TIE, JSSC, TVLSI, ISCAS
• Shahriar Mirabbasi, Associate Editor, IEEE TCAS-I
• M. Sawan, DEIC of the IEEE TCAS – II, AE of TBioCAS, and AE of the IJCTA.
• M. Sawan, Guest Editor of the IEEE Journal of Emerging and Selected Topics on CAS Special Issue on Brain-Machine Interface;
• Wouter A. Serdijn: Editor-in-Chief for IEEE Transactions on Circuits and Systems-I for 2010 and 2011
• J. Silva-Martinez, Member of the Editorial Board of "Journal of Electrical and Computer Engineering,"”, Hindawi Publishing Corporation, December 2008-Present.
• J. Silva-Martinez, Member of the Editorial Board of “Micro-electronics Journal”, August 2008-present.
• J. Silva-Martinez, Member of the Editorial Board of VLSI Design, 2006-present.
• J. Silva-Martinez, Member of the Technical Program Committee, Symposium on Integrated Circuits and Systems Design, SBCCI 2005-present.
• I.L. Syllaos, reviewers for TCAS-I, TCAS-II, T-CST, and Wiley.
• Jie Yuan, Editor, Journal of Low Power Electronics & Applications
• Jie Yuan, Guest Editor, IEEE Transactions on Biomedical Circuits and Systems

7. Other Professional Activities
• Gregorio Cappuccino, Grant reviewer for the Natural Sciences and Engineering Research Council of Canada (NSERC) for CRD projects;
• Gregorio Cappuccino, Grant reviewer for the Italian Ministry of Ministry of Education, University and Research for the research grants "Future in Research 2012".
• M. Sawan, Member of the Quebec’s technology mission to India
• M. Sawan, Member of the Quebec’s technology mission to Brazil
• Orly Yadid-Pecht, Member of the IEEE CAS Fellow Nominations Committee (2012)
• Orly Yadid-Pecht, IEEE V.P. Publications of Sensors Council 2010-2011
• Orly Yadid-Pecht, Member of Editorial Board, IEEE Technology News 2011
• Orly Yadid-Pecht, Member of the IEEE CAS Neural Networks, Biocas and Sensors Technical Committees (1996 – present).
• Orly Yadid-Pecht, Member of the SPIE Solid State Sensor Arrays international conference program committee (1997-2010).
• Orly Yadid-Pecht, Member of the Technical Committee for the IEEE BioCAS conference (2004-2010).
• Orly Yadid-Pecht, Member of the Steering Committee for the IEEE ICECS (2003- present).
• Orly Yadid-Pecht, Member of the IEEE CAS Women in Engineering Committee.
• Board Memberships: 
  • Orly Yadid-Pecht, IEEE Sensors Council – Circuits and Systems Society Representative, Board Member (2006-2011)

8. Awards and Honors

• Gregorio Cappuccino, award for “CalBatt”, the best business idea at the TechGarage 2011, start-up (Italian) regional competition and was one of finalist selected for the Italian Innovation Award held last November in Turin (Italy).
• Tony Chan Carusone, Best Invited Paper Award for the 2010 CICC, received Sept 2011
• Jorge Ribeiro Fernandes, Teaching Excellence Award granted by Instituto Superior Técnico, TU Lisbon
• Vadim Ivanov, winner of IC design contests (BQ25504), got EETimes, EDN and Power Electronics awards
• Jose M. de la Rosa, Best Paper Award presented at IFIP/IEEE VLSI-SoC, Hong-Kong, Oct. 2011.
• Joao Goes, Co-recipient of the 2011 "Outstanding Paper Award", IEEE, 18th. International Conference of Mixed Design of Integrated Circuits and Systems (MIXDES'11)
• Joao Goes, Co-recipient of the 2012 IEEE "Outstanding Young Author Award" (to be received in ISCAS'12).
• Byunghoo Jung, the Intel/Helic/CICC Student (Wu-Hsin Chen) Scholarship Award
• Dongsheng Ma, Erik Jonsson Distinguished Chair Professorship;
• Dongsheng Ma, University of Texas at Dallas FUSION Award;
• Dongsheng Ma, Best Poster Paper Award in 7th Workshop for Frontiers in Electronics;
• Dongsheng Ma, Texas Analog Center of Excellence (TxACE) Chair Professorship;
• Dongsheng Ma, US National Science Foundation CAREER Award;
• Luis Oliveira, Co-recipient of the 2011 "Outstanding Paper Award", IEEE, 18th. International Conference of Mixed Design of Integrated Circuits and Systems (MIXDES'11)
• J. Silva-Martinez, Best Student Paper Award (co-Author), IEEE MWCAS 2011.
• Robert Bogdan Staszewski, Industrial Innovator Award by the IEEE Circuits and Systems (CAS) Society. To be announced at 2012-05 ISCAS conference.
• Robert Bogdan Staszewski, Best Paper Award at the IEEE Radio Frequency Integration Technology (RFIT) Conference in November 2011 in Beijing, China.
• Orly Yadid-Pecht, Luxmux Technology Corporation Grant
• Jie Yuan, Student Scholarship Award

9. Publications:

- Books and Book Chapters

• Jose Silva-Martinez, Cho-Ying Lu, Marvin Onabajo, Fabian Silva-Rivas, Vijay Dhanasekaran and Manisha Gambhir, “Wideband Continuous-Time Multi-Bit Delta-


- Journals

• Chutham Sawigun and Wouter A. Serdijn: Analysis and design of a low-voltage, low-power, high-precision, class-AB current-mode subthreshold CMOS sample and hold circuit, IEEE Transactions on Circuits and Systems-I: Regular Papers, Vol. 58, No. 7, July 2011, pp. 1615 -- 1626. DOI: 10.1109/TCSI.2011.2158491
• M. Kiani and M. Ghovanloo “The circuit theory behind coupled-mode magnetic resonance based wireless power transmission,” Accepted for publication in *IEEE Trans. on Circuits and Systems-I*, July 2011.
• B. Yousefi, X. Huo, J. Kim, E. Veledar, and M. Ghovanloo, “Quantitative and comparative assessment of learning in a tongue-operated computer input device – Part II:

- Pugliese A.; Amoroso F. A.; Cappuccino G.; et al., Design approach for high-bandwidth low-power three-stage operational amplifiers, IJCTA, Volume: 40 Issue: 3 Pages 263-273, March 2012
• J. R. Custódio, J. Goes, N. Paulino, J. P. Oliveira, E. Bruun, “A 1.2-V 165-uW 0.29-mm2 Multi-Bit Sigma-Delta ADC for Hearing Aids using Nonlinear DACs and with over 91 dB Dynamic-Range”, accepted for (to appear in) IEEE Transactions on Biomedical Ci
• Taehyoun Oh and Ramesh Harjani, “A 6 Gb/s MIMO Crosstalk Cancellation Scheme for High-Speed I/Os”, (invited) IEEE Journal of Solid-State Circuits, August 2011
• Narasimha Lanka, Satwik Patnaik and Ramesh Harjani, “Frequency-Hopped Quadrature Frequency Synthesizer in 0.13-µm Technology, IEEE Journal of Solid-State Circuits, September 2011
• Wu-Hsin Chen, Wing-Fai Loke, and Byunghoo Jung, "A 0.5V, 440uW frequency synthesizer for implantable medical devices," IEEE J. Solid-State Circuits, August 2012. (in print)
• David Berdy, Pornsak Srisungsitthisunti, Byunghoo Jung, Xianfan Xu, Jeffrey Rhoads,


• Vadim Ivanov, “An ultra low power bandgap operational at supply from 0.75V” JSSC, July, 2012.


• A. Morgado, R. del Río and J.M. de la Rosa: "High-Efficiency Cascade \( \Sigma \Delta \) Modulators for the Next Generation Software-Defined-Radio Mobile Systems." IEEE Trans. on Instrumentation and Measurement. Accepted for publication.


• Tariqus-Salam, M., Mounaim, F., Nguyen, D., Sawan, M.,“A Low-Power Miniaturized Seizure Detector with Responsive Neurostimulation for the Treatment of Refractory Epilepsy”, Accepted in The Journal of Neural Engineering, 2011.


on BioCAS, 2011.
• Mounaim, F., Sawan, M., “Integrated High-Voltage Inductive Power and Data Recovery

- Conference Proceedings

• Duan Zhao, Wouter A. Serdijn and Guido Dolmans: Subsampling based Software


- J. Guo, J. Huang, J. Yuan, J. Law, C.K. Yeung, and M. Chan, “A 38.6nV/Hz^{0.5} - 59.6dB THD dual-band microelectrode array signal acquisition IC”, IEEE Custom Integrated Circuits Conference, pp. 1-4, San Jose, USA, Sep. 18, 2011, (Student Scholarship Award)

• Tiago Costa, Moisés S. Piedade, Jorge R. Fernandes, “A CMOS Circuit for Precise Reading of Matrix Addressed Magnetoresistive Biosensors”, IEEE Biomedical Circuits and Systems (BioCAS’11), to be published, Nov. 2011
• A. Couto-Pinto, J. Fernandes, “A Flash ADC Tolerant to High Offset Voltage Comparators”, European Solid-State Circuits Conference (ESSCIRC’11), Sept. 2011
• P. Simitsakis, D. Psyllos, P. Sotiriadis, “A 60 GHz - 1.2 Volt Receiver in a 90nm CMOS RF Technology”, PACET 2012.
• K. Galanopoulos, P. Sotiriadis, “All-Digital Transmitter”, IEEE RWW (Demo Track) 2012.
• L. Luo, R. Sobot, A Tuneable CT BP Delta-Sigma Upconverter in CMOS 0.13um With Manchester Codec, 2011 IEEE Pacific Rim Conference on Communications, Computers and Signal Processing, August 23-26, 2011, Victoria, B.C., Canada
Power Line Communications and Its Applications (ISPLC), March 2012. (6 double-column pages)


• B. Nowacki, N. Paulino, J. Goes, “A 1.2 V 300 uW Second-Order Switched-Capacitor SD Modulator Using Ultra Incomplete Settling with 73 dB SNDR and 300 kHz BW in 130 nm CMOS”, IEEE European Solid-State Circuits Conference (ESSCIRC’11),
Finland, Sep. 2011.

• Taehyoun Oh and Ramesh Harjani, “A 10 Gb/s MIMO Channel Equalization and Crosstalk Cancellation Architecture for High-Speed I/Os”, SRC Techcon, September 2011
• Sudhir Kudva and Ramesh Harjani, “A Zero-Area, Zero-Power Supply Resonance Reduction Technique”, SRC Techcon, September 2011
• Reja Md M.; Filanovsky, I.M.; Moez, K.; A Compact CMOS UWB LNA Using Tunable Active Inductors for WLAN Interference Rejection, ISCAS, 15-18 May 2011 Page(s):281 – 284
• Filanovsky, I. M.; Reja, M., Oliveira, Luis Bica; New Non-Gyrator Type Active Inductors with Applications, MWSCAS, 7-10 Aug. 2011 Page(s):1-4.
• Filanovsky, I. M.; On Two-Part Approximation in Synthesis of Pulse-Shaping Networks, MWSCAS, 7-10 Aug. 2011 Page(s):1-4
• Filanovsky, I. M.; Oliveira, L.B.; 4. Regenerative Current Amplifier Using van der Pol Approximation, MWSCAS, 7-10 Aug. 2011 Page(s):1-4
• Filanovsky, I. M.; Oliveira, L.B.; Design of a MOS RLC-Oscillator with Specified Total Harmonic Distortion, MWSCAS, 7-10 Aug. 2011 Page(s):1-4
• I.L.Syllaios and P.T.Balsara,"Multi-clock domain analysis and modeling of all-digital frequency synthesizers", in Proc. IEEE ISCAS-2011: Special session on digitally intensive frequency synthesis architectures for the nano-scale (Invited).
• Benjamin Epstein, David Rhodes, Serkan Sayilir, Byunghoo Jung, Harry Diamond,
Hong Liang, "OrthopterNet communications," GOMACTech, Mar. 2012. (accepted)
- Vadim Ivanov, “An ultra low power bandgap operational at supply from 0.75V”, ESSCIRC, Sept 2011.


BiCMOS Circuits and Technology Meeting (BCTM2011), Atlanta, USA, oct. 9-11, 2011, pp.


### Patents

- A. Tizzard, A. Demosthenous, and R. Bayford; A Flexible, Wearable Device for the Acquisition of Data for Electrical Impedance Tomography (EIT) of Lung Function. GB1111992.2; [13.07.2011].
- Vadim Ivanov, Compensation Approach For Amplifiers With Large Capacitive Loads, Applications
- Vadim Ivanov, Master-Slave Low-Noise Charge Pump Topology, Applications
- Vadim Ivanov, Structure And Operation Principle Of The Supply Voltage Supervisor, Applications
- Vadim Ivanov, Fast Enable Algorithm For Low Noise Power Management Unit, Applications
- Vadim Ivanov, Power Management Unit With Adaptive Noise Control, Applications
- Vadim Ivanov, Precision Voltage Follower Having Fast Settling On High Capacitive Load, Applications
- Vadim Ivanov, Low Noise Voltage Regulator With Fast Settling And Low Consumption, Applications
- Vadim Ivanov, Low voltage startup circuit for the boost DCDC converter, US 8,138,735
- Vadim Ivanov, Reverse bandgap voltage reference in CMOS process, Germany 10 2009 056 595.7
• Robert Bogdan Staszewski, 8,134,411, Computation spreading utilizing dithering for spur reduction in a digital phase lock loop
• Robert Bogdan Staszewski, 8,130,040, Power amplifier with two transistors and traces forming two transformers
• Robert Bogdan Staszewski, 8,126,401, Transmitter PLL with bandwidth on demand
• Robert Bogdan Staszewski, 8,121,214, Local oscillator with non-harmonic ratio between oscillator and RF frequencies using XOR operation
• Robert Bogdan Staszewski, 8,050,375, Digital phase locked loop with integer channel mitigation
• Robert Bogdan Staszewski, 8,045,670, Interpolative all-digital phase locked loop
• Robert Bogdan Staszewski, 8,045,662, Binary ripple counter sampling with adjustable delays
• Robert Bogdan Staszewski, 8,027,657, Sampling mixer with asynchronous clock and signal domains
• Robert Bogdan Staszewski, 8,017,935, Parallel redundant single-electron device and method of manufacture
• Robert Bogdan Staszewski, 8,000,670, Removing close-in interferers through a feedback loop
• Robert Bogdan Staszewski, 8,000,428, All-digital frequency synthesis with DCO gain calculation
• Robert Bogdan Staszewski, 7,983,375, Variable delay oscillator buffer
• Robert Bogdan Staszewski, 7,958,408, On-chip receiver sensitivity test mechanism
• Robert Bogdan Staszewski, 7,936,229, Local oscillator incorporating phase command exception handling utilizing a quadrature switch
• Robert Bogdan Staszewski, 7,936,221, Computation spreading for spur reduction in a digital phase lock loop
• Robert Bogdan Staszewski, 7,929,637, Method and apparatus for digital amplitude and phase modulation
• Robert Bogdan Staszewski, 7,920,081, Digital phase locked loop with dithering

11. Other added value materials

• I.L. Syllaios, Staff Scientist within the Mobile and Wireless Group of Broadcom Corp., Irvine, CA, USA, performing research and development on wireless communications systems. (April 2011-Present)
Mohamad Sawan, President Elect, CASS ASPTC