# Technical Committee – Circuits and Systems for Communications (CASCOM)

Annual Report 6/2013 – 5/2014 TC Chair: Chang-Ho Lee

TC website: <a href="http://ieee-cas.org/community/technical-committees/casctc">http://ieee-cas.org/community/technical-committees/casctc</a>

### 1. TC memberships and appointments:

- a. CASCOM now has 60 TC members, and there is one candidate for TC. The candidate will be voted by the members in TC meeting in June 2014:
  - Prof. Chuan Zhang (Southeast University in China)
- b. TC co-chair members with 2 year period till May 2014:
  - TC Chair Chang-Ho Lee (Qualcomm, USA)
  - TC Vice-Chair (Chair-Elect) Tokunbo Ogunfunmi (Santa Clara University, USA)
  - TC Secretary Shoba Krishnan (Santa Clara University, USA)
- c. New appointment for 2014-2016 TC co-chair members will be elected in TC meeting.

#### 2. ISCAS 2014 involvements:

- a. CASCOM track received 139 papers in 12 sub-tracks.
- b. Of the 139 papers that were submitted to our track, 65 papers were accepted (46.7% acceptance rate) in 9 lecture sessions and 4 poster sessions.
- c. 3 TC members served as CASCOM track co-chairs, Chang-Ho Lee, Tokunbo Ogunfunmi and Shoba Krishnan.
- d. 31 TC members served as 2014 CASCOM track Reviewer Committee Members: Christoph Stuber, Joseph R. Cavallaro, Shaodan Ma, Jin Sha, Maire O'Neill, Chung WU Yik, Andrea Neviani, Qiaoyan Yu, Zhengya Zhang, Zhiyuan Yan, Zhongfeng Wang, His-Pin Ma, Xinmiao Zhang, Wael Badawy, Tong Zhang, Pui-In Mak, Raj Katti, P.R. Mukund, Li Li, Lan-Da Van, Gerald Sobelman, Hanho Lee, Hassan Aboushady, Wee Ser, Jun Jin Kong, Jingyi Zhang, Jongsun Park, Ming-Der Shieh, Vassilis Paliouras, Andrea Gerosa, Xinming Huang

### 3. Awards & honors received by TC members (based on feedback from TC members):

- a. Distinguished Lecturer of the IEEE Circuits and Systems Society January, 2013~December, 2014. Gerald Sobelman
- b. Distinguished lecture : APSIPA 2014-2015 Nam Ling
- c. Outstanding Overseas Scholar: Shanghai University of Electric Power, 2014 -- Nam Ling
- d. IEEE ICME Steering Committee, 2014-2105 -- Nam Ling
- e. Distinguished lecture: IEEE Broadcast Technology Society Lap-Pui Chau
- f. Awarded the UK Royal Academy of Engineering Silver Medal, -- Maire O'Neil
- g. Best Associate Editor for IEEE Trans. on Circuits and Systems-I, 2013 Xinmiao Zhang
- h. Distinguished Lecturer of Asia-Pacific Signal and Information Processing Association (APSIPA), 2012-2013 Lin Weisi
- i. IEEE Distinguished Lecturer, IEEE Circuits and Systems Society (CASS) (2014-2015) Pui-In Mak
- j. Best Associate Editor, IEEE Transactions on Circuits and Systems II, 2014 Pui-In Mak
- k. 2013 Best Paper Award, IEEK (now, IEIE) Hanho Lee

### 4. TC members' service on journal editorial boards (based on feedback from TC members):

- a. Guest Editor, IEEE Journal of Selected Topics in Signal Processing (Special Issue on Video Coding: HEVC and Beyond), Dec 2103 -- Nam Ling
- b. Associate Editor, Journal of Multidimensional Systems and Signal Processing (MSSP), Springer -- Nam Ling
- c. Associate Editor, IEEE Transactions on Circuits and Systems for Video Technology Lap-Pui
- d. Associate Editor, IEEE Transactions on Broadcasting and IEEE Circuits and Systems Society Newsletter Lap-Pui Chau
- e. Associate editor, JLPEA (Journal of Low Power Electronics and Applications) Jongsun Park
- f. Associate editor, JSTS (Journal of Semiconductor Technologies and Science) Jongsun Park
- g. Associated Editor for Integration, the Journal of VLSI Qiaoyan Yu
- h. Associated Editor for Microelectronics Journal- Elsevier Qiaoyan Yu
- i. Associated Editor for Journal on Circuits, Systems, and Computers (JCSC) Qiaoyan Yu
- j. Guest Editor for VLSI Design- Special Issue on Advanced VLSI Architecture Design for Emerging Digital Systems Qiaoyan Yu
- k. Associate Editor, Journal of Semiconductor Technology and Science Hanho Lee
- I. Senior area editor for IEEE Transactions on Signal Processing Zhiyuan Yan
- m. Associate editors for IEEE Access and Journal of Signal Processing Systems Zhiyuan Yan
- n. Associate Editor, IEEE Signal Processing Letters Lin Weisi
- o. Associate Editor, IEEE Transactions on Multimedia Lin Weisi
- p. Associate Editor, Journal of Visual Communication and Image Representation Lin Weisi
- q. Guest Editor, Special Issue on Multiple Sensorial (MulSeMedia) Multi-modal Media: Advances and Applications, ACM Transactions on Multimedia Computing, Communications and Applications (ACM TOMCCAP) – Lin Weisi
- r. Guest Editor, Special Issue on QoE in 2D/3D Video Systems, Journal of Visual Communication and Image Representation Lin Weisi
- s. Guest Editor, Special Issue on Advances in Multimedia Content Analysis and Signal Processing, Journal of Signal Processing Systems – Lin Weisi
- t. Senior Editor, IEEE Journal on Emerging and Selected Topics in Circuits and Systems, IEEE JETCAS (2014-2015) Pui-In Mak
- u. Associate Editor, IEEE Transactions on Circuits and Systems I, IEEE CASS (2014-2015) Pui-In Mak
- v. Associate Editor, IEEE Transactions on Circuits and Systems II, IEEE CASS (2012-2013) Pui-In Mak
- w. Associate Editor, IEEE Transactions on Signal Processing, Joseph Cavallaro
- x. Associate Editor, IEEE Signal Processing Letters, Joseph Cavallaro
- y. Associate Editor, Journal of Signal Processing Systems, Joseph Cavallaro

## 5. Conferences organized/chaired by TC members (based on feedback from TC members):

- a. International Advisory Committee, IEEE International Conference on Signal Processing, Communications and Computing, August, 2013. Gerald Sobelman
- International Advisory Committee, IEEE International Conference on Circuits and Systems, September, 2013. – Gerald Sobelman
- c. General Chair, IEEE ICME 2013. -- Nam Ling
- d. Technical Program Co-Chair, IEEE/SPIE VCIP 2013. -- Nam Ling

- e. General Co-Chair, IEEE VCVP 2014. -- Nam Ling
- f. International Advisory Committee Member, ICIEA 2013, Jun 2013. -- Nam Ling
- g. International Advisory Committee Member, ICICS 2013, Dec 2013. -- Nam Ling
- h. Technical Program Co-chair: VCIP2013 Lap-Pui Chau
- Tutorials organizer, 26th Symposium on Integrated Circuits and Systems Design (SBCCI2013) Fernando Rangel
- j. Chapter chair, IEEE joint chapter IM09/CAS04/COM19 (newly launched) in Brazilian south-section (region 9) Fernando Rangel
- k. Workshop organizer, RF and Microwave Technology in IM09/CAS04/COM19 Fernando Rangel
- I. Publication chair, IEEE International Symposium on Defect and Fault Tolerance in VLSI and Nanotechnology Systems, 2013 Qiaoyan Yu
- m. Secretary, SoC Tech Society, IEEK (now, IEIE) Hanho Lee
- n. Secretary, Semiconductor and Devices Society, IEEK Hanho Lee
- o. Counselor, IEEK -Hanho Lee
- p. Program Co-chair, SIPS 2014 Maire O'Neil
- q. Session Organizer, Intel Workshop on the International View of Cryptography and Security and Their Use in Practice, May 2014 Maire O'Neil
- r. Track Co-chair, 22nd IFIP/IEEE International Conference on Very Large Scale Integration VLSI-SoC 2014 (Embedded Systems and Processors, Hardware/Software Codesign track) Lan-Da Van
- s. Special Session Organizer, "Advanced Biomedical Signal Processing Systems and 3D Multimedia System" in International Conference on Information, Communications and Signal Processing (ICICS) (2013) Lan-Da Van
- t. TPC co-chair, SiPS 2015 Zhiyuan Yan
- u. Symposium TPC co-chair, GlobalSIP 2014 Zhiyuan Yan
- v. Society Program Co-Chair, IEEE Int'l Conf. Multimedia and Expo (ICME), 2013 Lin Weisi
- w. Lead Technical Program Chair, 6th International Workshop on Quality of Multimedia Experience (QoMEX), 2014 Lin Weisi
- Steering Committee of IEEE International Conf. Multimedia and Expo (ICME SC), 1 January 2014 to 31 December 2015 – Lin Weisi
- y. Chair, IEEE MMTC Interest Group (IG) on QoE for Multimedia Communications Lin Weisi

# 6. Participations in conference committees by TC members (based on feedback from TC members):

Many of our TC members were active in many conference technical program committees, organizing committees, and served as many track chairs and session chairs. The list of participations is very long and therefore not listed here.

## 7. Books published by TC members:

- a. P. Ampadu, **Q. Yu**, and B. Fu, "Reliable Networks-on-Chip Design for Sustainable Computing Systems", in *Design Technologies for Green and Sustainable Computing Systems*, P. P. Pande, A. Ganguly, K. Chakrabarty (Eds), Springer Press, 2013, pp 23-57. Qiaoyan Yu
- b. Co-author of 'Design of Semiconductor QCA Systems', Artech House, 2013 Maire O'Neil
- c. L. M. Zhang and W. Lin, Modeling Selective Visual Attention: Techniques and Applications, John Wiley & Sons, 2013. Lin Weisi

#### 8. Invited talks by TC members (based on feedback from TC members):

a. Keynote Speaker, VCVP 2014, Jan 2014 -- Nam Ling,

- b. Distinguished Speaker of "Cui Ying Da Jiang Tang", Lanzhou University, Jan 2014 -- Nam Ling
- c. Seminar Speaker, Shanghai University of Electric Power, Jan 2014 -- Nam Ling
- d. Seminar Speaker, Nanyang Technical University, Nov 2013 and Jan. 2014 -- Nam Ling
- e. Invited Talk, "Modern Digital Signal Processing," Southeast University, Nanjing, China, August, 2013. Gerald Sobelman
- f. Invited Talk, "Communications in the Smart Grid," The University of Hong Kong, Hong Kong, China, October, 2013. Gerald Sobelman
- g. Invited Talk, "Communications in the Smart Grid," Instituto de Microelectrónica de Sevilla (IMSE-CNM), Seville, Spain, November, 2013. Gerald Sobelman
- h. Invited Talk, "Publishing Research Results and Supervising Graduate Students," Swinburne University of Technology Sarawak Campus, Kuching, Malaysia, December, 2013. Gerald Sobelman
- Invited Talk, "Recent Research Activities in VLSI for Communications and Signal Processing,"
  Swinburne University of Technology Sarawak Campus, Kuching, Malaysia, December, 2013. –
  Gerald Sobelman
- Invited Talk, "Communications in the Smart Grid," Nanyang Technological University, Singapore, March, 2014. – Gerald Sobelman
- k. Invited Talk, 'Advanced research for cyber security and co-operating with industry', LSEC event, 'Cyber Security Challenges for Industry & Research 2013', October 2013. Maire O'Neil
- I. Invited Talk, 'Cryptography in a Post Quantum computing world', Cyber Security Technology Research Summit, Belfast, March 2014. Maire O'Neil
- m. Keynote Speech, 9th Joint Conference on Harmonious Human Machine Environment (HHME 2013), 26-28 Sept. 2013, China Lin Weisi
- n. Invited talk, Second International Workshop on Video Coding and Video Processing, 21-23, Jan. 2014, Shenzhen, China Lin Weisi

### 9. Others professional activity by TC members (based on feedback from TC members):

Many of our TC members were active as reviewers for several journals and conferences. The list of participations is very long, and therefore not listed here.