

APSIPA Signal Processing Systems Technical Committee Meeting Minutes

Date/Time: 15 Dec. 2016, 12:30-14:00

Place: Room Mara, Ramada Plaza Jeju, Jeju, Korea

Attended Members:

Mentor:	Akinori Nishihara	Tokyo Institute of Technology (Japan)
Past Chair:	Takeshi Ikenaga	Waseda University (Japan) (Skype)
Chair:	Gwo Giun Chris Lee	National Cheng-Kung University (Taiwan)
Vice Chair:	Jiun-In Guo	National Chiao-Tung University (Taiwan)
Secretary:	Sunwoo Kim	Hangyang University (Korea) (Skype)

TC members:

Chia-Ching Wang	National Central University (Taiwan)
Zhiyi Yu	National Sun Yat Sun University (China) (Skype)
Wen-Huang Cheng	Research Center for Information Technology Innovation, Academia Sinica (Taiwan) (Skype)
Hiroshi Tsutsui	Kyoto University (Japan)
Woon-Seng Gan	Nanyang Technology University (Singapore)

Agenda 1: Confirmation of the minutes of the last TC meeting and the current TC member list

- (1) The meeting minutes of the last TC meeting is included in the attached file: APSIPA SPS TC 20151218 Meeting Minutes at Hong Kong v1.0.
- (2) The SPS TC member list is included in the attached file: 2016 SPS TC_20160529_v12.

Conclusion: Confirmed.

Agenda 2: Paper submission status for APSIPA ASC 2016 and promotion for APSIPA ASC 2017

- (1) The number of submitted papers to SPS track: 14
- (2) The number of accepted papers: 13
- (3) The number of submitted papers from SPS TC members: 9
- (4) Open discussion on the promotion strategy for APSIPA ASC 2017

Conclusion: Attract new papers from other fields related to system design (new fields of interests in SPS).

Agenda 3: Discussion on new TC organization

- (1) SPS Chair, Vice-Chair, Secretary, Subcommittee chairs/co-chairs (including Special Session Subcommittee, Membership & Election Subcommittee, and eNewsletter Subcommittee)

(2) Current TC organization

- Mentor: Akinori Nishihara
- Past Chair: Takeshi Ikenaga
- Chair: Gwo Giun Chris Lee
- Vice Chair: Jiun-In Guo
- Secretary: Sunwoo Kim
- Special Session Subcommittee chair: Li-Wei Kang
- Membership & Election Subcommittee chair/co-chair: Hiroshi Tsutsui/ Chia Ching Wang
- eNewsletter Subcommittee chair/co-chair: Zhiyi Yu/ Pei-Yun Tsai

Conclusion: New organization of SPS TC

- Mentor: Akinori Nishihara
- Past Chairs: Takeshi Ikenaga, Gwo Giun Chris Lee
- Chair: Jiun-In Guo
- Vice Chair: Zhiyi Yu
- Secretary: Hiroshi Tsutsui
- Special Session Subcommittee Chair: Li-Wei Kang
- Membership & Election Subcommittee Chair: Chia Ching Wang
- eNewsletter Subcommittee Chair/Co-chair: Pei-Yun Tsai/Sunwoo Kim

Agenda 4: Discussion on ASC SPS 2017 Special sessions

(1) One special session for APSIPAASC 2016:

- Human Visual/Audio/Image and Biomedical Information Processing and its Applications
 - Kosin Chamnongthai (King Mongkut's Institute of Technology Thonburi, Thailand)

(2) The past history:

[ASC 2010: One special session]

Title: Ultra-Low Power and Low Energy Design for Signal Processing

[ASC 2011: Two special sessions]

Title: Energy-Efficient Signal Processing Systems for Future Portable Devices

Title: GPGPU and Many-core Platform for Future Computing Application

[ASC 2012: One special session]

Title: Advances in Circuits and Systems for Multimedia Processing and Analysis

[ASC 2013: Two special sessions]

Title: Design and Implementation for High Performance & Complexity-Efficient Signal Processing Systems

Title: Algorithm and Architecture for Orange Computing

[ASC 2014: Two special sessions]

Title: Signal Processing for Internet of Things (IoT)

Title: Emotion Recognition and Synthesis

[ASC 2015: One special session]

Title: Content-aware Multimedia Signal Processing

(3) Discussions on the potential topics for the SPS special sessions in APSIPA ASC 2017

(a) Deep learning (or big data analysis) with GPU/FPGA/HPC

(b) 5G communication systems/cognitive radio

(c) IoT

(d) AR/VR

(e)

Conclusion: Suggested Topics for the APSIPA ASC 2017 SPS special sessions with the following priority:

(1) Deep learning with GPU/FPGA/HPC;

(2) Autonomous driving system;

(3) IoT;

Agenda 5: New membership recruiting for the SPS TC

(1) Current membership status: In total: 42 TC members according to the member list in 2016 SPS TC_20160529_v12.

(a) Japan: 10

(b) Taiwan: 13

(c) China: 6

(d) Korea: 3

(e) Thailand: 3

(f) USA: 2

(g) Singapore: 2

(h) Sweden: 1

(i) Vietnam: 1

(j) Indonesia: 1

(2) New member recruiting strategies.

(a) APSIPA ASC 2017 will be held in Malaysia. We will try to recruit TC members from Malaysia, where currently there is no SPS TC member.

Conclusion:

(1) We suggest to recruit more TC members from Malaysia, Singapore, Korea, and China.

(2) Try to extend the membership of the TC members after serving the second terms based on the conclusion of APSIPA BoG meeting. For example, to have honorable members for TC members

who have long term contribution to SPS TC.

Agenda 6: Discussing on the refinement of the fields of Interests in SPS

- (1) Current fields of Interests in SPS TC Bylaws
 - (a) Analog/Digital LSI and Systems
 - (b) Hardware/Software Systems
 - (c) Image/Video Processing and Coding Systems
 - (d) Multimedia Systems
 - (e) Computer Vision/Graphics Systems
 - (f) Speech/Audio Processing Systems
 - (g) VLSI communication Systems
 - (h) Design Methodologies and CAD Tools for Signal Processing Systems

Conclusion: Suggestion: The new fields of Interests in SPS TC is suggested to focus on the Systems and emerging applications as follows:

- (a) **Embedded System and System-on-a-Chip**
- (b) **Mixed Signal Systems**
- (c) **Machine Learning Systems**
- (d) **Image/Video Processing and Coding Systems**
- (e) **Computer Vision and Graphics Systems**
- (f) **Speech and Audio Processing Systems**
- (g) **Communication Systems**
- (h) **Parallel, distributed, and cloud/fog computing systems**
- (i) **Algorithm/Architecture Co-Design, Hardware/Software Co-Design, and CAD Tools for Signal Processing Systems**

Agenda 7: Discussing the promotion of SPS TC activities

- (1) Friend Labs
- (2) eNewsLetter
- (3) Others

Conclusion: Work together for promoting SPS TC activities.