Message from New Editor-In-Chief

Greetings! Since its inception in 2012, the APSIPA newsletter has been serving as a channel to provide news to its members worldwide. It is my great honor to succeed Prof. Bonnie Law and to serve as the new EiC to build upon her work. I would like to take this opportunity to thank Bonnie and her editorial board members for their outstanding contribution to the newsletter.

For year 2020, we have a mixture of new and continuing editorial board members, and I look forward to working together with them in delivering relevant and timely information about APSIPA. Our editorial team now consists of:

- Sanghoon Lee (vice EiC), Yonsei University, Korea.
- Bonnie Law (Past EiC), The Hong Kong Polytechnic University, Hong Kong.
- Yoshinobu Kajikawa, Kansai University, Japan.
- Xie Lei, Northwestern Polytechnical University, China.
- Jiantao Zhou, University of Macau, Macau

APSIPA has grown significantly over the years. We currently have about 2,600 e-members and members from over 30 countries. To better serve our members, APSIPA has recently started a local chapter initiative. We have published an online call for the establishment of APSIPA local chapters. More information about this call can be found on page 25.

In addition, we would like to reflect back on the success of the recently concluded 2019 APSIPA Annual Summit and Conference (APSIPA ASC 2019), which was held in LanZhou, China. Pictures taken during the conference are now available at http://www.apsipa2019.org/. We would also like to take this opportunity to invite everyone to participate in the upcoming APSIPA ASC 2020, which will be held in Auckland, New Zealand. Details of this conference are available at http://www.apsipa2020.org/.

Lastly, we invite you to send us your contributions to be published in the APSIPA Newsletter. You are also welcome to share your thoughts with us about future developments in this newsletter. Please enjoy reading this issue!

KokSheik Wong

Election Results

APSIPA relies on the services and contribution from the APSIPA Board of Governors as well as support from all APSIPA members. Elections for the following Vice Presidents and Members-at-Large of the APSIPA BoG have been conducted near the end of 2019. We are pleased to share with you the following election results.
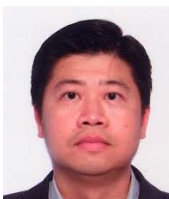
Vice President - Conference
Prof. Kosin Chamnongthai
King Mongkut's University of Technology Thonburi, Thailand.

Vice President – Industrial Relations and Development
Dr. Seishi Takamura
NTT Corporation, Japan.

Vice President – Member Relations and Development
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Members-at-large

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The University of Auckland,
New Zealand.

Prof. Kazuya Takeda
Nagoya University,
Japan.

Prof. Mingyi He
Northwestern Polytechnical
University, China.

Prof. Sanghoon Lee
Yonsei University,
Korea.

Vice Editor-in-Chief for APSIPA Newsletters

Prof. Sanghoon Lee
Yonsei University,
Korea.

APSIPA Sadaoki Furui Prize Paper Award

Professor Sadaoki Furui was the APSIPA founding president (2009 to 2012). In 2015, Professor Furui kindly donated a sum of US$25,000 to APSIPA. The donation is used to promote and recognize high quality papers published in the APSIPA Transactions on Signal and Information Processing, through establishing a "best paper award", named APSIPA Sadaoki Furui Prize Paper Award. We are pleased to announce that the 4th APSIPA Sadaoki Furui Prize Paper Award was given to:

Sachin Chachada, C.-C. Jay Kuo
Environmental sound recognition: a survey
APSIPA Transactions on Signal and Information Processing, Volume 3, 2014, e14
DOI: https://doi.org/10.1017/ATSIP.2014.12

The award (including the certificate and the cash prize of US $1000) was presented at the opening ceremony of APSIPA ASC 2019.

Prof. Furui was presenting the award to the awardee Prof. Jay Kuo. Great congratulations!

APSIPA ASC 2019

Professor Thomas Fang Zheng
Tsinghua University, China

The 11th APSIPS Annual Summit and Conference (APSIPA ASC 2019) held in Lanzhou Nov. 18-21, 2019 turned out to be a big success. It established several historical records in APSIPA: The most submissions (444), the lowest acceptance rate (68.75%), the largest number of participants (520), and for the first time the submissions of regular papers outnumber those of special session papers.

The Conference Picture
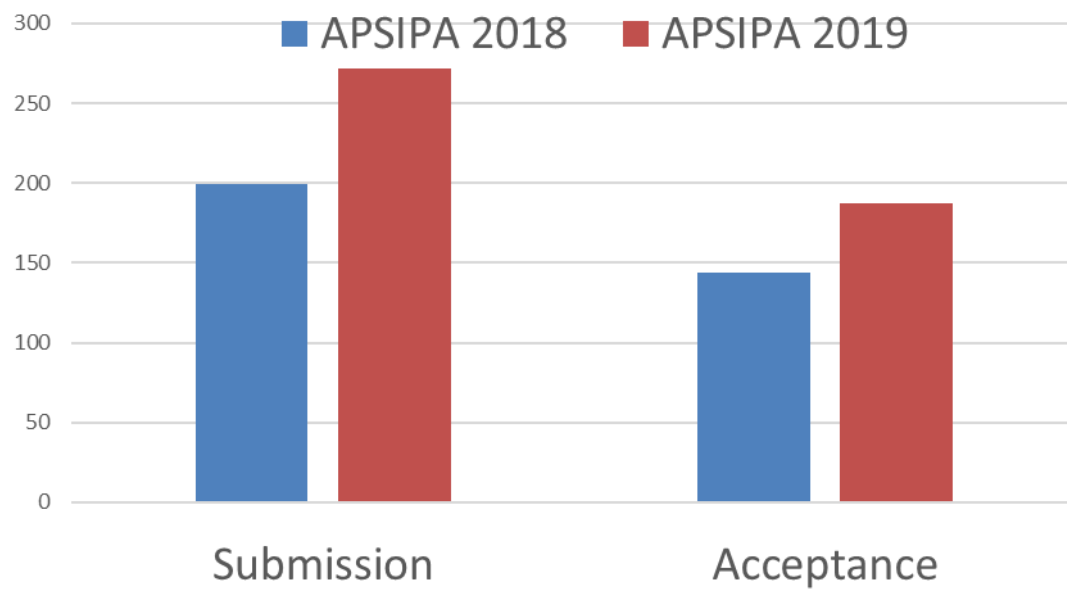
General Co-Chair in the Opening Ceremony

TPC Chairs Coordinator

Founding President in the Opening Ceremony

President in the Opening Ceremony

Submission/Acceptance of regular papers in APSIPA 2018/2019

Under the theme of Intelligent Signal and Information Processing, this ASC invited three distinguished speakers and 6 tutorials. There were also 4 overview sessions that involve 12 invited talks on diverse topics. The entire program included 51 oral sessions and 2 poster sessions.

Chin-Hui Lee
Georgia Tech, USA

Wen Gao
Peking University, China

Kate Knill
Cambridge University, UK

Keynote Speakers

A Tutorial Presentation

The conference delivered three paper awards: best regular paper, best special session paper and best poster.

The ASC was also featured by several innovations, including the Friend Lab, Women in APSIPA that encourages activities of female researchers, the portrait poster that allows researchers from different institutes to share information, satellite activates such as that of the CCF Speech Dialogue and Auditory Special Interest Group, and the APSIPA Mate App that received much praise for its easy use and online help.

Friend Lab

Portrait Poster

Pre-Conference Winter School

CCF Speech Dialogue and Auditory Special Interest Group

Lanzhou was the second stop in the ancient Silk Road, and a very special city full of brilliant historical culture, amazing natural scenery and nice meals of multiple nations. The special culture was shown in an amazing way in the banquet, especially the performance by the students from Lanzhou Jiaotong University.

Banquet

Banquet Performance Show

General Co-Chairs

The post-conference travel to Sand Palace offered another opportunity to experience western China.

Sand Palace Tour

APSIPA 2019 ASC has been demonstrated to be a big success. This success should be certainly attributed to the charm of Lanzhou, but it is also attributed to the enormous effort of many people. This includes 1,161 authors, 1,469 reviewers, APSIPA BoG members and TCs, and more than 100 student volunteers from Tsinghua University, Lanzhou Jiaotong Unviersity and Northwest Minzu University. We are sure that the experience and lessons of this year will be transferred to the next ASC in Auckland and make the success continue.

Part of the Volunteers

APSIPA Winter School 2019

In order to promote the education on signal and information technologies in the local region, Prof. Woon Seng Gan from NTU, Singapore initialized the first APSIPA Winter School during the period of APSIPA ASC 2019 in Lanzhou. Prof. Dong Wang from Tsinghua University and Axu Hu from Northwest Minzu University lead the local organization team, which involved more than 20 student volunteers. It turned out to be very successful, with more than 100 attendees, and the education materials were put online and were circulated to broad audience.

Lectures and volunteers of APSIPA 2019 Winter School

This winter school was held on Nov. 17, 2019 in the lecture hall of the Northwest Minzu University. The theme was "Speech technologies and AI", and the lectures involved two parts: fundamental knowledge of speech technologies in the morning, and cutting-edge research frontiers in the afternoon. The lectures were free for all participants, and free lunch boxes were offered for APSIPA members. This event was supported by APSIPA HQ under the APSIPA Activity Promotion Program. Additional support was from the Northwweset Minzu University, the APSIPA ASC 2019 main conference, as well as industrial sponsors including SpeechOcean and ceaFos.

The organizers invited six speakers from the education resource repository of APSIPA, especially new APSIPA distinguished lectures. The speakers were Christian Ritz from University of Wollongong, Yu Tsao from Academia Sinica, Akihiko K. Sugiyamai from Yahoo Japan, Xiaolei Zhang from North West Polytechnical University, Hemant Patilfrom DA-IICT, and Dong Wang Tsinghua University.

Christian Ritz

Yu Tsao

Akihiko K. Sugiyamai

Xiaolei Zhang

Hemant Patil

Dong Wang

Lectures of APSIPA 2019 Winter School

Lecture 1 : Speech Signal Modeling and Processing: Fundamentals and
Applications, Christian Ritz from University of Wollongong, Australia

Lecture 2: Deep Learning and Its Applications to Speech Processing: Recognition and Generation, Yu Tsao from Academia Sinica, Taiwan.

Lecture 3: History of Personal Media Terminals: From Walkman to Apple Watch, Akihiko K. Sugiyamai from Yahoo, Japan.

Lecture 4: Metric Learning for Speaker Recognition,
Xiaolei Zhang from North West Polytechnical University, China.

Lecture 5: Generative Adversarial Networks (GANs) for Speech Technology,
Hemant Patil from DA-IICT, India.

Lecture 6: Speech Factorization: Squeeze Stereo Information from Speech Signals,
Dong Wang from Tsinghua University, China.

Distinguished Lecturers for 2020-2021

The Distinguished Lecturer (DL) Program is established to serve the communities by organizing lectures given by distinguished experts. It is an educational program that promotes the research and development of signal and information processing in Asia-Pacific region. During the two-year term, the APSIPA Distinguished Lecturers will be serving as ambassadors of APSIPA and outreaching to audience in AsiaPacific region as well as worldwide. For more information about the DL Program, please contact Professor Woon-Seng Gan who is the Vice President of Institutional Relations and Education Program. This year, we have seven newly selected Distinguished Lecturers.

- **Huihui Bai**, Beijing Jiaotong University

- **Nobutaka Ono**, Tokyo Metropolitan University

- **Shogo Muramatsu**, Niigata University

- **Jun Du**, University of Science and Technology of China

- **Toshihisa Tanaka**, Tokyo University of Agriculture and Technology

- **Yan Chen**, University of Electronic Science and Technology of China

- **Yosung Ho**, Gwangju Institute of Science and Technology

Year 2019 Spring APSIPA Industrial Distinguished Leaders

The APSIPA Industrial Distinguished Leader is a distinction reserved for selected APSIPA members whose extraordinary accomplishments in any of the fields related to APSIPA scope are deemed fitting of this prestigious recognition. The Distinguished Leader nomination and election process conducts twice a year. We are happy to share with you the following list of the Year 2019 Spring APSIPA Industrial Distinguished Leaders.

- **Tao Mei**, Deputy Managing Director, JD AI Research

- **Ali Tabatabai**, VP, Sony

- **Aldo Badano**, Senior Biomedical Researcher, US Food and Drug Administration

- **Yeong-Taeg Kim**, Samsung Electronics

Latest Articles from APSIPA Transactions on Signal and Information Processing (ATSIP)

- **Toward human-centric deep video understanding**
  - Wenjun Zeng
  - DOI: https://doi.org/10.1017/atsip.2019.26
  - Published online: 13 January 2020, e1

- **Advances in anti-spoofing: from the perspective of ASVspoof challenges**
  - Madhu R. Kamble, Hardik B. Sailor, Hemant A. Patil, Haizhou Li
  - DOI: https://doi.org/10.1017/ATSIP.2019.21
  - Published online: 15 January 2020, e2

- **Signal denoising using the minimum-probability-of-error criterion**
  - Jishnu Sadasivan, Subhadip Mukherjee, Chandra Sekhar Seelamantula
  - DOI: https://doi.org/10.1017/ATSIP.2019.27
  - Published online: 20 January 2020, e3

- **Learning priors for adversarial autoencoders**
  - Hui-Po Wang, Wen-Hsiao Peng, Wei-Jan Ko
  - DOI: https://doi.org/10.1017/ATSIP.2019.25
  - Published online: 20 January 2020, e4

- **Video bit-rate requirements for 8K 120-Hz HEVC/H.265 temporal scalable coding: experimental study based on 8K subjective evaluations**
  - Yasuko Sugito, Shinya Iwasaki, Kazuhiro Chida, Kazuhisa Iguchi, Kikufumi Kanda, Xuying Lei, Hidenobu Miyoshi, Kimihiko Kazui
  - DOI: https://doi.org/10.1017/ATSIP.2020.4
  - Published online: 03 February 2020, e5

Most Read Articles from ATSIP

https://www.cambridge.org/core/journals/apsipa-transactions-on-signal-and-information-processing/most-read

- **An overview of channel coding for 5G NR cellular communications**
  - Jung Hyun Bae, Ahmed Abotabl, Hsien-Ping Lin, Kee-Bong Song, Jungwon Lee
  - DOI: https://doi.org/10.1017/ATSIP.2019.10
  - Published online: 24 June 2019, e17

- **A tutorial survey of architectures, algorithms and applications for deep learning**
  - Li Deng
  - DOI: https://doi.org/10.1017/atsip.2013.9
  - Published online: 22 January 2014, e2

- **Use cases and challenges in telecom big data analytics**
  - Chung-Min Chen
  - DOI: https://doi.org/10.1017/ATSIP.2016.20
  - Published online: 12 December 2016, e19

Most Cited Articles from ATSIP

https://www.cambridge.org/core/journals/apsipa-transactions-on-signal-and-information-processing/most-cited

- **A tutorial survey of architectures, algorithms and applications for deep learning**
  - Li Deng
  - DOI: https://doi.org/10.1017/atsip.2013.9
  - Published online: 22 January 2014, e2

- **Recent advances on active noise control: open issues and innovative applications**
  - Yoshinobu Kajikawa, Woon-Seng Gan, Sen M. Kuo
  - DOI: https://doi.org/10.1017/ATSIP.2012.4
  - Published online: 28 August 2012, e3

- **An overview on video forensics**
  - Simone Milani, Marco Fontani, Paolo Bestagini, Mauro Barni, Alessandro Piva, Marco Tagliasacchi, Stefano Tubaro
  - DOI: https://doi.org/10.1017/ATSIP.2012.2
  - Published online: 28 August 2012, e2

APSIPA Membership

Membership Benefits:

- Links to highly qualified people within the organization to develop research, technology, teaching, and career
- Discount fee on APSIPA conferences
- Reduced subscription fee for APSIPA journals
- Access to information about the international activities in signal and information processing such as conferences, continuing education, short courses, seminars, distinguished lecture series, student internships, scholarships, job listings, publication venues, and mentorships

To motivate APSIPA members to participate in APSIPA conferences, the registration for the 11th APSIPA conference implies an automatic renewal of APSIPA membership up to the end of December 2020.

You may join as:

- Student Membership: Student members are those who are enrolled full time in universities, institutes, or any accredited degree
- Full Membership: Full members are individuals interested in being part of the APSIPA mission to excel signal and information processing field. They are eligible to vote, hold positions in APSIPA association, and contribute to serve as editorial board and program committee members in APSIPA journals and conferences
- **Life Membership**: Full members may choose to subscribe as life members pending on paying the discount fee of life membership. Early-bird registration fee is available for life members at all times when registering for APSIPA ASC

Type of membership	Fees in US$	Fees in HK$
Student Membership	10 (per annual)	78 (per annual)
Full Membership	30 (per annual)	234 (per annual)
Life Membership	300 (a one-off fee)	2340 (a one-off fee)

Act Today! Join us at: http://www.apsipa.org/reg.asp

Local Chapters

Call for Establishing APSIPA Local Chapters

APSIPA starts Local Chapter system from the beginning of 2020. If you are interested in establishing a local chapter in your region, please see the guideline and submit the application form to APSIPA Head quarter and VP Membership Relations and Development.Membership Benefits:

APSIPA Local Chapters

APSIPA spans more than 20 countries in Asia-Pacific region, but local Chapters serve APSIPA members by holding meetings at the local level. If you're interested in connecting with professionals, academics and students in your region, getting involved locally provides exciting opportunities for networking, research, and project collaboration with others.

Chapters are constituted by a minimum of ten active members, and are established by application to APSIPA.

APSIPA offers unique benefits to individual groups, including industry, students and young professionals, and women in APSIPA, and numerous specialized events throughout the year.

For more details, please see the guideline of APSIPA Local Chapters. If you want to establish a local chapter in your region, please fulfill the application form and submit it to APSIPA Headquarter and VP Membership Relations and Development.

APSIPA Chapter Operation Manual

APSIPA Chapter Application Form

12th Asia Pacific Signal and Information Processing Association Annual Summit and Conference (APSIPA ASC)

DECEMBER 7-10, 2020, AUCKLAND, NEW ZEALAND
WWW.APSIPA2020.ORG

Timeline/Important Dates

March 1, 2020
► Submission of Proposals for Special Sessions, Forum, Panel & Tutorial Sessions

April 1, 2020
► Notification of Acceptance for Special Sessions, Forum, Panel & Tutorial Sessions

April 8, 2020
► Online Submission Website Ready for Full, Short and Special Sessions Papers Upload

July 1, 2020
► All Papers Submission

September 1, 2020
► Notification of All Papers Acceptance

October 1, 2020
► Submission of Camera-Ready Papers

October 1, 2020
► Early Bird Authors Registration

December 7 – 10, 2020
► Tutorials, Summit and Conference Dates

Central Auckland from Kingsland

Empowering societies with new generation AI & deep machine Learning

APSIPA ASC 2020 (www.apsipa2020.org) is the 12th annual conference organised by Asia-Pacific Signal and Information Processing Association (APSIPA), which will be held on December 7 – 10, 2020, Auckland, New Zealand. Founded in 2009, APSIPA organisation (www.apsipa.org) aims to promote research and education in signal processing, information technology, and communications. The annual conferences have been held previously in Lanzhou, China (2019),Hawaii, USA (2018), Kuala Lumpur, Malaysia (2017), Jeju, Korea (2016), Hong Kong, China(2015), Siem Reap, Cambodia (2014), Kaohsiung, China (2013), Los Angeles, USA (2012), Xi'an, China (2011), Singapore (2010), and Sapporo, Japan (2009). APSIPA is interested in all aspects of signal and information processing theories, algorithms, securities, implementations, and applications. Call for Special Sessions – APSIPA ASC 2020 program augments the main program with selected special sessions. Please refer to the conference web page for information about the proposals and submissions of the special sessions. Call for Tutorials – Organising tutorials at APSIPA ASC 2020 is one of APSIPA organisation strategies to proliferate and ease learning in core subjects and new topics in evolving research branches. Therefore, the tutorials should be addressed to attract a wide audience. Applicants interested in presenting tutorials may discuss their proposals with one of the tutorial chairs for more information. Call for Exhibitors and Sponsors – APSIPA ASC 2020 organisers encourage exhibitors, publishers, and companies to showcase their products during the conference period. Please refer to the conference web page for full information. All accepted papers are expected to be included in IEEE Xplore and indexed by EI, like all previous years.

The technical program includes, but not limited to, the following areas

- Signal Processing Systems: Design and Implementation
- Signal and Information Processing Theory and Methods
- Speech, Language, and Audio
- Biomedical Signal Processing and Systems
- Image, Video, and Multimedia
- Multimedia Security and Forensics
- Wireless Communications and Networking
- Signal and Information Processing in Education
- Medical Signal Acquisition, Analysis and Processing
- Internet of Things Technology
- Data Analytics and Machine Learning
- Deep Learning: Algorithms, Implementations, and applications
- Human Biometrics and Security Systems
- Renewable Energy, Sustainability and the Environment
- AI and Smart Grids
- AI and Power Systems
- Wireless Power Transfer
- Autonomous Intelligent Self-Driving Cars
- Smart Materials and Sensors
- Signals and Control Systems

Organising Committee

Honorary Chairs: Sadaoki Furui, K.J. Ray Liu, Haizhou Li, Wan-Chi Siu, Hitoshi Kiya, Antony Kuh **General Chairs:** Waleed Abdulla, C.-C. Jay Kuo, Tatsuya Kawahara, Sing Kiong Nguang **TPC Chairs:** Nam Ik Cho, Jiwu Huang, Koichi Shinoda, Yoshinobu Kajikawa **TPC Co-Chairs:** Mingyi He, Dong Wang, Supavadee Aramvith, Isao Echizen, Shinsuke Ibi, Zhiyi Yu, Kazushi Ikeda **Plenary Chairs:** Min Wu, Woon Seng Gan, Antonio Ortega **Tutorial Chair:** Eliathamby Ambikairajah **Tutorial Co-Chair:** Vidhyasaharan Sethu **Overview Session Chairs:** Chung-Hsien Wu, Kai-Kuang Ma **Industrial Forum Chair:** Xun Xu **Special Sessions Chairs:** Wen-Huang Cheng, Jiaying Liu, Chang-Su Kim **Sponsor Chairs:** Thomas Fang Zheng, Yun Sing Koh, Lei Xie, Nitish Patel **Finance Chairs:** Nirmal Nair, Kenneth Lam **Registration Chairs:** Bonnie N.F. Law, Iman T. Ardekani **Publication Chair:** Sanghoon Lee **Web Chair** Je-Won Kang **Publicity Co-Chairs:** Yo-Sung Ho, Hiroshi Saruwatari, Ming-Ting Sun, Roberto Togneri, Changchun Bao, Martin Drahanský **Local Management Committee:** Akshya Swain (Chair), William Lee, Yuqian Lu, Ho Seok AHN

Summary of Links

- APSIPA ASC 2020: http://www.apsipa2020.org/

- APSIPA Transaction on Signal and Information Processing: http://journals.cambridge.org/sip

- Paper Submission to APSIPA Transaction on Signal and Information Processing: http://mc.manuscriptcentral.com/apsipa

- APSIPA Industrial Activities: http://www.apsipa.org/industrial.htm

- APSIPA Friend's Lab: http://www.apsipa.org/friendlab/FriendLabs.htm

- APSIPA Membership Registration/Renewal: http://www.apsipa.org/reg.asp

- APSIPA Magazine: http://www.apsipa.org/doc/magazine/apsipa_magazine2018.pdf

- APSIPA Photo Gallery: http://www.apsipa.org/photo/photo.htm

APSIPA Who's Who

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President-Elect: Anthony Kuh, University of Hawaii at Manoa, USA
Past Presidents: Sadaoki Furui (2009-2012), C.C. Jay Kuo (2013-2014), Haizhou Li (2015-2016)
Immediate Past President: Wan-Chi Siu, The Hong Kong Polytechnic University, HK

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Headquarters
Address:

Asia Pacific Signal and Information Processing Association,
Centre for Signal Processing,
Department of Electronic and Information Engineering,
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Director: Wan-Chi Siu, email: enwcsiu@polyu.edu.hk
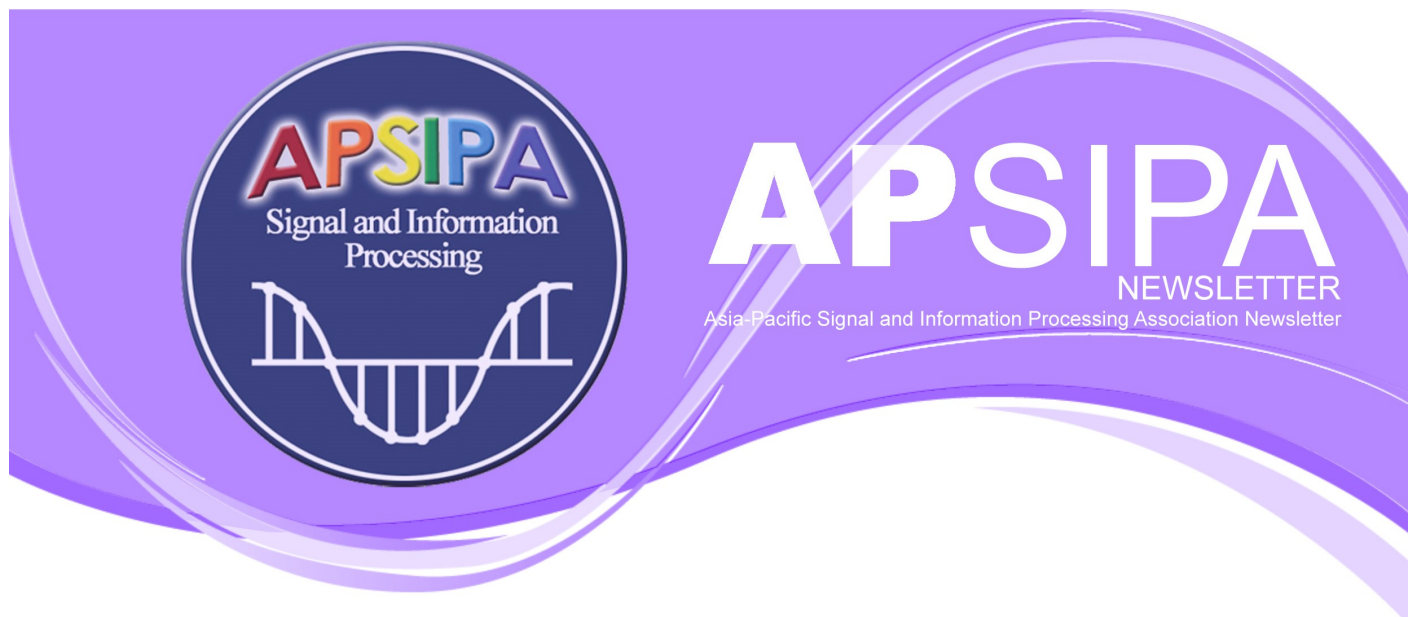Manager: Kin-Man Lam, Kenneth,
email: enkmlam@polyu.edu.hk
Secretary: Ngai-Fong Law, Bonnie,
email: ennflaw@polyu.edu.hk
Treasurer: Yuk-Hee Chan, Chris,
email: enyhchan@polyu.edu.hk

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Sanghoon Lee (vice Editor-in-Chief), Yonsei University, Korea.
Bonnie Law (Past Editor-in-Chief), The Hong Kong Polytechnic University, Hong Kong.
Jiantao Zhou, University of Macau, Macau.
Yoshinobu Kajikawa, Kansai University, Japan.
Xie Lei, Northwestern Polytechnical University, China.

Are you an APSIPA member?
If not, then register online at
http://www.apsipa.org