

IEEE SPS Multimedia Signal Processing Summer School 2017
Technical Theme: Emerging Techniques for Multimedia Signal Processing
The Hong Kong Polytechnic University, Hong Kong, July 8-11, 2017

Proposal for a regular sponsorship from IEEE SPS, under the S3P Program

1. Technical Theme

This Summer School will be organized back to back with, and some of it overlapping, the IEEE International Conference on Multimedia & Expo (ICME2017). ICME is a major multimedia conference sponsored by four IEEE societies. The conference will be held in Hong Kong from July 10 to July 14, 2017. The Summer School will begin on July 8, 2017. On the third and fourth days, the Summer School will merge with the ICME conference. The third day of the Summer School is also the first day of the ICME Workshop. ICME participants can attend the talks at the Summer School. The fourth day of the Summer School is the first day of the ICME conference, and Summer School participants can attend the ICME conference. With the collaboration between the Summer School and the ICME conference, we can attract more student participants to attend both events.

The technical theme of this Summer School is Multimedia Signal Processing. Emerging techniques and recent advances in multimedia signal processing, and their applications, will be addressed. A number of talks will be organized, which will introduce new techniques for deep learning, machine learning, graph signal processing, etc. and their applications to multimedia signals and information forensics.

The theme of the ICME2017 conference will be “The New Media Experience”, enabling next generation 3D/AR/VR experiences and applications. Therefore, Summer School participants can gain knowledge about recent advances in the topic, through attending the keynote speech and various technical sessions organized for the first day of the ICME conference.

2. Key Organizers

The Summer School is technically supported by the IEEE Hong Kong Chapter of Signal Processing, and will be held at The Hong Kong Polytechnic University and Harbour Grand Kowloon Hotel. Following are the organizers of the School:

Summer School Organizer:

Prof. Kenneth K.M. Lam, The Hong Kong Polytechnic University / ICME2017 General Chair

Summer School Co-Organizers:

Prof. Yik-Chung Wu, The University of Hong Kong / Chairman of IEEE Hong Kong Chapter of Signal Processing

Prof. Vicky Zhao, Tsinghua University / ICME2017 Student Program Chair

3. Planned Venues and Facilities

On the first two days, the Summer School will be held at The Hong Kong Polytechnic University, which is strategically located in Hung Hom, Kowloon, on a 9.46-hectare site, adjacent to the Cross Harbour Tunnel and the Hung Hom Station. All activities will take place in a well-equipped lecture theatre, which can accommodate more than 100 people. On the third and fourth days, the venue will be the Harbour Grand Kowloon Hotel, which is only a 5-minute walk from the Whampoa MTR Station.

About 100 rooms at the University Student Hostel will be reserved for the Summer School Participants. The room rate per night ranges from US\$15 to US\$25. The location of the hostel is close to both venues.

4. Program and Lecturers

The Summer School program will cover four full days, from July 8 (Saturday) to July 11 (Tuesday) 2017. In the first three days, renowned scholars are invited to offer lectures. There will be two lectures every day, and each lecture will be about 2.5 hours long. On the fourth day, Summer School participants can attend the ICME conference. Furthermore, student participants will also be invited to join the student activities organized by the ICME conference.

Following is a tentative list of speakers for the Summer School, with a preliminary indication of the lecture topics:

Prof. C.C. Jay Kuo, FIEEE, University of Southern California (confirmed)

- Deep Learning for Big Visual Data Analytics

Prof. Wan-Chi Siu, Life-FIEEE, The Hong Kong Polytechnic University (confirmed)

- On Super-resolution Imaging using Deep Learning via Random Forests

Prof. Min Wu, FIEEE, University of Maryland (to be confirmed)

- Micro-Signals for Information Forensics

Prof. Antonio Oretga, FIEEE, University of Southern California (to be confirmed)

- Graph Signal Processing

Prof. Lei Zhang, SrMIEEE, The Hong Kong Polytechnic University (to be confirmed)

- Image restoration: from sparse prior, low-rank prior to deep priors

On the third day of the Summer School, two ICME tutorials will be shared with the Summer School. The titles of these two tutorials will be confirmed at a later stage. Furthermore, if necessary, some renowned scholars, who will attend the ICME conference, will also be invited to be speakers at the Summer School.

5. Membership Development Contribution

This School is the first edition of the Summer School to be linked with the ICME conference. We will propose to the ICME Steering Committee that the Summer School continues to be linked with future ICME conferences. We hope that as the Summer School's reputation continues to be established, it will attract more participants to attend this Summer school in the future. They will be encouraged to become SPS members, as we will provide SPS members with a significant advantage in the school's fees.

This Summer School is supported by the IEEE Hong Kong Chapter of Signal Processing. We will conduct membership promotion at the beginning of the Summer School, and will inform participants about recent SPS initiatives.

We will film all the lectures conducted at the Summer School, with the permission of the speakers. In addition, we will invite some of the speakers to submit either a lecture-note article, or a feature article, on the topic of their talks, to the IEEE Signal Processing Magazine (SPM). Therefore, by pairing the lecture videos and the SPM articles, we can better promote signal processing to the public.

6. Travel Grants

As this Summer School is linked with ICME2017, some of the Summer School participants will also register and attend the conference. They can apply for the travel grants offered by the conference. Depending on the sponsorship received by the Summer School and the budget available, the Summer School will try its best to provide three travel grants for IEEE SPS student members. The amount of each travel grant will be between US\$500 and US\$700. The selection criteria will be the same as that used by the SPS, but higher priority will be given to those from overseas who attend the Summer School.

7. Registration Fees

To encourage participants to become SPS members, we propose a significant difference in the fees between SPS members and non-SPS members.

Attendee	Membership Status	Fee (US\$)
Student (also registered ICME)	SPS member	50
	Non SPS member	150
Student (not registered ICME)	SPS member	100
	Non SPS member	200
Non student (also registered ICME)	SPS member	100
	Non SPS member	200
	One day	100
Non student (not registered ICME)	SPS member	300
	Non SPS member	400
	One day	150

The registration fee will cover a Summer School booklet, coffee breaks, a dinner, and attendance on the first day of the ICME conference. Depending on the budget available, the Summer School will also try its best to provide participants with the ICME USB Proceedings.

8. Tentative Budget Breakdown

The organizers will try their best to seek sponsorship for the Summer School. Currently, the Summer School will likely receive a sponsorship of US\$2,000 from the Hong Kong Polytechnic University. The IEEE Hong Kong Chapter of Signal Processing will also sponsor one of the lectures. We would be grateful if we could receive sponsorship of US\$5,000 from SPS. For each Summer School speaker, we will provide an honorarium of US\$500.

The maximum number of participants that can be accommodated for the Summer School is 100. The budget is calculated for different numbers of possible attendees (100, 80, and 60 attendees). We will also assume that about 70% of the attendees will be SPS student members who will also register at the ICME conference, 20% will be SPS student members who do not register at the conference, 5% will be SPS members who also register at the conference, and the remaining 5% are non-SPS members. On average, the registration fee per head is about US\$75.

Any possible surplus budget will be used for student travel grants. If we still have any surplus remaining after the event, it will be given to the IEEE Hong Kong Chapter of Signal Processing, which will use the surplus for organizing more activities for membership promotion.

Expenditures (in US\$)				
		Number of Attendees		
		100	80	60
1.	Venue (free)	0	0	0
2.	Speakers (\$500 each × 6)	\$3,000	\$3,000	\$3,000
3.	Coffee breaks (\$10 per head, 2 coffee break per day, for 2 days)	\$4,000	\$3,200	\$2,400
4.	One dinner (\$35 per head)	\$3,500	\$2,800	\$2,100
5.	Fees for attending ICME (for the 1 st day of ICME only, 25% of the attendees not registered ICME, \$100 per head)	\$2,500	\$2,000	\$1,500
Total		\$13,000	\$11,000	\$9,000
Incomes (in US\$)				
1.	Sponsorship (from HKPolyU)	\$2,000	\$2,000	\$2,000
2.	Sponsorship (from IEEE HK SP Chapter	\$500	\$500	\$500
3.	Requested financial contribution from SPS	\$5,000	\$5,000	\$5,000
4.	Registration fee (\$75 per head)	\$7,500	\$6,000	\$4,500
Total		\$15,000	\$13,500	\$12,000
Balance		\$2,000	\$2,500	\$3,000

9. CVs of Summer School Organizers

Prof. Kenneth K.M. Lam

Prof. Kin-Man Lam received his Associateship in Electronic Engineering with distinction from the Hong Kong Polytechnic University (formerly called Hong Kong Polytechnic) in 1986. He was awarded an M.Sc. degree in communication engineering from the Department of Electrical Engineering, Imperial College of Science, Technology and Medicine, England, in 1987. In 1993, he undertook a Ph.D. degree program in the Department of Electrical Engineering at the University of Sydney, Australia. He completed his Ph.D. studies in 1996.

From 1990 to 1993, Prof. Lam was a lecturer at the Department of Electronic Engineering of The Hong Kong Polytechnic University. He joined the Department of Electronic and Information Engineering, The Hong Kong Polytechnic University again as an Assistant Professor in October 1996. He became an Associate Professor in 1999, and is now a Professor. He was actively involved in professional activities. He has been a member of the organizing committee or program committee of many international conferences. Prof. Lam was the Chairman of the IEEE Hong Kong Chapter of Signal Processing between 2006 and 2008. In addition, he was a Guest Editor for the Special Issue on Biometric Signal Processing, EURASIP Journal on Applied Signal Processing. He received an Honorable Mention of the Annual Pattern Recognition Society Award for an outstanding contribution to the Pattern Recognition Journal in 2004. In 2008, he also received the Best Paper Award at the International Conference on Neural Networks and Signal Processing.

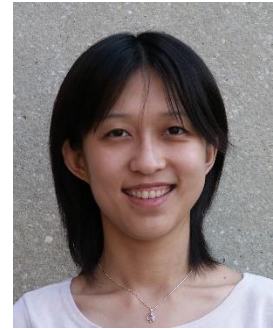
Prof. Lam was the Director-Student Services of the IEEE Signal Processing Society between 2011 and 2014, and was an Associate Editor of IEEE Trans. on Image Processing between 2009 and 2014. Currently, he is the VP-Member Relations and Development of the Asia-Pacific Signal and Information Processing Association (APSIPA) and the Director-Membership Services of the IEEE Signal Processing Society. Prof. Lam serves as an Associate Editor of Digital Signal Processing, APSIPA Trans. on Signal and Information



Processing, and EURASIP International Journal on Image and Video Processing. He is also an Editor of HKIE Transactions, and an Area Editor of the IEEE Signal Processing Magazine. He is a General Co-Chair of the 2017 IEEE International Conference on Multimedia and Expo, to be held in Hong Kong. His current research interests include human face recognition, image and video processing, and computer vision.

Prof. Vicky Zhao

H. Vicky Zhao received the B.S. and M.S. degree from Tsinghua University, China, in 1997 and 1999, respectively, and the Ph. D degree from University of Maryland, College Park, in 2004, all in electrical engineering. She was a Research Associate with the Department of Electrical and Computer Engineering and the Institute for Systems Research, University of Maryland, College Park from Jan. 2005 to July 2006. From Aug. 2006 to Feb. 2016, she was with the Department of Electrical and Computer Engineering, University of Alberta, Edmonton, Canada, as an Assistant Professor (2006-2012) and then an Associate Professor (2012-2016). Since May 2016, she has been an Associate Professor with the Department of Automation, Tsinghua University, Beijing, China.



Dr. Zhao's research interests include media-sharing social networks, information security and forensics, digital communications and signal processing. Dr. Zhao received the IEEE Signal Processing Society (SPS) 2008 Young Author Best Paper Award. She is a co-author of "Multimedia Fingerprinting Forensics for Traitor Tracing" (Hindawi, 2005) and "Behavior Dynamics in Media-Sharing Social Networks" (Cambridge University Press, 2011). She was the Associate Editor for IEEE Information Forensics and Security (2013-2015) and Elsevier Journal of Visual Communication and Image Representation (2009-2015), and a guest editor of special issue on Signal and Information Processing for Social Learning and Networking of IEEE Signal Processing Magazine. She was a member of IEEE Signal Processing Society Information Forensics and Security Technical Committee (2010-2012) and Multimedia Signal Processing Technical Committee (2011-2013). Dr. Zhao is the general co-chair of 2014 IEEE International Workshop on Information Forensics and Security (WIFS), the technical program co-chair of 2012 IEEE International Workshop on Multimedia Signal Processing (MMSP), the publication co-chair of 2013 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), and the finance co-chair of 2015 IEEE Global Conference on Signal and Information Processing (GlobalSIP) and 2013 IEEE International Conference on Multimedia & Expo (ICME).

Prof. Yik-Chung Wu

Yik-Chung Wu received the B.Eng. (EEE) degree in 1998 and the M.Phil. degree in 2001 from the University of Hong Kong (HKU). He received the Croucher Foundation scholarship in 2002 to study Ph.D. degree at Texas A&M University, College Station, and graduated in 2005. From August 2005 to August 2006, he was with the Thomson Corporate Research, Princeton, NJ, as a Member of Technical Staff. Since September 2006, he has been with HKU, currently as an Associate Professor. He was a visiting scholar at Princeton University, in summers of 2011 and 2015. His research interests are in general area of signal processing, machine learning and communication systems. He served as an Editor for IEEE Communications Letters, and is currently an Editor for IEEE Transactions on Communications and Journal of Communications and Networks. He is a senior member of the IEEE.

