

**2020 Annual Report (June 2019 – May 2020)**  
**Visual Signal Processing and Communications Technical**  
**Committee**  
**IEEE Circuits and Systems Society**

Chairman: Qi Tian  
Secretary: Wen-Hsiao Peng

## **1. Technical Committee Meeting(s):**

(Please state the number of TC meetings in the past year, where held, TC meeting attendance rate, and was a quorum present.)

The Visual Signal Processing and Communications Technical Committee in the IEEE Circuits and Systems Society organizes two annual TC meetings, one in ISCAS'19 and one in VCIP'19, Sydney. The detailed Information is given as follows.

### **1.1. TC Meeting in ISCAS 2019**

Date: May 29th, 2019 (Wednesday, during ISCAS 2019)

Venue: Meeting Room 3 (Sapporo Convention Center)

ISCAS 2019, Sapporo, Japan

Time: 11:30 am -12:45 pm

Attendees (18): Wen-Hsiao Peng, Lap-Pui Chau, Huifang Sun, Ling Guan, Yun He, Lu Yu, Hsu-Feng Hsiao, Ricardo Reis, Zhibo Chen, Yeng-Kang Lai, Chris GNO GUN LEE, Kaikuang Ma, Nam Ling, Weixing Zheng, Yap-Peng Tan (remote), Shiling (remote), Lei Zhang (remote), Fei Qiao (remote)

New Members (4): Xin Jin (Tsinghua Univ.), Xiaoran Cao (Tsinghua Univ.), Bruno Zait (UFDEL Brazil), Huanqiang Zeng (HQU)

Agenda:

- (1) Approval of the agenda
- (2) Review of ISCAS'19 support
  - 23 papers accepted out of 43 input submissions
  - 3 lecture and 2 poster sessions
  - 21 TC members served as RCM
- (3) Review of TC activities since June 2018
- (4) Conference Subcommittee report
  - Status report of VCIP 2018: 121 accepted papers out of 261 submissions, with 144 attendees
  - Status report of VCIP 2019 in Sydney, Australia
- (5) Membership Subcommittee report
  - 50 active members in 2019
  - 15 active members to retire by the end of 2019
  - 15 open positions for 2020 new members
- (6) Nomination of new TC members
  - 5 new member nominations (including one for re-election)

### **1.2. TC Meeting in VCIP 2019**

Date: Dec 2nd, 2019 (Monday, during VCIP 2019)

Venue: UTS Building 10, Level 11, Room 175

VCIP 2019, Sydney, Australia

Time: 12:00 – 14:30

Attendees (18): Wen-Hsiao Peng, Jian Zhang, Kenneth Lam, Byeungwoo Jeon, Munchurl Kim, Thomas Sikora, Jianfei Cai, K. N. Ngan, Zhu Li, Jiaying Liu, Qi Tian (remote), Tao Mei (remote), Houqiang Li (remote), Shiliang Zhang (remote), Lei Zhang (remote), Guojun Qi (remote), Yap-Peng Tan (remote), Chris Lee (remote)

New member nominee (1): Xin Jin

Agenda:

- (1) Approval of the agenda
- (2) Review of TC activities since June 2019

- Sponsored technically Picture Coding Symposium 2019 in Ningbo, China
- 128 attendees with 72 accepted papers
- (3) Conference Subcommittee report
  - Status report of VCIP 2019 (134 accepted papers out of 224 submissions)
  - Status report of VCIP 2020 in Hong Kong, China (later changed to Macau, China)
  - VCIP 2021 proposal presentation
    - o Option 1: Suzhou, China
    - o Option 2: Jeju, Korea
    - o Option 3: Munich, Germany (approved)
- (4) Membership Subcommittee report
  - 6 new members nominated
  - 3 existing members nominated for re-election

## 2. Members submitted Annual Reports:

First Name	Last Name	Affiliation	Email	IEEE Grade	IEEE Region
Qi	Tian	Huawei	wywtqian@gmail.com	Fellow	10
Wen-Hsiao	Peng	National Chiao Tung University	wpeng@cs.nctu.edu.tw	Senior Member	10
Hsu-Feng	Hsiao	National Chiao Tung University	hillhsiao@cs.nctu.edu.tw	Member	10
Carl James	Debono	University of Malta	c.debono@ieee.org	Senior Member	8
Daniel	Lun	The Hong Kong Polytechnic University	enpkun@polyu.edu.hk	Senior Member	10
Christian	Herglotz	Friedrich-Alexander University Erlangen-Nürnberg	Christian.herglotz@fau.de	Member	8
Jiwen	Lu	Tsinghua University	lujiwen@tsinghua.edu.cn	Senior Member	10
Jingjing	Meng	University at Buffalo, SUNY	jmeng2@buffalo.edu	Senior Member	1
Lei	Zhang	Microsoft	leizhang@microsoft.com	Fellow	6
Nam	Ling	Santa Clara University	nling@scu.edu	Fellow	6
Shiliang	Zhang	Peking University	slzhang_jdl@pku.edu.cn	Member	10
Fernando	Pereira	Instituto Superior Técnico, Portugal	fp@lx.it.pt	Fellow	8
Lap-Pui	Chau	Nanyang Technological University	elpchau@ntu.edu.sg	Fellow	10
Byeungwoo	Jeon	Sungkyunkwan University	bjeon@skku.edu	Senior Member	10
Jianfei	Cai	Monash University	Jianfei.cai@monash.edu	Senior Member	10
Lu	Yu	Zhejiang University	yul@zju.edu.cn	Senior Member	10
Wei-Shi	Zheng	Sun Yat-sen University	wszheng@ieee.org		10
Wenwu	Zhu	Tsinghua University	wwzhu@tsinghua.edu.cn	Fellow	10
Zhibo	Chen	University of Science and Technology of China	chenzhibo@ustc.edu.cn	Senior Member	10
Dong	Xu	University of Sydney	dong.xu@sydney.edu.au	Fellow	10
Chia-Yang	Tsai	Facebook	chiayangtsai@fb.com	Member	6
Bruno	Zatt	Federal University of Pelotas	zatt@inf.ufpel.edu.br	Senior Member	9
Vladan	Velisavljevic	University of Bedfordshire	Vladan.velisavljevic@beds.ac.uk	Senior Member	8
Tao	Mei	JD.COM	tmei@live.com	Fellow	10
Hsueh-Ming	Hang	National Chiao Tung University	hmhang@nctu.edu.tw	Fellow	10
Jian	Zhang	University of Technology Sydney	Jian.zhang@uts.edu.au	Senior Member	10

### 3. Accomplished Technical Activities

#### 3.1. IEEE Conference/Event organizations

(Please highlight conference/events are technically and financially co-sponsored by the CAS Society)

Your Name	Conference Sponsors	Conference/Event Title	Your Role
Hsu-Feng Hsiao	IEEE	ICUFN 2019	Technical Program Committee Member
Hsu-Feng Hsiao	IEEE	WF-5G'19	Technical Program Committee Member
Hsu-Feng Hsiao	IEEE	Globecom 2019	Technical Program Committee Member
Hsu-Feng Hsiao	KICS/IEEE	ICTC 2019	Technical Program Committee Member
Hsu-Feng Hsiao	IEEE	ISCAS 2019	Review Committee Member and Session Chair
Hsu-Feng Hsiao	KICS/IEEE	ICTC 2020	Technical Program Committee Member
Hsu-Feng Hsiao	IEEE	Globecom 2020	Technical Program Committee Member
Hsu-Feng Hsiao	IEEE	WF-5G'20	Technical Program Committee Member
Carl James Debono	IEEE	ICME 2020, VCIP 2020	Area Chair
Carl James Debono	IEEE	ICIP 2020	Tutorial co-Chair
Daniel Lun	IEEE	ISCAS 2020	Review Committee Member
Daniel Lun	IEEE	VCIP 2020	General Co-Chair
Jiwen Lu	IEEE	ICME 2019	Area Chair
Jiwen Lu	IEEE	ICIP 2019	Area Chair
Jiwen Lu	IEEE/IAPR	ICPR 2018	Area Chair
Jiwen Lu	IEEE	MMSP 2018	Area Chair
Jingjing Meng	IEEE	ICIP 2019	Area Chair
Jingjing Meng	IEEE	ICME 2019	Area Chair
Jingjing Meng	IEEE	ISCAS 2020	Review Committee Member
Lei Zhang	IEEE	ICIP 2019	Area Chair
Lei Zhang	IEEE	WACV 2019	Area Chair
Lei Zhang	IEEE	CVPR 2020	Area Chair
Lei Zhang	IEEE	ICCV 2019 Workshop on Real-world Face Recognition Challenge	Organizer
Nam Ling	IEEE	Umedia 2019	General Co-Chair
Nam Ling	IEEE CAS	SOCC 2019	Tutorial Chair
Nam Ling	IEEE	ICIEA 2019	Int'l Advisory Committee Member
Shiliang Zhang	IAPR	ICPR 2020	Area Chair
Shiliang Zhang	IEEE	VCIP 2020	Area Chair
Shiliang Zhang	IAPR	ICPR 2020 workshop on FGVRID: Fine-Grained Visual Recognition and re-Identification	OC Chair
Shiliang Zhang	IEEE	ICCV, CVPR, ICME	reviewer
Fernando Pereira	Independent	PCS 2019	Steering Committee
Fernando Pereira	Independent	QoMEX 2019	Steering Committee
Fernando Pereira	Independent	SBrT'2019	International Liaison
Fernando Pereira	Independent	EUVIP'2019	Technical Committee
Fernando Pereira	IEEE	ISM'2019	Technical Committee
Lap-Pui Chau	IEEE	VCIP 2020	Technical Program Co-chair
Byeungwoo Jeon	IEEE	BMSB2019	General Chair
Byeungwoo Jeon	IEEE	VCIP2019, ICIP2019, ICME2019	Reviewer
Jianfei Cai	CVF/IEEE	ICCV 2019	Area Chair

Jianfei Cai	CVF	ECCV 2020	Area Chair
Jianfei Cai	IEEE	MMSP 2019	Keynote and Panel Chair
Lu Yu	IEEE CAS VSPC TC (Technical sponsor)	Picture Coding Symposium 2019	General Chair
Lu Yu	IEEE CAS	ISCAS'2020	Session Chair
Wei-Shi Zheng	IEEE	ICME 2020	Area Chair
Wei-Shi Zheng	BMVA	BMVC 2020	Area Chair
Wei-Shi Zheng		IJCAI 2020	SPC
Wei-Shi Zheng	Asian Federation of Computer Vision	ACCV 2020	Area Chair
Wei-Shi Zheng	IEEE	ICIP 2020	Area Chair
Wei-Shi Zheng	IAPR/IEEE	ICPR 2020	Area Chair
Weisi Lin	PSIVT	9 <sup>th</sup> Pacific-Rim Symposium on Image and Video Technology (PSIVT), Australia, 2019	General Chair
Weisi Lin	IEEE	IEEE ICIP 2019	Special Session organizer
Weisi Lin	ACM	ACM Multimedia 2020	Workshop organizer
Zhibo Chen	IEEE	PCS 2019	TPC Chair
Zhibo Chen	IEEE	VCIP	Area Chair
Zhibo Chen	IEEE	ISCAS 2019	Track Chair
Dong Xu	IEEE	International Workshop on Machine Learning for Signal Processing (MLSP)	Conference/Workshop Organizer
Dong Xu	IEEE	Global Conference on Signal and Information Processing (GlobalSIP), 2019	Tutorial Co-Chair
Dong Xu	IEEE	International Workshop on Multimedia Signal Processing (MMSP), 2019	Special Session Co-Chair
Dong Xu	AAAI	The Thirty-Fourth AAAI Conference on Artificial Intelligence (AAAI), 2020	Area Chair
Chia-Yang Tsai	IEEE	VCIP 2020	Area Chair
Bruno Zatt	IEEE	3rd IEEE Seasonal School on Digital Processing of Visual Signals and Applications <a href="http://www.inf.ufrgs.br/cass/school/">http://www.inf.ufrgs.br/cass/school/</a>	General Co-Chair
Bruno Zatt	IEEE/ACM	SBCCI 2018 - Symposium on Integrated Circuits and Systems Design <a href="https://wp.ufpel.edu.br/chipintheppampa2018/events/sbcci-2018/">https://wp.ufpel.edu.br/chipintheppampa2018/events/sbcci-2018/</a>	Tutorial Chair
Bruno Zatt	IEEE/ACM	SBMICRO 2018 - Symposium on Microelectronics Technology and Devices <a href="https://wp.ufpel.edu.br/chipintheppampa2018/events/sbmicro-2018/">https://wp.ufpel.edu.br/chipintheppampa2018/events/sbmicro-2018/</a>	Tutorial Chair
Bruno Zatt	ACM	GLSVLSI 2018	Reviewer
Bruno Zatt	IEEE	ISCAS 2018, ISCAS 2019, NEWCAS 2018, ICECS 2018, ICECS 2019, LASCAS 2019	Reviewer
Wen-Hsiao Peng	IEEE	VCIP2020	Area Chair
Wen-Hsiao Peng	IEEE	PCS2019	Area Chair
Wen-Hsiao Peng	IEEE	ISCAS2019	Track Chair
Wen-Hsiao Peng	IEEE	ICIP2019	Publication Chair
Wen-Hsiao Peng	IEEE	ACCV2020, CVPR2020, ECCV2020, WACV2021, ICME2020, MIPR2019, MLSP2020, VCIP2019, ICME2019, ICCV2019	Reviewer
Vladan Velisavljevic	IEEE	ICME 2020	General Chair
Vladan Velisavljevic	IEEE	ICIP 2020	Area Chair
Vladan Velisavljevic	IEEE	VCIP 2020	Area Chair

Vladan Velisavljevic	IEEE	ICIP 2019	Area Chair
Vladan Velisavljevic	IEEE	ICME 2019	Area Chair
Vladan Velisavljevic	IEEE	MMSP 2020	Reviewer
Tao Mei	IEEE	ICIP 2019	Tutorial Co-chair
Hsueh-Ming Hang	IEEE	ICIP 2019	General Co-Chair
Hsueh-Ming Hang		2019 Picture Coding Symposium (PCS)	International Steering Committee Member
Hsueh-Ming Hang	IEEE	ICIP19	Reviewer
Hsueh-Ming Hang	Non-IEEE	PCS19	Reviewer
Jian Zhang	IEEE	VCIP 2019	General Co-chair
Jian Zhang	IEEE	ICME 2020	Technical Program Co-chair

### 3.2. IEEE Journal Editorships:

(Please highlight the journals that are (co-)sponsored by the CAS Society, cf., <https://ieeecas.org/publications>)

Your Name	Journal Sponsors	Journal Title	Your Role
Qi Tian	IEEE	Transactions on Circuits and Systems for Video Technology	Associate Editor
Qi Tian	IEEE	Transactions on Neural Networks and Learning Systems	Associate Editor
Qi Tian	IEEE	Transactions on Multimedia	Associate Editor
Hsu-Feng Hsiao		IEEE Open Journal of Circuits and Systems	Associate Editor
Daniel Lun	IEEE	Signal Processing Letters	Associate Editor
Daniel Lun	IEEE	IEEE Open Journal of Circuits and Systems	Associate Editor
Jiwen Lu	ELSEVIER	Pattern Recognition Letters	Co-Editor-in-Chief
Jiwen Lu	IEEE	Transactions on Image Processing	Associate Editor
Jiwen Lu	IEEE	Transactions on Circuits and Systems for Video Technology	Associate Editor
Jiwen Lu	IEEE	Transactions on Biometrics, Behavior, and Identity Sciences	Associate Editor
Jiwen Lu	ELSEVIER	Pattern Recognition	Associate Editor
Jingjing Meng	IEEE	Transactions on Circuits and Systems for Video Technology	Associate Editor
Jingjing Meng	Springer	The Visual Computer	Associate Editor
Lei Zhang	IEEE	Transactions on Circuits and Systems for Video Technology	Associate Editor
Lei Zhang	IEEE	Transactions on Multimedia	Associate Editor
Lei Zhang	Springer	Multimedia Systems	Associate Editor
Lei Zhang	Elsevier	Neurocomputing	Associate Editor
Shiliang Zhang	ACM	TOMM	Guest Editor
Fernando Pereira	Elsevier	Signal Processing: Image Communication	Area Editor
Fernando Pereira	Springer	EURASIP Journal on Image and Video Processing	Associate Editor
Lap-Pui Chau	IEEE	Transactions on Circuits and Systems II	Associate Editor
Lap-Pui Chau	IEEE	Transactions on Broadcasting	Associate Editor
Byeungwoo Jeon	IEEE	Transactions on Broadcasting	Associate Editor
Byeungwoo Jeon	IEEE	Transactions on Circuits and Systems for Video Technology	Associate Editor
Jianfei Cai	IEEE	Transactions on Multimedia	Associate Editor
Lu Yu	IEEE CAS	Transaction on Circuits and Systems for Video Technology	Associate Editor
Lu Yu	IEEE CAS	Transaction on Circuits and Systems for Video Technology	Guest Editor of Special Section
Lu Yu	ITU	Journal of ITU	Guest Editor of Special Issue
Wei-Shi Zheng	Elsevier	Pattern Recognition	Associate Editor
Lin Weisi	Elsevier	Journal of Visual Communication and Image Representation	Associate Editor
Wenwu Zhu	IEEE	Transaction on Circuits and Systems for Video Technology	Deputy EiC
Wenwu Zhu	ACM	TOMM	Associate Editor
Wenwu Zhu	IEEE	Transactions on Multimedia	EiC
Dong Xu	IEEE	IEEE Transactions on Image Processing	Associate Editor
Dong Xu	ACM	TOMM	Guest Editor
Wen-Hsiao Peng	IEEE	Transaction on Circuits and Systems for Video Technology	Associate Editor
Wen-Hsiao Peng	IEEE	Transaction on Circuits and Systems for Video Technology	Guest Editor of Special Section
Wen-Hsiao Peng	IEEE	Journal on Emerging and Selected Topics in Circuits and Systems	Associate EiC for DC
Vladan Velisavljevic	Elsevier	Signal Processing: Image Communications	Associate Editor
Vladan Velisavljevic	IET	Journal of Engineering	Associate Editor
Tao Mei	IEEE CAS	Transactions on Circuits and Systems for Video Technology	Associate Editor

Tao Mei	IEEE CAS	Transactions on Circuits and Systems for Video Technology	Lead GE of TCSVT Special Section on "Video and Language"
Hsueh-Ming Hang	IEEE	Trans. Image Processing,	Reviewer
Hsueh-Ming Hang	Non-IEEE	Journal of Visual Communication and Image Representation	Reviewer
Jian Zhang	IEEE	Transactions on Multimedia	Associate Editor
Jian Zhang	IEEE	Transactions on Multimedia on Special Issue on ICME 2020 TPC recommended papers	Guest Editor
Jian Zhang	IEEE	Transactions on Multimedia on Special Issue on Learning from Noisy Multimedia Data	Guest Editor

### 3.3. Awards, Honors, and Recognition

(Fellow, Distinguished Lecturer, Outstanding Service, Best Paper Awards, and so on by the CAS Society)

Your Name	Awards / Honors / Recognition	Period
Qi Tian	IEEE ICME Best Paper Award 2019, Shanghai, China	2019
Qi Tian	ACM Multimedia, Best Paper Candidate 2019, Nice, France	2019
Carl James Debono	ICME 2020 Outstanding Area Chair Award	July 2020
Carl James Debono	2019 MGA Achievement Award	December 2019
Daniel Lun	Gold Medal, 71st International Trade Fair for Ideas, Inventions & New Products (iENA), Nuremberg, Germany.	Oct. 2019
Christian Herglotz	ISCT 2019 Best Paper Award	June 19-21, 2019
Lei Zhang	IEEE Fellow of 2020	2020
Lei Zhang	CVPR 2019 Best Student Paper	2019
Nam Ling	Umedia 2019 Excellent Paper Award	Aug 6-9- 2019
Nam Ling	Wilmot J. Nicholson Family Professor (Endowed Chair), Santa Clara U, USA	Sep 1, 2020
Shiliang Zhang	AI2000 Most Influential Scholar Award Honorable Mention in the field of Multimedia	2020
Lu Yu	Gold Award of Grand Challenge on Short Video Coding	PCS 2019
Lin Weisi	Highly Cited Researcher (Web of Science)	Nov 2019
Wenwu Zhu	IEEE TCSVT 2019 Best paper award	2019
Zhibo Chen	ACM-MM 2019 Outstanding Reviewer Award	2019
Zhibo Chen	IEEE ICME 2020 Outstanding Reviewer Award	2020
Bruno Zatt	ICECS 2018 Best Student Paper Award	Dec. 9-12, 2018
Vladan Velisavljevic	IEEE ICME 2019 Outstanding Area Chair	July 8-12, 2019
Hsueh-Ming Hang	ACM Multimedia Asia 2019 Best Paper Award	Dec. 2019
Hsueh-Ming Hang	APSIPA ASC 2019 Best Poster Award	Nov. 2019

### 3.4. Keynote Speeches/Invited Talks:

Your Name	Invited by	Event/Conference Title	Talk Title	Date
Qi Tian	Machine Learning Association (MLA) 2019	Keynote at MLA 2020	Person Re-Identification: Challenges and Recent Advances	Nov. 3, 2019
Qi Tian	VCC 2019	Keynote	Frontier Research in Computer Vision in the Era of Big Data and Big Computing Power	July 28, 2019
Qi Tian	AI & Computer Vision Summit Hongkong	Keynote	Data Efficient and Energy Efficient Learning in Computer Vision	July 19, 2019
Qi Tian	ICSIDP 2019, Chongqing	Keynote	Person Re-Identification: Challenges and Recent Advances	December 12, 2019
Daniel Lun	University of Aizu, Japan	Seminar at University of Macau	Depth Based Image Processing	June 17, 2019
Daniel Lun	University of Macau	Seminar at University of Macau	Depth Based Image Processing	Nov, 25, 2019
Lei Zhang	Workshop organizers	ICCV Workshop on Video Retrieval Methods and Their Limits	Object and entity recognition for video content understanding	10/28/2019
Nam Ling	Xi'an U of Posts & Telecomms., China	Invited talk	Conducting Research and Writing Research Papers	Nov. 18, 2019
Nam Ling	Waseda U, Japan	Invited talk	Rate-Distortion Optimization for Sparse Coding in Image Compression	May 24, 2019
Nam Ling	Tianjin U,	Invited talk	Adaptive Sparse Coding for Screen	Sep 2, 2019

	China		Content and Image Compression	
Nam Ling	Yunnan U, China	Invited talk	Rate-Distortion Optimization for Adaptive Sparse Coding in Image Compression	Sep 4, 2019
Nam Ling	Nanyang Tech. U, IEEE CAS Soc., IEEE IE Soc., Singapore	Invited talk	Adaptive Sparse Coding for Screen Content and Image Compression	Oct 14, 2019
Nam Ling	Fuzhou U, China	Invited talk	Adaptive Sparse Coding for Screen Content and Image Compression	Oct 17, 2019
Nam Ling	Lanzhou U, China	Invited talk	Adaptive Sparse Coding for Screen Content and Image Compression	Nov 19, 2019
Shiliang Zhang	Mingkui Tan, SCUT, China	workshop on Cross Modality Analysis in Computer Vision, sponsored by China Society of Image and Graphics (CSIG), Guangzhou, China.	Person Re-Identification in Images and Videos	Mar. 14, 2019
Fernando Pereira	Frederic Dufaux (TPC)	EUVIP Keynote	From pixels to voxels: how is coding evolving ?	Oct. 27, 2019
Lap-Pui Chau	Conference Organizer	Keynote Speech / The 12th International Conference on <b>Ubi</b> -Media Computing	Recent advances in light field imaging	6-9 August 2019
Lap-Pui Chau	Conference Organizer	Keynote Speech / 2019 IEEE 4th International Conference on Signal and Image Processing	Recent development in data analytics for Intelligent Transportation Systems	19-21 July 2019
Lap-Pui Chau	Conference Organizer	Keynote Speech / 2019 IEEE International Conference on Image, Vision and Computing	How to get Clear Vision in the Rain	5-7 July 2019
Byeungwoo Jeon	IWAIT 2019	IWAIT 2019, Invited Lecture	Low Cost Visible and Near-Infrared Image Sensing	Jan. 8, 2019
Lu Yu	CVPR CLIC	CVPR CLIC	Learning-based image/video coding	June 2020
Weisi Lin	IEEE Int'l Conf. on Image Processing (ICIP)	IEEE Int'l Conf. on Image Processing (ICIP)	Evaluating and Processing Partially-Artificial Images (tutorial)	Sept 2019
Weisi Lin	Workshop on Content-Aware Video Analysis (CAVA), in the 16-th IEEE International Conference on Advanced Video and Signal-based Surveillance (AVSS)	Workshop on Content-Aware Video Analysis (CAVA), in the 16-th IEEE International Conference on Advanced Video and Signal-based Surveillance (AVSS)	Visual Saliency & Quality Estimation with 2D and 3D Cues (Keynote)	Sept 2019
Bruno Zatt	Tokyo City University, Japan	Local meeting	Advances on 2D/3D Video Systems Design	May 24, 2019
Wen-Hsiao Peng	Leibniz Universität Hannover, Hannover, Germany	Invited talk	Reinforcement Learning for Video Encoder Control and Video Prediction	October, 2019
Wen-Hsiao Peng	RWTH Aachen Univ., Aachen, Germany	Invited talk	Reinforcement Learning for Video Encoder Control and Video Prediction	October, 2019
Wen-Hsiao Peng	Poznan Univ. of Technology, Poznan, Poland	Invited talk	Reinforcement Learning for Video Encoder Control and Video Prediction	October, 2019
Tao Mei	CVPR Workshop	IEEE CVPR 2020 LVVU Workshop "Language & Vision with applications to Video Understanding"	Vision and Language: From Perception to Creation	June 19, 2020
Jian Zhang	ACM Asia	ACM Multimedia Asia	Webly Supervised Fine-Grained Visual Recognition	Dec. 18 2019

### 3.5. Other distinguished IEEE services

(For example, CAS BoG, Region/chapter leadership, TC chairs/secretary)

Your Name	Organization	Position/Activities	Period
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Qi Tian	IEEE VSPCTC	CASS	TC Chair	2018-2020
Wen-Hsiao Peng	IEEE VSPCTC	CASS	TC secretary	2018-2020
Carl James Debono	IEEE CASS VSPC TC		Membership Subcommittee Chair	2018-2019
Fernando Pereira	IEEE SPS		VP-Conferences	2018-2020
Byeungwoo Jeon	IEEE CASS VSPC TC		Membership Subcommittee Chair	2018-2020
Jianfei Cai	IEEE Trans. on Multimedia		Best Paper Award Committee Chair / Co-Chair	2020, 2019
Wenwu Zhu	IEEE Trans. on Multimedia		Steering Committee Chair	2020-2022
Jian Zhang	IEEE CASS VSPC TC		Conference sub-committee co-chair	2018-2020

## 5. TC Significant Technical Leadership and Innovations

Please list 5 (or less) most significant TC activities in the past year, for example, but not limited to

### (1) Established/organized new CASS journals/conferences/workshops

Please include title, scope, status (e.g., submissions, published papers)

- Sponsored technically Picture Coding Symposium 2019 in Ningbo, China.
  - Scope: The Picture Coding Symposium (PCS) is an international forum devoted specifically to advances in visual data coding. PCS is the pioneer conference, and has the longest history, in this field. Since 1969, PCS has provided the most exciting forum for the visual coding community from academia and industry. The program is organized with a single track, consisting of regular lectures, poster sessions, and special sessions. In response to the latest developments in current coding standards, two special sessions are organized to introduce the progress of VVC and AVS3, respectively. As a highlight, this PCS includes a panel on “Emerging Video Standards”, chaired by Dr. Shipeng Li, who is currently Editor-In-Chief of IEEE Trans. on Circuit and System on Video Technology. With the development of machine learning technology, learning-based coding technology receives more and more attention. This year, the symposium includes one lecture and one special session on learning-based coding
  - Status: 72 accepted papers out of 138 submissions, with 128 attendees
  - Organizing Committee: Lu Yu, Zhejiang University (General Chair); Zhibo Chen, University of Science of Technology of China (TPC Co-Chair); Mathias Wien, RWTH Aachen University (TPC Co-Chair); Debargha Mukherjee, Google (TPC Co-Chair)

### (2) Organized special issues in CASS journal, special sessions/tutorials in CASS conferences, CASS seasonal schools, CASS industrial forums, or CASS competitions

Please include title, the guest editors/organizers, the year, and the month, the number of submissions, the number of papers published, and the impacts (e.g., the total number of citations/full text views so far or the total number of attendees)

- Organized a Special Section on Learning-based Image and Video Coding in TCSVT
  - Guest Editors: Shan Liu, Yu Lu, Wen-Hsiao Peng
  - Issue: 2020 July
  - This Special Section consists of 12 papers with one emphasizes on end-to-end learning-based image compression, and the rest focus on learning based coding tools. The learning-based coding tool papers are further split into five sub-categories, i.e., learning-based coding tools for intra prediction, inter prediction, filtering, arithmetic coding, and encoder optimization.



(3) Organized new CASS initiatives

(4) Established cross-TCs/SIGs collaborations

(5) Awards received by the TC or the TC members

- Qi Tian
  - Best Paper Award, the IEEE International Conference on Multimedia and Expo(ICME), July 8-12, 2019, Shanghai, China.
  - Y. Hao, Y. Fu, Y.-G. Jiang, and Q. Tian, "An End-to-End Architecture for Class-Incremental Object Detection with Knowledge Distillation," IEEE International Conference on Multimedia and Expo (ICME), Best Paper, Shanghai, China, July 8-12, 2019.
- C. Herglotz
  - Best Paper Award, 23rd IEEE International Conference on Consumer Technologies (ISCT), Ancona, Italy, June 2019
  - C. Herglotz, S. Coulombe, A. Vakili, A. Kaup, "Power Modeling for Virtual Reality Video Playback Applications", Proc. 23rd IEEE International Conference on Consumer Technologies (ISCT), Ancona, Italy, June 2019.
  - This paper proposes a method to evaluate and model the power consumption of modern virtual reality playback and streaming applications on smartphones. Due to the high computational complexity of the virtual reality processing toolchain, the corresponding power consumption is very high, which reduces operating times of battery-powered devices. To tackle this problem, we analyze the power consumption in detail by performing power measurements. Furthermore, we construct a model to estimate the true power consumption with a mean error of less than 3.5%. The model can be used to save power at critical battery levels by changing the streaming video parameters. Particularly, the results show that the power consumption is significantly reduced by decreasing the input video resolution
- Daniel Lun
  - Gold Medal, 71st International Trade Fair for Ideas, Inventions & New Products (iENA), Nuremberg, Germany, October 2019.
  - iENA is one of the most important international trade fairs for the inventor community. The trade fair, held from 31 October to 3 November last year, attracted inventors from research institutions, academic bodies and business enterprises from more than 30 countries to showcase over 800 inventions and product innovations. The award received is for our research project "Dolphin - Effective Indoor Positioning Service".
- Lei Zhang
  - CVPR 2019 Best Student Paper
  - Xin Wang, Qiuyuan Huang, Asli Celikyilmaz, Jianfeng Gao, Dinghan Shen, Yuan-Fang Wang, William Yang Wang, and Lei Zhang. "Reinforced cross-modal matching and self-supervised imitation learning for vision-language navigation." CVPR 2019.
  - In the words of the CVPR 2019 Best Paper Award Committee, "Visual navigation is an important area of computer vision. This paper makes advances in vision-language navigation. Building on previous work in this area, this paper demonstrates exciting results based on self-imitation learning within a cross-modal setting."
- Wenwu Zhu
  - IEEE TCSVT 2019 Best paper award