2023 Annual Report (June 2022 – May 2023)
Multimedia Systems & Applications Technical Committee
IEEE Circuits and Systems Society

Chairman: Dr. Wen-Huang Cheng
Chair-Elect/Secretary: Dr. Dong Tian

1. Technical Committee/Special Interest Group Meeting(s):

Please provide information on the TC/SiG meetings held in the past year, including date, time, location, attendance rate, and if a quorum was present.

The MSA Technical Committee in the IEEE Circuits and Systems Society organizes two annual TC meetings, one in ISCAS and one in ICME. The first meeting was held virtually during ISCAS 2022 on 31 May, 2022. There were 57 participants, among which 32 were voting members. A quorum was reached as the attendance rate of 32/50 = 0.64 is larger than the required one-third of the TC members.

2. Voting Members:

First Name	Last Name	Affiliation	Email	IEEE Grade	IEEE Region
Wen-Huang	Cheng	National Taiwan University	wenhuang@csie.ntu.edu.tw	Senior Member	10
Dong	Tian	InterDigital	dong.tian@gmail.com	Senior Member	1
Luciano Volcan	Agostini	Universidade Federal de Pelotas - UFPel	agostini@inf.ufpel.edu.br	Senior Member	9
Ivan	Bajic	Simon Fraser University	ibajic@ensc.sfu.ca	Senior Member	7
Bing-Kun	Bao	Nanjing University of Posts and Telecommunications	bingkunbao@NJUPT.EDU.CN	Member	10
Zhibo	Chen	University of Science and Technology China	chenzhibo@ustc.edu.cn	IEEE Senior member	10
Samson	Cheung	University of Kentucky and University of California, Davis	sccheung@IEEE.ORG	Fellow	3
Wei-Ta	Chu	National Cheng Kung University	wtchu@gs.ncku.edu.tw	Senior Member	10
Junhui	Hou	City University of Hong Kong	jh.hou@cityu.edu.hk	Senior Member	10
Wei	Hu	Peking University	forhuwei@pku.edu.cn	Senior Member	10
Li-Wei	Kang	National Taiwan Normal University	lwkang@ntnu.edu.tw	Member	10
Wu	Liu	JD.com	liuwu@live.cn	Member	10
Dong	Liu	University of Science and Technology of China	dongeliu@ustc.edu.cn	Senior Member	10
Jiaying	Liu	Peking University	liujiaying@pku.edu.cn	Senior Member	10
Jiwen	Lu	Tsinghua University	lujiwen@tsinghua.edu.cn	IEEE Senior member	10
Chong	Luo	Microsoft Research Asia	cluo@microsoft.com	Senior Member	10
Jingjing	Meng	University at Buffalo, The State University of New York (SUNY)	Jmeng2@buffalo.edu	IEEE Senior member	1
Marta	Mrak	British Broadcasting Corporation	marta@ieee.org	Senior Member	8

Liqiang	Nie	Harbin Institute of Technology (Shenzhen)	nieliqiang@gmail.com	Senior Member	10
John	See	Heriot-Watt University Malaysia	johnsee@ieee.org	Senior Member	10
Jiande	Sun	Shandong Normal University	jiandesun@hotmail.com	Member	10
Vladan	Velisavljevic	University of Bedfordshire	vladan.velisavljevic@beds.ac.uk	Senior Member	8
Shuai	Wan	Northwestern Polytechnical University	swan@nwpu.edu.cn	Member	10
Yonggang	Wen	NTU Singapore	ygwen@ntu.edu.sg	Fellow	10
Jizheng	Xu	ByteDance Inc.	jzxu@IEEE.ORG	Senior Member	6
Dan	Zeng	Shanghai University	dzeng@shu.edu.com	Senior Member	10
Guangtao	Zhai	Shanghai Jiao Tong University	zhaiguangtao@sjtu.edu.cn	Senior Member	10
Lei	Zhang	International Digital Economy Academy (IDEA)	leizhang@idea.edu.cn	Fellow	10
Wei-Shi	Zheng	SUN YAT-SEN UNIVERSITY	wszheng@ieee.org	Senior member	10
Jiantao	Zhou	University of Macau	jtzhou@UM.EDU.MO	Senior Member	10
Che	Zhu	University of Electronic Science and Technology of China	eczhu@uestc.edu.cn	Fellow	10
C.C. Jay	Kuo	University of Southern California	jckuo@usc.edu	Fellow	6
Guijin	Wang	Tsinghua University, Beijing, China	wangguijin@tsinghua.eud.cn	Senior Member	10
Guilherme	Correa	Federal University of Pelotas (UFPel), Brazil	gcorrea@inf.ufpel.edu.br	Senior Member	9
Hong-Han	Shuai	National Yang Ming Chiao Tung University	hhshuai@nycu.edu.tw	Member	10
Jing-Jing	Chen	Fudan University	chenjingjing@fudan.edu.cn	Member	10
Jingdong	Wang	Baidu	wangjingdong@outlook.com	Fellow	10
Liang	Lin	Sun Yat-sen University	linliang@ieee.org	Senior Member	10
Ngai-Man	Cheung	Singapore University of Technology and Design	Ngaiman_cheung@sutd.edu.sg	Senior Member	10
Shiqi	Wang	City University of Hong Kong	shiqwang@cityu.edu.hk	IEEE Senior Member	10
Tanaya	Guha	University of Glasgow	tanaya.guha@glasgow.ac.uk	Senior Member	8
Zicheng	Liu	Microsoft	zliu@microsoft.com	Fellow	6
Frederic	Dufaux	CNRS	frederic.dufaux@centralesupelec.fr	Fellow	8
Krishna	Somandepalli	University of Southern California	somandep@usc.edu	Member	6
Chau-Wai	Wong	North Carolina State University	chauwai.wong@ncsu.edu	Member	3
Weiyao	Lin	Shanghai Jiao Tong University	wylin@sjtu.edu.cn	Senior Member	10
Zheng-Jun	Zha	University of Science and Technology of China (USTC)	zhazj@ustc.edu.cn	IEEE Senior member	10

Ulugbek	Kamilov	Washington University in St. Louis	kamilov@wustl.edu	Member	5
Hyomin	Choi	InterDigital	hyomin06@gmail.com	Member	6
Wanqing	Lin	University of Wollongong	wanqing@uow.edu.au	Senior Member	10

Geographical distribution of TC/SIG members (percentage of total)

	2022
Total number of TCs	%
Regions 1 – 6 (U.S.A.)	20
Region 7 (Canada)	0.5
Region 8 (Europe/Africa, Middle East)	8
Region 9 (Central/South America)	4
Region 10 (Asia/Pacific)	67.5

Gender distribution of TC/SIG members (percentage of total)

	2022
Total number of TCs	%
Male	80
Female	20

Distribution of TC/SIG members by affiliation (percentage of total)

	2022
Total number of TCs	%
Academia	82
Industry	18
Government	0

3. Accomplished Technical Activities

3.1. IEEE Conference/Event organizations
(First priority, please highlight conference/events technically and financially co-sponsored by the CAS Society)

Your Name	Conference Sponsors	Conference/Event Title	Your Role
Wen-Huang Cheng	IEEE CAS	IEEE International Conference on Multimedia & Expo 2022	General Co-Chair
Wen-Huang Cheng	IEEE CAS	ISCAS'23	Track Chair
Jiwen Lu	IEEE CAS	IEEE International Conference on Multimedia & Expo 2022	General Co-Chair
Wei-Ta Chu	IEEE CAS	IEEE International Conference on Multimedia & Expo 2022	Program Co-Chair
Luciano Agostini	IEEE CAS, ACM, SBC, SBMicro	35th Symposium on Integrated Circuits and Systems Design – SBCCI 2022	Program Chair
Luciano Agostini	IEEE CAS	14th IEEE Latin America Symposium on Circuits and Systems – LASCAS 2023	Track Chair
Luciano Agostini	IEEE CAS	65th IEEE International Midwest Symposium on Circuits and Systems – MWSCAS 2023	Track Chair
Luciano Agostini	IEEE CAS	56th IEEE International Symposium on Circuits and Systems – ISCAS 2023	RCM
Dong Tian	IEEE CAS	ICME'23, Workshop	Workshop, Technical Committee Member
Dong Tian	IEEE CAS	ISCAS'23	Track Chair
Dong Tian	IEEE CAS	ISCAS'23	Session Chair

Ivan Bajic	IEEE CAS	IEEE ICME 2023	Organizer of the Workshop on Coding for Machines
Ivan Bajic	IEEE CAS	IEEE VCIP 2022	Publicity Co-Chair
Dong Liu	IEEE CAS	VCIP 2022	Grand Challenges Chair
Liqiang Nie	IEEE CAS	ICME	Steering Committee
Weiyao Lin	IEEE CAS	VCIP 22	Local Arrangement Chair
Zicheng Liu	IEEE CAS	2022 IEEE International Conference on Visual Communications and Image Processing (VCIP)	General Co-Chair
Frédéric Dufaux	IEEE CAS, SPS, CS, ComSoc	ICME 2022	Award Committee Chair
Frédéric Dufaux	IEEE CAS	VCIP 2021	Tutorial Chair
Frédéric Dufaux	IEEE CAS, SPS, CS, ComSoc	2nd ICME workshop on Hyper-Realistic Multimedia for Enhanced Quality of Experience, ICME 2021	Workshop Chair
Zhibo Chen	IEEE CAS	ISCAS	Track Chair
Junhui Hou	IEEE CAS	IEEE VCIP 2022	Tutorial speaker
Junhui Hou	IEEE CAS	IEEE VCIP 2022	Special session co-organizer
Junhui Hou	IEEE CAS	IEEE VCIP 2022	Area Chair
Junhui Hou		IEEE ICME 2023	Area Chair
Junhui Hou		IEEE MMSP 2022	Area Chair
Junhui Hou		IEEE ICIP 2023	Area Chair
Shiqi Wang	IEEE CAS/Computer/ComSoc/Signal Processing	ICME International Workshop on Perception-inspired Communication and Processing for Immersive and Interactive Multimedia (PCPI2M) ICME 2023	Workshop Chair
Shiqi Wang	IEEE CAS/Computer/ComSoc/Signal Processing	IEEE Coding for Machines 2023 Workshop (ICME 2023)	Technical Program Committee
Jiande Sun	IEEE CAS	ISCAS2023	RCM
Jiande Sun	IEEE SP	WIFS2023	Publicity Chairs
Li-Wei Kang	IEEE CAS	ICME 2023 Grand Challenge-AVA Challenge: Anticipating Vehicle Accidents Challenge	Co-Organizer
Ngai-Man Cheung	IEEE CAS	IEEE CAS Singapore Technical Seminar 15-July: Prof Kar-Ann Toh, School of EEE, Yonsei University 20-Sept: Prof Pau-Choo (Julia) Chung, Miin Wu School of Computing, National Cheng Kung University, Taiwan 22-Sept: Prof Jong Chul Ye, KAIST Korea 25-Oct: Prof Kar-Ann Toh, School of EEE, Yonsei University, South Korea 25-Oct: Prof Yuhong Liu, Dept of CSE, Santa Clara University, USA	Technical sponsor
Shuai Wan	IEEE CAS	IEEE AICAS 2023	TPC member
Wu Liu	IEEE CAS	IEEE ICME 2022	TPC Chair
Wu Liu	IEEE CAS	IEEE AICAS 2023	Review Committee Member
Wu Liu	IEEE CAS	IEEE ISCAS 2022	Session Chair
JIngjing Chen	IEEE ICAS	ISCAS	Area Chair
Hyomin Choi	IEEE CAS	Coding for Machine workshop in conjunction with IEEE ICME'23	Organizer
Hong-Han Shuai	IEEE CAS	IEEE International Conference on Multimedia & Expo	Area Chair
Hong-Han Shuai	IEEE CAS	ISCAS	Review Committee Members (RCM)
John See	IEEE CAS	5th ICME Workshop on Big Surveillance Data Analysis and Processing (in conjunction with IEEE International Conference on Multimedia and Expo 2023)	Workshop Co-Chair
Wei Hu	IEEE CAS	VCIP 2022	Tutorial Chair
Wei Hu	IEEE CAS	ICME 2022	Special Session Co-organizer
Guilherme Corrêa	IEEE CAS, ACM, SBC, SBMicro	35th Symposium on Integrated Circuits and Systems Design – SBCCI 2022	Finance Chair
Guilherme Corrêa	IEEE CAS	35th Symposium on Integrated Circuits and Systems Design – SBCCI 2022	Track Chair (Visual Signal Processing Systems)

Guilherme Corrêa	IEEE CAS	ISCAS 2023	Review Committee Member
Jiaying Liu	IEEE CAS	IEEE ICME 2023	Workshop Chair
Jiaying Liu	IEEE CAS	IEEE ICME 2022	Panel Chair
Jiaying Liu	IEEE CAS	IEEE VCIP 2022	Registration Chair
Lei Zhang	IEEE CASS	IEEE Int. Symposium on Circuits and Systems (ISCAS) 2023	Review Committee Member (RCM)

(Second priority, please highlight conference/events technically by the CAS Society)

Your Name	Conference Sponsors	Conference/Event Title	Your Role
Dong Liu	IEEE CAS	2022 IEEE Forum on Intelligent Media Computing	Publicity Chair
Weiyao Lin	IEEE SIG	AVSS 23	Challenge Chair
Ngai-Man Cheung	IEEE SPS	IEEE SPS and CAS Singapore Technical Seminar 27-Oct: Prof Lu Yue, Harvard 23-Nov: Prof Erik Meijering, University of New South Wales 15-Dec: Prof Pier Luigi Dragotti, Imperial College London	Organizer
Wu Liu	IEEE CAS	IEEE ICME 2023 Workshop on 3D Multimedia Analytics, Search and Generation	Organizers
Guilherme Corrêa	IEEE CAS, IEEE SPS	6th IEEE CASS/SPS Seasonal School on Digital Processing of Visual Signals and Applications (DPVSA)	Program Chair

Please don't report conference/events that are NOT sponsored by the CAS Society. Thank you!

3.2. IEEE Journal Editorships:
(Please highlight the journals that are (co-)sponsored by the CAS Society, cf., https://ieee-cas.org/publications)

Your Name	Journal Sponsors	Journal Title	Your Role
Wen-Huang Cheng	IEEE CAS	IEEE Transactions on Multimedia	Associate Editor
Wei-Ta Chu	IEEE CAS	IEEE Transactions on Multimedia	Associate Editor
Luciano Agostini	IEEE CAS	IEEE Transactions on Circuits and Systems for Video Technology – IEEE TCSVT	Associated Editor
Luciano Agostini	IEEE CAS	IEEE Open Journal of Circuits and Systems – IEEE OJCAS	Associated Editor
Dong Tian	IEEE CAS	IEEE Transactions on Multimedia	Steering Committee Member
Dong Tian	IEEE CAS	IEEE Transactions on Circuits and Systems for Video Technology	Guest Editor
Prof Vladan Velisavljevic	IEEE CAS	IEEE Transactions on Circuits and Systems for Video Technology	Associate Editor since January 2021 (re-elected in January 2023)
Prof Vladan Velisavljevic	IEEE CAS	IEEE Transactions on Multimedia	Associate Editor since August 2021
Dong Liu	IEEE CAS	IEEE Transactions on Circuits and Systems for Video Technology	Special-Issue Guest Editor
Chong Luo	IEEE CAS	IEEE Transactions on Multimedia	Associate Editor
Liqiang Nie	IEEE CAS	IEEE Transactions on Multimedia	Associate Editor
Liqiang Nie	IEEE CAS	IEEE Transactions on Circuits and Systems for Video Technology	Associate Editor
Frédéric Dufaux	IEEE CAS	IEEE Transactions on Circuits and Systems for Video Technology	Guest Editor
Zhibo Chen	IEEE CAS	IEEE Transactions on Circuits and Systems for Video Technology	Associate Editor
Junhui Hou	IEEE CAS	IEEE Transactions on Circuits and Systems for Video Technology	Associate Editor
Junhui Hou	IEEE SPS	IEEE Transactions on Image Processing	Associate Editor
Shiqi Wang	IEEE CAS	IEEE Transactions on Circuits and Systems for Video Technology	Associate Editor
Dan Zeng	IEEE CAS	IEEE Transactions on Multimedia	Associate Editor

Dan Zeng	IEEE CAS	IEEE Transactions on Circuits and Systems for Video Technology	Associate Editor
Ngai-Man Cheung	IEEE CAS	IEEE Transactions on Multimedia	Associate Editor
Wu Liu	IEEE CAS	IEEE Transactions on Multimedia	Associate Editor
Wanqing Li	IEEE CAS, SPS, CS & ComSoc	IEEE Trans Multimedia, Special issue for ICME 2021	Guest Editor
Wanqing Li	IEEE CAS, SPS, CS & ComSoc	IEEE Trans Multimedia, Special issue on When Multimedia Meets Food: Multimedia Computing for Food Data Analysis and Applications	Guest Editor
Wanqing Li	IEEE CAS, SPS, CS & ComSoc	IEEE Trans Multimedia	Associate Editor
John See	IEEE CAS	IEEE Transactions on Multimedia	Associate Editor
Guilherme Corrêa	IEEE CAS	IEEE Transactions on Circuits and Systems for Video Technology – IEEE TCSVT	Associate Editor
Jiaying Liu	IEEE CAS	IEEE Transactions on Circuits and Systems for Video Technology	Associate Editor

Please don't report journals that are NOT sponsored by the CAS Society. Thank you!

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
Luciano Agostini	Honorable Mention Award - 35th Symposium on Integrated Circuits and Systems Design (SBCCI 2022).	2022
C.-C. Jay Kuo	Academician of Academia Sinica in Taiwan	July 2022-Present
C.-C. Jay Kuo	ACM Fellow	Class of 2023
Ivan Bajic	TCSVT Best Paper Award	2023
Jiande Sun	IEEE MSA-TC Best Paper Award – Honorable Mention	2022
Ngai-Man Cheung	Outstanding Associate Editor, IEEE Transactions on Multimedia	2022
Wu Liu	IEEE MSA-Technical Committee Best Paper Award-Honorable Mention	2022
Hyomin Choi	IEEE TCSVT Best Paper Award	2023
Guilherme Corrêa	Honorable Mention (Graduate Work) – 35th Symposium on Integrated Circuits and Systems Design (SBCCI 2022)	August, 2022
Guilherme Corrêa	Best Poster (1st place, Graduate Category) - 6th IEEE CASS/SPS Seasonal School on Digital Processing of Visual Signals and Applications (DPVSA 2022)	November, 2022
Guilherme Corrêa	Best Poster (2nd place, Graduate Category) - 6th IEEE CASS/SPS Seasonal School on Digital Processing of Visual Signals and Applications (DPVSA 2022)	November, 2022
Jiaying Liu	IEEE CAS MSA TC Best Paper Award	2022

3.4. Keynote Speeches/Invited Talks:

Your Name	Invited by	Event/Conference Title	Talk Title	Date
Dong Tian	Workshop Organizer	ICME'23, Immersive Media Compression Workshop	Learning Technologies for Media	July 10, 2023
Ivan Bajic	ICIP Tutorials Chairs	IEEE ICIP 2022	Multi-task image and video compression	October 2022
Ivan Bajic	ICME Tutorials Chairs	IEEE ICME 2022	Edge-cloud collaborative multimedia analysis	July 2022
Dong Liu	Conference Organizers	MIPR 2022	Learning-Based 3-D Biomedical Image Compression	August 3, 2022
Zhibo Chen	ISCAS	Tutorial talk	Advances in Generative Image Compression	May 2022
Junhui Hou	Organization Committee	16th IEEE International Conference on Signal Processing (IEEE ICSP)	Learning to Enhance 3D Point Clouds: from Static to Dynamic	21 -24 Oct. 2022
Junhui Hou	Organization Committee	2nd JPEG Pleno Workshop on Learning-Based Light Field Coding	Light Field Compression by View Synthesis	10 Nov. 2022
Li-Wei Kang	IEEE International Conference on Imaging Systems and	IEEE International School of Imaging Keynote Lectures	Image Restoration: From Sparse Coding to Deep Learning	June 2022

	Techniques (IST) and IEEE International School on Imaging			
Li-Wei Kang	National Central University (NCU), Taiwan	CS Seminar, NCU	Image Restoration: From Sparse Coding to Deep Learning	Mar 1, 2023
Ngai-Man Cheung	AI Singapore	AI Singapore Research Symposium	Heterogeneous Meta-Learning	31-Jan, 2023
Lei Zhang	Microsoft Research (MSR)	The 2nd Computer Vision and Vision-Language Summer Seminar	Improving Transformer-based Detector with Better Structured Queries	August 18, 2022
Lei Zhang	Conf Organizers	Symposium on AI for Astronomy	20 Years of Object Detection: In Pursuit of Better Performance with Less Sliding Windows	Nov. 24, 2022

3.5. Other distinguished IEEE services
(For example, CAS BoG, Region/chapter leadership, TC chair/secretary)

Your Name	Organization	Position/Activities	Period
Dong Tian	IEEE CAS MSA TC	Chair-Elect	2021.09-2023.08
Dong Tian	IEEE SPS MMSP TC	Member	2021-2023
Ivan Bajic	IEEE SPS	MMSP TC Chair	2022 – 2023
Ivan Bajic	IEEE SPS	Senior Area Editor of IEEE Signal Processing Letters	2020 – present
Frédéric Dufaux	ICME Steering Committee	Chair	2022-2023
Dan Zeng	IEEE SP	IEEE MMSP2022 TC Chair	2022
Ngai-Man Cheung	IEEE SPS	Chair, IEEE Signal Processing Society - Singapore	2021 to 2022

4. TC Significant Technical Leadership and Innovations

Please list 5 (or less) most significant TC/SIG activities in the past year, for example, but not limited to
    (1) Established/organized new CASS journals/conferences/workshops
        a. Please include title, scope, status (e.g., submissions, published papers)
    (2) Organized special issues in CASS journal, special sessions/tutorials in CASS conferences, CASS seasonal schools, CASS industrial forums, or CASS competitions
        a. 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)
    (3) Organized new CASS initiatives
    (4) Established cross-TCs/SIGs collaborations
    (5) Awards received by the TC/SIG or the TC/SIG members

(1) MSA TC organized ICME 2022 as a hybrid event in Taiwan. For example, Wen-Huang Cheng (TC chair) and Jiwen Lu (TC member) are general co-chairs and Wei-Ta Chu (TC member) and Wei-Shi Zheng (TC member) are program co-chairs. The received number of submissions achieves the second highest in the history of ICME (next to ICME 2021).
(2) MSA TC member (C.-C. Jay Kuo) received the honor as ACM Fellow and the Academician of Academia Sinica in Taiwan. MSA TC members (Ivan Bajic and Hyomin Choi) received the Best Paper Award of IEEE Transactions on Circuits and Systems for Video Technology.
(3) MSA TC continued its own Best Paper Award in ISCAS as a way to encourage the submission and participation from MSA TC members. Jiaying Liu was the award winner in ISCAS 2022.

5. New plans for the next year
Are there any new initiatives, workshops, journal special issues, conference special sessions, etc., that your TC or TC members are planning for the next year?

MSA TC will organize a special issue namely "Recent Standardization Efforts for Learning-Based Visual Data Coding" on IEEE Transactions on Circuits and Systems for Video Technology in the next year. The special issue proposal was approved. Guest Editors are: Dong Liu (MSA TC member, Shan Liu, João Ascenso, Dong Tian (MSA TC Chair-Elect), and Lu Yu.