

2023 Annual Report (June 2022 – May 2023)

Digital Signal Processing Technical Committee

IEEE Circuits and Systems Society

Chairman: Wei Liu
Chair-Elect/Secretary: Yu-Dong Zhang

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

Date: Wednesday 1 June, 2022
Time: 12pm – 1pm (UTC – Coordinated Universal Time)
Place: Online Zoom Meeting (<https://us02web.zoom.us/j/89188311062>)
21 members attended (one was a newly elected member)

2. Voting Members:

We just revised our TC charter and now we have 42 voting members and 29 non-voting members (also called Associate Members).

First Name	Last Name	Affiliation	Email	IEEE Grade	IEEE Region
Omar	Ahmad	Concordia University	omair@ece.concordia.ca	Fellow	7
Jiuwen	Cao	Hangzhou Dianzi University	jwcao@hdu.edu.cn		10
Mrityunjay	Chakraborty	Indian Institute of Technology Kharagpur	mrityun@ece.iitkgp.ac.in	Senior Member	10
Shing-Chow	Chan	The University of Hong Kong	scchan@eee.hku.hk		10
Linda	DeBrunner	Florida State University	ldebrunner@fsu.edu	Senior Member	3
Bah Hwee	Gwee	Nanyang Technological University	ebhgwee@ntu.edu.sg	Senior Member	10
Dominic K.C.	Ho	University of Missouri	hod@missouri.edu	Fellow	1 to 6
Mohsin M.	Jamali	University of Toledo	mohsin.jamali@utpb.edu		1 to 6
Aimin	Jiang	Hohai University	jiangam@hhuc.edu.cn, nuaajam@hotmail.com	Member	10
Gordana	Jovanovic Dolecek	Institute INAOE Puebla, Mexico	gordana.dolecek@gmail.com gordana@ieee.org	Life Senior Member	9
Izzet	Kale	Westminster University	kalei@westminster.ac.uk		8
Andy	Khong	Nanyang Technological University	andykhong@ntu.edu.sg		10
Ted C.W.	Kok	Canaan Semiconductor Limited, Australia	eekok@ieee.org	Senior Member	10
H. K.	Kwan	University of Windsor	kwan1@uwindsor.ca	Senior Member	7
Jun Wei	Lee	Nanyang Technological University	leejunwei@outlook.sg	Member	10
Raija	Lehto	Tampere University of Technology	raija.e.lehto@gmail.com	Senior Member	8

Yong	Lian	York University	plian@yorku.ca	Fellow	7
Tong	Lin	Nanyang Technological University	lintong@ntu.edu.sg		10
Zhiping	Lin	Nanyang Technological University	ezplin@ntu.edu.sg	Senior Member	10
Wing-Kuen	Ling	Guangdong University of Technology	yongquanling@gdut.edu.cn	Affiliate Member	10
Wei	Liu	University of Sheffield	w.liu@sheffield.ac.uk	Senior Member	8
Xin	Lou	ShanghaiTech University	louxin@shanghaitech.edu.cn	Senior Member	10
Daniel Pak Kong	Lun	The Hong Kong Polytechnic University	pak.kong.lun@polyu.edu.hk	Senior Member	10
Tokunbo	Ogunfunmi	Santa Clara University	togunfunmi@scu.edu		1 to 6
Soontorn	Oraintara	University of Texas at Arlington	soontorn.ora@mahidol.ac.th		10
Ravi P.	Ramachandran	Rowan University	ravi@rowan.edu	Senior Member	2
Tapio	Saramäki	Tampere University of Technology	tapio.saramaki@tuni.fi	Fellow	8
Qing	Shen	Beijing Institute of Technology	qing-shen@outlook.com	Senior Member	10
Zhiguo	Shi	Zhejiang University	shizg@zju.edu.cn	Senior Member	10
Wan-Chi	Siu	The Hong Kong Polytechnic University	enwcsiu@polyu.edu.hk	Fellow	10
Andreas	Spanias	Arizona State University	spanias@asu.edu	Fellow	6
Thanos	Stouraitis	Khalifa University	thanos.stouraitis@ku.ac.ae	Life Fellow	8
M.N.S.	Swamy	Concordia University	swamy@ece.concordia.ca	Fellow	7
David	Tay	Deakin University	david.tay@deakin.edu.au		10
Ying	Wei	Shandong University	eleweiy@sdu.edu.cn		10
Li	Xu	Akita Prefectural University	xuli@akita-pu.ac.jp		10
Saihua	Xu	Nanyang Technological University	shxu@ntu.edu.sg		10
Bo	Yuan	Rutgers University	bo.yuan@soe.rutgers.edu	Member	1 to 6
Yudong	Zhang	University of Leicester	yudongzhang@ieee.org		8
Chuan	Zhang	Southeast University	chzhang@seu.edu.cn	Senior Member	10
Wei Xing	Zheng	Western Sydney University	w.zheng@westernsydney.edu.au	Fellow	10
Wei-Ping	Zhu	Concordia University	weiping@ece.concordia.ca		7

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

	2022
Total number of TCs	%
Regions 1 – 6 (U.S.A.)	17%
Region 7 (Canada)	12%
Region 8 (Europe/Africa, Middle East)	14%
Region 9 (Central/South America)	2%
Region 10 (Asia/Pacific)	55%

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

	2022
Total number of TCs	%
Male	90%
Female	10%

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

	2022
Total number of TCs	%
Academia	96%
Industry	2%
Government	2%

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
Thanos Stouraitis	IEEE CAS	IEEE AICAS 2024	General Chair
Gordana Jovanovic Dolecek	IEEE CAS	14th Latin American Symposium on Circuits and Systems (LASCAS 2023), https://www.ieee-lascas.org/ LASCAS is the international symposium and flagship event of the IEEE Circuits and Systems Society in Latin America.	Member of Program Committee
A. Spanias	IEEE MWCAS	IEEE MWCAS 2023	Industry Liaison
Yudong Zhang, Wei Liu, Gwee Bah Hwee, and Mrityunjoy Chakraborty	IEEE CAS	IEEE ISCAS 2023	DSP TC Track Co-Chair
Yong Lian	IEEE CAS	BioCAS2023 in Toronto, Canada	General Chair
Yong Lian	IEEE CAS	AICAS2023 in Hangzhou, China	TPC Chair

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

Your Name	Conference Sponsors	Conference/Event Title	Your Role
Ying Wei	IEEE CAS	2023 IEEE Biomedical Circuits and Systems Conference (BioCAS)	Organizing Committee
Gordana Jovanovic Dolecek	IEEE CAS	16th International Symposium on Signals, Circuits and Systems (ISSCS 2023), http://scs.etti.tuiasi.ro:81/isscs2023/index.html	Member of Technical Program Committee
Yong Lian	IEEE CAS	ASICON2023 in Nanjing, China	General Co-Chair
Wei Liu and Zhiguo Shi	IEEE CAS	International Workshop on Intelligent Signal Processing (ISP2022) at Zhejiang University, China	Co-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://ieeecas.org/publications>)

Your Name	Journal Sponsors	Journal Title	Your Role
Bah Hwee Gwee	IEEE CAS	IEEE CAS Magazine	Editorial Board Member

Xin Lou	IEEE CAS	IEEE Transactions on Circuits and Systems-II	Associate Editor
Ying Wei	IEEE CAS	IEEE Transactions on Biomedical Circuits and Systems	Associate editor
Gordana Jovanovic Dolecek	IEEE CAS	IEEE Transactions on Circuits and Systems I: Regular papers	Associate Editor
Gordana Jovanovic Dolecek	IEEE CAS	IEEE Transactions on Circuits and Systems II: Express Brief	Associate Editor
Gordana Jovanovic Dolecek	IEEE CAS	IEEE Circuits and Systems Magazine	Associate Editor
Gordana Jovanovic Dolecek	IEEE CAS	IEEE-CASS Outstanding Young Author Best Paper Award committee	Committee member
Yudong Zhang	IEEE CAS	IEEE Transactions on Circuits and Systems for Video Technology	Associate Editor
Yong Lian	IEEE CAS	TBioCAS	Steering Committee Member
Yong Lian	IEEE CAS	TBioCAS	Guest 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
Xin Lou	Best Paper Nomination at IEEE APCCAS2022	2022

3.4. Keynote Speeches/Invited Talks:

Your Name	Invited by	Event/Conference Title	Talk Title	Date
Xin Lou	Organizing Committee	International Conference on Circuits and Systems	Neural Radiance Field Accelerator	24 Sep. 2022
Yudong Zhang	IEEE Confluence	13th International Conference on Cloud Computing, Data Science & Engineering	Cloud Computing and Artificial Intelligence for COVID-19 Diagnosis	19 Jan. 2023
Yudong Zhang	IEEE UK & Ireland RAS Chapter	IEEE UK & Ireland RAS Chapter	Intelligent Automation Methods for COVID-19 Recognition	3 Dec. 2022
Wing-Kuen Ling	General Chair	IEEE International Symposium on Product Compliance Engineering Asia	Intelligent non-invasive wearable health systems: theory and applications	06 Nov. 2022
Yong Lian	Hao Yu	APCCAS2022	Event-driven Circuits and Systems for AIoT Sensors in Biomedical Applications	11 Nov. 2022
Dominic Ho	Xidian University	International workshop on Signal and Information Intelligent Learning and Processing (SIILP)	Localization of a Rigid Body by Multiple Sensors and Landmarks	16 July 2022
Dominic Ho	Zhejiang University	International Workshop on Intelligent Signal Processing (IWISP)	Localization Irrespective of Source Range: Fundamental Concept	8 Oct. 2022
Wei Liu	Xidian University	International workshop on Signal and Information Intelligent Learning and Processing (SIILP)	Direction of Arrival Estimation with Magnitude-only Array Measurements	16 July 2022

3.5. Other distinguished IEEE services

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

Your Name	Organization	Position/Activities	Period
Wei Liu	IEEE Signal Processing Society (SPS) Sensor Array and Multichannel (SAM) TC	Chair	2021-2022

Wei Liu	IEEE CAS DSP TC	Chair	2022-2024
Wei Liu	IEEE AESS	Distinguished Lecturer	2023-2024
Wei Liu	IEEE SPS	Conference Board Member and Conferences Board Executive Subcommittee Member (2023).	2022-2024
Yudong Zhang	IEEE CAS DSP TC	Secretary	2022-2024
Yong Lian	IEEE	Member-at-Large, IEEE Publication Services and Products Board (PSPB)	2022-2024
		Division I Director-Elect	2023
		Member, IEEE PSPB Publishing Conduct Committee	2022-2023
		Member, IEEE Products and Services Committee	2022
		Member, IEEE Ad Hoc Committee on Guiding the IEEE Constitutional Amendment	2022
		Chair, IEEE Ad Hoc Committee Accelerating Partnerships with Chinese Publications	2022-2023
		Chair, IEEE Periodicals Partnership Opportunities Committee	2022-2023
		Member, IEEE Periodicals Committee	2022-2023
		Member, IEEE Periodicals Review and Advisory Committee	2022-2023
		Member, IEEE Fellow Committee	2023
		Member, IEEE Fellow Strategic Planning Subcommittee	2022
		Chair, CASS Flexible and Wearable Circuits and Systems Standards Committee	2022-2023

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. The DSP TC has revised its Charter with a new membership structure, consisting of Members, Associate Members, and Affiliation Members. Now we have 42 Members, 26 Associate Members and the DSP TC website will be updated soon.
2. Thanos Stouraitis:
Special Session Organizer for IEEE CAS sponsored AICAS 2023.
3. Yong Lian:
Organized a special issue on Flexible Biomedical Sensors for Healthcare Applications.
Initiated a Grand Challenge on Respiratory Sound Classification in BioCAS2022.

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?

Your Name	Conference Sponsors	Conference/Event Title	Your Role
Thanos Stouraitis	IEEE CAS	AICAS 2024	General Chair, will continue with the organizing
Bah Hwee Gwee	IEEE CAS	ISCAS 2024	General Chair

Zhiping Lin	IEEE CAS	ISCAS 2024	Publicity Co-Chair
Wei Liu	IEEE CAS	ISCAS 2024	Publicity Co-Chair
Xu Saihua	IEEE CAS	ISCAS 2024	Finance Chair
Yong Lian	IEEE CAS	IEEE Standards Workshop on Biomedical Sensors in BioCAS2023	Organizer