

2024 Annual Report (June 2023 – May 2024)

CASCOM Technical Committee/ Special Interest Group

IEEE Circuits and Systems Society

Chairman: Máire O'Neill
Chair-Elect/Secretary: Chuan Zhang/Jongsung Park

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.

- CASCOM TC meeting (hybrid), May 22, 2023, 13:30 ~ 14:30, Monterey Conference Centre, California, US
- 35 in attendance (quorum present)

2. Voting Members:

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

	2023/4
Total number of TCs	%
Regions 1 – 6 (U.S.A.)	39
Region 7 (Canada)	1
Region 8 (Europe/Africa, Middle East)	17
Region 9 (Central/South America)	1
Region 10 (Asia/Pacific)	42

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

	2023/4
Total number of TCs	%
Male	85
Female	15

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

	2023/4
Total number of TCs	%
Academia	88
Industry	12
Government	

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
Shan Cao	IEEE CAS	ISCAS 2024	RCM, Session chair
Joseph Cavallaro	IEEE CAS	ISCAS 2024	RCM
Joseph Cavallaro	IEEE CAS/SPS	SiPS 2024 – IEEE Signal Processing Workshop	General Co-Chair
Vanessa Chen	IEEE CAS	ISCAS 2024	RCM
Yuan-Hao Huang	IEEE CAS	ISCAS 2024	RCM TPC member
Yuan-Hao Huang	IEEE CAS	SiPS 2023	TPC member
Dur E Shahwar Kundi	IEEE CAS	ISCAS 2024	RCM and Session Chair
Hanho Lee	IEEE CASS	ISCAS 2023	General Chair

Hanho Lee	IEEE CASS	ISOCC 2023	Special Session Co-chair
Nam Ling	IEEE CAS	IEEE ISCAS 2024	Technical Program Chair
Nam Ling	IEEE CAS	IEEE VCIP 2023	General Chair
Weiqiang Liu	IEEE CAS	ISCAS 2023	RCM
Susanto Rahardja	IEEE CAS	ISCAS 2024	Session Chair
Susanto Rahardja	IEEE CAS	ISCAS 2024	RCM
Pei-Yun Tsai	IEEE CAS	ISCAS 2023	RCM, Reviewer
Lan-Da Van	IEEE CAS	International SoC Design Conference (ISOCC), 2023.	Special Session Co-Chair
Lan-Da Van	IEEE CAS	IEEE Nordic Circuits and Systems Conference (NORCAS), 2023	TPC Member
Jiafeng Xie	IEEE CAS	ISCAS 2024	Review Committee
Xinmiao Zhang	IEEE CAS	ISCAS 2024	Chair, Cross-Society Special Session
Maire O'Neill	IEEE CAS	ISCAS 2024	Technical Program Chair

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

Your Name	Conference Sponsors	Conference/Event Title	Your Role
Xinmiao Zhang	IEEE CAS	MWSCAS 2023	Chair, Digital Integrated Circuits and Systems Track

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
Vanessa Chen	IEEE CAS	IEEE Transactions on Circuits and Systems I: Regular Papers (TCAS-I)	Associate Editor
Vanessa Chen	IEEE CAS	IEEE Transactions on Biomedical Circuits and Systems	Associate Editor
Weiqiang Liu	IEEE CAS	IEEE Trans VLSI Systems	Steering Committee Chair
Weiqiang Liu	IEEE CAS	IEEE Trans. on Circuits and Systems I: Regular Papers	Associate Editor
Susanto Rahardja	IEEE CAS	IEEE Transactions on Multimedia	Associate Editor
Jiafeng Xie	IEEE CAS	IEEE Trans. Circuits and Systems-II	Senior Associate Editor
Jiafeng Xie	IEEE CAS, Computer, Solid-State Circuits	IEEE Trans. VLSI Systems	Associate Editor
Chuan Zhang	IEEE CAS	TCAS-II	Associate Editor
Chuan Zhang	IEEE CAS	JETCAS	Senior Editorial Board Corresponding Guest Editor
Chuan Zhang	IEEE CAS	TMC	Steering Committee Member
Xinmiao Zhang	IEEE CAS	TCAS-1	Associate Editor-in-Chief
Xinmiao Zhang	IEEE CAS	OJCAS	AE
Maire O'Neill	IEEE CAS	IEEE Transactions on Circuits and Systems II	Senior 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)

3.4. Keynote Speeches/Invited Talks:

Your Name	Invited by	Event/Conference Title	Talk Title	Date
Pei-Yun Tsai	Conference Chair	WiCAS/Taiwan and Japan Conference on Circuits and Systems (TJCAS 2023)	Navigating the Career Maze: Embracing Exploration and Exploitation	Sep. 6, 2023
Chuan Zhang	IEEE ICAIT	IEEE ICAIT	Artificial Intelligence for Beyond 5G and 6G: Algorithms and Implementations	October 13, 2023
Xinmiao Zhang	IEEE Circuits and Systems Rio Grande do Sul Chapter	IEEE Circuits and Systems Rio Grande do Sul Chapter Talk	Error-correcting codes and cryptography: from theory to practice	Dec. 2023
Xinmiao Zhang	Delft University of Technology		Error-correcting codes and cryptography: from theory to practice	Dec. 2023
Xinmiao Zhang	Georgia Tech		Error-correcting codes and cryptography: from theory to practice	Oct. 2023
Xinmiao Zhang	National Yang Ming Chiao Tung University		Error-correcting codes for hyper-speed data storage: from theory to practice	Jul. 2023
Xinmiao Zhang	National Yang Ming Chiao Tung University		Error-correcting codes for hyper-speed data storage: from theory to practice	Jul. 2023
Maire O'Neill	Workshop Chair	Embedded Workshop on Information Security @ ISCAS2024	Machine Learning and Hardware Security	April.2024
Maire O'Neill	Qualcomm		Machine Learning and Hardware Security	Jul 2023

3.5. Other distinguished IEEE services

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

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

C Zhang: IEEE JETCAS 2025 Q2: Generative AI Compute: Algorithms, Architectures, and Applications to CAS
Corresponding Guest Editor

X Zhang: Cross-Society Special Session Chair, ISCAS 2024

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?

J Xie: Propose a special session at the CAS sponsored journal/conference related to hardware cryptographic design.

M O'Neill: Technical Program Co-chair, ISCAS 2025