

2025 Annual Report (June 2024 – May 2025)

ASP Technical Committee/ Special Interest Group

IEEE Circuits and Systems Society

Chairman: Ayman Fayed
Chair-Elect/Secretary: Nathan Neihart / Aatmesh Shrivastava

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 IEEE Circuits and Systems Society Analog Signal Processing Technical Committee holds one annual TC meeting during ISCAS. The last meeting was held in hybrid mode and took place on May 21, 2024, at 1:00-2:00 PM (UTC+8:00). There was a total of 25 members present (18 in-person and 7 remote). No new members were nominated or elected. Filippo Neri was elected as secretary starting after ISCAS 2025.

2. Voting Members:

First Name	Last Name	Email	Affiliation	IEEE Region	IEEE Grade
Edoardo	Bonizzoni	edoardo.bonizzoni@unipv.it	University of Pavia	8	SM
Pak Kwong	Chan	epkchan@NTU.EDU.SG	Nanyang Technological University	10	
Joseph	Chang	ejschang@NTU.EDU.SG	Nanyang Technological University	10	SM
Degang	Chen	djchen@IASTATE.EDU	Iowa State University	4	F
Vanessa	Chen	vanessachen@cmu.edu	Carnegie Mellon University	2	SM
Jose	De la Rosa	jrosa@IMSE-CNM.CSIC.ES	Institute of Microelectronics of Seville, IMSE-CNM (CSIC/University of Seville)	8	F
Ayman	Fayed	Fayed.1@OSU.EDU	The Ohio State University	2	SM
Jorge	Fernandes	jrf@tecnico.ulisboa.pt	Instituto Superior Tecnico	8	SM
Igor	Filanovsky	ifilanov@ualberta.ca	University of Alberta	7	
Randy	Geiger	rigeiger@IASTATE.EDU	Iowa State University	4	F
Joao	Goes	goes@fct.unl.pt	NOVA University Of Lisbon	8	
Sohmyung	Ha	sohmyung@nyu.edu	New York University Abu Dhabi	8	SM
Luis	Hernandez	luish@ING.UC3M.ES	Carlos III University	8	SM
Cheng	Huang	chengh@iastate.edu	Iowa State University	4	M
Ankesh	Jain	ankesh@ee.iitd.ac.in	Indian Institute of Technology, Delhi	10	SM
Jusung	Kim	jusungkim@gmail.com	Ewha Womans University	10	M
Raafat	Labadibi	raafat.lababidi@ensta-bretagne.fr	Ensta Bretagne	8	M
In Hee	Lee	inhee.lee@pitt.edu	The University of Pittsburgh	2	SM
Qiang	Li	qli@uestc.edu.cn	U. Of Electronic Science and Technology Of China	10	
Zhipeng	Li	zhipeng@ALUM.MIT.EDU	Marvell Semiconductor	6	SM
Tawfiq	Musha	musah.3@osu.edu	The Ohio State University	2	SM
Nagarjuna	Nallam	nallam@ieee.org			
Nathan	Neihart	neihart@IASTATE.EDU	Iowa State University	4	SM
Filippo	Neri	filippo.neri@BLUEWIN.CH	Renesas Electronics	8	SM
Luis	Oliveira	l.oliveira@FCT.UNL.PT	NOVA School of Science and Technology	8	SM
Marvin	Onabajo	MONABAJO@ECE.NEU.EDU	Northeastern University	1	SM
Gaetano	Palumbo	gaetano.palumbo@dieei.unict.it	University of Catania	8	F

Salvatore	Pennisi	salvatore.pennisi@UNICT.IT	University of Catania - Italy	8	F
Taimur	Rabuske	taimur.rabuske@IEEE.ORG	Analog Devices, Inc	1	M
Gordon	Roberts	gordon.roberts@MCGILL.CA	McGill	7	F
Arindam	Sanyal	arindam.sanyal@asu.edu	Arizona State University	6	M
Vishal	Saxena	vsaxena@udel.edu	University of Delaware	2	SM
Aatmesh	Shrivastava	aatmesh@ece.neu.edu	Northeastern University	1	SM
Jose	Silva-Martinez	jsilva@ECE.TAMU.EDU	Texas A&M University	5	F
Robert	Sobot	rsobot@UWO.CA	University Of Waterloo	7	
Thierry	Taris	thierry.taris@IMS-BORDEAUX.FR	University of Bordeaux/Bx-INP	8	SM
Jerald	Yoo	jerald@snu.ac.kr	Seoul National University	10	SM
Lei	Zhang	zhang.lei@TSINGHUA.EDU.CN	Tsinghua University	10	M
Xi	Zhu	xi.zhu@uts.edu.au	University of Technology Sydney	10	SM

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

	2024-2025
Total number of TCs	39
Regions 1 – 6 (U.S.A.)	38.46%
Region 7 (Canada)	7.69%
Region 8 (Europe/Africa, Middle East)	30.77%
Region 9 (Central/South America)	0.00%
Region 10 (Asia/Pacific)	20.51%

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

	2024-2025
Total number of TCs	39
Male	94.87%
Female	2.56%

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

	2024-2025
Total number of TCs	39
Academia	89.74%
Industry	7.69%
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
Vishal Saxena	IEEE CAS	ISCAS	TPC/AE
Vishal Saxena	IEEE CAS	MWSCAS	TPC/AE, Steering Committee, Finance Committee
Cheng Huang	IEEE CAS	ISCAS 2025	Review Committee Member
Cheng Huang	IEEE CAS	MWSCAS 2024	Student Participation Grant Chair
Aatmesh Shrivastava	IEEE CAS	ISCAS	Track Chair
Aatmesh Shrivastava	IEEE CAS	MWSCAS	Track Chair
Tawfiq Musah	IEEE CAS	ISCAS 2025	RCM
Jose M. de la Rosa	IEEE CAS	IEEE ISCAS 2024, 2025	Review Committee Member / Session Chair

Jose M. de la Rosa	IEEE CAS	IEEE MWSCAS 2024, 2025	Steering Committee Member
Jose M. de la Rosa	IEEE CAS	IEEE MWSCAS 2024	Review Committee Member / Session Chair
Jose M. de la Rosa	IEEE CAS	IEEE ISCAS 2025	Live Demo Sessions Co-Chair
Jose M. de la Rosa	IEEE CAS	IEEE LASCAS 2025	Tutorials Chair
Filippo Neri	IEEE CAS	LASCAS 2025	Technical Chair
Filippo Neri	IEEE CAS	TCAS 1	Guest Editor Special Issue: ISICAS 2025
Marvin Onabajo	IEEE CAS	2025 IEEE ISCAS	Special Session Co-Chair, RCM
Marvin Onabajo	IEEE CAS	2025 IEEE MWSCAS	Track Co-Chair, Analog and Mixed Circuits and Systems
Edoardo Bonizzoni	IEEE CAS	ISCAS 2025	Publication Chair
Edoardo Bonizzoni	IEEE CAS	PRIME 2024	Industrial Liaison Chair
Edoardo Bonizzoni	IEEE CAS	ISCAS 2025	RCM
Edoardo Bonizzoni	IEEE CAS	ICECS 2025	Technical Program Co-Chair
Luis Oliveira	IEEE CAS	Seasonal School on AI CHIPs	Organizing Committee
João Goes	IEEE CAS	ISCAS 2025	TPC
Sohmyung Ha	IEEE CAS	ISCAS 2024	Session Chair
Sohmyung Ha	IEEE CAS	BioCAS 2024	Session Chair
Jusung Kim	IEEE CAS	IEEE (LASCAS)	Technical Program Committee
Jusung Kim	IEEE CAS	IEEE ISOCC	Technical Program Committee
Raafat Lababidi	IEEE CAS	NEWCAS	Track chair
Raafat Lababidi	IEEE CAS	ISCAS	RCM member
Raafat Lababidi	IEEE CAS	ICECS	Demo and Student Contest Co-Chairs
Vanessa Chen	IEEE CAS	ISCAS 2025	RCM
Arindam Sanyal	IEEE CAS	ISCAS 2025	RCM

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

Your Name	Conference Sponsors	Conference/Event Title	Your Role
Tawfq Musah	IEEE CAS	Custom Integrated Circuits Conference	Wireline Subcommittee TPC member
Salvatore Pennisi	IEEE CAS	DCIS2024	Co-Chair
Marvin Onabajo	IEEE Region-1 and Schenectady Sections	2025 IEEE Microelectronics Design and Test Symposium (MDTS)	Vice Technical Program Chair
João Goes	IEEE CAS	ESSERC 2024	Member of the Steering Committee
Sohmyung Ha	IEEE CAS	IEEE ICM	Session 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>). Please don't report journals that are NOT sponsored by the CAS Society.

Your Name	Journal Sponsors	Journal Title	Your Role
Cheng Huang	IEEE CAS	IEEE TCAS-I: Regular Papers	Guest Editor
Aatmesh Shrivastava	IEEE CAS	IEEE TCAS-I: Regular Papers	Guest Editor
Aatmesh Shrivastava	IEEE CAS	IEEE TCAS-II: Express Briefs	Guest Editor
Aatmesh Shrivastava	IEEE CAS	IEEE JETCAS	Sr. Editor
Aatmesh Shrivastava	IEEE CAS	IEEE TVLSI	Guest Editor
Tawfiq Musah	IEEE CAS	IEEE TCAS-II: Express Briefs	Associate Editor
Jose M. de la Rosa	IEEE-CAS	IEEE TCAS-I: Regular Papers	Editor-in-Chief
Xi Zhu	IEEE CAS	IEEE Trans. On Circuits & Systems I: Regular Papers	Associate Editor
Marvin Onabajo	IEEE CAS	Special Issue in IEEE TCAS-I: 2024 IEEE MWSCAS	Guest associate editor
Edoardo Bonizzoni	IEEE CAS	IEEE TCAS-II	EiC
João Goes	IEEE CAS	IEEE Transactions on Circuits and Systems - I	Associate Editor
Sohmyung Ha	IEEE CAS	Transactions on Biomedical Circuits and Systems	Associate Editor
Joseph Chang	IEEE CAS/EDS	IEEE Journal of Flexible Electronics	Editor
Vanessa Chen	IEEE CAS	IEEE TCAS-I: Regular Papers	Associate Editor
Vanessa Chen	IEEE CAS	IEEE TCAS-II: Express Briefs	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
Jose M. de la Rosa	Best Live Demo Award (3 rd position) at IEEE ISCAS 2024	May, 2024
Sohmyung Ha	Best Student Paper Award, IEEE International Conference on Artificial Intelligence Circuits and Systems (AICAS)	April 28-30, 2025
Joseph Chang	Certificate of Appreciation (IEEE J. Flexible Electronics)	2025

3.4. Keynote Speeches/Invited Talks:

Your Name	Invited by	Event/Conference Title	Talk Title	Date
Vishal Saxena		IEEE Synthetic Aperture Technical Working Group (SA-TWG) Seminar	Electronic Photonic ICs for Wireless Applications,	Oct 10, 2024
Vishal Saxena		High Energy Physics-Integrated Circuits Workshop (HEP-IC), Brookhaven National Labs	Integrated Silicon Photonics and its Applications in HEP	May 1, 2024
Jose M. de la Rosa	2024 MWSCAS General Chair	Tutorial at the IEEE Interregional MWSCAS Conference	Using Neural Networks for the Optimized Design of Analog Circuits and Systems	August 11, 2024
Jose M. de la Rosa	Prof. Amara Amara (IEEE CASS Summer School Organizer)	IEEE CASS Summer School – Advanced Research on Near/In-Memory Computing	AI-empowered Design of Analog-to-Digital Converters	August 28, 2024
Jose M. de la Rosa	Prof. Preet Yadav, 2024 IEEE ISICAS General Chair	IEEE International Symposium on Integrated Circuits and Systems (ISICAS)	AI-assisted Design Automation of Analog Circuits: An Overview of the State of the Art and Challenges	October 18, 2024
Jose M. de la Rosa	Prof. Yun Yin, Fudan University	2024 IEEE Asian Solid-State Circuits Conference (A-SSCC)	AI-driven IC Design: Opportunities and Challenges	November 20, 2024
João Goes	MIXDES Conference Organizers	MIXDES 2024	Energy-Efficient and High-Performance Data-Converters	June 28, 2024
Arindam Sanyal	IEEE Central Texas Section & CAS Chapter	“FEED YOUR MIND - PRACTICAL ASPECTS OF MACHINE LEARNING CIRCUITS AND SYSTEMS”	“Health management using intelligent wearables with mixed-signal AI”	June 3, 2024

3.5. Other distinguished IEEE services

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

Your Name	Organization	Position/Activities	Period
Vishal Saxena	IEEE	Student Advisor, IEEE Delaware Section	8/1/2023--
Tawfiq Musah	IEEE OSU Undergrad Chapter	Co-advisor	2024-2025
Salvatore Pennisi	CAS	Fellow Evaluating Committee member	2024
Salvatore Pennisi	IEEE CAS	Distinguished Lecturer, TPC member	2024
Jose M. de la Rosa	IEEE-CAS	Member-at-Large BoG	2023-2025
Jose M. de la Rosa	IEEE-CAS	Chair of the 2025 Darlington and Guillemin-Cauer Best Paper Award Subcommittee	2025
Jose M. de la Rosa	IEEE-CAS	IEEE-CASS Plagiarism Committee Chair	2024-2025
Filippo Neri	IEEE SSCS	ISSCC TC (Power Management)	From May 1 st 2025
Luis Oliveira	CAS PT Chapter	Vice-Chair IEEE PT CAS Chapter	2024-2025
Luis Oliveira	IEEE CAS SB Counselor	NOVA University Student Branch Counselor	2024-2025

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

Many members of the ASP Technical Committee have been involved in numerous activities throughout the year. Activities include editorship duties in IEEE journals, as well as steering and technical program committee roles in CASS conferences. Nonetheless, it has been historically challenging to get all members to participate in the annual RCM duties needed for ISCAS, and a considerable number of them have been inactive for quite some time. This resulted in an excessive workload for the active

members. Over the past 2 years, the chair was forced to make the difficult decision of removing several members who have either been inactive for an extended period, have become unresponsive to communications from the chair, or regularly fail to observe the deadlines for performing their expected duties. This was essential for streamlining the annual paper review process for ISCAS and ensuring a smooth and timely execution of the TC duties. With a few exceptions, members who were removed for a cause were very gracious and understanding of the decision. We now have a very functional/active committee with as light a load as possible for every member. In fact, since the chair started enforcing this removal policy, every member of the committee has served as RCM and fulfilled their duties in a timely fashion in ISCAS 2024 and 2025. Some sample activities by our members include:

- Vishal Saxena organized a special session in ISCAS 2025 entitled “Analog & Mixed-Signal Computing Circuits for AI/ML Applications”
- Salvatore Pennisi served as co-chair of PRIME 2025 (20th International Conference on PhD Research in Microelectronics and Electronics)
- Xi Zhu organized a special session titled “Passive-Inspired RF & mm-Wave Circuit Design for 5G & Beyond Session” for ISCAS 2025. The session has accepted six papers. He has also organized a Tutorial titled “Reflectionless RF Electronics: From System Implications to RF Passive/Active Circuit Design for Sustainable Developments” in ISCAS 2025
- Luis Hernandez organized special session “Advanced Analysis Techniques for Time-Encoded Filters & Data Converters” at ISCAS 2025
- Luis Oliveira organized a seasonal school on designing CHiPs for embedded AI at UNINOVA - July 12 to July 19, 2024 (HANDS-ON course)

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?

- Modify the TC bylaws to ensure that participation in the annual RCM duties and abiding by deadlines for fulfilling committee responsibilities are required for continued membership.
- Continued efforts for recruiting new members.
- The current manual process used for gathering the data needed for compiling the annual and 5-year TC reports makes generating these reports very laborious and time-consuming, especially for large TCs. The issue was brought to the attention of the IEEE CASS Executive Committee and requests were made to invest in automating the reporting process.
- João Goes and Luis Oliveira will be organizing a seasonal School on AMS IC Frontend Design (at UNINOVA, an Institute from the School of Science and Technology at NOVA University of Lisbon, from June 12th – 31 July 2025).