2024 Annual Report (June 2023 – May 2024)
Sensory Systems Technical Committee
IEEE Circuits and Systems Society

Chairman: Ricardo Carmona-Galán
Secretary: Paula López-Martínez

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

The Sensory Systems Technical Committee in the IEEE Circuits and Systems Society organizes one annual TC meetings in ISCAS and sometimes in BioCAS Conference.

2023 Annual Meeting was celebrated at ISCAS 2023, Monterey, California (USA), on May 23 @13:00-14:00 CDT (Room Stevenson 1, Monterey Conference Center)
It was attended by 21 people on-site and 10 people on-line.

2024 Annual Meeting will be celebrated at ISCAS 2024, Singapore, on May 20, @12:30-13:30 SGT (Room Spark 1+2, Resorts World Convention Centre)

2. Voting Members

The SSTC Charter recognizes active membership to those people in the Roll of Members that attend the TC meeting and serve in the Review Committee for ISCAS, as well as those who participate in any of the rest of the activities organized by the SSTC, like contributing to this annual report (Section 3). Below, there is the Roll of Members, in alphabetic order of the last name.
Members who have contributed to this report are marked with ★
Members who have participated in other activities during the last two years are marked with ☆

First Name	Last Name	Affiliation	Email	IEEE Grade	IEEE Region
☆Pamela	Abshire	University of Maryland	pabshire@umd.edu	Fellow	2
☆Iraklis	Anagnostopoulos	Southern Illinois University	iraklis.anagno@siu.edu	Senior Member	4
☆Andreas	Andreou	Johns Hopkins University	andreou@jhu.edu	Fellow	2
★Diego	Barrettino	Lucerne University of Applied Sciences and Arts (HSLU)	diego.barrettino@hslu.ch	Senior Member	8
☆Geoffrey	Barrows	Centeye Inc.	geof@centeye.com	Member	2
☆Chiara	Bartolozzi	Italian Institute of Technology	chiara.bartolozzi@iit.it	Member	8
★Arindam	Basu	City University of Hong Kong	arinbasu@cityu.edu.hk	Senior Member	10
☆Amine	Bermak	Hamad Bin Khalifa University	abermak@hbku.edu.qa	Fellow	8
☆Jennifer	Blain Christen	Arizona State University	jennifer1@asu.edu	Senior Member	6
☆Victor	Brea	Univ. of Santiago de Compostela	victor.brea@usc.es	Member	8
Stephen	Carey	University of Manchester	s.carey@manchester.ac.uk	Member	8
★Ricardo	Carmona-Galán	Instituto de Microelectrónica de Sevilla (CSIC-Univ. Seville)	ricardo.carmona@csic.es	Senior Member	8
★Sandro	Carrara	EPFL Lausanne	sandro.carrara@epfl.ch	Fellow	8
★Gert	Cauwenberghs	University of California San Diego	gcauwenberghs@ucsd.edu	Fellow	6
Shantanu	Chakrabartty	Washington University St Louis	shantanu@wustl.edu	Senior Member	3
★Jie	Chen	Fudan University	chen_j@fudan.edu.cn	Fellow	10
★Shoushun	Chen	GlanceVision Technology	Shoushun.chen@glsvt.com	Senior Member	10
★Cheng-Ta	Chiang	National Chia Yi University	ctchiang@mail.ncyu.edu.tw	Senior Member	10

First Name	Last Name	Affiliation	Email	IEEE Grade	IEEE Region
★Timothy	Constandinou	Imperial College London	t.constandinou@imperial.ac.uk	Senior Member	8
★Timir	Datta-Chaudhuri	Feinstein Institute for Medical Research	tdatta@northwell.edu	Senior Member	2
★Tobias	Delbruck	University of Zurich and ETH Zurich	tobi@ini.ch	Fellow	8
★Li	Du	Nanjing University	ldu@nju.edu.cn	Member	10
★Piotr	Dudek	The University of Manchester	p.dudek@manchester.ac.uk	Senior Member	8
☆Ibrahim (Abe)	Elfadel	Khalifa University	ibrahim.elfadel@ku.ac.ae	Senior Member	8
Ralph	Etienne-Cummings	Johns Hopkins University	retienne@jhu.edu	Fellow	2
★Jorge	Fernández Berni	Instituto de Microelectrónica de Sevilla, Universidad de Sevilla-CSIC	berni@imse-cnm.csic.es	Member	8
★Alexander	Fish	Bar-Ilan University	alexander.fish@biu.ac.il	Member	8
☆Roman	Genov	University of Toronto Canada	roman@eecg.toronto.edu	Senior Member	7
☆Julius	Georgiou	University of Cyprus	julio@ucy.ac.cy	Senior Member	8
★Pantelis	Georgiou	Imperial College London	pantelis@imperial.ac.uk	Senior Member	8
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Viktor	Gruev	University of Illinois Urbana Champaign	vgruev@illinois.edu	Senior Member	4
★Philipp	Hafliger	University of Oslo Norway	hafliger@ifi.uio.no	Senior Member	8
Tara J.	Hamilton	University of Technology Sydney	t.hamilton@uws.edu.au	Member	10
★Jim	Harkin	Ulster University	jg.harkin@ulster.ac.uk	Member	8
John	Harris	Florida Institute of Technology	johngharris@fit.edu	Member	3
Jennifer	Hasler	Georgia Institute of Technology	jennifer.hasler@ece.gatech.edu	Member	3
Hadi	Heidari	University of Glasgow	hadi.heidari@glasgow.ac.uk	Senior Member	8
Jeremy	Hollemann	The University of North Carolina at Charlotte	jhollem3@charlotte.edu	Member	3
★Yuanqi	Hu	Beihang University	yuanqihu@buaa.edu.cn	Member	10
Ray Yueh-Min	Huang	National Cheng-Kung University	huang@mail.ncku.edu.tw	Senior Member	10
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★Kwantae	Kim	ETH Zurich	kimkwa@ethz.ch	Member	8
Mika	Laiho	University of Turku	mlaiho@utu.fi	Member	8
★Man-Kay	Law	University of Macau	mklaw@umac.mo	Senior Member	10
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★Juan Antonio	Leñero-Bardallo	University of Seville	juanle@imse-cnm.csic.es	Member	8
☆Walter Daniel	Leon-Salas	Purdue University	wleonsal@purdue.edu	Member	4
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☆Yingyan	Lin	Georgia Tech	celine.lin@gatech.edu	Member	3
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★Alejandro	Linares-Barranco	Universidad de Sevilla	alinares@atc.us.es	Senior Member	8
Hongjie	Liu	Reexen Technology	liu@reexen.com	Member	10
★Shih-Chii	Liu	University of Zurich & ETH Zurich	shih@ini.uzh.ch	Fellow	8
★Yan	Liu	Shanghai Jiaotong University	yan.liu06@sjtu.edu.cn	Senior Member	10

First Name	Last Name	Affiliation	Email	IEEE Grade	IEEE Region
★Paula	López Martínez	University of Santiago de Compostela	p.lopez@usc.es	Senior Member	8
Christoph	Maier	UC San Diego	christoph.maier@ieee.org	Member	6
Franco	Maloberti	University of Pavia	franco.maloberti@unipv.it	Life Fellow	8
★Josep Maria	Margarit	Instituto de Microelectrónica de Barcelona IMB-CNM (CSIC)	josepmaria.margarit@imb-cnm.csic.es	Member	8
☆Andrew	Mason	Michigan State University	mason@msu.edu	Senior Member	4
★Nicola	Massari	Fondazionne Bruno Kessler	massari@fbk.eu	Senior Member	8
★Nicole	McFarlane	University of Tennessee	mcfarlane@utk.edu	Senior Member	3
☆Christos	Papavassiliou	Imperial College London	c.papavas@imperial.ac.uk	Senior Member	8
★Fernando	Pérez-Peña	University of Cádiz	fernandoperez.pena@uca.es	Member	8
Jonne	Poikonen	Kovilta Oy	jonne.poikonen@kovilta.fi	Member	8
☆Christoph	Posch	Prophesee	cposch@prophesee.ai	Member	8
Themis	Prodromakis	University of Edinburgh	t.prodromakis@ed.ac.uk	Senior Member	8
Hyunsurk (Eric)	Ryu	Samsung Advanced Inst. of Technology	ss.eric.ryu@gmail.com	Member	10
Khaled N	Salama	King Abdullah University of Science and Technology (KAUST)	khaled.salama@kaust.edu.sa	Senior Member	8
Mohamad	Sawan	Westlake University	mohamad.sawan@polymtl.ca	Life Fellow	10
★Alexander	Serb	University of Edinburgh	aserb@ed.ac.uk	Senior Member	8
☆Francisco	Serra-Graells	Barcelona Microelectronics Institute	paco.serra@imb-cnm.csic.es	Member	8
★Teresa	Serrano-Gotarredona	IMSE-CNM, CSIC and Univ. Sevilla	Teresa.serrano@csic.es	Senior Member	8
☆Mst Shamim Ara	Shawkat	Florida International University	mshawkat@fiu.edu	Member	3
☆Milutin	Stanacevic	SUNY Stonybrook	milutin.stanacevic@stonybrook.edu	Member	1
Tor	Sverre Lande	University of Oslo	bassen@ifi.uio.no	Life Fellow	8
★Kea-Tiong (Samuel)	Tang	National Tsing Hua University	kttang@mx.nthu.edu.tw	Senior Member	10
★Wei	Tang	New Mexico State University	wtang@nmsu.edu	Member	5
Jonathan	Tapson	University of Western Sydney	j.tapson@westernsydney.edu.au	Member	10
Ioulia	Tzouvadaki	Universiteit Gent	ioulia.tzouvadaki@ugent.be	Member	8
☆Maurizio	Valle	University of Genova	maurizio.valle@unige.it	Senior Member	8
Andre	van Schaik	University of Western Sydney	a.vanschaik@uws.edu.au	Fellow	10
Rangan	Venkat	Qualcomm	vrangan2005@gmail.com	Member	6
☆Bo	Wang	Hamad Bin Khalifa University	bwang@hbku.edu.qa	Member	8
Gang	Wang	University of Calgary	g.j.wang1986@gmail.com	Member	7
★Chai Wah	Wu	IBM T.J. Watson Research Center	cwwu@us.ibm.com	Fellow	1
Orly	Yadid-Pecht	Ben-Gurion University	orly.yadid-pecht@ucalgary.ca	Fellow	7
Jie (George)	Yuan	Hong Kong Univ. Science & Techn.	eeyuan@ust.hk	Member	10
Mona	Zaghloul	George Washington University	zaghloul@gwu.edu	Fellow	2
Akos	Zarandy	Hungarian Academy of Sciences	zarandy@sztaki.hu	Member	8
Xiaoyang	Zeng	Fudan University	xyzeng@fudan.edu.cn	Member	10
☆Milin	Zhang	Tsinghua University Beijing	zhangmilin@tsinghua.edu.cn	Member	10
★Xiaojin	Zhao	Shenzhen University	eexjzhao@szu.edu.cn	Senior Member	10

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

	2023
Total number of TCs	%
Regions 1 – 6 (U.S.A.)	26
Region 7 (Canada)	5
Region 8 (Europe/Africa, Middle East)	48
Region 9 (Central/South America)	0
Region 10 (Asia/Pacific)	21

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

	2023
Total number of TCs	%
Male	83
Female	17

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

	2023
Total number of TCs	%
Academia	92
Industry	8
Government	0

3. Accomplished Technical Activities

3.1. IEEE Conference/Event organizations

SSTC Members are very active in IEEE CASS-sponsored event organization. The major activity is centered around ISCAS, in particular managing sensors and sensory systems track and their corresponding sessions. Another event receiving great attention by the members of tis TC is BioCAS. Also, some members participate in the organization of regional events (MWCAS, APCCAS, ICECS) and integrated circuits and SoC-related conferences (ISICAS, VLSI-SOC, ISOCC). Organization of local events is also contributed by our members.

Name	Conference Sponsors	Conference/Event Title	Your Role
Andreas Andreou	IEEE CASS	ISCAS 2024	RCM
Jennifer Blain Christen			RCM
Ricardo Carmona Galán			TC & Reviewer
Gert Cauwenberghs			RCM
Jie Chen			RCM
Shoushun Chen			Session Chair
Cheng-Ta Chiang			RCM
Timir Datta			RCM
Ibrahim Elfadel			RCM
Jorge Fernández-Berni			RCM
Jim Harkin			RCM
Kwantae Kim			Reviewer
Man Kay Law			RCM
Juan Antonio Leñero-Bardallo			RCM & Reviewer
Walter Daniel Leon-Salas			RCM
Alejandro Linares-Barranco			TC / RCM / Reviewer
Shih-Chii Liu			RCM
Paula López Martínez			TC & Reviewer
Josep María Margarit			RCM
Nicola Massari			RCM & Reviewer
Christos Papavassiliou			RCM
Christoph Posch			RCM
Mst Shamin Ara Shawkat			RCM
Xiaojin Zhao			Session Chair

Name	Conference Sponsors	Conference/Event Title	Your Role
Jie Chen	IEEE CASS, EMS, SSCS	BioCAS 2023	Technical Program Co-chair
Gert Cauwenberghs			International Liaison
Ibrahim Elfadel			RCM
Yan Liu			Publicity Co-Chair
Paula López Martínez			RCM & Reviewer
Nicole McFarlane			Publicity Co-chair
Kea-Tiong Tang			Tutorial co-chair
Timothy Constandinou	IEEE CASS, EMBS, SSCS	BioCAS 2024	Tutorial Co-chair
Paula López Martínez			RCM
Timir Datta	IEEE CASS	MWSCAS 2023	Registration co-Chair, Track Chair BioCAS
Nicole McFarlane			Organizing Committee Member – Special Session Co-chair
Wei Tang			Co-Chair for Sponsorship
Kea-Tiong Tang	IEEE CASS	APCCAS 2023	Publicity Chair
Xiaojin Zhao	IEEE CASS	APCCAS 2024	Track Chair
Ricardo Carmona Galán	IEEE CASS	ICECS 2023	Reviewer
Nicola Massari			Reviewer
Alexander Serb	IEEE CASS	ICECS 2024	Publication co-Chair
Maurizio Valle			Special Sessions co-Chair
Mohamad Sawan			Publicity co-Chair
Alexander Fish	IEEE CASS	LASCAS 2023	Technical Program Co-Chair
Nicola Massari	IEEE CASS	NEWCAS 2023	Reviewer
Nicola Massari	IEEE CASS	NEWCAS 2024	Reviewer
Kea-Tiong Tang	IEEE CASS	ISICAS 2023	TPC Chair
Xiaojin Zhao			Session Chair
Kea-Tiong Tang	IEEE CAS	ISOCC 2023	General co-chair
Ibrahim Elfadel	IEEE/IFIP	VLSI-SoC 2023	Technical Program Co-chair
Sandro Carrara	IEEE Sensors Council	IEEE Biosensors 2023	Member of Steering Committee
Pantelis Georgiou			General Chair
Shih-Chii Liu	IEEE CASS	2024 IEEE Swiss WiCAS and YP Networking Event	Organizer
Tobi Delbruck			Co-Organizer
Xiaojin Zhao	IEEE CASS	CASS Day Workshop in Shenzhen 2024	General Co-Chair

Concerning IEEE-CASS technically-sponsored conferences, the contributions of SSTC Members are centered around AICAS.

Name	Conference Sponsors	Conference/Event Title	Your Role
Gert Cauwenberghs	IEEE Brain (IEEE CAS as voting member)	2023 IEEE Brain Discovery and Neurotechnology Workshop	Advisory Board
Li Du	IEEE CASS	AICAS 2023	Grand Challenge Chair
Ibrahim Elfadel			Technical Program Co-chair
Shih-Chii Liu			Special Session Technical Committee Member
Alexander Fish	IEEE CASS	PRIME 2024	General Co-Chair
Li Du	IEEE CASS	AICAS 2024	Grand Challenge Chair
Ibrahim Elfadel			Publication Chair

3.2. IEEE Journal Editorships:

SSTC Members also have a significant involvement in CASS-sponsored journal editor boards. Most relevant contributions are on OJCAS, TBioCAS and JETCAS, but also on Transactions on AgriFood Electronics, VLSI and AI CAS. Some SSTC members have been guest editors in TCAS-I and TCAS-II for the last period.

Name	Journal Sponsors	Journal Title	Your Role
Nicole McFarlane	IEEE CASS	OJCAS	AEiCDC/EiC
Yan Liu			Associated editor/Guest Editor
Gert Cauwenberghs	IEEE CASS	TBioCAS	Chair and CAS Representative, Steering Committee
Kea-Tiong Tang			Editor-in-Chief
Arindam Basu			Associate Editor-in-Chief
Wei Tang			Associate Editor
Sandro Carrara	IEEE Sensor Council	IEEE Sensors Journal	Editor-in-Chief

Ricardo Carmona Galán	IEEE CASS	JETCAS	Senior Editorial Board Member
Shih-Chii Liu			Senior Editorial Board Member
Chai Wah Wu			Senior Editorial Board Member
Cheng-Ta Chiang	IEEE CASS	Trans. on AgriFood Electronics	Associate editor
Ibrahim Elfadel	IEEE CASS	Transactions on VLSI	Associate Editor
Ibrahim Elfadel	IEEE CASS	Transactions on AI CAS	Associate Editor
Alejandro Linares-Barranco	IEEE CASS	TCAS-I	Guest Editor
Xiaojin Zhao			Guest Editor
Paula López Martínez	IEEE CASS	IEEE TCAS-II	Guest Editor

3.3. Awards, Honors, and Recognition

Some SSTC Members have been recognized in IEEE CASS-sponsored journals and conferences:

Name	Awards / Honors / Recognition	Period
Sandro Carrara	Bronze Leaf Price @ IEEE Prime Conference	2023
Li Du	International Conference on ASIC-Excellent Student Paper Award	2023
Kwantae Kim	Best Poster Award AICAS 2023	2023
Shih-Chii Liu	Best Poster Award AICAS 2023	2023
Wei Tang	IEEE TBioCAS Best Reviewer	2023

3.4. Keynote Speeches/Invited Talks:

SSTC Members are very much valued as experts in their field and have been very active in the dissemination of knowledge. This list is in chronological order:

Name	Invited by	Event/Conference Title	Talk Title	Date
Gert Cauwenberghs	Jan Rabaey	2024 IEEE International Symposium on Circuits and Systems (ISCAS 2024) Keynote	Moore with Less: Ultra-Low Energy Neuromorphic Circuits and Systems for Large-Scale Distributed AI	May 20, 2024
Chai Wah Wu	Massimiliano Fasi Mantas Mikaitis	ICIAM Minisymposium on Stochastic Rounding for Reduced-Precision Arithmetic in Scientific Computing	Trace estimation via asynchronous stochastic rounding	Aug 22, 2023
Piotr Dudek	Jacek Flak	Workshop on Technologies, devices, circuits, and algorithms for neuromorphic event-based vision systems, European Solid State Circuits Conference, ESSCIRC 2023, Lisbon	On-Sensor Computer Vision with Pixel-Parallel Processor Arrays	Sep 9, 2023
Piotr Dudek	Antoine Dupret	Workshop Towards Self Contained Recognition: Integrated Classifiers for Smart Sensors, European Solid State Circuits Conference ESSCIRC 2023, Lisbon	Computing at the extreme edge – running programs inside pixels	Sep 9, 2023
Shih-Chii Liu	Conference Committee	TUM Workshop on Neuromorphic Engineering	Neuromorphic engineering and its role in wearables and brain machine interfaces	Oct 11, 2023
Pantelis Georgiou	IEEE CASS chapter Greece	National Technical University Athens, Greece, IEEE DL Talk	Microchip Technology enabling Rapid Diagnostics of Infectious Diseases: From AMR to COVID-19	Oct 20, 2024
Gert Cauwenberghs	Jan Van der Spiegel	2023 IEEE International Conference on ASIC (ASICON 2023) Keynote	Efficiency, Resilience, and Versatility in Memristive Neuromorphic Systems for AI on the Edge	Oct. 25, 2023
Jorge Fernández-Berni	Huawei	Huawei Mobile Imaging Workshop	Simultaneous Single-Shot Adaptation to Variable Ambient Illumination and HDR Radiance Maps	Oct 26, 2023
Jim Harkin	Prof Liam McDaid	Computational Neuroscience, Neurotechnology and Neuro-inspired AI Autumn School	Building Reliable Embedded Systems with Neuromorphic Computing	Oct 26, 2023
Ricardo Carmona Galán	Huawei	Mobile Imaging Workshop	Compressive image sensor architecture for single-chip visual inference	Oct. 26, 2023
Fernando Perez-Peña	Conference Committee	11th International Conference on Control, Mechatronics and Automation	Neuromorphic Motor Control for Robotics	Nov 1-3, 2023
Xiaojin Zhao	Atsutake Kosuge	IEEE ASSCC 2023	Trustworthy Sensing Based on Hardware Security Primitives	Nov. 8, 2023

Jim Harkin	Prof Michaela Black	Artificial Intelligence (AI) Con	Brain Inspired Self-Repair in Electronic Hardware	Nov 9, 2023
Ricardo Carmona Galán	F. Corinto, Politecnico di Torino	European Conference on Circuit Theory and Design (ECCTD'23)	An Integrated Approach to Vision chips in CMOS	Nov. 11, 2023
Tobi Delbruck	Gert Cawenberghs Terry Sejnowski	INC Rockwood Memorial Lecture	Event camera silicon retina history, live demo, and whiteboard circuit design	Nov 20, 2023
Tobi Delbruck	Andre van Schaik	NeuroEng workshop	Silicon retina event camera history and live camera demo	Dec 11, 2023
Piotr Dudek	Chetan Singh Thakur	Workshop on Neuromorphic Sensing and Computing Technologies for Next-gen AI hardware, Bangalore	On-Sensor Computer Vision with Pixel-Parallel Processor Arrays	Jan 19, 2024
Shih-Chii Liu	Conference Committee	ISSCC 2024 Forum on Intelligent Sensing	Activity-driven perception for intelligent edge sensory systems	Feb 22, 2024
Arindam Basu	Conference Committee	IEEE EDTM 2024	In-memory computing across times and scales	Mar 2024
Arindam Basu	Conference Committee	Conference on Science and Technologies for Integrated Circuits (CSTIC), 2024	Neuromorphic Systems: From Event-driven sensors to In-Memory Computing Circuits	Mar 2024
Timothy Constandinou	Conference Chair	Neuroelectronic Interfaces GRC	Recent Advances in Chip-Scale Packaging for Neural Implants"	Mar 12, 2024
Tobi Delbruck	Organizers	Semicon China, Conference of Science & Technology for Integrated Circuits (CSTIC) 2024	50 years of silicon retina history	Mar 17, 2024
Shih-Chii Liu	Conference Committee	Semicon China, Symposium X: AI & IC Manufacturing	Neuromorphic audio edge intelligence	Mar 20, 2024
Man Kay Law	2024 ICAC Workshop	2024 ICAC Workshop/ Workshop on IC Advances in China	A 93.4% Peak Efficiency CLOAD-Free Multi-Phase Switched-Capacitor DC–DC Converter Achieving a Fast DVS up to 222.5 mV/ns	Mar 20, 2024
Alejandro Linares-Barranco	TU-Delft	Invited talk	Spike-based Signal Processing to Develop Neuromorphic Auditory Sensors and Robotic Motor Controllers	Mar 22, 2024
Tobi Delbruck	Huawei	Frontiers of Image Sensing	Noise limits of event cameras	Mar 25, 2024
Xiaojin Zhao	Youngcheol Chae	Korea-China East Asia Visit 2024	CMOS Hardware Security Primitives and Their Trustworthy-Sensing-Oriented Applications	Apr 4, 2024
Shih-Chii Liu	Conference Committee	Neuro Inspired Computational Elements Conference 2024	Hearing with silicon cochleas	Apr 24, 2024
Ibrahim Elfadel	School of Information and Software Engineering	University of Electronic Science and Technology (UESTC), Chengdu, China	OSμS: An Open-Source Platform for Microservice Prototyping	April 26, 2024

3.5. Other distinguished IEEE services

SSTC Members are very much involved in service for IEEE. We count with an IEEE CASS VP and 2 members of the CASS BoG, in addition to TC/SIG leaders and chairs of local chapters:

Name	Organization	Position/Activities	Period
Kea-Tiong Tang	IEEE CASS	VP-RAM	2022-2023, 2024-2025
Jie Chen	IEEE CASS	BoG	2022-2024
Nicole McFarlane	IEEE CASS	BoG Member	2021-2023
Ibrahim Elfadel	IEEE CEDA	Executive Board Member	Jan 2024 - present
Sandro Carrara	IEEE SC	Vice President Publications.	2023
Gert Cauwenberghs	IEEE Brain	Member of Steering Committee	2022-present
Ricardo Carmona Galán	IEEE CASS	Chair of Sensory Systems Technical Committee	2023-2025
Pantelis Georgiou	IEEE CASS	Chair BioCAS TC	2022-2024
Nicole McFarlane	IEEE CASS	BioCAS TC Secretary	2022-2024
Paula López Martínez	IEEE CASS	Secretary of Sensory Systems TC	2023-2025
Cheng-Ta Chiang	IEEE CASS	Chair of IEEE CASS Tainan Chapter	2023-2024
Tobi Delbruck	IEEE CASS	Secretary Swiss CAS/ED chapter	2023
Ibrahim Elfadel	IEEE CS	TPC, CloudCom2024, Abu Dhabi, UAE.	Dec 2024
Man Kay Law	IEEE ISSCC	Far East Chair	2023~2024
Alejandro Linares-Barranco	IEEE CASS	Founder of Artificial Intelligence SIG	2023-24
Shih-Chii Liu	IEEE CASS	Chair Swiss IEEE/ED Chapter	2023-2024
Cheng-Ta Chiang	IEEE CASS	Chair of IEEE CASS Tainan Chapter	2023-2024
Xiaojin Zhao	IEEE CASS	IEEE CASS Shenzhen Chapter Chair	2020-2023

4. TC Significant Technical Leadership and Innovations

SSTC Members have also contributed to strengthen the technical leadership of the Committee in our filed, and have headed very relevant innovation initiatives:

(1) This year we have not established/organized new CASS journals/conferences/workshops

(2) However, we have organized special issues in CASS journal, special sessions/tutorials in CASS conferences, CASS seasonal schools, CASS industrial forums, or CASS competitions:

Name	Organization	Position/Activities	Period
Arindam Basu	IEEE CASS	Special Issue on "Dynamical Neuro-AI Learning Systems: Devices, Circuits, Architectures and Algorithms" in IEEE JETCAS, Dec 2023 (Organizers: Jason Eshraghian, Corey Lammie, Arindam Basu, Shih-Chii Liu and Priya Panda)	Dec. 2023
Jie Chen	IEEE CASS	Taught 6-week online course titled "Innovation Generation Basics Towards an Entrepreneurial Journey in Circuits and Systems." for CASS memberships.	2023-24
Shih-Chii Liu	IEEE CASS	Co-organized Special Issue Call in IEEE JETCAS, Dynamical Neuro-AI Learning Systems: Devices, Circuits, Architectures and Algorithms in 2023	2023
Ibrahim Elfadel	IEEE CASS	AICAS 2024 Tutorial: AI Acceleration on Heterogeneous Platforms using OpenCL	2024
Ibrahim Elfadel	IEEE CASS	ISCAS 2024 Tutorial: Hardware Security of Biomedical Circuits and Systems	2024

(3) Also we have organized and actively participated in new CASS initiatives

Name	Organization	Position/Activities	Period
Tim Constandinou	IEEE CASS	CAS Society representative to IEEE BRAIN as voting member on steering committee.	2024-
Alejandro Linares-Barranco	IEEE CASS	Establishing the new AISIG and proposing to CASS its by-laws together with Yiran Chen (Chair) and Jongsun Park	2023-24
Alejandro Linares-Barranco	IEEE CASS	Writing the proposal for a new TC on AICAS for its approval in 2024 together with Yiran Chen (Chair) and Jongsun Park	2023-24

(4) Established cross-TCs/SIGs collaborations by participating in other TCs

Name	Organization	Position/Activities	Period
Ricardo Carmona Galán	IEEE CASS	Member of the Cellular Nanoscale Networks and Memristor Array Computing Technical Committee.	Since 2004
Ricardo Carmona Galán	IEEE CASS	Member of the Special Interest Group on IoT	Since 2022

(5) And have received several awards and developed other innovation initiatives

Name	Awards / Honors / Recognition	Period
Diego Barretino	Founder and CEO of SEnsDRB: a company for the application of state-of-the-art sensors, microelectronics, embedded systems and AI for moisture measurements in plastics and agriculture, based in Switzerland	Since 2021
Jie Chen	ASTech Award (the highest honor to an innovator in Alberta, Canada)	2023
Ricardo Carmona Galán	HiPEAC Technology Transfer Award: BiodAIverse: Smart conservation technologies	2023
Ibrahim Elfadel	Best Live Demo Award, Secure Neuromorphic Link, Abu Dhabi, 6G Summit, Nov 2023 (with my postdoc, Mizan Gebremichael). Certificate and $1000 cash prize.	Nov 2023
Ibrahim Elfadel	2nd place in the HeLLO CTF Competition (https://helloctf.org/23/) in hardware security (with my graduate student, Esrat Khan, and industry collaborator, Dr. Kashif Nawaz, Technology Innovation Institute, Abu Dhabi, UAE). $5000 cash prize.	April 2024
Ibrahim Elfadel	2023 Award of Excellence in University Service, Khalifa University,	April 2024
Jorge Fernández Berni	HiPEAC Technology Transfer Award: BiodAIverse: Smart conservation technologies	2023
Josep Maria Margarit	Founder and CEO of AiQUOS, a company that provides smart-multisensing microdevices for the electrochemical analysis of aqueous media	March 2024

5. New plans for the next year

Several members of the SSTC have already planned some activities that will be materialized in the coming months.

Name	Organization	Position/Activities	Period
Ricardo Carmona Galán	IEEE CAS	ICECS 2024 Sensory Systems Track Chair	2024
Li Du	IEEE CASS	AICAS 2025 Grand Challenge Chair	2025
Piotr Dudek	IEEE CAS	ISCAS 2025 Demos Co-Chair	2025
Ibrahim Elfadel	IEEE CAS	IEEE Transactions on Artificial Intelligence Circuits and Systems, Associate Editor, Inaugural Board	2024
Ibrahim Elfadel	Springer	Springer Book Series on Synthesis Lectures in AI Circuits and Systems, Founding Editor	2024
Philipp Häfliger	Univ. Oslo	Submitting a bid to BioCAS Conference 2027	2024
Jim Harkin	IEEE CAS	3-day workshop on Bio-inspired Reliable Computing (tentative title) in May'25, to be held in the UK. It will coincide with ISCAS'25 which will be held in London, UK.	2025
Teresa Serrano-Gotarredona	IEEE CAS	Program Committee member of AICAS	2025