# 2022 Annual Report (June 2021 – May 2022) VLSI Systems and Applications Technical Committee IEEE Circuits and Systems Society

Chairman: Emre Salman Secretary: Tony Tae-Hyoung Kim

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

The VLSI Systems and Applications Technical Committee in the IEEE Circuits and Systems Society organizes one annual TC meeting, traditionally held during ISCAS. For 2022, a virtual meeting was held. The detailed Information is given as follows.

2021 Meeting Date: Virtual via teleconferencing on May 28, 2021

45 members attended the meeting

# 2. Voting Members:

First Name	Last Name	Affiliation	Email	IEEE Grade	IEEE Region
Emre	Salman	Stony Brook University	emre.salman@stonybrook.edu	Senior	1
Ioannis	Savidis	Drexel University	isavidis@coe.drexel.edu	Senior	2
Vishal	Saxena	University of Delaware	vsaxena@udel.edu	Senior	2
Xinmiao	Zhang	The Ohio State University	zhang.8952@osu.edu	Senior	6
Weiqiang	Liu	Nanjing University of Aeronautics and Astronautics	liuweiqiang@nuaa.edu.cn	Senior	10
Leonel	Sousa	INESC-ID, IST, Universidade de Lisboa	las@inesc-id.pt	Senior	8
Mladen	Berekovic	Universität Zu Lübeck, Germany	mladen.berekovic@uni-luebeck.de	Member	8
Jari	Nurmi	Tampere University, Finland	jari.nurmi@tuni.fi	Senior	8
Meng- Fan(Marvin)	Chang	National Tsing Hua University, Hisnchu, Taiwan	mfchang@ee.nthu.edu.tw	Fellow	10
Chua-Chin	Wang	National Sun Yat- Sen University, Taiwan	ccwang@ee.nsysu.edu.tw	Senior	10
Chip-Hong	Chang	Nanyang Technological University	echchang@ntu.edu.sg	Fellow	10
Baris	Taskin	Drexel University	taskin@coe.drexel.edu	Senior	2
Kun-Chih (Jimmy)	Chen	National Sun Yat- Sen University, Taiwan	kcchen@mail.cse.nsysu.edu.tw	Senior	10
Shuenn-Yuh	Lee	National Cheng Kung University	ieesyl@mail.ncku.edu.tw	Senior	10
Tawfiq	Musah	The Ohio State University	musah.3@osu.edu	Senior	2
Magdy	El-Moursy	Siemens EDA	magdy_el-moursy@mentor.com		1
Ke-Horng	Chen	National Yang Ming Chiao Tung University	khchen@cn.nctu.edu.tw	Senior	10
Peeter	Ellervee	Tallinn University of Technology	p.ellervee@ieee.org	Member	8
Inna	Partin- Vaisband	University of Illinois Chicago	vaisband@uic.edu	Senior	4
Joseph	Cavallaro	Rice University	cavallar@rice.edu	Fellow	5

Yingjie	Lao	Clemson University	ylao@clemson.edu	Senior	3
Duncan	Elliott	University of	Duncan.Elliott@ualbertaca	Senior	7
Boris	Vaisband	Alberta McGill university	boris.vaisband@mcgill.ca	Member	7
Yue	Zheng	Nanyang Technological University	yue.zheng@ntu.edu.sg	Member	10
Tony Tae- Hyoung	Kim	Nanyang Technological University	thkim@ntu.edu.sg	Senior	10
Liang	Liu	Lund University	liang.liu@eit.lth.se	Senior	8
Vasilis	Pavlidis	Aristotle University of Thessaloniki	vpavlid@ece.auth.gr	Senior	8
Youngjoo	Lee	Pohang University of Science and Technology (POSTECH)	youngjoo.lee@postech.ac.kr	Senior	10
Lan-Da	Van	National Yang Ming Chiao Tung University	ldvan@cs.nycu.edu.tw	Senior	10
Yuan-Hao	Huang	National Tsing Hua University	yhhuang@ee.nthu.edu.tw	Member	10
Robert Chen- Hao	Chang	National Chung Hsing University	chchang@nchu.edu.tw	Senior	10
Ettore	Napoli	University of Salerno, Italy	enapoli@unisa.it	senior	8
Abdullah	Baz	Umm Al-Qura University, Saudi Arabia	aobaz01@uqu.edu.sa	senior	8
Vaishnav	Srinivas	Qualcomm	vaishnav.srinivas@gmail.com	Senior	6
Maged	Ghoneima	Ain Shams University	maged_ghoneima@eng.asu.edu.eg	Senior	8
Martin	Kumm	Fulda University of Applied Sciences	martin.kumm@cs.hs-fulda.de	Member	8
Linda	DeBrunner	Florida State University	ldebrunner@fsu.edu	Senior	3

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

	2021
Total number of TCs	%
Regions 1 – 6 (U.S.A.)	26
Region 7 (Canada)	5
Region 8 (Europe/Africa,	20
Middle East)	
Region 9 (Central/South	5
America)	
Region 10 (Asia/Pacific)	44

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

	2020
Total number of TCs	%
Male	90
Female	10

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

	2020
Total number of TCs	%
Academia	95
Industry	5
Government	0

# 3. Accomplished Technical Activities

## 3.1. IEEE Conference/Event organizations

If you were involved in the organization of conferences and events that were technically and/or financially co-sponsored by the CAS Society. Please don't report conference/events that are NOT sponsored by the CAS Society. Thank you!

Your Name	Conference Sponsors	Conference/Event Title	Your Role
Xinmiao Zhang	IEEE CASS	ISCAS 2022	RCM
Xinmiao Zhang	IEEE CASS & SPS	IEEE Workshop on Signal Processing Systems 2021	TPC member
Weiqiang Liu	IEEE CASS	ISCAS 2022	RCM
Leonel Sousa	IEEE CASS	ISCAS 2022	RCM
Leonel Sousa	IEEE CASS	AICAS 2022	Special Session Co-Chair
Mladen Berekovic	IEEE CASS	ISCAS 2022	RCM
Dimitrios Soudris	IEEE CASS	ISCAS 2022	RCM
Jari Nurmi	IEEE CASS	ISCAS 2022	RCM
Dimitrios Soudris	IEEE CASS	VLSI-SoC 2022	Special session co-chairs
Meng-fan Chang	IEEE CASS	IEEE AICAS	TPC Chair
Meng-fan Chang	IEEE CASS	VLSI-DAT 2022	Track Co-chair
Jari Nurmi	IEEE CASS	IEEE NorCAS 2021	General Chair
Jari Nurmi	IEEE CASS	Field Programmable Logic and Applications FPL 2021	Steering committee member
Jari Nurmi	IEEE CASS	IEEE MWSCAS 2022	TPC member
Ke Chen	IEEE CASS	ISCAS 2022	RCM
Yue Zheng	IEEE CASS	ISCAS 2022	RCM
Yue Zheng	IEEE CASS	AICAS 2022	Special Session Co-Organizer

Yue Zheng	IEEE CASS	APCCAS 2022	Sub track chair
Yue Zheng	IEEE CASS	ISOCC 2022	Special Session Co-Chair
Chua-Chin Wang	IEEE CASS	ISCAS 2022	RCM
Chip Hong Chang	IEEE CASS	IEEE ISCAS 2022	RCM
Chip Hong Chang	IEEE CASS	IEEE AICAS 2022	Special Session Organizer
Chip Hong Chang	IEEE CASS	IEEE APCCAS 2022	Program Chair
Chip Hong Chang	IEEE CASS	VLSI-SoC 2021	Program Co-Chair
Kun-Chih (Jimmy) Chen	IEEE CASS	IEEE ISCAS 2022	RCM
Kun-Chih (Jimmy) Chen	IEEE CASS	ISOCC 2022	Special Session Chair
Kun-Chih (Jimmy) Chen	IEEE CASS	IEEE AICAS 2022	Special Session Organizer
Kun-Chih (Jimmy) Chen	IEEE CASS	IEEE ASSCC 2022	TPC Member
Kun-Chih (Jimmy) Chen	IEEE CASS	IEEE SOCC 2022	TPC Member
Kun-Chih (Jimmy) Chen	IEEE CASS	VLSI-DAT 2022	Technical Program Subcommittee Member (TPSM)
Kun-Chih (Jimmy) Chen	IEEE CASS	IEEE/ACM NOCS 2021	Publicity Chair
Kun-Chih (Jimmy) Chen	IEEE CASS	NOCArc 2021	Steering committee member
Kun-Chih (Jimmy) Chen	IEEE CASS	IEEE NorCAS 2021	Special Session Organizer
Shuenn-Yuh Lee	IEEE CASS	IEEE NEWCAS 2021	Track Chair (Track 5)
Shuenn-Yuh Lee	IEEE CASS	IEEE BioCAS 2022	Co-General Chair
Tawfiq Musah	IEEE CASS	IEEE ISCAS 2022	RCM
Magdy El- Moursy	IEEE CASS	The IEEE International Workshop on Network on Chip Architectures	TPC
Magdy El- Moursy	IEEE CASS	The IEEE Asia Pacific Conference on Circuits and Systems	TPC
Magdy El- Moursy	IEEE CASS	The IEEE International System-on-Chip Conference	TPC
Magdy El- Moursy	IEEE CASS	The IEEE International Conference on Sensors and Nanotechnology.	TPC
Ke-Horng Chen	IEEE CASS	IEEE ISCAS 2021	Technical Program/ Review Committee
Peeter Ellervee	IEEE CASS	ISCAS 2022	RCM
Peeter Ellervee	IEEE CASS	NOCArc 2021	TPC Member
Peeter Ellervee	IEEE CASS	IEEE NorCAS 2021	Steering committee member
Yuan Du	IEEE CASS	ISCAS 2022	RCM
Yuan Du	IEEE CASS	AICAS 2022	Special Session Organizer
Yuan Du	IEEE CASS	APCCAS 2022	Track chair
Yuan Du Joseph	IEEE CASS	ISICAS 2021 IEEE ISCAS 2022	Track chair RCM, Session Chair
Cavallaro Joseph	IEEE	IEEE SiPS 2021	General Co-Chair
Cavallaro Joseph	CASS/SPS IEEE	IEEE SiPS 2022	TPC Member
Cavallaro	CASS/SPS		
Yingjie Lao Yingjie Lao	IEEE CASS &	ISCAS 2022 IEEE Workshop on Signal Processing Systems 2021	RCM TPC member
Jongsun Park	SPS IEEE CASS	ISCAS 2021	Tutorial Co-Chair
Jongsun Park	IEEE CASS	ISCAS 2021	RCM
Jongsun Park	IEEE CASS	AICAS 2021	Demo Co-Chair
Jongsun Park	IEEE CASS	AICAS 2022	Plenary Session Co-Chair
Jongsun Park	IEEE CASS	ISOCC (International SoC Design Conference) 2021	General Vice Chair

Jongsun Park	IEEE CASS	ISOCC (International SoC Design Conference) 2022	General Chair
Duncan Elliott	IEEE CASS	ISCAS 2022	RCM
Boris	IEEE CASS	ISCAS 2022	Session chair RCM
Vaisband			Session chair
Boris Vaisband	IEEE CASS	NorCAS 2021	TPC member
Abdel MArtinez	IEEE CASS	NorCAS 2021	TPC member
Weiwei Shan	IEEE CASS	ISCAS 2022	RCM Session Chair
Weiwei Shan	IEEE CASS	IICTA 2022	TPC member
Adel MArtinez	IEEE CASS	ISCAS 2022	RCM
Abdel MArtinez	IEEE CASS	VLSID 2022	RCM
Tony T. Kim	IEEE CASS	ASP-DAC2021	TPC member
Tony T. Kim	IEEE CASS	ISCAS2021	Track Chair
Tony T. Kim	IEEE CASS	ISOCC2021	Special Session Chair
Tony T. Kim	IEEE CASS	MCSoC2021	Program Chair
Tony T. Kim	IEEE CASS	ASP-DAC2022	TPC member
Tony T. Kim	IEEE CASS	ISCAS2022	Track Chair
Tony T. Kim	IEEE CASS	AICAS2022	Track Chair
Vasilis Pavlidis	IEEE CASS	ISCAS 2022	RCM
Vasilis Pavlidis	IEEE CASS	MOCAST 2021	TPC Member
Myung Hoon Sunwoo	IEEE CASS	AICAS 2022	Honorary Chair
Emre Salman	IEEE CASS	ISCAS 2021	Track Chair
Emre Salman	IEEE CASS	ISCAS 2022	Track Chair
Emre Salman	IEEE CASS	ISQED 2021	TPC member
Emre Salman	IEEE CASS	ISQED 2022	TPC member
Lan-Da Van	IEEE CAS	IEEE Asia Pacific Conference on Circuits and Systems (APCCAS)	Steering Committee Member, 2021
Lan-Da Van	IEEE CAS	IEEE International System-on-Chip Conference (SOCC)	Tutorial Co-Chair, 2021
Lan-Da Van	IEEE CAS	International SoC Design Conference (ISOCC), 2021	Special Session Co-Chair, 2021
Youngjoo Lee	IEEE CASS	ISCAS 2021	OC Member
			RCM
			Session Chair
Youngjoo Lee	IEEE CASS	ISCAS 2022	RCM
			Session Chair

Youngjoo Lee	IEEE CASS	AICAS 2022	OC Member
Youngjoo Lee	IEEE CASS	ISOCC 2021	OC Member TPC Member Session Chair
Youngjoo Lee	IEEE CASS	ISOCC 2022	OC Member TPC Member
Yuan-Hao Huang	IEEE CASS	BioCAS 2022	Finance Co Chair
Yuan-Hao Huang	IEEE CASS	ISCAS 2022	TPC reviewer, RCM
Yuan-Hao Huang	IEEE CASS / SPS	SiPS 2021	TPC reviewer
Robert Chen- Hao Chang	IEEE CASS	IEEE International Symposium on Circuits and Systems (ISCAS), 2022	Session Chair, RCM
Robert Chen- Hao Chang	IEEE CASS	IEEE International Conference on Artificial Intelligence Circuits and Systems, 2021	Steering Committee Member
Ettore Napoli	IEEE CAS	ISCAS 2021	RCM Session Chair
Ettore Napoli	IEEE CAS	NORCAS 2021	Liaison
Vaishnav Srinivas	IEEE CAS	ISCAS 2021	RCM Session Chair
Vaishnav Srinivas	IEEE CAS	ISCAS 2022	RCM

Mohsin M. Jamali	IEEE CAS	ISCAS 2022	Special Session Organizer Session Chair
Martin Kumm	IEEE CAS	ISCAS 2022	RCM
Martin Kumm	IEEE CAS	APCCAS 2022	Special Session Co-Organizer
Ricardo Reis	IEEE CASS	ISCAS 2022	RCM
Ricardo Reis	IFIP IEEE CASS IEEE CEDA	IFIP/IEEE VLSI-SoC 2021	Track Chair

# 3.2. IEEE Journal Editorships: (ONLY CASS Journals)

Please don't report journals that are NOT (co-)sponsored by the CAS Society. Check here for a list of CAS Journals: https://ieee-cas.org/publications

Your Name	Journal Sponsors	Journal Title	Your Role
Ioannis Savidis	IEEE CAS, IEEE SSCS, IEEE CS	IEEE Transactions on Very Large Scale Integration Systems	Associate Editor
Vishal Saxena	IEEE CAS MDPI	IEEE Transactions on Circuits and Systems-II JLPEA	Associate Editor Editorial Board
Xinmiao Zhang	IEEE CASS	OJCAS	Associate Editor
Weiqiang Liu	IEEE CASS	TCAS-I	Associate Editor
Leonel Sousa	IEEE CASS	JETCAS	Senior Editor
Leonel Sousa	IEEE CASS	OJCAS, Special Section on Algorithms, Circuits, and Systems for Signal Processing at the Edge	Guest Editor
Meng-Fan Chang	IEEE CASS	IEEE TCAS-I	Associate Editor
Meng-Fan Chang	IEEE CASS	IEEE TVLSI	Associate Editor
Vaishnav Srinivas	IEEE CAS	IEEE TVLSI	Associate Editor
An-Yeu (Andy) Wu	IEEE CASS	IEEE JETCAS	Editor-in-Chief (EiC)
Yue Zheng	IEEE CASS	TCAS-II	Associate Editor
Chip Hong Chang	IEEE CASS	IEEE TCAS-I	Associate Editor
Chip Hong Chang	IEEE CASS	IEEE TVLSI	Associate Editor
Chip Hong Chang	IEEE CASS	IEEE JETCAS	Guest Editor, Special Issue on "Hardware Security in Emerging Technologies:

			Vulnerabilities,
			Attacks and Solutions"
Shuenn-Yuh Lee	IEEE CASS	IEEE TBioCAS	Associate Editor
Inna Partin- Vaisband	IEEE CASS	IEEE JETCAS	Guest Editor "Cross-Layer Designs, Methodologies and Systems to Enable Micro Al for On-Device Intelligence"
Joseph Cavallaro	IEEE CASS	IEEE JETCAS	Senior Editor
Jongsun Park	IEEE CASS	IEEE CAS Magazine	Associate Editor
Jongsun Park	IEEE CASS	IEEE OJCAS	Associate Editor
Tony T. Kim	IEEE CASS	IEEE TVLSI	Associate Editor
Tony T. Kim	IEEE CASS	IEEE TBioCAS Special Issue for ISCAS2021	Guest Associate Editor
Tony T. Kim	IEEE CASS	IEEE JETCAS Special Issue for "Revolution of AI and Machine Learning with Processing-in-Memory (PIM): from Systems, Architectures, to Circuits"	Corresponding Guest Editor
Liang Liu	IEEE CASS	IEEE OJCAS Special Issue for "Circuits, Systems, and Algorithms for Beyond 5G and Towards 6G"	Guest Editor
Weiwei Shan	IEEE CASS	IEEE TCASI	Guest Editor
Vasilis Pavlidis	IEEE CAS, IEEE SSCS, IEEE CS	IEEE Transactions on Very Large Scale Integration Systems	Associate Editor
Robert Chen- Hao Chang	IEEE CASS	IEEE JETCAS	Senior Editorial Board
Ricardo Reis	IEEE CEDA IEEE CASS IEEE SSCS IEEE TTTC	IEEE Design & Test	Member of the Editorial Board as Latin America Liaison
Ricardo Reis	IEEE CASS	IEEE CASS Magazine	Associate Editor
Ricardo Reis	IEEE IoT Initiative (CASS is a Member)	IEEE IoT Magazine	Chair of the Management Board representing CASS

3.3. Awards, Honors, and Recognition
Only IEEE and CASS awards such as (Fellow, Distinguished Lecturer, Outstanding Service, Best Paper Awards, and so on by the CAS Society)

Your Name	Awards / Honors / Recognition	Period
Xinmiao Zhang	Best Associate Editor Award for OJCAS	2021
Yuan Du	Darlington Best Paper Award	2021
Abdel Martinez	Elevated to IEEE Senior Member	2021
Tony T. Kim	Best Paper Award (Gold Prize) from IEEE/IEIE ICCE-Asia	2021
Youngjoo Lee	Elevated to IEEE Senior Member	2021
Ettore Napoli	Guillemin-Cauer Award	2021
Ricardo Reis	ACM/ISPD Lifetime Achievement Award	2022
Ricardo Reis	Elevated to IEEE Life Senior Member	2021

3.4. Keynote Speeches/Invited Talks:
Feel free to list *any* keynote speech and invited talk, not limited to CASS.

Your Name	Invited by	Event/Conference Title	Talk Title	Date
XXX	XXX	XXX	XXX	XXX

Weiqiang Liu	Alberto Bosio	6th Workshop on Approximate Computing (AxC21) conjunction with ICCAD'21	Approximate Computing for Low Power Circuits and Systems	Nov. 2021
Jari Nurmi	Alberto Bosio	6th Workshop on Approximate Computing (AxC21) conjunction with ICCAD'21	Approximate Computing – The Holy Grail of Low-Energy Electronic Systems?	Nov. 2021
Weiqiang Liu	Maire O'Neill	UKRI RISE and eFuture Joint Workshop on Engineering Significant Difference	Approximate Computing and Security	Jun. 2021
Weiqiang Liu	Xinyu Zhang	Huawei Strategy and Technology Workshop	Approximate Computing	Oct. 2021
Leonel Sousa	Claude Tadonki	SBAC-PAD 2021	Cache-Aware Roofline Model: Performance, Power and Energy Efficiency	Oct 2021
Kun-Chih (Jimmy) Chen	Chris Gwo- Giun Lee	Korea-Taiwan Circuits and Systems Workshop	The Future DNN Accelerator Design Paradigm Deep Neural Network on Chip (DNNoC)	Feb. 2022
An-Yeu (Andy) Wu	Joseph Cavallaro	IEEE Workshop on Signal Processing Systems (SiPS)	From Compressive Sensing to Compressive Analytics: A New Design Paradigm for Light-weight Intelligent Biomedical Signal Processing	Oct. 2021
Chua-Chin Wang	Mariciel Teogangco	International Conference on Automation, Mechatronics and Robotics	Al Applied in Underwater World and How the Al System is Implemented.	Aug. 2021
Yue Zheng	ISCAS 2021 Tutorial co- chairs	IEEE International Symposium on Circuits and Systems 2021 (ISCAS 2021)	Tutorial: Defender-Adversary Arms Race of Logic Locking	May 2021
Chip Hong Chang	ISCAS 2021 Tutorial co- chairs	IEEE International Symposium on Circuits and Systems 2021 (ISCAS 2021)	Tutorial: Defender-Adversary Arms Race of Logic Locking	May 2021
Chip Hong Chang	Arindam Basu	35 <sup>th</sup> IEEE International Conference on VLSI Design and Embedded Systems (VLSID 2022)	Tutorial: Attacks and Countermeasures of Deep Learning Networks	March 2022
Chip Hong Chang	Tae-Hyoung Kim	IEEE Solid-State Circuits Society Singapore Chapter Seminar	Glitch Injection Attack on Edge Al Accelerators and Its Mitigation	Nov. 2021
Chip Hong Chang	APCCAS 2021 OC	17th IEEE Asia Pacific Conference on Circuits and Systems (APCCAS 2021) and Conference on Postgraduate Research in Microeelctronics and Electronics (PRIMEASIA 2021)	Keynote: Security of Edge AI - A New Challenge to Deep Learning Accelerators	Nov. 2021
Chip Hong Chang	Conference Organizer	IEEE International Conference on Power, Intelligent Computing and Systems (ICPICS 2021)	Keynote: Security of Edge AI - Attack and Defense from Hardware Perspective	July 2021
Chip Hong Chang	Conference Organizer	6th IEEE International Conference on Signal and Image Processing (ICSIP 2021)	Keynote: Hardware Root of Trust for Internet of Video Things	July 2021
Chip Hong Chang	SOCC tutorial co-chairs	34 <sup>th</sup> IEEE International System-On-Chip Conference (SOCC 2021)	Tutorial: Towards Secure Deep Learning Deployment	Sept. 2021
Baris Taskin	UMN	UMN ECE seminar	Inter-Chiplet Synchronization of Multi-Die VLSI Systems	Jan 2022
Magdy El- Moursy	Siemens EDA	Design and Verification Conference and Exhibition 2022.	"Estimating Power Dissipation of End-User Application on RTL" workshop	Feb. 2022
Ke-Horng Chen	Department of Electronic Engineering, National	University Seminar	Trend in Power IC	Dec. 2021

	United University			
Yuan Du	ICICM 2021 Invited Talk	2021 The 6th International Conference on Integrated Circuits and Microsystems	A Fight against Channels: RF- Interconnect for Chip-to-Chip Communication	Oct. 2021
Boris Vaisband	Vincent Gaudet (Program Chair)	16th IEEE / ACM International Symposium on Nanoscale Architectures (NANOARCH) 2021	Keynote: Chiplet-Based Heterogeneous Integration	Nov. 2021
Tony T. Kim	ISCAS2021 OC	IEEE ISCAS2021	Tutorial: Revolutionizing AI Hardware with Processing-in- Memory: From Architectures to Circuits	May 2021
Tony T. Kim	ISSCC2022 Forum Committee	IEEE ISSCC2022	1-Day Forum on Chip Design for Low-Power, Robust, and Secure IoT Devices: Energy-constrained Tiny ML for IoT applications	Feb. 2022
Tony T. Kim	IEEE Penang Joint Chapter (EDS, SSCS, MTT-S)	IEEE SSCS Distinguished Lecture Program	Minimum-energy-driven embedded memory design for IoT applications	Apr. 2022
Weiwei Shan	Yan LU	IC Advances in China	Short-Path Padding Method for Wide-Voltage-Range Resilient Circuits	May 2021
Ricardo Reis	LASCAS2022	Tutorial	Trends and Challenges in EDA	March 2022
Ricardo Reis	ISCAS	ISCAS 2021 overview lecture	Low Power Challenges in IoT and IoE	May 2021
Ricardo Reis	SBCCI2021	34 <sup>th</sup> SBC/SBMicro/IEEE/AC M Symposium on Integrated Circuits and Systems Design	Trends on EDA	August 2021

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

Your Name	Organization	Position/Activities	Period
XXX	XXX	XXX	XXX
Vishal Saxena	IEEE CASS	Steering committee member, IEEE MWSCAS	2014–
Jari Nurmi	IEEE CASS	Steering committee chair, IEEE NorCAS	2015–
Jari Nurmi	IEEE AES	Steering committee chair, ICL-GNSS	2010–
Xinmiao Zhang	IEEE CASS	BoG member	2019-2021
Xinmiao Zhang	IEEE CASS	Vice President-Technical Activities	2022-2023
Xinmiao Zhang	IEEE ComSoC	Chair, Data Storage Technical Committee	2021-2022
Weiqiang Liu	IEEE CASS	Steering Committee Member, IEEE TVLSI	2021-2022
Weiqiang Liu	IEEE NTC	AdCom Member, IEEE NTC	2021-2022
Meng-fan Chang	IEEE IEDM	Executive Committee (Publication chair, Publicity chair, Course chair, Tutorial Co-Chair)	2018-present
Meng-fan Chang	IEEE ISSCC	memory sub-committee member, Chair	2016-2020,2021 present
Meng-fan Chang	IEEE Taipei Section	Supervisor	2021- present
An-Yeu (Andy) Wu	IEEE CASS	BoG member	2019-2021

Ke Chen	IEEE NTC	EiC of Newsletter	2022-present
Chua-Chin	IEEE Tainan	BOG member	2021-present
Wang Baris Taskin	Section CEDA	Chair	2017-present
	Pennsylvania Section		2017-present
Kun-Chih (Jimmy) Chen	IEEE CASS	Steering committee member, NoCArc	2020–
Ke-Horng Chen	IEEE ISSCC	Technical Committee (3 papers published)	2021-2022
Ke-Horng Chen	IEEE ESSCIRC	Technical Program Committee (1 paper published)	2021-2022
Ke-Horng Chen	IEEE ISCAS	TP/ Review committee member (3 papers published)	2021-2022
Ke-Horng Chen	IEEE Taipei Section	Board Director	2016-present
Ke-Horng Chen	IEEE	Associate editor of Transactions on Power Electronics (3 papers published)	2021-2022
Ke-Horng Chen	IEEE	Associate editor of Journal of Emerging and Selected Topics in Power Electronics (1 paper published)	2021-2022
Peeter Ellervee	IEEE CASS	Steering committee member, IEEE NorCAS	2015–
Joseph Cavallaro	IEEE CASS	IEEE Council RFID BoG - CAS Society Representative	2020-2023
Joseph Cavallaro	IEEE CASS	Houston CASS Chapter Chair	2021-2022
Joseph Cavallaro	IEEE Computer	IEEE Micro - Special Issue on Artificial Intelligence at the Edge - Co-Guest Editor	2022
Tony T. Kim	IEEE CASS	Secretary/Chair-Elec.	2020-2022
Vasilis Pavlidis	IEEE Greece Joint CAS/SSC Chapter	Chapter Chair	02/21-1/22
Vasilis Pavlidis	IEEE CASS	VP Publicity of IEEE Council on EDA (CEDA)	2018-2021
Myung Hoon Sunwoo	IEEE CASS	President Elect	2022
Emre Salman	IEEE CASS	VSA-TC Chair	2020-2022
Lan-Da Van	IEEE CS	Associate Editor, IEEE Transactions on Emerging Topics in Computing	2022/01~Present
Lan-Da Van	ACM	Associate Editor, ACM Computing Surveys	2020/01~Present
Lan-Da Van	IEEE	Associate Editor, IEEE Access	2018/02~2022/01
Youngjoo Lee	IEEE A-SSCC	TPC Member	2021
Youngjoo Lee	IEEE Symposium on VLSI Circuits	TPC Member	2022
Yuan-Hao Haung	IEEE (ISCAS) (Circuits and Systems for	TC Member	2021,2022
	Communications )		

Yuan-Hao Haung	IEEE (ISCAS) (VLSI Systems & Applications)	TC Member	2021,2022
Robert Chen- Hao Chang	IEEE A-SSCC	TPC Member	2021
Robert Chen- Hao Chang	IEEE Taipei Section	BoG Member	2021-2022
Robert Chen- Hao Chang	IEEE SSCS	IEEE Journal of Solid-State Circuits, Lead Guest Editor	2021/10
Ricardo Reis	IEEE CASS	BoG	2021-2023
Ricardo Reis	IEEE CASS	Representation of R9 at RAM Division	2021-2023
Ricardo Reis	IEEE CASS	Member of IEEE LASCAS Steering Committee	2021-2022
Ricardo Reis	IEEE CASS	Member of IEEE ICECS Steering Committee	2021-2022
Ricardo Reis	IFIP WG 10.5 IEEE CASS IEEE CEDA	Member of IFIP/IEEE VLSI-SoC Steering Committee	2021-2022
Ricardo Reis	IEEE CASS	Member of IEEE NEWCAS Steering Committee	2021-2022
Ricardo Reis	SBC SBMicro IEEE CASS ACM SIGDA IEEE CEDA	Member of the SBCCI Steering Committee	2021-2022
Ricardo Reis	IEEE CASS SBC SBMicro IEEE CEDA	GENERAL CHAIR of SERESSA 2021-17th International School on the Effects of Radiation on Embedded Systems for Space Applications, November 16-19, 2021 (virtual from Porto Alegre, Brazil).	2021
Ricardo Reis	IEEE IoT Initiative	Member of the IEEE IoT Initiative representing IEEE CASS	2021/2023

Ricardo Reis	IEEE CEDA	Member of the IEEE CEDA representing IEEE CASS	2021-2023
Ricardo Reis	IEEE CASS	ISCAS 2022, RCM (Review Committee Member)	2022
Ricardo Reis	IEEE CASS	Member of the IEEE CASS Rio Grande do Sul Chapter Board as Past Chair	2021-2022
Ricardo Reis	IFIP WG 10.5 IEEE CASS IEEE CEDA	Track Chair: VLSI-SoC 2021: 29th IFIP/IEEE International Conference on Very Large Scale Integration, October 4-8, 2021, Singapore	2021

## 4. TC Significant Technical Leadership and Innovations

Mention here if you worked toward the establishment of new CASS journals, conferences, or workshops. If so, provide the details asked below. Similarly if you organized special issues/sessions, only in CASS journals and conferences. Major awards you received should also be included.

Guest Editors: Shanshan Liu, Bi Wu, Ke Chen, Weiqiang Liu, Maire O'Neill and Fabrizio Lombardi, IEEE Transactions on Circuits and Systems I: Regular Papers (TCAS-I), Special Issue on Circuits and Systems for Emerging Computing Paradigm, Jun. 2021-Apr. 2022. 31 papers submitted and 8 papers accepted.

Guest Editors: Tinoosh Mohsenin; Inna Partin-Vaisband; Houman Homayoun; Jae-Sun Seo; Xin Zhang Cross-Layer Designs, IEEE Journal on Emerging and Selected Topics in Circuits and Systems (JETCAS), Special Issue on Cross-Layer Designs, Methodologies, and Systems to Enable Micro AI for On-Device Intelligence, vol. 11, no. 4, Dec. 2021, 65 papers submitted and 24 papers accepted.

Special Session organizers: Chip Hong Chang, Yue Zheng, "Security and Privacy in Deployment of Deep Neural Networks", AICAS, Jun. 2022. Six papers submitted and six papers have been accepted.

Guest Editors: Naghmeh Karimi, Kanad Basu, Chip Hong Chang and Jason Fung, IEEE Journal on Emerging and Selected Topics in Circuits and Systems (JETCAS), Special Issue on Hardware Security in Emerging Technologies: Vulnerabilities, Attacks and Solutions, vol. 11, no. 2, Jun. 2021. 38 papers submitted and 15 papers accepted.

Special Session organizers: Kun-Chih Chen, Md Farhadur Reza, "Novel Computation and Communication Methods for Al Accelerator Design", AlCAS, Jun. 2022. Six papers submitted and six papers have been accepted.

Special Session organizers: Yuan Du, "Memory-Centric Accelerator Design for Energy-efficient Inferencing and Training", AICAS, Jun. 2022. Five papers submitted and five papers have been accepted.

Guest Editors: Deepu John, Tony Tae-Hyoung Kim, and Matthew L. Johnston, IEEE Transactions on Biomedical Circuits and Systems, Special Issue on Selected Papers from ISCAS2021, Dec. 2021. 23 papers submitted and 8 papers accepted.

Magdy El-Moursy: Advisory Committee Member of International Academy Of Science And Engineering For Development.

### 5. New plans for the next year

Mention if there are any new initiatives, workshops, journal special issues, conference special sessions, etc., that you are planning for the next year.

As in the previous years, these activities will be pursued at the individual member level.