### 2020 Annual Report (June 2019 – May 2020) Nonlinear Circuits and Systems Technical Committee IEEE Circuits and Systems Society

Chair: Elena Blokhina Chair elect: Marco Storace Secretary: Federico Bizzarri

## 1. Technical Committee Meeting(s):

The Nonlinear Circuits and Systems Technical Committee in the IEEE Circuits and Systems Society organizes one annual TC meeting in ISCAS. The detailed Information is given as follows. The minutes of the last TC meeting, which was held on 28th May 2019 in Sapporo, Japan, can be found at <a href="https://ieee-cas.org/sites/default/files/tcncas\_meeting\_minutes\_2019\_27\_06\_19.pdf">https://ieee-cas.org/sites/default/files/tcncas\_meeting\_minutes\_2019\_27\_06\_19.pdf</a> Nineteen members of the TC attended the meeting, corresponding to an attendance rate of 28% (there were sixty-six members of the TC in 2018-2019).

### 2. Members submitted Annual Reports:

First Name	Last Name	Affiliation	Email	IEEE Grade	IEEE Region
Tommaso	Addabbo	Department of Information Engineering and Mathematics, University of Siena, Italy	addabbo@dii.unisi.it	Member	IEEE Italy Section
Federico	Bizzarri	Politecnico di Milano, Italy	federico.bizzarri@polimi. it	Senior Member	IEEE Italy Section
Elena	Blokhina	School of Electrical and Electronic Engineering, University College Dublin, Ireland	elena.blokhina@ucd.ie	Senior Member	IEEE United Kingdom and Ireland Section
Chi-Tsun	Cheng	Department of Manufacturing, Materials and Mechatronics, RMIT University, Melbourne, Australia	ben.cheng@rmit.edu.au	Senior Member	IEEE Victorian Section
Alessandro	Colombo	Politecnico di Milano, Italy	alessandro.colombo@p olimi.it	Senior Member	IEEE Italy Section
Danilo	Comminiello	Department of Information Engineering, Electronics and Telecommunications, Sapienza University of Rome, Italy	danilo.comminiello@unir oma1.it	Member	IEEE Italy Section
Manuel	Dominguez- Pumar	Department of Electronic Engineerin, Technical University of Catalonia, Spain	manuel.dominguez@up c.edu	Senior Member	IEEE Spain Section
Ahmed	Elwakil	Department of Electrical and Computer Engineering, Faculty of Engineering, University of Sharjah	elwakil@ieee.org	Senior Member	IEEE United Arab Emirates Section
Zbigniew	Galias	Department of Electrical Engineering, AGH-University of Science and Technology, Poland	galias@agh.edu.pl	Senior Member	IEEE Poland Section
Herbert Ho- Ching	lu	School of Electrical, Electronic and Computer Engineering,The University of Western Australia, Australia	herbert.iu@uwa.edu.au	Senior Member	IEEE Western Australia Section
Francis C.M.	Lau	Department of Electronic and Information Engineering, Hong Kong Polytechnic University, China	francis- cm.lau@polyu.edu.hk	Senior Member	IEEE Hong Kong Section
Xiang	Li	Department of Electronic Engineering, Fudan University, China	lix@fudan.edu.cn	Senior Member	IEEE Shanghai Section

Wing-Kuen	Ling	School of Information Engineering, Guangdong University of Technology, China	yongquanling@gdut.edu .cn	Senior Member	IEEE Hong Kong Section
Ahmed	Madian	Nile University, Egypt	amadian@nu.edu.eg	Senior Member	IEEE Egypt Section
Wolfgang	Mathis	Institute for Theoretical Electrical Engineering, Leibniz University Hannover	mathis@tet.uni- hannover.de	Fellow	IEEE Germany Section
Erivelton Geraldo	Nepomuceno	Department of Electrical Engineering, Federal University of São João del- Rei, Brazil	nepomuceno@ufsj.edu. br	Senior Member	IEEE Minas Gerais Section
Alberto	Oliveri	University of Genoa, Italy	alberto.oliveri@unige.it	Member	IEEE Italy Section
Fabio	Pareschi	Politecnico di Torino, Italy	fabio.pareschi@polito.it	Senior Member	IEEE Italy Section
Costas	Psychalinos	Department of Physics, Electronics Laboratory, University of Patras, Greece	cpsychal@upatras.gr	Senior Member	IEEE Greece Section
Hiroo	Sekiya	Graduate School of Engineering, Chiba University, Japan	hiroo.sekiya@ieee.org	Senior Member	IEEE Tokyo Section
Marco	Storace	University of Genoa, Italy	marco.storace@unige.it	Senior Member	IEEE Italy Section
Johan	Suykens	Department of Electrical Engineering, ESAT- STADIUS, Katholieke Universiteit Leuven, Belgium	johan.suykens@esat.kul euven.be	IEEE Fellow	IEEE Benelux Section
Ljiljana	Trajkovic	School of Engineering Science, Simon Fraser University, Canada	ljilja@cs.sfu.ca	Life Fellow	IEEE Vancouver Section
Yoko	Uwate	Tokushima University, Japan	uwate@ee.tokushima- u.ac.jp	Member	IEEE Shikoku Section
Chai Wah	Wu	IBM T.J. Watson Research Center in New York, Usa	cwwu@us.ibm.com	Fellow	IEEE Mid- Hudson Section
Jiajing	Wu	School of Data and Computer Science,Sun Yat- sen University, China	wujiajing@mail.sysu.edu .cn	Member	IEEE Guangzhou Section
Yongxiang	Xia	College of Information Science and Electronic Engineering, Zhejiang University, China	xiayx@zju.edu.cn	Senior Member	IEEE Zhejiang Subsection
Mustak Erhan	Yalcin	Department of Electronics and Communication Engineering, Istanbul Technical University, Turkey	mustak.yalcin@itu.edu.tr	Senior Member	EEE Turkey Section

# 3. Accomplished Technical Activities

**3.1. IEEE Conference/Event organizations** Conference/events that were technically and financially co-sponsored by the CAS Society are highlighted in bold.

TC Member	Conference Sponsors	Conference/Event Title	Your Role
Chai Wah Wu	IEEE CAS	ISCAS 2020	Co-chair Special Session Committee
Yongxiang Xia	IEEE CAS	ISCAS2019	Track Chair, Session Chair
Ljiljana Trajkovic	IEEE SMC Society	IEEE SMC 2020	General Co-Chair
Ljiljana Trajkovic	IEEE SMC Society	IEEE SMC 2020 and 2019 Brain-Machine Interface Workshops	General Co-Chair
Ljiljana Trajkovic	IEEE Smart Cities Initiative	2020 IEEE International Smart Cities Conference	Workshop Co-Chair
Ljiljana Trajkovic	IEEE SMC Society	IEEE International Symposiums on Intelligent Systems and Informatics, SISY 2020 and SISY 2019	Honorary Chair
Ljiljana Trajkovic	IEEE SMC Society	International Conferences on System Science and Engineering, ICSSE2020 and ICSSE 2019	Advisory Committee/Steering Committee

Ljiljana Trajkovic	IASAE	International Conference on Computer Science	Publication Co-Chair
		and Software Engineering, CSSE 2019 2nd International Conference on Algorithms,	
Ljiljana Trajkovic	IEEE UP India	Computing and Artificial Intelligence, ACAI 2019 Women Institute of Technology Conference on	Publication Chair
Ljiljana Trajkovic	Section, IEEE WiE, IEEE YP	Electrical and Computer Engineering-2019, IEEE WITCON ECE-2019	Honorary General Chair
Ljiljana Trajkovic	IEEE CAS Society	International Workshop on Complex Systems and Networks, WCSN 2019, Berlin, Germany	Workshop Organizer
Ljiljana Trajkovic	Springer	Second International Conference on Networks and Advances in Computational Technologies, NetACT 19	Technical Program Chair
Storace Marco	IEEE CAS	26th IEEE International Conference on Electronics Circuits and Systems (ICECS2019)	Awards Co-Chair Co-Chair of the "Linear and Non- linear Circuits and Systems" Sub-Committee
Wing-Kuen Ling	IEEE Signal Processing Society	International Conference on Acoustics, Speech and Signal Processing 2019	Publicity Chair
Wing-Kuen Ling	IEEE Communication Society	IEEE/IET International Symposium on Communication Systems, Networks and Digital Signal Processing 2020	International Technical Committee Member
Mustak E. Yalcin	IEEE CAS	The 26th IEEE International Conference on Electronics Circuits and Systems (ICECS)	Technical Program Committee member
Mustak E. Yalcin	IEEE CAS	the International Conference on Modern Circuits and Systems Technologies MOCAST 2020	Technical Program Committee member
Tommaso Addabbo	IEEE CAS	ISCAS 2020	Track Chair (Track 9. Nonlinear Systems and Circuits Theory)
Zbigniew Galias	IEEE CAS	ISCAS 2020	Review Committee Member
Zbigniew Galias	IEEE CAS	ICECS 2019	Technical Committee Member
Federico Bizzarri	IEEE CAS	MWSCAS 2019	Track Chair (Linear and Nonlinear Circuits and Systems)
Federico Bizzarri	IEEE CAS	ICECS 2020	Technical Committee Member
Elena Blokhina	IEEE CAS	ISCAS 2020 (Seville, Spain – virtual)	Tutorial Co-Chair
Elena Blokhina	IEEE CAS	ISICAS 2020 (Paris, France – virtual)	Program Co-Chair; managing editor of TCAS-I
Elena Blokhina	IEEE CASS	NEWCAS 2019 in Munich, Germany	Publication Chair; managing editor of TCAS-I
Elena Blokhina	IEEE CASS	ICECS 2019 (Genova, Italy)	WiCAS Co-chair
Elena Blokhina	IEEE CASS	PRIME/SMACD 2019, 2020	Steering committee member
Ahmed Madian	IEEE CAS	The 32nd International Conference on Microelectronics (ICM 2020), Jordan	Technical Program Co-chair
Ahmed Madian	IEEE CAS	The 27th IEEE International Conference on Electronics Circuits and Systems (ICECS 2020), UK	Technical program committee member
Ahmed Madian	IEEE CAS	63rd IEEE International Midwest Symposium on Circuits and Systems	Technical program committee member / Reviewer
Chi-Tsun Cheng	IEEE CAS	IEEE International Conference on Artificial Intelligence Circuits and Systems	Area Chair
Alberto Oliveri	IEEE CAS	ICECS 2020	Social Media Chair
Alberto Oliveri	IEEE CAS	ICECS 2020	Technical Committee Member
Jiajing Wu	IEEE CAS	IEEE International Symposium on Circuits and Systems (ISCAS)	RCM, Special session organizer
Hiroo Sekiya	IEEE CAS	ISCAS2019	Special Session Co-Chair
Hiroo Sekiya	IEEE CAS	ISOCC2019	Special Session Co-Chair
Manuel Dominguez- Pumar	IEEE CAS	ICECS 2019	Track 10 MEMS and sensory systems co-chair.
Manuel Dominguez- Pumar	NASA, ESA	IPPW 2019 International Planetary Probe Workshop	Co-chair of the Science Instrumentation, Experiments, and In-Situ Measurements Session

**3.2. IEEE Journal Editorships:** Journals that are (co-)sponsored by the CAS Society are highlighted in bold.

TC Member	Journal Sponsors	Journal Title	Your Role
Ahmed Elwakil	IEEE CAS	IEEE Tran. Circuits & Systems -I: Regular papers	Associate Editor
Chai Wah Wu	IEEE CAS	IEEE Circuits and Systems Magazine	Editor-in-Chief

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Erivelton Geraldo Nepomuceno	IEEE R9	IEEE Latin America Transactions	Associate Editor Steering Committee
Erivelton Geraldo Nepomuceno	IEEE CAS	IEEE Trans. Circuits and Systems II- Express Briefs	Associate Editor
Yongxiang Xia	IEEE CAS	IEEE Trans. Circuits and Systems II- Express Briefs	Associate Editor
Alessandro Colombo	IFAC	Nonlinear Analysis - Hybrid Systems	Associate Editor
Fabio Pareschi	IEEE CAS	IEEE Open Journal of Circuits and Systems	Associate Editor
Ljiljana Trajkovic	IEICE	Nonlinear Theory and its Applications (NOLTA), Institute of Electronics, Information and Communication Engineers	Editor
Ljiljana Trajkovic	IEEE Communications Society, IEEE CAS Society	IEEE Transactions on Network Science and Engineering, Special Issue on Network of Cyber-Social Networks: Modeling, Analysis, and Control	Guest Associate Editor (with Xiang Li)
Ljiljana Trajkovic	IOS Press	Journal of Intelligent & Fuzzy Systems, Special Section: Soft Computing and Intelligent Systems: Techniques and Applications	Guest Associate Editor (with S. M. Thampi et al.)
Ljiljana Trajkovic	Crimson Publishers	Trends in Telemedicine & E-health	Member of the Editorial Board
Ljiljana Trajkovic	Universal Wiser Publisher	Journal of Cloud Computing and Data Science	Member of the Editorial Board
Ljiljana Trajkovic	Ministry of Science of Serbia	Serbian Journal of Electrical Engineering	Member of the Editorial Board
Ljiljana Trajkovic	IEEE/CAA	Journal of Automatica Sinica	Member of the Steering Committee
Wing-Kuen Ling	Elsevier	Journal of the Franklin Institute	Associate editor
Wing-Kuen Ling	Elsevier	Measurement	Associate editor
Wing-Kuen Ling	Elsevier	Measurement: Sensors	Associate editor
Wing-Kuen Ling	Springer	Circuits, Systems and Signal Processing	Associate editor
Wing-Kuen Ling	IET	IET Signal Processing	Associate editor
Wing-Kuen Ling	American Institute of Mathematical Sciences	Journal of Industrial and Management Optimization	Associate editor
Wing-Kuen Ling	Isaac Scientific Publishing	Frontiers in Signal Processing	Associate editor
Xiang Li	IEEE CAS	IEEE Transactions on Network Science and Engineering	Associate Editor
Mustak E. Yalcin	IEEE CAS	IEEE Trans. Circuits and Systems II- Express Briefs	Associate Editor
Zbigniew Galias	IEEE CAS	IEEE Trans. Circuits and Systems II- Express Briefs	Associate Editor
Francis C.M. Lau	IEEE CAS	IEEE Trans. Circuits and Systems II- Express Briefs	Associate Editor
Federico Bizzarri	IEEE CAS	IEEE Open Journal of Circuits and Systems	Associate Editor
Federico Bizzarri	IEICE	Nonlinear Theory and its Applications (NOLTA), Institute of Electronics, Information and Communication Engineers	Associate Editor
Elena Blokhina	IEEE CAS	IEEE Tran. Circuits & Systems -I: Regular papers	Deputy Editor in Chief
Ahmed Madian	Springer	Analog Integrated circuits and signal processing Special Issue of selected papers from ICM 2018	Guest Editor
Ahmed Madian	Elsevier	AEUE Special issue of Novel Intelligent and Leading Emerging Sciences Conference	Guest Editor
Chi-Tsun Cheng	IEEE CAS	IEEE Trans. Circuits and Systems II- Express Briefs	Associate Editor
Herbert Ho- Ching lu	IEEE CAS	IEEE Journal on Emerging and Selected Topics in Circuits and Systems	Associate Editor-in- Chief
Herbert Ho- Ching lu	IEEE CAS	IEEE Trans. Circuits and Systems II- Express Briefs	Associate Editor
Herbert Ho- Ching lu	IEEE CAS	IEEE Transactions on Network Science and Engineering	Associate Editor
Danilo Comminiello	IEEE CAS	IEEE Transactions on Circuits and Systems, I: Regular Papers	Associate Editor

Alberto Oliveri	IEEE CAS	IEEE Transactions on Circuits and Systems, I: Regular Papers	Associate Editor
Jiajing Wu	IEEE CAS	IEEE Trans. Circuits and Systems II- Express Briefs	Associate Editor
Johan Suykens	IEEE-CIS	IEEE Transactions on Neural Networks and Learning Systems	Associate Editor
Johan Suykens	IEEE-CIS	IEEE Transactions on Artificial Intelligence	Associate Editor
Hiroo Sekiya	IEEE CAS	EEE Trans. Circuits and Systems II- Express Briefs	Associate Editor
Hiroo Sekiya	IEEE PELS	IEEE JESTPE	Associate Editor
Yoko Uwate	IEEE CAS	EEE Trans. Circuits and Systems II- Express Briefs	Associate Editor

**3.3. Awards, Honors, and Recognition** (Fellow, Distinguished Lecturer, Outstanding Service, Best Paper Awards, and so on by the CAS Society)

TC Member	Awards / Honors / Recognition	Period
Erivelton Geraldo	IEEE Senior Member Grade Elevation, Institute of Electrical and Electronics	2020
Nepomuceno	Engineers (IEEE).	
Fabio Pareschi	Winner of the BioCAS Transactions Best Paper Award Recipients	2019
Ljiljana Trajkovic	IEEE SMC Society Distinguished Lecturer	2020 - 2021
Ahmed Madian	Outstanding service Award ICM 2019, Egypt	December 2019
Herbert Ho-Ching lu	2019 Transactions on Very Large Scale Integration Systems Best Paper	2019
Therbert Ho-Ching Id	Award	2013
Herbert Ho-Ching lu	2019 Best Paper Award, IEEE International Conference on Artificial	2019
Therbert Ho-Chillig Id	Intelligence Circuits and Systems	2019
Danilo Comminiello	Certificate of Appreciation. In recognition for time and effort as an Associate Editor for the Transaction on Circuits and Systems I: Regular Papers	Dec. 2019
	Outstanding Reviewer Award. For maintaining the prestige of the 44th IEEE	
Danilo Comminiello	International Conference on Acoustics, Speech and Signal Processing	May 2019
	(ICASSP), Brighton, UK, May 2019.	
Wolfgang Mathis	"Medal of Honor" of the German Electrical Engineering Society (VDE)	2019-2020

## 3.4. Keynote Speeches/Invited Talks:

TC Member	Invited by	Event/Conference Title	Talk Title	Date
Ljiljana Trajkovic	Dr. Alexander Gelman	IEEE BlackSeaCom 2020, Odessa, Ukraine (keynote talk)	"Complex networks"	May 27, 2020
Ljiljana Trajkovic	Prof. M. K. Dutta	Centre for Advanced Studies, Lucknow, India (invited lecture)	"Complex networks"	May 16, 2020
Ljiljana Trajkovic	Conference Organizers	London, UK (keynote talk)	"Complex networks"	April 1, 2020
Ljiljana Trajkovic	Conference Organizers	Beijing, China (keynote talk)	"Complex networks"	October 26, 2019
Ljiljana Trajkovic	Dr. Fei-Yue Wang	Hsue-Shen Tsien Lecture Series: Zhongguancun Innovation + Application Scene Incubation Competition Final & AI Forum, "Exploration of China in the age of intelligence," Beijing, China	"Complex networks"	October 25, 2019
Ljiljana Trajkovic	Workshop Organizers	International Workshop on Complex Systems and Networks, WCSN 2019, Berlin, Germany (invited talk)	"Detecting network anomalies and intrusions"	September 26, 2019
Ljiljana Trajkovic	Prof. Imre Rudas	17th IEEE International Symposium on Intelligent Systems and Informatics, SISY 2019, Subotica, Serbia, (keynote talk)	"Complex networks"	September 13, 2019
Ljiljana Trajkovic	Prof. Yo-Ping Huang	ICSSE 2019, Dong Hoi, Vietnam, (keynote talk)	"Complex networks"	July 20, 2019
Ljiljana Trajkovic	Prof. Yo-Ping Huang	National Taipei University of Technology, Taipei, Taiwan 2019 (invited lecture)	"Complex networks"	July 16, 2019
Ljiljana Trajkovic	Prof. Yo-Ping Huang	National Taipei University, New Taipei City, Taiwan 2019 (invited lecture)	"Complex networks"	July 15, 2019

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Costas Psychalinos	Ahmed Radwan	Novel Intelligent and Leading Emerging Sciences conference (NILES – IEEE#50944)	Development of fractional-order CMC analog integrated circuits for interdisciplinary applications	Oct. 29, 2019
Wing-Kuen Ling	Kok-Lay Teo	Industrial and Management Optimization Conference	Properties of singula spectrum analysis	18/10/2019
Francis C.M. Lau	Chinese Association fo Cryptologic Research	Chaotic encryption and communication conference	Design and Implementation of El Correction Codes Approaching the Ultimate Shannon Li	October 2019
Elena Blokhina	Drs Hadi Heidari and Sara Ghoreishizageh	UKCAS 2019 Meeting in London UK	Kinetic energy harvesters and future challenges for IoT ar Wearable Devices	6th December 2019
Ahmed Madian	Military Technical Colleague, Egypt	2020 The 12th INTERNATIONAL CONFERENCE ON ELECTRICAL ENGINEERING (ICEENG)	Emerging Technology in Encryption systems	7 July 2020
Chi-Tsun Cheng	RMIT University	Engaging for Impact 2020	Digital Transformation in local SMEs - Helping SMEs lay the tracks for Australia's digitalisation express train	4 Feb 2020
Chi-Tsun Cheng	St. Vincent Hospital, Melbourne, Australia	Digital Transformation in local SMEs - Challenges and Solutions	Digital Transformation in local SMEs - Challenges and Solutions	15 Nov 2019
Chi-Tsun Cheng	University of Western Australia	An invited talk co-organised by PACE and IEEE Circuits and Systems Society WA Section	Data aggregation algorithms: From WSN, IoT, to I4.0	4 Nov 2019
Chi-Tsun Cheng	RMIT University	Engaging for Impact 2019	Help Australian industries to hop on the express train of industry 4.0: barriers, alternatives, and opportunities	20 Feb 2019
Johan Suykens	Hussein Abass	WCCI 2020	Deep learning, neural and kernel machines: new synergies	July 24, 2020

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

TC Member	Organization	Position/Activities	Period
Erivelton Geraldo	IEEE student branch	Counselor (I helped to setup the first student branch	2019-2020
Nepomuceno		at my university)	
Ljiljana Trajkovic	IEEE	Division X Delegate/Director	2019 - 2020
Ljiljana Trajkovic	IEEE	Member, IEEE Tellers Committee	2020
Ljiljana Trajkovic	IEEE	Member, IEEE History Committee, IEEE Board of	2020
		Directors Coordinator	
Ljiljana Trajkovic	IEEE	Member, IEEE Audit Committee	2019 - 2020
Ljiljana Trajkovic	IEEE	Member, IEEE Technical Activities	2020
		Board/Publications Services and Products Board,	
		Products & Services Committee (PSC), PSPB	
		Representative	
Ljiljana Trajkovic	IEEE	Chair, IEEE Gustav Robert Kirchhoff Award	2019 - 2020
		Committee	
Ljiljana Trajkovic	IEEE	Member, IEEE Technical Activities Board,	2020
		Nominations and Appointments Committee	
Ljiljana Trajkovic	IEEE	Member, Financial Transparency ExCom	2018 - 2020
Ljiljana Trajkovic	IEEE CAS Society	Member, IEEE CASS Meritorious Service Award	2020

		Sub-Committee	
Ljiljana Trajkovic	IEEE CAS Society	Member, IEEE CASS Education Award Sub- Committee	2020
Ljiljana Trajkovic	IEEE SMC Society	Vice-Chair, IEEE Control Systems Society, Robotics and Automation Society, and Systems, Man, and Cybernetics Society Chapter of the Vancouver Section	2011 - present
Ljiljana Trajkovic	IEEE Simon Fraser University Student Branch	Mentor	2008 - present
Ljiljana Trajkovic	IEEE CAS Society	Chair, IEEE Circuits and Systems Society joint Chapter of the Vancouver/Victoria Sections	2001 - present
Marco Storace	TC-NCAS	Chair elect	2019/2021
Federico Bizzarri	TC-NCAS	Secretary	2019/2021
Elena Blokhina	TC-NCAS	Chair	2019 – current
Elena Blokhina	University College Dublin IEEE Student Branch and IEEE CAS Student Branch Chapter	Counsellor	2017 – current
Ahmed Madian	IEEE CAS Egypt Technical chapter	Chair and founder	March. 2020
Ahmed Madian	IEEE Egypt Section	IEEE Egypt Section Secretary and Ex-COM member	Jan. 2020
Danilo Comminiello	IEEE CIS	Member of the Task Force on Computational Audio Processing of the IEEE Computational Intelligence Society	2018-Now
Hiroo Sekiya	IEEE CAS	BoG	2020-2023
Hiroo Sekiya	IEEE PELS	Secretary, Japan Joint Chapter	2020-2022
Yoko Uwate	IEEE CAS Society	Secretary, IEEE CAS Shikoku Chapter	
Wolfgang Mathis	IEEE-CAS	Member of the committee "Gustav Kirchhoff Award"	2019-2021
Wolfgang Mathis	IEEE-CAS	Member of the committee "CAS Fellow Award"	2020

### 5. TC Significant Technical Leadership and Innovations

- Elena Blokhina: Organizer / Editor of the IEEE ISICAS special issue in IEEE TCAS-I. IEEE ISICAS (International Symposium on Integrated Circuits and Systems) is a journal track conference with accepted papers being published in IEEE TCAS-I [2018, 2019 and 2020].
  - ISICAS 2018: The TCAS-I special issue contains 38 accepted papers selected from a total of 109 submissions. These papers cover a wide spectrum of topics in analog and mixed signal circuits and systems, digital circuits and VLSI, signal processing, circuits and systems for communications and power electronics. Editorial team: Edoardo Bonizzoni, Alessandro Cilardo, Pasquale Corsonello, Valencia Koomson, Filippo Neri, Philip Mok, Zhihua Wang, Marvin Onabajo, Xuan (Silvia) Zhang, and Domenico Zito. Publication: October 2018.
  - ISICAS 2019: The TCAS-I special issue contains 34 papers selected from a total of 71 submissions. These papers cover a wide spectrum of topics in analog and mixed signal circuits and systems, digital circuits and VLSI, signal processing, circuits and systems for communications, CAD, nonlinear systems and power electronics. Editorial team: Edoardo Bonizzoni, Alessandro Cilardo, Giulia Di Capua, Subhanshu Gupta, Mehran Kermani, Valencia Koomson, Filippo Neri, Marvin Onabajo, Teerachot Siriburanon and Domenico Zito. Publication: August 2019.
  - ISICAS 2019: In progress, 96 papers received. Editorial team: Teerachot Siribuarnon, Domenico Zito, Giulia Di Capua, Filippo Neri, Mehran Kermani, Marvin Onabajo, Deepu John, Yaxiao Qin, Luciano Agostini, Yue Zhang, Seok-Bum Ko, Joo Young, Peng Li. Expected publication date: September 2020.
  - Fabio Pareschi: "2019 BioCAS Transactions Best Paper Award Recipients" for the paper "Hardware-Algorithms Co-Design and Implementation of an Analog-to-Information Converter for Biosignals Based on Compressed Sensing" co-authored by "Fabio Pareschi, Pierluigi Albertini, Giovanni Frattini, Mauro Mangia, Riccardo Rovatti, Gianluca Setti" (IEEE Transactions on Biomedical Circuits and Systems, Volume: 10, Issue: 1, Feb. 2016). The

Biomedical Circuits and Systems Best Paper Award recognizes the best paper published in the "Transactions on Biomedical Circuits and Systems" publication. The award is based on general quality, originality, contributions, subject matter and timeliness. Anyone who is an author of a paper published in the "Transactions on Biomedical Circuits and Systems" during the three calendar years preceding the award is eligible for nomination.

- Herbert Ho-Ching lu: "2019 VLSI Transactions Best Paper Award Recipients" for the paper "Neuromorphic Vision Hybrid RRAM-CMOS Architecture" co-authored by "ason Kamran Eshraghian, Jr., Kyoungrok Cho, Ciyan Zheng, Minho Nam, Herbert Ho-Ching lu, Wen Lei, Kamran Eshraghian" (IEEE Transactions on Very Large Scale Integration (VLSI) Systems Volume: 26, Issue: 12, Dec. 2018). The Very Large Scale Integration Systems Best Paper Award recognizes the best paper published in the "Transactions on Very Large Scale Integration Systems" publication. The award is based on general quality, originality, contributions, subject matter and timeliness. Anyone who is an author of a paper published in the "Transactions on Very Large Scale Integration Systems" during the three calendar years preceding the award is eligible for nomination.
- Yongxiang Xia and Jiajing Wu: organization of the Special session entitled "Reliability of complex and nonlinear networked systems: Analysis, design and control" at the 2019 IEEE International Symposium on Circuits and Systems (ISCAS 2019). There were nine submitted papers and all of them were accepted for presentation.
- Ahmed Madian: Chair and founder of the IEEE CASS Egypt Technical chapter. The CASS
  Egypt Technical chapter has been established on 10 Feb. 2020 with a total number of CASS
  members in Egypt section around thirty-one. The petition has been submitted by Dr. Ahmed
  Madian (founder of CASS TC Egypt) and signed by twelve CASS members. The CASS Chapter
  will launch soon its website, and technical webinar will be organized in Egypt to promote CASS
  TC.