

2020 Annual Report (June 2019 – May 2020)
Power and Energy Circuits and Systems Technical Committee (PECAS-TC)
IEEE Circuits and Systems Society

Chair: Tyrone Fernando
Secretary: Giulia Di Capua

1. Technical Committee Meeting(s):

Please state the number of TC meetings in the past year, where held, TC meeting attendance rate, and was a quorum present.

The PECAS TC in the IEEE Circuits and Systems (CAS) Society usually organizes one annual TC meeting, in-person and at a convenient conference venue. In particular, the annual meeting of the PECAS-TC is normally held in conjunction with the IEEE International Symposium on Circuits and Systems (ISCAS).

Last PECAS-TC annual meeting was held in occasion of the IEEE ISCAS 2019, on 29 May 2019, at the Seminar Room 3 of the Sapporo City Industrial Promotion Center. A total number of 16 members attended the meeting.

The 2020 PECAS-TC annual meeting was originally planned in occasion of the IEEE ISCAS 2020, and has been postponed, due to covid-19 pandemic and conference venue restrictions.

The PECAS TC officers plan to have a virtual meeting before the end of the current year, in conjunction with IEEE ISCAS 2020 virtual event (10-21 October 2020).

This coming virtual meeting will also represent the opportunity for the PECAS-TC to split the traditional face-to-face annual meeting in two annual meetings for the future, one in-person (late springtime, at the IEEE ISCAS venue) and one in virtual mode (in fall time, probably). This proposal will be discussed during the next PECAS-TC meeting and suggested as possible solution to achieve meetings quorum.

2. Members submitted Annual Reports:

To date, the PECAS-TC counts 71 active members (*voting members*) and 1 corresponding member (*affiliate members, with no right to vote*).

In the following, we listed the records of all members who replied to the annual report request (the list order just reflects the time the members provided their response to such request).

#	First Name	Last Name	Affiliation	Email	IEEE Grade	IEEE Region
1	Luis	Alberto	Dept. of Electrical and Computer Eng., University of Sao Paulo	lfcaberto@usp.br	Senior	R9
2	Daniel	Molzahn	School of Electrical and Computer Eng., Georgia Institute of Technology	molzahn@gatech.edu	Senior	R4
3	Dong (Adam)	Liu	Dept. of Electronic and Information Eng., The Hong Kong Polytechnic University	adam.d.liu@connect.polyu.hk	Member	R10
4	Hiroo	Sekiya	Graduate School of Eng., Chiba University	sekiya@faculty.chiba-u.jp	Senior	R10
5	Chi-Seng	Lam	State Key Lab. of Analog and Mixed-Signal VLSI & Inst. of Microelectronics, University of Macau	cslam@um.edu.mo	Senior	R10
6	Xiaozhe	Wang	Dept. of Electrical and Computer Eng., McGill University	xiaozhe.wang2@mcgill.ca	Member	R7
7	Wing-Kuen	Ling	School of Information Eng., Guangdong University of Technology	yongquanling@gdut.edu.cn	Senior	R10
8	Ian	Hiskens	Dept. of Electrical Eng. and Computer Science, University of Michigan	hiskens@umich.edu	Fellow	R4
9	Chi Tsun (Ben)	Cheng	Dept. of Manufacturing, Materials and Mechatronics, RMIT University	ctcheng@ieee.org	Senior	R10
10	Jianping	Guo	School of Electronics and Information Technology, Sun Yat-sen University	guojp3@mail.sysu.edu.cn	Senior	R10
11	Ke-Hong	Chen	Dept. of Electrical and Computer Eng. University of National Chiao Tung	khchen@cn.nctu.edu.tw	Senior	R10
12	Yongxiang	Xia	School of Communication Eng., Hangzhou Dianzi University	xiaiyx@hdu.edu.cn	Senior	R10

13	Aleksandra	Lekić	Faculty of Electrical Eng., Mathematics and Computer Science, TU Delft	a.lekic-vervoort@tudelft.nl	Member	R8
14	Xiaolu (Lucia)	Li	Dept. of Electronic and Information Eng., The Hong Kong Polytechnic University	xiaolu.li@connect.polyu.hk	Member	R10
15	Junmin	Jiang	Texas Instruments Inc., Kilby Labs	junmin.jiang@ti.com	Member	R10
16	Yan	Lu	Institute of Microelectronics, University of Macau	yanlu@umac.mo	Senior	R10
17	Hsiao-Dong	Chiang	School of Electrical and Computer Eng., Cornell University	hc63@cornell.edu	Fellow	R1
18	Sijun	Du	Dept. of Electrical Eng. and Computer Science, University of California at Berkeley	sijun@berkeley.edu	Member	R6
19	Giovanni	Spagnuolo	Dept. of Computer Eng., Electrical Eng. and Applied Mathematics, University of Salerno	gspagnuolo@unisa.it	Fellow	R8
20	Elkim Felipe	Roa Fuentes	Electrical Eng. School, Universidad Industrial de Santander	efroa@uis.edu.co	Member	R9
21	Dongsheng	Yu	School of Electrical and Power Eng., University of Mining and Technology	dongsiee@163.com	Member	R10
22	Guido	Torelli	Dept. of Electrical, Computer and Biomedical Eng., University of Pavia	guido.torelli@unipv.it	Senior	R8
23	Herbert	Ho-Ching lu	School of Electrical, Electronic and Computer Eng., University of Western Australia	herbert.iu@uwa.edu.au	Senior	R10
24	Tyrone	Fernando	Dept. of Electrical Electronic and Computer Eng., University of Western Australia	tyrone.fernando@uwa.edu.au	Senior	R10
25	Chia-Chi	Chu	Dept. of Electrical Eng., National Tsing Hua University	ccchu@ee.nthu.edu.tw	Senior	R10
26	Yang (Tim)	Jiang	Institute of Microelectronics, University of Macau	yang.jiang@connect.um.edu.mo	Member	R10
27	Alberto	Reatti	Dept. of Information Eng., University of Florence	alberto.reatti@unifi.it	Member	R8
28	Xi	Zhang	School of Automation, Beijing Institute of Technology	xizhang@bit.edu.cn	Member	R10
29	Karen	Miu Miller	Dept. of Electrical and Computer Eng., Drexel University	km42@drexel.edu	Member	R2
30	Herminio	Martínez-García	Dept. of Electronic Eng., Technical University of Catalonia	herminio.martinez@upc.edu	Member	R8
31	Hiroataka	Koizumi	Dept. of Electrical Eng., Tokyo University of Science	littlespring@ieee.org	Member	R10
32	Adrian	Ioinovici	Electrical and Electronics Eng., Holon Institute of Technology	adrian@hit.ac.il	Fellow	R8
33	Zhen (Daniel)	Li	School of Automation, Beijing Institute of Technology	zhenli@bit.edu.cn	Senior	R10
34	Giulia	Di Capua	Dept. of Computer Eng., Electrical Eng. and Applied Mathematics, University of Salerno	gdicapua@unisa.it	Senior	R8

3. Accomplished Technical Activities

3.1. IEEE Conference/Event organizations (2019-2020):

Please highlight conference/events **technically and/or financially co-sponsored by the CAS Society**

Your Name	Conference Sponsors	Conference/Event Title	Your Role
Hiroo Sekiya	IEEE CAS	ISCAS 2019 IEEE Int. Symposium on Circuits and Systems 26-29 May 2019 Sapporo, Japan	Special Session Co-Chair
Hiroo Sekiya	IEEE CAS	ISOCC 2019 17 th International SoC Design Conference 6-9 October 2019 Jeju Island, Korea	Special Session Co-Chair
Chi-Seng Lam	IEEE CAS	ISICAS 2019 2019 Int. Symposium on Integrated Circuits and Systems 29-30 August 2019 Venice, Italy	Session Chair
Chi-Tsun (Ben) Cheng	IEEE CAS	AICAS 2019 IEEE Int. Conf. on Art. Intelligence Circuits and Systems 18-19 March 2019 Taiwan	Area Chair
Jianping Guo	IEEE CAS	ICTA 2020 IEEE Int. Conf. on Integrated Circuits, Tech.s and Appl. 23-25 November 2020 Nanjing, China	Committee Member
Ke-Horng Chen	IEEE CAS	AVIC 2019 IEEE Conference on Analog VLSI Circuits 28-30 October 2019 Yilan, Taiwan	Publicity Co-Chair
Yongxiang Xia	IEEE CAS	ISCAS 2020 IEEE Int. Symposium on Circuits and Systems 11-21 October 2020 Seville, Spain (virtual)	Session Chair and Review Committee Member
Yan Lu	IEEE CAS	ICECS 2019 IEEE Int. Conf. on Electronics Circuits and Systems 27-29 November 2019 Genoa, Italy	Track Co-Chair
Yan Lu	IEEE CAS	ICECS 2020 IEEE Int. Conf. on Electronics Circuits and Systems 23-25 November 2020 Glasgow, UK	Track Co-Chair
Elkim Felipe Roa Fuentes	IEEE CAS	LASCAS 2019 IEEE Latin American Symposium on Circuits and Systems 24-27 February 2019 Armenia, Quindio, Colombia	Organizer and Demo Chair, Session Chair
Elkim Felipe Roa Fuentes	IEEE CAS	LASCAS 2020 IEEE Latin American Symposium on Circuits and Systems 25-28 February 2020 San José, Costa Rica	Technical Program Committee Member and Session Chair
Elkim Felipe Roa Fuentes	IEEE CAS	ISCAS 2020 IEEE Int. Symposium on Circuits and Systems 11-21 October 2020 Seville, Spain (virtual)	Demo co-chair and Technical Program Committee Member
Dongsheng Yu	IEEE CAS	ISCAS 2020 IEEE Int. Symposium on Circuits and Systems 11-21 October 2020 Seville, Spain (virtual)	Session Chair
Guido Torelli	IEEE CAS	PRIME 2019 15th Conf. on Ph.D. Research in Microelectronics and Electronics 15-18 July 2019 Lausanne, Switzerland	Technical Committee Member
Hiroataka Koizumi	IEEE CAS	ISCAS 2020 IEEE Int. Symposium on Circuits and Systems 11-21 October 2020 Seville, Spain (virtual)	Review Committee Member
Yang (Tim) Jiang	IEEE CAS	APCAS 2019 Asia Pacific Conference on Circuits and Systems 11-14 November 2019 Bangkok, Thailand	Review Committee Member
Yang (Tim) Jiang	IEEE CAS	ICECS 2020 IEEE Int. Conf. on Electronics Circuits and Systems 23-25 November 2020 Glasgow, UK	Technical Program Committee Member
Tyrone Fernando	IEEE CAS	ISCAS 2020 IEEE Int. Symposium on Circuits and Systems 11-21 October 2020 Seville, Spain (virtual)	Track co-chair and Review Committee Member
Giulia Di Capua	IEEE CAS	ICECS 2019 IEEE Int. Conf. on Electronics Circuits and Systems 27-29 November 2019 Genoa, Italy	WiCAS co-Chair, Special Session Organizer and co-Chair

Giulia Di Capua	IEEE CAS	ISCAS 2019 IEEE Int. Symposium on Circuits and Systems 26-29 May 2019 Sapporo, Japan	Review Committee Member, Special Session Organizer and co-Chair
Giulia Di Capua	IEEE CAS	SMACD 2019 International Conference on Synthesis, Modeling, Analysis and Simulation Methods and Applications to Circuit Design 15-18 July 2019 Lausanne, Switzerland	Technical Program Committee Chair and Review Committee Member
Giulia Di Capua	IEEE CAS	ICECS 2020 IEEE Int. Conf. on Electronics Circuits and Systems 23-25 November 2020 Glasgow, UK	YP & WiCAS co-Chair, Track co-Chair
Giulia Di Capua	IEEE CAS	ISCAS 2020 IEEE Int. Symposium on Circuits and Systems 11-21 October 2020 Seville, Spain (virtual)	Track co-chair, Review Committee Member, Special Session Organizer and co-Chair

3.2. IEEE Journal Editorships (2019-2020):

Please highlight journals that are (co-)sponsored by the CAS Society, cf., <https://iee-cas.org/publications>)

Your Name	Journal Sponsors	Journal Title	Your Role
Luís Alberto	IEEE CAS	IEEE Trans. on Circuits and Systems II: Express Briefs	Associate Editor
Hiroo Sekiya	IEEE CAS	IEEE Trans. on Circuits and Systems II: Express Briefs	Associate Editor
Chi-Seng Lam	IEEE CAS	IEEE Trans. on Circuits and Systems II: Express Briefs	Guest Editor for ISICAS 2020
Xiaozhe Wang	IEEE CAS	IEEE Trans. on Circuits and Systems II: Express Briefs	Associate Editor
Chi-Tsun (Ben) Cheng	IEEE CAS	IEEE Transactions on Circuits and Systems II	Associate Editor
Ke-Hong Chen	IEEE CAS	IEEE Trans. on Circuits and Systems I: Regular Papers	Associate Editor
Yongxiang Xia	IEEE CAS	IEEE Trans. on Circuits and Systems II: Express Briefs	Associate Editor
Yan Lu	IEEE CAS	IEEE Trans. on Circuits and Systems II: Express Briefs	Guest Editor for ISICAS 2019
Herbert Ho-Ching lu	IEEE CAS	IEEE Jour. on Emerging and Selected Topics in Circuits and Systems	Associate Editor-in-Chief
Herbert Ho-Ching lu	IEEE CAS	IEEE Trans. on Circuits and Systems II: Express Briefs	Associate Editor
Tyrone Fernando	IEEE CAS	IEEE Trans. on Circuits and Systems I: Regular Papers	Associate Editor
Giulia Di Capua	IEEE CAS	IEEE Trans. on Circuits and Systems I: Regular Papers	Associate Editor
Giulia Di Capua	IEEE CAS	IEEE Trans. on Circuits and Systems I: Regular Papers	Guest Editor for ISICAS 2020
Giulia Di Capua	IEEE CAS	IEEE Trans. on Circuits and Systems I: Regular Papers	Guest Editor ISICAS 2019
Giulia Di Capua	IEEE CAS	IEEE Trans. on Circuits and Systems II: Express Briefs	Guest Editor for Special Issue on ISCAS 2020
Giulia Di Capua	IEEE CAS	IEEE Trans. on Circuits and Systems I: Regular Papers	Guest Editor for Special Issue on APCCAS 2019, ICECS 2019, LASCAS 2020
Giulia Di Capua	IEEE CAS	IEEE Trans. on Circuits and Systems I: Regular Papers	Guest Editor for Special Issue on ISCAS 2019, NEWCAS 2019, MWSCAS 2019

3.3. Awards, Honors, and Recognition (2019-2020)

2019-20 Fellow elevation, Distinguished Lecturer currently in service, Outstanding Service, CAS conferences/journals Best Paper Awards, etc., assigned by the CAS Society

Your Name	Awards / Honors / Recognition	Period
Dong (Adam) Liu	Student Paper Award <i>nomination</i> (conference paper) IEEE Int. Symposium on Circuits and Systems	May 2019, ISCAS, Japan
Elkim Felipe Roa Fuentes	Best Paper <i>candidate</i> (conference paper) IEEE Int. Symposium on Circuits and Systems	May 2019, ISCAS, Japan
Elkim Felipe Roa Fuentes	Best Demo Award (demo paper) IEEE Latin American Symposium on Circuits and Systems	February 2019, LASCAS, Colombia
Elkim Felipe Roa Fuentes	Best Paper <i>candidate</i> (conference paper) IEEE Int. Symposium on Circuits and Systems	October 2020, ISCAS, Spain
Herbert Ho-Ching lu	Best Paper Award (journal paper) Transactions on Very Large Scale Integration Systems	2019
Herbert Ho-Ching lu	Best Paper Award (conference paper) IEEE Int. Conf. on Artificial Intelligence Circuits and Systems	March 2019, AICAS, Taiwan
Giulia Di Capua	Best Paper Award (conference paper) Int. Conf. on Synthesis, Modeling, Analysis and Simulation Methods and Applications to Circuit Design (SMACD)	July 2019, SMACD, Switzerland

3.4. Keynote Speeches/Invited Talks (2019-2020):

Please highlight speeches and/or talks held in **(co-)sponsored CAS events**, or promoted by **CAS chapters/sections**.

Your Name	Invited by	Event/Conference Title	Talk Title	Date
Chi-Tsun (Ben) Cheng	University of Western Australia	Invited talk co-organized by the Power and Clean Energy research group (PACE) and IEEE Circuits and Systems Society WA Section	Data aggregation algorithms: From WSN, IoT, to I4.0	Nov 2019
Elkim Felipe Roa Fuentes	Ricardo Reis	EMICRO http://www.projetos.unijui.edu.br/emicro-sim/ Supported by IEEE CAS and CEDA	Low-Energy Always-On Subsystems and Circuits Enabling Security in RISC-V based SoCs	April 2020

3.5. Other distinguished IEEE services (2019-2020)

For example, CAS BoG, region/chapter leadership, TC chairs/secretary, in the frame of CAS society

Your Name	Organization	Position/Activities	Period
Hiroo Sekiya	IEEE CAS	CAS BoG	2020-2023
Tyrone Fernando	IEEE CAS	PECAS-TC chair	2019-2020
Zhen (Daniel) Li	IEEE CAS	PECAS-TC chair-elect	2019-2020
Giulia Di Capua	IEEE CAS	PECAS-TC secretary	2019-2020

5. TC Significant Technical Leadership and Innovations

Please list 5 (or less) most significant TC activities in the past year, for example, but not limited to:

(1) Established/organized new CASS journals/conferences/workshops. 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. 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)

- Special Session on “Security of complex and nonlinear networked systems: Analysis, control and optimization”, ISCAS 2020, Seville, Spain (1 session, 5 papers)
Yongxiang Xia, organizer and session chair
- Special Session on “Saturable Inductors: Modeling, Characterization and Impact on Power Converters Performance”, ICECS 2019, Genova, Italy (1 session, 6 papers)
Giulia Di Capua, organizer and session chair
- Special Session on “Modeling, simulation, testing and design of inductive power transfer systems for electric vehicles”, ISCAS 2020, Seville, Spain (2 sessions, 9 papers)
Giulia Di Capua, organizer and session chair

(3) Organized new CASS initiatives

(4) Established cross-TCs/SIGs collaborations

(5) Awards received by the TC or the TC members
