# IEEE CIRCUITS AND SYSTEMS SOCIETY ELECTION OF MEMBERS TO THE BOARD OF GOVERNORS For a Three-Year Term 1 January 2023 – 31 December 2025

# Candidates for Regional Member-at-Large from Region 8 Vote for One



**SORIN DAN COTOFANA** (M'93-SM'00-F'17) received the MSc degree in Computer Science from "Politehnica" University of Bucharest, Romania, and the PhD degree in Electrical Engineering from Delft University of Technology, Delft, The Netherlands, in 1984 and 1998, respectively. He has 38 years of work experience in Computer Engineering related topics varying from Computer Aided Design to Computer Architecture, Logic Design, and implementation, and has been active both in industry, i.e., the Research and Development Institute for Electronic Components (ICCE), Bucharest, and academia.

He is currently faculty member with the Electrical Engineering, Mathematics and Computer Science Faculty, Delft University of Technology, Delft, the Netherlands. His current research is focused on: (i) the design and implementation of

dependable/reliable systems out of unpredictable/unreliable components; (ii) ageing assessment/prediction and lifetime reliability aware resource management; and (iii) unconventional computation paradigms and computation with emerging nano-devices, with emphasize on graphene and spin wave devices.

He (co-)authored more than 300 papers in international journals and conferences and received 13 international conferences best paper awards, e.g., 2012 IEEE Conference on Nanotechnology, 2012 ACM/IEEE International Symposium on Nanoscale Architectures, 2005 IEEE Conference on Nanotechnology, and 2001 International Conference on Computer Design.

He served as Associate Editor for IEEE Transactions on Nanotechnology (2008-2014), IEEE Transactions on Circuits and Systems I (2009-2011), and NanoCommet: Nano Communication Networks (2010-2014), Chair of the Giga-Nano IEEE CASS Technical Committee (2013-2015), IEEE Nano Council CASS representative (2013-2014), Member of the Senior Editorial Board of IEEE Journal on Emerging and Selected Topics in Circuits and Systems (2016-2017), and Member of IEEE Transactions on Multi-Scale Computing Systems Steering Committee (2014-2018). He is currently Editor in Chief of IEEE Transactions on Nanotechnology.

He has been actively involved in the organization of many international conferences by serving as program committee member of, e.g., ISCAS, ICECS, NGCAS, DATE, ASAP, ARITH, and/or being part of the organizing committee of, e.g., NANOARCH (General Chair, Technical Program Chair), ISCAS (Nano-Giga Track Chair), ICECS (Track Chair, Special Session Chair), ESSCIRC (Workshop Chair). He regularly attends about 6 conferences per year, and reviews for IEEE journals, e.g., IEEE Transaction on CAS, IEEE Transactions on Computers, IEEE Transactions on Nanotechnology, and CASS related international conferences.

Statement: If elected, I am willing to serve on the Board of Governors for the IEEE Circuits and Systems Society.

The current technological ecosystem embeds mainstream well-established technologies as well as a wide variety of blossoming emerging devices and applications, which potentially may bring novel opportunities into the field. In view of this I consider that CASS' most important tasks are: (i) support, stimulate, and promote the potential of these emerging directions; (ii) adapt the electrical engineering discipline, i.e., remove obsolete/irrelevant parts, add new parts, such that it can keep the pace with the rapid and profound technological landscape change. Moreover, I believe that biggest challenge faced by the society is the increasing gap between technological developments and our capability to make proper use of them. Bringing state of the art developments to people's use, while preserving ethical/moral values, seems to me even more challenging than fostering technological developments. CASS certainly can play an active role in this matter by: (i) organizing activities targeting people's technological awareness increase and (ii) giving more attention to ethics related issues, e.g., plagiarism, misuse of technology.

If elected I will strive for CAS adaptation to the new technological ecosystem, in line with the previous discussion, such that the community can properly address societal and technical challenges and take full advantage of technological innovation potential.

## Relevant Experience

I have 38 years of work experience in computer engineering related topics varying from computer aided design to computer architecture, logic design, and implementation. I have been IEEE member for 25 years and in my career, I have been active both in industry, and in academia, thus, I am familiar with both industry and academia culture, needs and expectations.

I have been actively involved in IEEE activities as journal editor, conference organizer, member of technical and program committees, and reviewer and contributor of technical papers for IEEE conferences and journals. I served as an Associate Editor for IEEE Transaction on CAS-I (2009-2011), IEEE Transactions on Nanotechnology (2008–2014), and IEEE Transaction on Computers (2019-2022), and Senior Editor and Associate Editor in Chief of IEEE Transactions on Nanotechnology (2015–2019). In 2020 I was appointed as Editor in Chief of Transactions on Nanotechnology (2015–2019). In 2020 I was appointed as Editor in Chief of Transactions on Nanotechnology and I am currently serving my second term. I actively participated in international conference organization as, General Chair (e.g., IEEE NANO 2022, NANOARCH 2018), Technical Program Chair (e.g., NANOARCH 2018), Track Chair (e.g., ISCAS 2016, ICECS 2019), Special Session Chair (e.g., ICECS 2016), Workshop Chair (e.g., ESSCIRC 2013) and as program committee member, e.g., ISCAS, DATE, ASAP, ARITH. I regularly attend about 6 conferences per year, and I review for IEEE Transaction on CAS, IEEE Transactions on Computers, IEEE Transactions on Nanotechnology, and CASS related international conferences.

## CASS Publications and Conferences

In my view CASS publications and conferences are the most important elements on the CASS agenda as they make the society "business card". Given that they reflect and disseminate the results of member scientific activities, which may have an impact on future technological developments, it is of premium importance that the published materials are of high quality and relevant within the state of the art technological and societal context. If elected, I will devote my efforts to raise the quality and visibility of the flagship CASS conference, ISCAS. I think that ISCAS needs a better focus on novel technological developments, e.g., emerging devices, and more industrial participation in order to attract more high-quality submissions.

## Extending the Reach and Attractiveness of CASS

Education is one of the most, if not the most, important challenge of our times. In view of this it is crucial to attract more young science and engineering students to the field of electronic circuits and systems. If elected, I will strive to setup and participate in CASS sponsored actions meant to present our filed to young students in an attempt to make them choose CAS as profession.

International collaboration and domain cross-fertilization are key elements that lead to faster scientific progress and could strengthen CASS. If elected, I will strive to promote collaboration among research teams from different regions, from academia and industry, and, last but not least, from different (not necessary traditionally related) fields. I will also work on increasing the cooperation with other IEEE societies and councils, in particular with the IEEE Nano Council.

Questions: 1) What are in your opinion the three most important services that CASS should provide to its membership?

- 1. A framework for professional interaction and networking.
- 2. Access to infrastructure and means for continuing education.
- 3. High quality journals, conferences, and workshops covering well-established domains as well as new emerging directions in the field.

2) Mention one large long-term initiative that CASS should undertake in the next two years and that you would help to establish if elected.

Combat moral and ethical infringements, e.g., plagiarism, misuse of technology, and consolidate the moral and ethical code and the associated monitoring and code enforcement framework.

3) Mention three ways for CASS to reach/serve a specific part of the CAS community that you consider of particular importance (Industry, Academia, young CAS members, members of a specific region)

- 1. Get graduate students and industry people more involved in technical activities and organize more student/industry-oriented events, e.g., competitions, demo sessions, in CASS sponsored conferences.
- 2. Provide fresh graduate students financial support for conference participation and society membership fee discount for the first 2-3 years after the graduation.
- 3. Organize continuous education-oriented events, e.g., courses, tutorials, covering the latest technological developments which are of interest for companies interested in operating at the knowledge and engineering leading edge. Facilitate industry-academia interaction by, e.g., promoting the setup of collaborative projects by organizing workshops/meetings that facilitate information exchange between the two communities.



**JOSÉ M. DE LA ROSA** (S'96-M'01-SM'06-F'20) José M. de la Rosa received the M.S. degree in Physics in 1993 and the Ph.D. degree in Microelectronics in 2000, both from the University of Seville, Spain. Since 1993 he has been working at the Institute of Microelectronics of Seville (IMSE), which is its turn part of the Spanish Microelectronics Center (CNM) of the Spanish National Council of Scientific Research (CSIC). He is presently the vice-director of IMSE and he is also a Full Professor at the Dept. of Electronics and Electromagnetism of the University of Seville.

His main research interests are in the field of analog and mixed-signal integrated circuits, especially high-performance (sigma-delta) data converters, including analysis, behavioral modeling, design and design automation of such circuits. In these topics, Dr. de la Rosa has participated in a number of Spanish and European research and industrial projects, and has co-authored over 260 international publications, including journal and conference papers, book chapters and the books

Systematic Design of CMOS Switched-Current Bandpass Sigma-Delta Modulators for Digital Communication Chips (Kluwer, 2002), CMOS Cascade Sigma-Delta Modulators for Sensors and Telecom: Error Analysis and Practical Design (Springer, 2006), Nanometer CMOS Sigma-Delta Modulators for Software Defined Radio (Springer, 2011) and CMOS Sigma-Delta Converters: Practical Design Guide (Wiley-IEEE Press, 2013, 2nd Edition, 2018).

Dr. de la Rosa served a Distinguished Lecturer of the IEEE Circuits and Systems Society (term 2017-2018), is a member of the Analog Signal Processing Technical Committee of IEEE-CASS, and he has served as Chair of the Spain Chapter of IEEE-CASS during the term 2016-2017. He was at the front of the Editorial Board of IEEE Transactions on Circuits and Systems II: Express Briefs, where he served as Deputy Editor-in-Chief since 2016 to 2019, and as Editor-in-Chief in the term 2020-2021. He is a member of the TechRxiv Editorial Advisory Board since 2022. He also served as Associate Editor for IEEE Transactions on Circuits and Systems I: Regular Papers, where he received the 2012-2013 Best Associate Editor Award and was Guest Editor for the Special Issue on the Custom Integrated Circuits Conference (CICC) in 2013 and 2014. He served as Guest Editor of the Special Issue of the IEEE J. on Emerging and Selected Topics in Circuits and Systems on Next-Generation Delta-Sigma Converters. He is a member of the Steering Committee of IEEE MWSCAS and he has also involved in the organizing and technical committees of diverse international conferences, among others IEEE ISCAS, IEEE MWSCAS, IEEE ICECS, IEEE LASCAS, IFIP/IEEE VLSI-SoC and DATE. He served as TPC chair of IEEE MWSCAS 2012, IEEE ICECS 2012, IEEE LASCAS 2015 and IEEE ISICAS (2018, 2019). He has been a member of the Executive Committee of the IEEE Spain Section (terms 2014-2015 and 2016-2017), where he served as Membership Development Officer during the term 2016-2017. He has been named an IEEE Fellow as of January 2020.

#### Contact data and more details at www.imse-cnm.csic.es/~jrosa

**Statement:** I am very pleased to present my candidacy to be a Member at Large of the Board of Governors (BoG) of the IEEE-CASS. Along my career, I have served in different IEEE-CASS positions, including technical and organizing committees of flagship conferences, Distinguish Lecturer, Chair of the Spain Chapter and IEEE membership development officer (Spain Section). I have been a member of the Editorial Boards (EBs) of the Transactions on Circuits and Systems (TCAS) – Parts I and II, being the Editor-in-Chief (EiC) of TCAS-II in the term 2020-2021. Over these years, I have been very fortunate to work with many IEEE-CASS officers, EB and TC colleagues, from whom I learnt a lot and with whom we did all our best to give our IEEE-CASS peers the best service. Among others, I am very proud to have contributed to boom the impact factor of CASS journals – very specially TCAS-II – to their highest scores ever.

#### The added value of networking

It is certainly the added value provided by a great network of experts in so many diverse topics of circuits and systems what makes CASS strong. However, CASS members should get more benefits from being part of this worldwide and multidisciplinary network of researchers to increase and expand their education skills, professional career opportunities and access to research funds. Although several initiatives has been run in the last years to increase the presence of CASS in digital media, and to reinforce cooperation among different regions, chapters and technical committees, there is still much work to do it in order to benefit from the networking opportunities provided by CASS.

Prompted by this challenge, if I am selected as Member at Large of IEEE-CASS BoG, I will put all my efforts to exploit networking actions as part of the added value provided by CASS membership. These networking actions can be implemented by means of at least three different services offered only to CASS members:

- A web repository of course/lab materials, notes, simulation testbenches,... This is especially useful to learn and reinforce the know-how on a given topic. Although there are some similar tools provided by IEEE – such as Dataport – the topics of interest for CASS members are somehow disperse.

- A "funding opportunities & Collaboration" website. For instance, this website could publish open calls for projects, funding opportunities, PhD positions, etc. available in different regions. For instance, information about project programs such as Horizon-Europe in Europe (IEEE R8), National Science Foundation (US, R1-6), etc. can be collected and posted in a specific CASS site. This site would collect essential information and would also allocate expressions of interest of CASS members, thus making easier to make project consortiums.

- Project-oriented Workshops organized in IEEE-CASS flagship conferences, to provide information about different educational and project funding resources, present project ideas and proposals, to help CASS members make consortiums for project proposals in different IEEE-CASS regions.

If I am elected as member of IEEE-CASS BoG, I would dedicate my efforts to work with CASS officers and staff to develop the aforementioned networking actions. I would try to promote these activities through the organization of workshops in CASS flagship conferences. I would also benefit from my experience working in Editorial Boards (EB), mostly in CASS, and more recently as a member of the IEEE TechRxiv Advisory Board, to manage the implementation of websites, digital repositories, etc.

## Increase the presence of CASS in society

In the last few years, CASS has put lot of efforts in increasing its presence in digital social networks. As former EiC of TCAS-II, I began working with my EiC team to work on some of these initiatives, by posting relevant news, editorial comments, etc. in the journal and CASS sites at Twitter and LinkedIN. In addition to these actions, I would propose to increase the presence of CASS in digital media, by creating weekly (or monthly) podcasts published in different platforms, i.e. iOS, Android. I would also propose to have a dedicate CASS-TV show, similar to IEEE tv, but focused on CASS topics.

CASS should be more involved in outreach activities, which are becoming more and more present in our universities and academic institutions. This would help visualize CASS in society – not only in academic forums but in more general /not technical audiences – as well as to attract young engineers to be part of our community.

A third way to further reach CASS community is by the in-person networking. After these two years of social restrictions imposed by the pandemic, I think we all agree that the face-to-face interaction has no rival in human communication. Thus, we should take opportunity of our conferences and events to further increase the visibility of CASS as technical society. One way to do this (but not the only one) is by means of the mentioned workshops, which help to put in touch well-known CASS members with young professionals, etc. The interaction between CASS chapters is also very important to spread CASS presence, reaching their members and attracting new ones by means of events organized by chapters around the globe.

My main motivation to serve as a member of the IEEE-CASS BoG is to get advantage of my experience to continue giving our peers the best service and the unique experience of being part of this great community. To address this great responsibility, I will count on my strong willingness and illusion to assume this challenge, which will be translated into the required time and dedication to maintain and improve the excellence of our society. This is indeed the only thing I can assure and guarantee if I am elected as a Member at Large of IEEE-CASS BoG: hard work, hard work and more hard work!

Questions: 1) What are in your opinion the three most important services that CASS should provide to its membership?

- 1. CASS should exploit their huge and rich network organization to provide membership with educational materials and tools to help students, faculty members and engineers to enhance their knowledge and practical insight on CAS topics. In addition to the already available websites and educational activities (tutorials, distinguished lectures, etc), a (web) repository should be provided with course materials and notes, simulation testbenches, etc.
- 2. Create and manage a website with information about funding opportunities available in different IEEE regions.
- 3. Facilitate networking and collaboration in the diverse CAS fields, to make it easier CASS members to form project consortiums.

2) Mention one large long-term initiative that CASS should undertake in the next two years and that you would help to establish if elected.

I will dedicate my efforts to work with CASS officers and IEEE staff to develop networking actions to help CASS members to get access to knowledge on CAS topics as well as funding opportunities for PhD scholarships and projects. These actions can be promoted through the organization of workshops in CASS flagship conferences. I would take advantage of my experience working in Editorial Boards (EB), mostly in CASS, and more recently as a member of the IEEE TechRixiv Advisory Board, to manage the implementation of digital repositories.

(Please see candidate position statement for details).

3) Mention three ways for CASS to reach/serve a specific part of the CAS community that you consider of particular importance (Industry, Academia, young CAS members, members of a specific region)

1. Further increase the presence of CASS in digital media, by creating periodical (monthly) podcasts published in different platforms. I would also propose to have a dedicated CASS-tv show, similar to IEEE tv, but focused on CASS topics.

2. Involve CASS members in outreach activities, which are becoming more and more present in our universities and academic institutions.

3. CASS must be much more visible in conferences and forums, putting in touch well-known CASS members with young professionals, students or peers who live in regions with less resources.

(Please see candidate position statement for details).



**JOÃO GOES** (S'95-M'99-SM'09) João Goes (NOVA University of Lisbon) I graduated from Instituto Superior Técnico, Lisbon, in Electrical and Computer Engineering (ECE), in 1992. I obtained the MSc and the PhD degrees in ECE, in 1996 and 2000, respectively, from the Technical University of Lisbon.

## Academic experience:

I have been with the Department of Electrical and Computer Engineering (DEEC) of the Faculty of Sciences and Technology (FCT) of NOVA, since 1998, where I became a Full Professor in 2018.

My research interests are data-converters, design of analog and mixed-signal circuits and EDA/CAD tools.

I have supervised 20 PhD and over 50 MSc Theses. I have published over 200 papers in peer-reviewed international journals (50+) and IEEE flagship conferences, and I am co-author of 8 scientific books.

Industrial experience:

From 1997 until 1998, I was Project Manager at CHIPIDEA SA (now SYNOPSYS).

In 2003, I co-founded and served, for 4 years, as the CTO (and Board member) of ACACIA Semiconductor, a Portuguese engineering company specialized in high-performance data converter and analog front-end products (acquired by Silicon and Software Systems, in 2007, now part of RENESAS).

#### Management experience:

From 2012 till 2019 I headed the ECE Department comprising 50 professors and over MSc 1000 students. From 2012 to 2017, I was the Director of the Centre of Technology and Systems (CTS) of the Research Institute for The New Technologies (UNINOVA), leading nearly Senior Researchers with a PhD, over 70 collaborators (holding a PhD) and more than 100 PhD students.

I have been elected a member of the Scientific Council of FCT NOVA for 12 years, and I has been recently elected a member of the General Council of NOVA University, the top governing body the University, for the next 4-year term (comprising only 27 members from a universe of 25,000 people among professors, students, and non-academic staff).

## Service to IEEE and CASS:

I am Senior Member of IEEE since 2009 (Member since 1995) and Member of the Circuits and Systems (CAS) and Solid-State Circuits (SSC) Societies.

I was the Chairman of the IEEE CASS Analog Signal Processing Technical Committee, ASPTC, for a 2-year term (2013-2015).

I was one of the key organizers and the TPC co-Chairman of IEEE ISCAS'2015, held in Lisbon in 24-27 May 2015 (a very successful event), as well as the TPC co-Chairman of PRIME'2016.

I have been serving the technical program committee (TPC) of numerous conferences, such as, IEEE ISCAS, IEEE PRIME and IEEE ESSxxRC.

I am currently the Vice-Chair of IEEE ESSxxRC'2022, to be held in Milan, Italy, and I will be the General-Chair of IEEE ESSxxRC'2023 to be held in Lisbon, Portugal, in 2023.

I have been Associate Editor of IEEE Transactions on Circuits and Systems - II - Express-Briefs, for the period 2016-2023 (8 year's period).

**Statement:** My work during the past 30 years stems from a well-balanced background in research within both, academia, and industry. As a matter of fact, I have experienced how cutting-edge research results are produced through academia-industry collaborations. I believe that members' participation is crucial to the vitality of IEEE CAS Society, as the contributions of members and volunteers are an integral part of strengthening the existing link between industry and academia. Additionally, due to my management duties, at the University and during the past decade, I believe I can contribute to improve the global impact of CAS Society.

In fact, I have some fundamental concerns regarding the recent evolution and future of the CAS Society. If I am elected, it is my intention to promote the discussion and to try to contribute to the resolution of some of the most pressing problems, namely:

1) CAS Society is currently and clearly suffering from an identity crisis. What really is CAS? In fact, the CAS tries to embrace all circuits and all systems in all fields and domains of application and this, in my opinion, is the wrong approach. Trying to cover all areas greatly reduces the effectiveness and the impact of the Society. In this context the BOG should, in the next couple of years, conduct an in deep reflection on what the true scope of circuits and systems should be, and consequently identify the core domains of CAS, excluding all areas of more ancillary and/or redundant interest.

2) The Society should help members to stay current in the phase of the emergence of new techniques and with the continuous evolution of new technologies. This is indeed an obligation and one of the main services that the Society should provide to its members. In this context, the CAS Society has failed in its mission because it has not, in my view, provided its members with tutorial materials of sufficient quality and pedagogical content and refreshment courses. In fact, it is common to read in the main scientific journals of the Society, extensive 'survey' articles, too vertical and with a reduced pedagogical quality. These papers are usually the result of individual proposals and not of direct requests from the Society. For this purpose, I believe the production of tutorial materials with a high pedagogical value should be either invited or commissioned from those best prepared, both technically and pedagogically.

3) There has been a saturation of publications in scientific journals and international conferences in recent years. One often receives the Society's monthly scientific journals and finds that they have doubled or even tripled their number of pages compared to a few years ago. This is not at all effective and has no practical nor useful value either from an academic or an industrial point of view. As a matter of fact, the traditional model of publishing in journals and conferences it exhausted. At the same time, the publication models have been changing substantially, with numerous new open access journals being created. The scientific journals should be much more devoted to tutorial material at the expense of an excessive number of too narrow and highly specialized papers. Additionally, conferences tend to be hybrid events. Society should see this new paradigm not as a threat but rather embrace it, as an opportunity, since it allows not only a greater diversity of formats, but also better and much more democratized access to scientific content by student members and by all members with fewer economic resources.

Questions: 1) What are in your opinion the three most important services that CASS should provide to its membership?

- 1. Access to high-quality scientific publishing material such as articles, conference papers and presentation videos.
- 2. Provide tutorial materials with pedagogical value.
- 3. Provide networking opportunities involving academia and industry members in flagship CASS conferences.

2) Mention one large long-term initiative that CASS should undertake in the next two years and that you would help to establish if elected.

Similarly, to what happened in the US, the EU Commission has recently proposed the "European Chip Act" to ensure the EU's security of supply, resilience and technological leadership in semiconductor technologies and applications. In this context, I propose to launch a comprehensive set of initiatives and design challenges, targeting MSc and PhD students, for which EU funding will be sought.

3) Mention three ways for CASS to reach/serve a specific part of the CAS community that you consider of particular importance (Industry, Academia, young CAS members, members of a specific region)

Considering young CAS members, particularly Doctoral Students, I propose organizing mix-and-match events and industry sessions in flagship CAS conferences. Moreover, I plan to enhance educational efforts via advanced tutorials, practical workshops, and hands-on training. Additionally, it would be also important to promote, periodically, CAS Chapters' Congresses, locally, by region.

## Candidates for Regional Member-at-Large from Region 10 Vote for One



**BAH-HWEE GWEE** (S'93-M'97-SM'03) received his B.Eng degree from University of Aberdeen, UK, in 1990. He received his M.Eng and Ph.D. degrees from Nanyang Technological University in 1992 and 1998 respectively. He is an Associate Professor at the School of Electrical and Electronic Engineering, Nanyang Technological University, Singapore. He is also the Deputy Director of National Integrated Center of Evaluation, Singapore. He has been working on a number of research projects with research project with the grant amounting to more than US\$10m including the Co-PI of US DARPA project. He has authored or co-authored about 150 publications on journals (mostly IEEE Transactions) and conference proceedings. He is co-author of a book, Digital Pulse Width Modulator and 3 book chapters. He is the Co-Inventor of 3 US granted patents and Co-Founder of 2 Start-ups in 2005 and 2020. His primary research interests include asynchronous circuits, dynamic voltage scaling and subthreshold circuits, secured ICs, hardware assurance, physical hardware attacks and countermeasures. He was the Chair of IEEE Singapore Circuits and Systems Chapter in 2005, 2006, 2013 and 2016.

In 2018-2020 he was the Chair of the "Digital Signal Processing" Technical Committee of the IEEE Circuits and Systems Society, Distinguished Lecturer in 2009-2010 and 2017-2018. He currently serves in the editorial board of The IEEE Circuits and Systems Magazine. He serves or has served as Associate Editor of a number of journals (IEEE Transactions on CAS – Part I, IEEE Transactions on CAS – Part II and Journal of Circuits, Systems and Signal Processing). He is/was the General Co-Chair of IEEE DSP 2018, IEEE SOCC 2019, IEEE ISICAS 2021 and IEEE ISCAS 2026. He was Technical Program Chair of the ISIC 2007, 2011 and 2016 conferences, Track Chair in ISCAS 2017- 2021 and a panelist for the ISCAS 2021 Young Professional Event. He serves or has served as panelist for several funding agencies and research programs in the Singapore (MoE, Defence, NRF) and Portuguese FCT. He was awarded Temasek Laboratories @ NTU Best Publication Award in 2012 and EEE Teaching Excellence Award in 2013. He is or was the Keynote Speaker for IEEE PAINE 2020, IEEE APCCAS 2020 and IEEE MCSoC 2021. He was awarded the Defence Technology Prize, Singapore, in 2016.

**Statement:** I have been an active CAS member since 1998 and I have personally contributed to our Society in various capacities, being part of the CAS Singapore Chapter Committee and the Distinguished Lecturer Program, Technical Committee Chair, Editor for a number of IEEE journals and General Co-Chair of various CAS conferences, among the others. Through working closely with colleagues from academia, industry, and government agencies, I have a deep understanding and amassed much experience and ready to taking up challenges as to address the current and upcoming endeavours for our CAS Society especially in this difficult Covid period where everyone of us is facing many uncertainties. The Board of Governors plays an important role in guiding and shaping the directions of the key programs and new initiatives of the CASS society. The rapid progress in our wide and interdisciplinary field brings many opportunities and challenges both in terms of new knowledge and in continually reinventing and improving our systems and processes to overcome unprecedented problems. In my opinion, the rapid change in the way where the knowledge is created, transferred, and applied, is redefining every role in our community and in our Society. It is imperative to set a clear and focus direction as to help the members to explore and exploit their knowledge and network to efficiently tackle the new challenges. One of the challenges faced by the CAS Society is the new, and interesting research direction have continued to evolve. Concerted and coordinated research effort towards common direction is needed to synergistically address truly fundamental challenges, and to attract young professionals and engineers who want to make an improving technology as to improve human life.

Questions: 1) What are in your opinion the three most important services that CASS should provide to its membership?

- 1. The CAS magazine, society journals, and web publications should provide our members with the state-of-the-art research breakthroughs to continually improve knowledge in their current field and to guide them in new and emerging fields.
- 2. The conferences and symposium including flagship ISCAS, regional and area specific conferences should create opportunities to foster collaborations, and exchange of research ideas.
- 3. The workshops and seminars by providing the opportunity to learn from interaction with more senior members while mentoring newer members.

2) Mention one large long-term initiative that CASS should undertake in the next two years and that you would help to establish if elected.

University academia are relentlessly searching for the applications for their new inventions while industry professionals are continually exploring the solutions for the problems which they have encountered during the product development. The CAS Society can take a leading role as to foster border and deeper collaborations among industry and university through interactive technical activities including technical tours/visits, seminars, and workshops to share new highly interdisciplinary research directions and applications. I plan to organize activities as to foster interaction between university academia and industry professionals in topical areas.

- 3) Mention three ways for CASS to reach/serve a specific part of the CAS community that you consider of particular importance (Industry, Academia, young CAS members, members of a specific region)
  - 1. CASS has large network of local chapters throughout the world. Greater coordination between the CASS chapters, Industry, and IEEE Student Branches on college campuses allow the industry member mentoring the student members and provide internship/job recruitment opportunities.
  - 2. CAS magazine and web publications provide articles on both eminent inventors of state-of-the-art research and exploring current and emerging topics.
  - 3. The flagship ISCAS meeting with CASS topical conferences enable valuable opportunities for discussion and networking. To encourage more industry partners to participate in the exhibitions and product sharing.



**YONGFU LI** (S'09-GSM'13-M'14-SM'18) received his B.Eng. and Ph.D. degrees from the Department of Electrical and Computing Engineering, National University of Singapore (NUS), Singapore. I am an Associate Professor with the Department of Micro and Nano Electronics Engineering (DMNE) and MoE Key Lab of Artificial Intelligence, Shanghai Jiao Tong University (SJTU), China. Previously, I served as assistant head of DMNE, in charge of the industrial, outreach, alumni, and international collaboration programs. These duties allow me to promote our IEEE CASS to the local and international industrial communities. Before joining SJTU, I was working in NUS as a research engineer, from 2013 to 2014 and GLOBALFOUNDRIES as a senior engineer (2014-2016), principal engineer (2016-2018), and member of technical staff (2018-2019) in Design-to-Manufacturing (DFM) Computer-Aided Design (CAD) department.

Over the past few years, I have been appointed to the IEEE CASS Board of Governors as a Young Professionals Representative in 2020-2021, serving in the IEEE CASS Women in CAS - Young Professionals (WiCAS-YP) Steering

Committee, the IEEE CASS Publication (2021), and Technical Activities (2020) Division, IEEE CASS Digital Communications AdHoc Committee, and IEEE CASS Mentoring Program Committee (2021). I have been appointed as the Chair-Elect of IEEE CASS Standard Activities Sub Division. I am the advisor for the IEEE CAS SJTU Student Branch Chapter and co-founder of the IEEE CAS Shanghai Young Professionals Affinity Group. I am also involved as an organization duty or technical committee member for several IEEE flagship and regional CASS conferences/workshops such as IEEE ISCAS (2019-2021, 2024, 2026), ISICAS (2020-2021), BioCAS (2021-2022), NEWCAS (2019-2020), APCCAS/PrimeAsia (2018, 2021-2022), ASP-DAC (2019-2020), ICTA (2020-2022), ISVLSI (2018-2019), IEEE CAS Seasonal School (2019), and IEEE CASS AI-Forum (2019, 2021). I also served as an associate editor in TBioCAS (2020-2023), IEEE OJ-CAS (2019, 2022-2023), Springer Journal of SJTU Science (2020-2021), and Frontier in Computational Neuroscience (2022).

**Statement:** IEEE CASS is a multidisciplinary engineering professional body with world-leading industrial leaders and academic researchers. It plays a pivotal role in providing valuable services and specialized training to help individuals to gain the knowledge necessary to advance their careers, conveyed in a way that is most compatible with their needs.

From industry to academic, from Singapore to China, as a member of CASS for the past 13 years, CASS has significantly impacted and improved my professional career. I have been fortunate to get excellent mentorship, and guidance from my academic advisor, Professor Yong Lian, IEEE CASS Executive Committee, IEE CASS BoG members, and Industrial mentors. In 2019, I have joined Shanghai Jiao Tong University (SJTU) after working in the semiconductor industry for more than 5 years. This transition allows me to devote more time to serving our CASS community, from a combined perspective of industry and academics. During the past 2 years, I have done in the IEEE CASS BoG as the appointed Young Professional (YP) Chair. I have been able to witness every volunteer contributing towards accomplishing our society's mission and vision through this role. My dedication paid off when we received the prestigious IEEE YP Hall of Fame Award. This year, I was fortunate to be nominated and elected as the Chair-Elect for our IEEE CASS Standard Activities Sub Division (IEEE CASS SASD), supporting Dr. Kiran Gunnam and a team of excellent IEEE CASS seniors to establish various IEEE Standard Committees.

All our efforts are directed towards achieving the IEEE CASS Mission, which is to "foster technological innovation and excellence in fundamentals, emerging directions and application of circuits and systems for the benefits of humanity through an interdisciplinary community". Our IEEE CASS vision is to "advance and promote Circuits and Systems knowledge framed in interdisciplinary to be essential to the global and diverse technical community and be universally recognized for providing and leading solutions to the United Nations' Sustainable Development Goals". The transition from IEEE CASS YP to the IEEE CASS SASD and various important CASS events and initiatives is of significant importance for my personal development as well as my continuing commitment to our society. As I strongly believe in our IEEE CASS mission and vision, I hope to continue my effort through "enriching", "engaging" and "recognizing" (EER) with the three groups of our CASS members, namely (1) our YP/graduate student members, (2) our industrial members, and (3) our new members.

<Reaching out to our global community by establishing CASS student branch chapters and identifying CASS YP volunteers across all regions> To reinforce connections with our CASS chapters and student members, I hope to reach out to all chapters and work out a sustainable plan to establish the CASS student branch chapters (SBC). This allows us to build a network of active CASS YP volunteers across different geographical regions to organize similar regional activities with less effort. I have established the IEEE CASS SJTU SBC and Shanghai YP affinity group (YP AG). Now, I am trying out the concept of a joint CASS-SBC/YP/WIE interest group in Shanghai, not only to maintain sustainable costs but also to enrich the diversity of participants for CASS activities. We have constantly shared our activities on social networks and initiated a healthy group of more than 60 members in our SJTU SBC and YP AG. If I can represent the IEEE CASS R10 Regional Member at Large, I hope that this plan can be replicated across the country, the region, and the rest of the world. <Increasing awareness among our local community through industrial engagement>

To increase our awareness and attract new members, especially members from our semiconductor industry, I have had the opportunity to work on several related activities over the past two years as the assistant head of the Department of Micro and Nanoelectronics at SJTU, where I was in charge of our department's industrial program, outreach program, alumni program, and international collaboration program.

In 2019, I organized the IEEE CASS Seasonal School, where I invited both academic and industrial speakers on AI and testing automation topics. Subsequently, I have also worked with our past IEEE CASS VP TA, YK Chen on the IEEE CASS Industrial Forum.

In 2021, as the pandemic starts to subside, I have the opportunity to be involved in the annual semiconductor industrial forum and SJTU alumni networking session. This event has drawn more than 4,000 key executive members in our semiconductor industry, which has allowed me to advertise our effort in IEEE CASS SASD. In addition, I organized an R10 interdisciplinary forum across China, creating more opportunities for our members to have face-to-face interactions. We had more than 150 people attend in person and 60,000 people watched the live stream. Moreover, our on-site publicity for IEEE CASS resulted in more than 50 students applying for IEEE student membership on-site. http://cassnewsletter.org/Volume15-Issue6/chapters-news.html

I am also working closely with the Shanghai Talent Hub and Shanghai Pudong Union to understand the needs of our semiconductor industry. We have successfully organized several industrial visits and the China EDA forum. Since October 2021, I have started recruiting volunteers to assist in the IEEE Global Membership Drive across our regional conferences, starting with ISICAS, BioCAS, APCCAS, and so on. This will help elevate our IEEE CASS members who have contributed significantly to our industry.

<Extending our influence in the online community through social media>

I have been fortunate to work with Professor Nicole and our CASS members on our digital communication platforms over the past 2 years. In particular, our TBioCAS digital communication committees (Professor Guoxing Wang, Professor Samuel Tang, and me) have regular Wechat posts and Linkedin activities. I have also started actively contributing articles to our IEEE CASS newsletter. I hope that I can influence my fellow chapters to build great branding in our newsletter and our social media platforms.

To conclude, I hope that I will be able to identify new members and provide excellent services to our existing members for the next three years or more.

Questions: 1) What are in your opinion the three most important services that CASS should provide to its membership?

- 1. Enrich our members: The MILEs and online webinars are outstanding programs that consolidate information on CASS's website and benefit our members. We need to continue developing more enriching programs, e.g. student design contests.
- 2. Engage our members: Our activities aim to connect people, where members meet and connect, build networks and support each other. Utilize our social media platforms to amplify our events and disseminate news.
- 3. Recognize our members: Reward our members for their active contributions in organizing local and global events, and rewarding our members who develop new technologies that enhance industry productivity or economy.

2) Mention one large long-term initiative that CASS should undertake in the next two years and that you would help to establish if elected.

To sustain this growth and continue assisting our IEE CASS VP RAM, I would like to assist in setting up various CASS chapters and student branches across R10. I would like to continue championing the IEEE Global Membership Drive and IEEE Mentoring Program, which aims to nurture our industrial and academic YP and graduate members. I have started organizing student design contests/grand challenges in our flagship and regional conferences (e.g. ISCAS, BioCAS and APCCAS.), to encourage them to participate and communicate more actively.

- 3) Mention three ways for CASS to reach/serve a specific part of the CAS community that you consider of particular importance (Industry, Academia, young CAS members, members of a specific region)
  - 1. Academia and Industry Members: I would like to use our IEEE CASS SASD to draw our members to develop critical standards that will jointly advance our IEEE vision.
  - 2. Graduate Members: I have created a joint CASS-SBC/YP/WIE interest group in Shanghai, to allow our members to organize events effectively.
  - 3. R10 Members: In the 2021 R10 forum, we have drawn more than 150 people and 60,000 online audiences, creating opportunities for our members to have face-to-face and online interactions.
  - I want to continue developing sustainable plans that can be replicated worldwide.



**PREET YADAV** (M'20-SM'20) is R & D SOC Technical Program Manager for Automotive Group at NXP Semiconductors, leading 5nm Automotive Grade Chip development series S32N & 40nm S32K product series. Prior to re-joining NXP in his second stint, he was working with Wipro as Analog Practice Head, Distinguished Member of Technical Staff (DMTS) - Wipro Senior Member, leading Analog & Mixed Signal Practice globally in VLSI Technology Group.

He has two decades of enriched Research & Development experience in the diversified Semiconductor industry. His expertise includes Analog and Mixed Signal (AMS) circuit design & verification, core technology development of Process Design Kits (PDK) and Electronic Design Automation (EDA).

During his first stint at Freescale/NXP Semiconductor, he worked on core technology development of Process Design Kits, leading handful of technologies from matured to advance nodes. Further, he worked on Analog and Mixed Signal SOC Verification in Automotive Microcontrollers and Processors R & D, NXP.

In past he worked at Semiconductor Complex Ltd (the biggest Fab in India). and, Cadence Design Systems, CEERI (Government of India Research Lab).

He received B. Tech. degree in ECE from Kurukshetra University and M. Tech. degree in VLSI Design & CAD from Thapar Institute of Engineering & Technology.

He is Chapter Chair for Nanotechnology Council & Magnetics Society, IEEE Delhi Section. He is member of IEEE CAS - VLSI Systems & Applications Technical Committee-VSATC. He is member of CAS Industry Engagement Committee. He served in CAS Ad-hoc Committee on Digital Communication. He is Content Manager (named for Associate Editor) of IEEE Sensors Alert. He is Senior member of CASS, SSCS, Standards Association-SA, CEDA, & Sensors Council.

He is closely associated with CAS society and have contributed to multiple CAS initiative globally including ISCAS, APCAS over many years. He is serving as Organizing Chair of APCCAS2023. He is India Outreach Chair for 60th Design Automation Conference-DAC 2023.

He served as Executive Committee member of IEEE CASS, Bangalore Chapter. He received IEEE CAS Bangalore Chapter Outstanding Industry Volunteer Award 2021. He is recipient of President Award by President of India and accoladed with various awards/certificates of merit throughout his academics and industrial endeavor.

He is leading Northern Region Electronics Forum-NEF in collaboration with India Electronics & Semiconductor Association-IESA & VLSI Society of India-VSI.

He has 22 publications in international IEEE conferences, with three Best Paper Awards on his name. He has delivered several keynote/invited talks/tutorials, and participated in panel-discussion at various forums across globe. He has acted as member of technical paper committee-TPC and various positions of organizing committee for many international conferences in VLSI field. He is examiner for post graduates thesis from Tier-1 technical universities in India.

He is Fellow Member of IETE, Senior Member of IEEE, lifetime member of ISM and ISSE. He is member of VLSI society of India. He is core team member of VLSI Design Conference Steering Committee. He has served as General Chair of 'The 32nd International Conference on VLSI Design & 18th International Conference on Embedded Systems-VLSID2019.

www.linkedin.com/in/preet-yadav

Statement: IEEE CASS is one of the long-serving technical societies. Over the years, CASS has expanded its footprint in different technical domains across the globe.

The first uplift I would like to bring to CASS is the movement from "I" to "We" at each level. Thus any of the decisions taken should encamp the global members' interest, including Students, Faculty, Researchers & Industry members, representing diversity & inclusion from across the globe and not only limited to regions. Thus together, we will take CASS to the next level of technological excellence.

If given an opportunity, I'll be the first-ever Indian-origin associate residing in India to serve in BoG for Region 10's development & growth.

As technology is advancing rapidly, to cope with this ever-changing technology domain, we need to adapt to the latest technology offerings. I propose the introduction of Global O-N-E CASS, as it's time to bring Global CAS Chapters and members, as well as their activities, under one roof. In my terms, I call it Open-Networked-Engaging (O-N-E) CASS. Where O-N-E is:

[O] - Open: An "Open" system for all CASS members irrespective of membership category or location where you can voice your suggestion directly to Regional representatives of BoG. An App or Web-based direct channel access to the leadership team. With a single click, you can access global CASS activities.

[N] - Networked: This system will provide an easy-to-access medium to our global domain experts from Industry & Academia. The members can get in touch with these experts for mentorship, guidance & collaboration.

[E] - Engaging: This system will provide a user-friendly engaging mechanism for the global technical community at your fingertips. This will support diverse easy access across languages and backgrounds to technical & career advancement content.

Thus bringing us together as "ONE" CASS for the technical excellence of the members development & growth.

Over the decades, I have contributed to the technical fraternity by volunteering at hundreds of technical events delivering several vision talks, tutorials, and workshops, and participating in panel discussions at various forums across the globe. I have contributed as a technical paper committee (TPC) member and multiple positions on the organizing committee for many international conferences in the CAS field. I have guided many students in their undergraduate, post-graduate, and Ph.D. programs. Some of my recent CAS community contributions are:

- Founded exclusive Industry Track in ISCAS 2022 to bridge the Industry-Academia gap. Which included multiple expert talks by industry experts, panel discussions, an open industry forum reception for mentorship, guidance & collaborations

- Successfully organized first-time ever hands-on lab practical session with 100 + participants. Apart from students & faculty members, a good number of participants from leading industries undertaken the workshop. With an best ever completion success rate of 95 %

- Pioneered & introduced a Rewards based learnings system

- Conceptualized & deployed the first CASS Virtual Product Showcase and deployed at multiple CAS events

- Serving as Executive Committee member of IEEE Circuits & Systems Society (CAS), Bangalore Chapter

- Serving as a member of IEEE CAS Industry Engagement Committee

- Contributing as a member of IEEE CAS VLSI Systems & Applications Technical Committee (VSATC)
- Served member of IEEE-CASS Ad-hoc Committee on Digital Communication
- Recipient of IEEE CAS Bangalore Chapter Outstanding Industry Volunteer Award 2021
- Talks delivered: IEEE-CTS, IEEE Gujarat Section
- Panel Moderator: ISCAS 2022, IEEE CAS IAS-2021
- Jury for National IEEE Project Competition by IEEE CAS Bangalore section

- Conference participation: VLSID 2019 - General Chair, APCCAS2023 - Organizing Chair, APCCAS2021 - Sponsorship & Exhibition Co-Chair, ISCAS2022 - Industrial Advisory Board, VLSID 2022 & VLSID 2021 - Organizing Chair, ISCAS 2022 - Social and Multimedia Co-Chair, IEEE APSCON 2023 - Sponsorship Chairs, VDAT2022 - Sponsorship Chair, VDAT2021 - Advisory Committee Member, IEEECONECCT 2021- TPC, VLSID 2021 - TPC, ISCAS 2021 - TPC, VLSID 2021 - TPC, VLSID 2020 - TPC, IEEE INDICON 2019- TPC, VDAT2019 - Industry Chair, VDAT2018 - Sponsorship Chair, INAC-03 - Session chair, VDAT2017 - TPC, VDAT 2016 - TPC, Core Organizing Committee member - CAS-IAC 2021, ISCAS2021, IEEE Liaison - VLSID2022 & VLSID2023.

With my deep penetration in the Asia Pacific Semiconductor eco-system, including Industry, Academia & Research, I can be of significant value add to CAS BoG. With this diverse experience, I promise to deliver the following:

Career Growth opportunities for members

- Focused 1-1 mentorship opportunities for students
- Faculty elevation programs with cross geography experiences
- Research collaboration programs
- Industry engagements opportunities by developing more closure relations with industries, thus providing internship, mentorship & job opportunities
- Development of next level of CAS leadership pipeline with a balanced young & women members

Growth of CASS chapters & members

- Online & offline events covering different domains & participation levels
- Rewards-based system for each participation, contribution, and proliferations
- Reward-based level elevation opportunities
- Moving the theoretical learning to more skill-oriented learnings
- Executing more outcome-based CAS events catering to all member categories

## Global CASS eco-system building

- Global networking opportunities in terms of fellowships
- Proactive outreach to women and underrepresented Asia-Pacific region segments
- A balance among low index regions

#### Service to Humanity

- Funding of sustainability-oriented technology development
- A clear focus on diversity inclusion across all levels
- Collaboration with startups and incubators

## Transparency of execution

- Clear definition of Key Performance Indicators
- Open forum to provide feedback, followed by a time-bound action plan
- Meetings opportunities for members with the CAS leaders to have a clear view of the executions

Let's "We" work together to make a ONE CASS for a more rewarding experience for each segment of the members. Let's uplift members' personal growth, thus growth of CASS society and humanity for an inclusive, sustainable future.

By supporting me you will get a direct opportunity to voice out your thoughts via me to apex CASS board members. I promise to logically conclude each and every suggestion which is provided to me by the R10 members.

Questions: 1) What are in your opinion the three most important services that CASS should provide to its membership?

- 1. Goal Oriented Mentorship for the overall development of members, mainly student & early career members. Each individual has a unique coaching requirement. We need to get the info on the mentor and mentee updated into a system; based on the common interest, a match will be suggested.
- 2. Global Networking Opportunity to members from each segment. This can be done in physical or online mode. To enable this, we need to develop a standard user-friendly platform accessible to all members globally.
- 3. More hands-on practical learning avenues for student members to produce industry-deployable engineers.

2) Mention one large long-term initiative that CASS should undertake in the next two years and that you would help to establish if elected.

Global Open-Networked-Engaging (O-N-E) CASS: CASS has served the technical community for generations. It's time to tightly integrate Global CAS Chapter members & their activities under a single umbrella that can be easily accessible through a MobileApp or Website.

Open: The system should be "Open" to all CASS members irrespective of membership category or location. Networked: The system should be tightly networked with all other CAS systems to fetch relevant information in real-time. Engaging: The system should be well-engaging and user-friendly, with easy-to-access across cultures.

Motivation is to create awareness of the technical contributions of CASS members across borders.

- 3) Mention three ways for CASS to reach/serve a specific part of the CAS community that you consider of particular importance (Industry, Academia, young CAS members, members of a specific region)
  - 1. Deep Industry-Academia collaboration: We need to have more significant participation by industry members to bridge the gap between industry requirements and academia courses. Industry domain experts to help establish emerging courses and deliver lectures on recent topics which are yet not available in textbooks.
  - 2. Product Oriented Research: With more industry collaboration, we should gradually move to "Product Oriented Research," thus seeding the startup eco-system.
  - 3. Reach out to untapped remote Asia-Pacific region communities to train them on basic technical know-how. Thus uplifting their living style and education standards and seeding interest towards technical fields.

## Candidates for Members-at-Large from All Regions Vote for Three



**JOSÉ M. DE LA ROSA** (S'96-M'01-SM'06-F'20) José M. de la Rosa received the M.S. degree in Physics in 1993 and the Ph.D. degree in Microelectronics in 2000, both from the University of Seville, Spain. Since 1993 he has been working at the Institute of Microelectronics of Seville (IMSE), which is its turn part of the Spanish Microelectronics Center (CNM) of the Spanish National Council of Scientific Research (CSIC). He is presently the vice-director of IMSE and he is also a Full Professor at the Dept. of Electronics and Electromagnetism of the University of Seville.

His main research interests are in the field of analog and mixed-signal integrated circuits, especially high-performance (sigma-delta) data converters, including analysis, behavioral modeling, design and design automation of such circuits. In these topics, Dr. de la Rosa has participated in a number of Spanish and European research and industrial projects, and has co-authored over 260 international publications, including journal and conference papers, book chapters and the books

Systematic Design of CMOS Switched-Current Bandpass Sigma-Delta Modulators for Digital Communication Chips (Kluwer, 2002), CMOS Cascade Sigma-Delta Modulators for Sensors and Telecom: Error Analysis and Practical Design (Springer, 2006), Nanometer CMOS Sigma-Delta Modulators for Software Defined Radio (Springer, 2011) and CMOS Sigma-Delta Converters: Practical Design Guide (Wiley-IEEE Press, 2013, 2nd Edition, 2018).

Dr. de la Rosa served a Distinguished Lecturer of the IEEE Circuits and Systems Society (term 2017-2018), is a member of the Analog Signal Processing Technical Committee of IEEE-CASS, and he has served as Chair of the Spain Chapter of IEEE-CASS during the term 2016-2017. He was at the front of the Editorial Board of IEEE Transactions on Circuits and Systems II: Express Briefs, where he served as Deputy Editor-in-Chief since 2016 to 2019, and as Editor-in-Chief in the term 2020-2021. He is a member of the TechRxiv Editorial Advisory Board since 2022. He also served as Associate Editor for IEEE Transactions on Circuits and Systems I: Regular Papers, where he received the 2012-2013 Best Associate Editor Award and was Guest Editor for the Special Issue on the Custom Integrated Circuits Conference (CICC) in 2013 and 2014. He served as Guest Editor of the Special Issue of the IEEE J. on Emerging and Selected Topics in Circuits and Systems on Next-Generation Delta-Sigma Converters. He is a member of the Steering Committee of IEEE MWSCAS and he has also involved in the organizing and technical committees of diverse international conferences, among others IEEE ISCAS, IEEE MWSCAS, IEEE ICECS, IEEE LASCAS, IFIP/IEEE VLSI-SoC and DATE. He served as TPC chair of IEEE MWSCAS 2012, IEEE ICECS 2012, IEEE LASCAS 2015 and IEEE ISICAS (2018, 2019). He has been a member of the Executive Committee of the IEEE Spain Section (terms 2014-2015 and 2016-2017), where he served as Membership Development Officer during the term 2016-2017. He has been named an IEEE Fellow as of January 2020.

#### Contact data and more details at www.imse-cnm.csic.es/~jrosa

**Statement:** I am very pleased to present my candidacy to be a Member at Large of the Board of Governors (BoG) of the IEEE-CASS. Along my career, I have served in different IEEE-CASS positions, including technical and organizing committees of flagship conferences, Distinguish Lecturer, Chair of the Spain Chapter and IEEE membership development officer (Spain Section). I have been a member of the Editorial Boards (EBs) of the Transactions on Circuits and Systems (TCAS) – Parts I and II, being the Editor-in-Chief (EiC) of TCAS-II in the term 2020-2021. Over these years, I have been very fortunate to work with many IEEE-CASS officers, EB and TC colleagues, from whom I learnt a lot and with whom we did all our best to give our IEEE-CASS peers the best service. Among others, I am very proud to have contributed to boom the impact factor of CASS journals – very specially TCAS-II – to their highest scores ever.

#### The added value of networking

It is certainly the added value provided by a great network of experts in so many diverse topics of circuits and systems what makes CASS strong. However, CASS members should get more benefits from being part of this worldwide and multidisciplinary network of researchers to increase and expand their education skills, professional career opportunities and access to research funds. Although several initiatives has been run in the last years to increase the presence of CASS in digital media, and to reinforce cooperation among different regions, chapters and technical committees, there is still much work to do it in order to benefit from the networking opportunities provided by CASS.

Prompted by this challenge, if I am selected as Member at Large of IEEE-CASS BoG, I will put all my efforts to exploit networking actions as part of the added value provided by CASS membership. These networking actions can be implemented by means of at least three different services offered only to CASS members:

- A web repository of course/lab materials, notes, simulation testbenches,... This is especially useful to learn and reinforce the know-how on a given topic. Although there are some similar tools provided by IEEE – such as Dataport – the topics of interest for CASS members are somehow disperse.

- A "funding opportunities & Collaboration" website. For instance, this website could publish open calls for projects, funding opportunities, PhD positions, etc. available in different regions. For instance, information about project programs such as Horizon-Europe in Europe (IEEE R8), National Science Foundation (US, R1-6), etc. can be collected and posted in a specific CASS site. This site would collect essential information and would also allocate expressions of interest of CASS members, thus making easier to make project consortiums.

- Project-oriented Workshops organized in IEEE-CASS flagship conferences, to provide information about different educational and project funding resources, present project ideas and proposals, to help CASS members make consortiums for project proposals in different IEEE-CASS regions.

If I am elected as member of IEEE-CASS BoG, I would dedicate my efforts to work with CASS officers and staff to develop the aforementioned networking actions. I would try to promote these activities through the organization of workshops in CASS flagship conferences. I would also benefit from my experience working in Editorial Boards (EB), mostly in CASS, and more recently as a member of the IEEE TechRxiv Advisory Board, to manage the implementation of websites, digital repositories, etc.

#### Increase the presence of CASS in society

In the last few years, CASS has put lot of efforts in increasing its presence in digital social networks. As former EiC of TCAS-II, I began working with my EiC team to work on some of these initiatives, by posting relevant news, editorial comments, etc. in the journal and CASS sites at Twitter and LinkedIN. In addition to these actions, I would propose to increase the presence of CASS in digital media, by creating weekly (or monthly)

podcasts published in different platforms, i.e. iOS, Android. I would also propose to have a dedicate CASS-TV show, similar to IEEE tv, but focused on CASS topics.

CASS should be more involved in outreach activities, which are becoming more and more present in our universities and academic institutions. This would help visualize CASS in society – not only in academic forums but in more general /not technical audiences – as well as to attract young engineers to be part of our community.

A third way to further reach CASS community is by the in-person networking. After these two years of social restrictions imposed by the pandemic, I think we all agree that the face-to-face interaction has no rival in human communication. Thus, we should take opportunity of our conferences and events to further increase the visibility of CASS as technical society. One way to do this (but not the only one) is by means of the mentioned workshops, which help to put in touch well-known CASS members with young professionals, etc. The interaction between CASS chapters is also very important to spread CASS presence, reaching their members and attracting new ones by means of events organized by chapters around the globe.

My main motivation to serve as a member of the IEEE-CASS BoG is to get advantage of my experience to continue giving our peers the best service and the unique experience of being part of this great community. To address this great responsibility, I will count on my strong willingness and illusion to assume this challenge, which will be translated into the required time and dedication to maintain and improve the excellence of our society. This is indeed the only thing I can assure and guarantee if I am elected as a Member at Large of IEEE-CASS BoG: hard work, hard work and more hard work!

Questions: 1) What are in your opinion the three most important services that CASS should provide to its membership?

- CASS should exploit their huge and rich network organization to provide membership with educational materials and tools to help students, faculty
  members and engineers to enhance their knowledge and practical insight on CAS topics. In addition to the already available websites and
  educational activities (tutorials, distinguished lectures, etc), a (web) repository should be provided with course materials and notes, simulation
  testbenches, etc.
- 2. Create and manage a website with information about funding opportunities available in different IEEE regions.
- 3. Facilitate networking and collaboration in the diverse CAS fields, to make it easier CASS members to form project consortiums.

2) Mention one large long-term initiative that CASS should undertake in the next two years and that you would help to establish if elected.

I will dedicate my efforts to work with CASS officers and IEEE staff to develop networking actions to help CASS members to get access to knowledge on CAS topics as well as funding opportunities for PhD scholarships and projects. These actions can be promoted through the organization of workshops in CASS flagship conferences. I would take advantage of my experience working in Editorial Boards (EB), mostly in CASS, and more recently as a member of the IEEE TechRixiv Advisory Board, to manage the implementation of digital repositories.

(Please see candidate position statement for details).

3) Mention three ways for CASS to reach/serve a specific part of the CAS community that you consider of particular importance (Industry, Academia, young CAS members, members of a specific region)

1. Further increase the presence of CASS in digital media, by creating periodical (monthly) podcasts published in different platforms. I would also propose to have a dedicated CASS-tv show, similar to IEEE tv, but focused on CASS topics.

2. Involve CASS members in outreach activities, which are becoming more and more present in our universities and academic institutions.

3. CASS must be much more visible in conferences and forums, putting in touch well-known CASS members with young professionals, students or peers who live in regions with less resources.

(Please see candidate position statement for details).



DANILO DEMARCHI (AM'08-M'09-SM'13) Full Professor at Politecnico di Torino, Department of Electronics and Telecommunications.

Visiting Professor at EPFL Lausanne (2019) and Tel Aviv University (2018-2021). Visiting Scientist (2018) at MIT and Harvard Medical School for the project SISTER (Smart electronic IoT SysTEms for Rehabilitation sciences).

Author and co-author of 5 patents and more than 300 scientific publications in international journals and peer-reviewed conference proceedings.

Leading the MiNES (Micro&Nano Electronic Systems) Laboratory of Politecnico di Torino and coordinating the Italian Institute of Technology Microelectronics group at Politecnico di Torino (IIT@DET).

Member of the IEEE Sensors Council as CAS Representative and the BioCAS Technical Committee; Associate Editor of the IEEE Sensors Journal, the IEEE Open Journal on Engineering in Medicine and Biology (OJ-EMB) and the Springer-Nature Journal BioNanoScience.

#### Senior Member of IEEE.

General Chair of IEEE BioCAS (Biomedical Circuits and Systems) Conference in 2017 in Torino. TPC Co-Chair of IEEE ICECS 2019, IEEE BioCAS 2021 and IEEE BioCAS 2022 conferences.

Founder of IEEE FoodCAS Workshop (Circuits and Systems for the Foodchain) and organiser of FoodCAS@BioCAS2018, FoodCAS@ISCAS2019, FoodCAS@ISCAS2020, and FoodCAS@ISCAS2021.

Founder and Editor in Chief of the IEEE Transactions on AgriFood Electronics.

Founder and Vice-Chair of the IEEE CAS Special Interest Group on AgriFood Electronics.

Organiser of the 3rd Seasonal School on AgriFood Electronics: Smart Technologies for a Sustainable Agriculture, Torino, Italy, September 2022.

**Statement:** As stated in the recently issued report by the United Nations (IPCC Report 2021), technology's benefits to a green and sustainable economy are highly appreciated and under intense research and development globally. CAS can bring the needed functionalities and performances for reaching eco-friendly, circular, and practical solutions. The impact on scientific research spans from sensors to readout electronics and the related smart systems, which are all helpful in processing and transmitting information using various efficient paradigms. All mentioned technologies must be improved to be valuable and efficient solutions for AgriFood at the global scale, supporting food security and sustainability.

CAS Society actions are needed for building ecumenically sustainable solutions all along the food chain, to keep the profit margin of the industry and farmers on the one hand and allow reasonable food costs to the customers on the other hand.

In this scenario, I am already strongly involved in the application of CAS to the AgriFood value chain, being the founder of FoodCAS (the IEEE Workshop on Circuits and Systems for Better Quality Food), as founder and EiC of TAFE (IEEE Transactions on AgriFood Electronics), of WAFE (IEEE CAS Workshop on AgriFood Electronics), planned to be every year in the southern side of the globe, and CAFE (IEEE Conference on AgriFood Electronics), scheduled to be every year on the Northern side of the globe, giving, with this geographical coverage, easier and more inclusive access to the events, stimulating the growth of research and industrial activities in areas where the access to financial resources, and so for example simply travelling, can limit the creation of the necessary ecosystem for innovation. I am also organising at Politecnico di Torino the 3rd Seasonal School on AgriFood Electronics: Smart Technologies for a Sustainable Agriculture.

Starting from this experience, I would be delighted to be part of the BoG for driving CAS's needed actions to innovate the AgriFood value chain. In this respect, I plan to stimulate youngsters' participation in events by providing financial support for their travels and subscriptions. I plan to follow the good examples of the YP Professional events already present in conferences, helping them by setting up specific financial support with specific grants. Still, I want to support their interest in setting up start-ups and spin-offs. In this respect, it would be interesting to organise virtual sessions to invite business angels and cases of success to present their opportunities and to give YPs the possibility of presenting their achievements and having the needed feedback for bringing their ideas to success.

In particular, for AgriFood, it is crucial to involve the industry, improving its professional participation by organising specific actions where more mature solutions are presented, targeting the specific requests. But it is also fundamental to engage the end users, who will ask for industry services but are still sceptical about adopting the new technologies. To reach this goal, the dissemination in specific events (not only specifically scientific but important AgriFood fair events and similar) of successful examples can raise their interest in cooperating with technologists, leveraging the creation of the needed community.

In addition to events and dissemination, educational material will have to be prepared using the new tools such as webinars, short e-learning courses or simply videos where the key innovations are presented. The recent IEEE e-platforms are the perfect support for this target. In these actions, it is essential to have contributions as teachers/speakers from researchers, industrial experts and end users as witnesses of the efficacy of new CAS technologies for the AgriFood chain of value.

I want to give particular attention to inclusion and diversity at all levels. As I already mentioned, in AgriFood geographical inclusion is a key point; in this direction, I am already driving some actions.

I plan to stimulate gender balance by engaging in all the activities the WiCAS colleagues to reach at all the organisation levels the right gender balance.

In AgriFood, a natural aspect is multidisciplinarity. As founder and vice-chair of the CAS Special Interest (SIG) Group on AgriFood Electronics, I see that the interest of agronomists, plant/animal science experts and, in general, scientists who are not engineers is very good. In fact, there is a good number of them present in the SIG. The CAS activities in AgriFood can collect their interests, create the needed community that is the pillar for building innovative solutions, and attract new participants from different communities to CAS actions and fresh contributors to journals and conferences.

For all these reasons and ideas, I guess my contribution as BoG Member at Large can benefit the CAS community.

Questions: 1) What are in your opinion the three most important services that CASS should provide to its membership?

- 1. To stimulate and share the research by publishing top-level papers and organising excellent conferences. It is also essential that the two actions are not disconnected but that results presented in conferences become inputs for journals, and, vice versa, published papers are presented to conferences.
- 2. To engage young professionals in IEEE life and give them stimuli for their research by organising specific events led by them, exploiting the CAS Student Chapters.
- 3. To consider inclusion and diversity in all aspects, social and technical, in board setup, event organisation, and sharing responsibilities.

2) Mention one large long-term initiative that CASS should undertake in the next two years and that you would help to establish if elected.

I consider it fundamental for CASS to invest in pushing and supporting AgriFood technologies, being a key factor for facing the actual challenges related to global warming, optimisation of resources (water, soil, ...), pollution reduction, and in general for having earth respect. To reach these targets, all the powerful tools of CASS have to be used, setting up specific initiatives such as Special Issues, dedicated Conferences and Workshops; stimulating the Chapters and continuing in the direction of setting up actions such as the new TAFE Transactions on AgriFood Electronics or the Workshop on Electronics for Mitigating Climate Change.

3) Mention three ways for CASS to reach/serve a specific part of the CAS community that you consider of particular importance (Industry, Academia, young CAS members, members of a specific region)

1. The engagement of youngsters is crucial, being them the future driving force. Specific actions for them are essential.

2. In AgriFood, it is fundamental to involve the southern side of the globe, which has many AgriFood activities but with lower access to financial resources. Specific support with local initiatives has to be set up, pushing the creation of the necessary professional network and international cooperation.

3. The presence of industry is another crucial factor. CASS can also support the industry by stimulating new technologies acceptance by end users, not so granted nowadays, helping to innovate the AgriFood ecosystem.



**KIRAN GUNNAM** (M'07-SM'07) Dr. Gunnam is a Distinguished Engineer for Machine learning and Computer vision at Western Digital Research, USA. He is an innovative technology leader with vision and passion who effectively connects with individuals and groups. His breakthrough contributions are in the areas of advanced error correction systems, storage-class memory systems, and computer vision-based localization & navigation systems. He has helped drive organizations to become industry leaders through ground-breaking technologies. He has nearly 100 patents on algorithms, architectures, and real-time low-cost implementations for computing, storage, computer vision, and AI systems, and he is the lead or sole inventor of about 90% of these. His more recent inventions on machine learning accelerators have ~2x savings vs the previous state of the art, and his inventions are currently incorporated into over 3 billion data storage, Wi-Fi and 5G chips.

Dr. Gunnam is the Chair of IEEE CASS Standards Activities Subdivision and is on the Board of Governors for IEEE CASS. He is an IEEE Distinguished Speaker, an ACM Distinguished Speaker, and a recipient of the ValleyML Distinguished Technical Achievement Award for long-lasting contributions to architectures and algorithms of real-time signal processing, communication, and machine learning systems that enabled ubiquitous computing.

**Statement:** I am currently serving my second year as an industry member appointee on the BoG and I am happy to report that the CASS Standards Activities initiative I am currently leading got good traction with around 50 industry and academic experts joining the CASS standards committees. If elected as a member of BoG for the term 2023-2025, I would like to start a new initiative called "CASS Common Core Library". This new initiative complements the CASS Standards Activities initiative I am currently leading and it also complements several other existing CASS initiatives in Education, Industry Outreach and Publications organized by other CASS leaders.

The open-source common CASS core library can be sourced or licensed from new or existing supplemental materials from text books or papers, contributions from industry and CASS standard groups, contributions from industry workshops and tutorials in the CASS conferences as well as seasonal schools. In addition, these core libraries can be included as part of the study materials of the existing initiatives of the Education Committee. The open-source CASS common library can be integrated and hosted as part of IEEE-wide initiatives Code Ocean linked to IEEE Explore and IEEE Data Port. This new initiative complements several existing CASS initiatives in Education, Standards, Industry Outreach and Publications.

## This new initiative

1. Improves accessible Research through publications, reference code and data by increasing the value of CASS publications for all the communities within CAS.

2. Increases opportunities to collaborate with industry by strengthening existing initiatives on standards activities and industry engagement serves the industry community. Industry engagement also improves the quality and relevance of research of academic community of CAS. Industry engagement improves the career opportunities for young CAS members.

3. Offers high quality foundation education by strengthening existing initiatives of Education Committee serves young CAS members as well as members from Africa, Asia and South America.

Questions: 1) What are in your opinion the three most important services that CASS should provide to its membership?

- 1. Accessible Research through publications, reference code and data.
- 2. Increased opportunities to collaborate with industry by strengthening existing initiatives on standards activities and industry engagement.
- 3. High quality foundation education by strengthening existing initiatives of Education Committee.

2) Mention one large long-term initiative that CASS should undertake in the next two years and that you would help to establish if elected.

I propose a new initiative called "CASS Common Core Library" to address the above identified three most important services that CASS should provide to its membership. We need to encourage the authors to publish code and data to improve research reproducibility, CASS needs to embrace the emerging practice of sharing code and datasets through these following two IEEE-wide initiatives Code Ocean linked to IEEE Explore and IEEE Data Port respectively. We need to develop an open-source CASS common core library with reference implementations and design documentation and encourage authors to build up new innovations using these core libraries.

3) Mention three ways for CASS to reach/serve a specific part of the CAS community that you consider of particular importance (Industry, Academia, young CAS members, members of a specific region)

1. Improving accessible Research through publications, reference code and data increases the value of CASS publications for all the communities within CAS.

2. Increasing opportunities to collaborate with industry by strengthening existing initiatives on standards activities and industry engagement serves the industry community. Industry engagement also improves the quality and relevance of research of academic community of CAS. Industry engagement improves the career opportunities for young CAS members.

3. Offering high quality foundation education by strengthening existing initiatives of Education Committee serves young CAS members as well as members from Africa, Asia and South America.



**BAH-HWEE GWEE** (S'93-M'97-SM'03) received his B.Eng degree from University of Aberdeen, UK, in 1990. He received his M.Eng and Ph.D. degrees from Nanyang Technological University in 1992 and 1998 respectively. He is an Associate Professor at the School of Electrical and Electronic Engineering, Nanyang Technological University, Singapore. He is also the Deputy Director of National Integrated Center of Evaluation, Singapore. He has been working on a number of research projects with research project with the grant amounting to more than US\$10m including the Co-PI of US DARPA project. He has authored or co-authored about 150 publications on journals (mostly IEEE Transactions) and conference proceedings. He is co-author of a book, Digital Pulse Width Modulator and 3 book chapters. He is the Co-Inventor of 3 US granted patents and Co-Founder of 2 Start-ups in 2005 and 2020. His primary research interests include asynchronous circuits, dynamic voltage scaling and subthreshold circuits, secured ICs, hardware assurance, physical hardware attacks and countermeasures. He was the Chair of IEEE Singapore Circuits and Systems Chapter in 2005, 2006, 2013 and 2016.

In 2018-2020 he was the Chair of the "Digital Signal Processing" Technical Committee of the IEEE Circuits and Systems Society, Distinguished Lecturer in 2009-2010 and 2017-2018. He currently serves in the editorial board of The IEEE Circuits and Systems Magazine. He serves or has served as Associate Editor of a number of journals (IEEE Transactions on CAS – Part I, IEEE Transactions on CAS – Part II and Journal of Circuits,

Systems and Signal Processing). He is/was the General Co-Chair of IEEE DSP 2018, IEEE SOCC 2019, IEEE ISICAS 2021 and IEEE ISCAS 2026. He was Technical Program Chair of the ISIC 2007, 2011 and 2016 conferences, Track Chair in ISCAS 2017- 2021 and a panelist for the ISCAS 2021 Young Professional Event. He serves or has served as panelist for several funding agencies and research programs in the Singapore (MoE, Defence, NRF) and Portuguese FCT. He was awarded Temasek Laboratories @ NTU Best Publication Award in 2012 and EEE Teaching Excellence Award in 2013. He is or was the Keynote Speaker for IEEE PAINE 2020, IEEE APCCAS 2020 and IEEE MCSoC 2021. He was awarded the Defence Technology Prize, Singapore, in 2016.

**Statement:** I have been an active CAS member since 1998 and I have personally contributed to our Society in various capacities, being part of the CAS Singapore Chapter Committee and the Distinguished Lecturer Program, Technical Committee Chair, Editor for a number of IEEE journals and General Co-Chair of various CAS conferences, among the others. Through working closely with colleagues from academia, industry, and government agencies, I have a deep understanding and amassed much experience and ready to taking up challenges as to address the current and upcoming endeavours for our CAS Society especially in this difficult Covid period where everyone of us is facing many uncertainties. The Board of Governors plays an important role in guiding and shaping the directions of the key programs and new initiatives of the CASS society. The rapid progress in our wide and interdisciplinary field brings many opportunities and challenges both in terms of new knowledge and in continually reinventing and improving our systems and processes to overcome unprecedented problems. In my opinion, the rapid change in the way where the knowledge is created, transferred, and applied, is redefining every role in our community and in our Society. It is imperative to set a clear and focus direction as to help the members to explore and exploit their knowledge and network to efficiently tackle the new challenges. One of the challenges faced by the CAS Society is the new, and interesting research direction have continued to evolve. Concerted and coordinated research effort towards common direction is needed to synergistically address truly fundamental challenges, and to attract young professionals and engineers who want to make an impact to in improving technology as to improve human life.

Questions: 1) What are in your opinion the three most important services that CASS should provide to its membership?

- 1. The CAS magazine, society journals, and web publications should provide our members with the state-of-the-art research breakthroughs to continually improve knowledge in their current field and to guide them in new and emerging fields.
- 2. The conferences and symposium including flagship ISCAS, regional and area specific conferences should create opportunities to foster collaborations, and exchange of research ideas.
- 3. The workshops and seminars by providing the opportunity to learn from interaction with more senior members while mentoring newer members.
- 2) Mention one large long-term initiative that CASS should undertake in the next two years and that you would help to establish if elected.

University academia are relentlessly searching for the applications for their new inventions while industry professionals are continually exploring the solutions for the problems which they have encountered during the product development. The CAS Society can take a leading role as to foster border and deeper collaborations among industry and university through interactive technical activities including technical tours/visits, seminars, and workshops to share new highly interdisciplinary research directions and applications. I plan to organize activities as to foster interaction between university academia and industry professionals in topical areas.

3) Mention three ways for CASS to reach/serve a specific part of the CAS community that you consider of particular importance (Industry, Academia, young CAS members, members of a specific region)

- 1. CASS has large network of local chapters throughout the world. Greater coordination between the CASS chapters, Industry, and IEEE Student Branches on college campuses allow the industry member mentoring the student members and provide internship/job recruitment opportunities.
- 2. CAS magazine and web publications provide articles on both eminent inventors of state-of-the-art research and exploring current and emerging topics.
- 3. The flagship ISCAS meeting with CASS topical conferences enable valuable opportunities for discussion and networking. To encourage more industry partners to participate in the exhibitions and product sharing.



HANHO LEE (S'97-M'98-SM'13) received M.S and Ph.D. degrees, both in Electrical & Computer Engineering, from the University of Minnesota, Minneapolis, USA, in 1996 and 2000, respectively. From April 2000 to August 2002, he was a Member of Technical Staff (MTS) at Lucent Technologies (Bell Labs Innovations), where he was responsible for the development of DSP multi-processor architecture. From August 2002 to August 2004, he was an Assistant Professor at the Department of Electrical and Computer Engineering, University of Connecticut, USA. In August 2004, he joined the faculty of the Department of Information and Communication Engineering, Inha University, Incheon, South Korea. He is currently a Professor at the Department of Information and Communication Engineering, Inha University, where he leads the Digital Integrated Systems Lab and is the director of Artificial Intelligence System on Chip (AI-SoC) Research Center. He was Visiting Scholar at Bell Labs, Alcatel-Lucent, Murray Hill, USA, (2010-2011) and Visiting Professor at University of Texas,

Dallas, USA (2017-2018).

His research interests include VLSI architecture design for cryptography, forward error correction (FEC) coding, artificial intelligence (AI), digital signal processing (DSP), and communications. He has published more than 190 refereed journal and conference papers in above research areas, together with 1 book chapters and 36 granted patents.

He is a member of Board of Governor (BoG) of the IEEE Circuits and Systems Society (CASS) since 2020 and was a Technical Committee (TC) Chair of the Circuits and Systems for Communications (CASCOM) Technical Committee for the 2020-2022 term. He is currently a member of the ISCAS steering committee since 2022. He served as an Associate Editor in Chief of the IEEE Open Journal of Circuits and Systems and serves/served as Guest Editor of several journal special issues. He also served as Associate Editor for the Journal of Semiconductor Technology and Science and a Guest Editor for Electronics Journal.

He currently serves as General Chair of 2023 International Symposium on Integrated Circuits and Systems (ISICAS'2023), Local Arrangement Chair of 2022 IEEE International Conference on Artificial Intelligence Circuits and Systems (AICAS'2022), Tutorial Co-Chair of 2022 IEEE Asia Pacific Conference on Circuits and Systems (APCCAS'2022), Special Session Co-Chair of ISOCC'2022. He served as a Technical Program Committee (TPC) Chair of 2021 IEEE International Symposium on Circuits and Systems (ISCAS'2021), TPC Co-Chair of APCCAS'2016, and Secretary

General of ISCAS'2012. He served on the TC Member of the IEEE Signal Processing Society, Design and Implementation of Signal Processing Systems (DISPS). He is a Senior Member of the IEEE, a member of the IEEE Circuits and Systems Society (CASS), CASCOM TC, VLSI Systems and Application (VSA) TC.

He received numerous awards for his technical achievements and academic society service, including First Prize in 2020 Haedong Best Paper Award at the Institute of Electronics and Information Engineers (IEIE), Korea, Best Poster Paper at the 24th Korean Conference on Semiconductors, 2013 Best Paper Award at the IEIE, and Best Paper Award at the International SoC Design Conference (ISOCC) in 2006, 2008, 2009 and 2015.

**Statement:** I have been an active IEEE CASS member for more than 24 years since 1998. Being involved in various IEEE CASS activities, I believe that the primary role of the Board of Governor (BoG) is to cultivate close social environments and value-added activities to the CASS members. I have a broad variety of international experiences and understanding of various working environments, as I have worked previously at University of Minnesota (USA), Lucent Technologies (USA), Bell Labs (USA), University of Connecticut (USA), and currently at Inha University (South Korea). Since my participation in ISCAS and CASS as a Ph.D. student, I have personally been benefited a lot from CASS during my career as an engineer in industry and as a professor in academia.

I have actively participated in CASS activities as Technical Program Committee (TPC) Chair of ISCAS'2021, General Secretary of ISCAS'2012, TPC Chair of APCCAS'2016 and Technical Committee (TC) Chair of Circuits and Systems for Communications (CASCOM). I am currently involved in General Chair of ISICAS'2023 and Tutorial Co-Chair of APCCAS'2022.

Being involved in various activities in CASS, one of the most important challenges in CASS is how to attract graduate students, young professionals, and industry engineers. From the perspective of fostering CASS activities among its members, I feel the registration fee for CASS sponsored conferences has been recently increased and becoming too high over the years (even for online attendance). High registration fees have been a major barrier for the young researchers including graduate students to attend the conferences and to participate CASS activities. If elected, I will vigorously drive to reduce the conference registration fees and get more sponsorship for student registration fee. For this, I will try my best for young professionals to attend CASS sponsored services and programs. We can try to lower the registration fee by reducing unnecessary costs (e.g.: give lunch/banquet/farewell party options, attendance dates/online attendance options etc.), and implement hybrid conference format for reduced online registration fees to help students and members who cannot travel.

To attract young professionals from industry, CASS should organize and provide special sessions, seminars, industry sessions, satellite workshop, job fairs in CASS sponsored conferences on hot topics of new emerging multidisciplinary research areas, such as artificial intelligence (AI), security, 5G/6G communications, and autonomous mobility technologies, etc.

The homepage contents of CASS flagship conferences and technical committees should be improved to provide useful CASS information for graduate students and young professionals. Current flagship conferences and TC website information are sometimes inconsistent and insufficient for the post-pandemic era. I will devote my efforts to enhance the flagship conferences and CASS TC websites to provide friendly networking, information and visibility for CASS professionals. I believe that these activities help them to exchange visions on technical trends and raise the interest/participation in CASS.

The followings are my prospective actions and missions as a BoG member for IEEE CASS.

(1) Attracting Young Students, Professionals and Industry Engineers to CASS:

The biggest challenge for IEEE CASS is how to recruit young professionals and industry engineers in CASS. Thus, CASS leadership should address this challenge by providing new services/programs to attract young professionals, graduate students, and industry engineers. This is possible through the following activities:

- The registration fees for major CASS sponsored conferences have been increased, which have been a major barrier for young researchers to attend conferences and CASS activities. Thus, CASS sponsored conferences should try to lower the registration fee by reducing unnecessary costs (e.g. give lunch/banquet/farewell party options, attendance dates/online attendance options etc.) and implement hybrid conference format for reduced online registration fees to help students and members who cannot travel. Each conference can reduce the number of oral sessions and encourage demo sessions/poster sessions to reduce the space rental fee. Conference can provide various registration fee options depending on the number of program sessions attendees attend.

- CASS can encourage participation from industry by promoting industrial distinguished lecturer program (iDLP) and by jointly planning industrial sessions/satellite workshop in CASS conferences on hot topics of new emerging multidisciplinary research areas, such as AI/DL and security, to attract young engineers and researchers from Industry.

(2) Enhancing Global, Regional and Technical Networks:

CASS is a leading technical and academical society in developing fundamental CAS research, while also fostering innovative technologies in emerging technical areas. To enhance global, regional and technical networks, CASS should promote the following activities:

- Organize co-hosting joint conference/workshop among IEEE CASS local chapters and regional members using outreach program fund for direct interactions among regional members and industry members.

- Provide company advertisement, recruiting information, and job/career bulletin board at CASS conferences and CASS websites.

- Provide better networking connectivity to CASS members through the use of appropriate social media, webinars, online meeting tools and friendly CASS websites.

- Many CASS members have participated CASS TC to share the technical knowledge in CAS area. Each CASS TC should actively plan for special sessions, tutorials, demo sessions, industry sessions, mentorship, etc. to attract new young professionals/industry members to technical tracks in CAS areas.

(3) Promoting Emerging Multidisciplinary Research and Technical Areas:

CASS research areas have multidisciplinary natures of algorithm developments, circuit design, system design, and implementations for AI, security, DSP, communications, multimedia, biomedical, etc.

- CASS should deliver the most updated technical knowledge and issues of emerging technical area to our members, and promote interdisciplinary interactions across TCs. In particular, CASS should encourage timely special issues and fast publication in CASS journals (CAS-I, CAS-II, TVLSI, JETCAS, CSVT, OJCAS), and special forums in CAS magazine for all CAS-related emerging topics (e.g. AI, security, 5G/6G, robots, autonomous mobility, etc.).

- CASS TCs should organize special sessions, tutorials, and demo sessions in CASS sponsored conferences (e.g.: ISCAS, AICAS, ICECS, APCCAS etc.) to expand the expertise of CASS in new research areas and applications.

If elected, I will serve for the IEEE CAS society with strong commitment and enthusiasm to promote above missions and tasks for CASS.

Thank you very much for your supports!

Questions: 1) What are in your opinion the three most important services that CASS should provide to its membership?

- 1. Provide top quality publications including Transactions, Journals and Open Journal of CAS to attract top quality papers related to state-of-the-art CAS topics. (e.g.: Circuits and Systems for Artificial Intelligence, Security, 5G/6G, etc.).
- 2. Establish and support top quality international conferences and symposiums to attract high quality papers and presentations, attract young CASS members, and share state-of-the-art research results.
- 3. Establish social and research cooperation networks for young members and students to attract particular attention in CAS area. (e.g.: provide new programs for networking CASS chapters, CASS technical committees, workshops, summer schools, mentorship, webinar and YouTube etc.).

2) Mention one large long-term initiative that CASS should undertake in the next two years and that you would help to establish if elected.

Establishing friendly CASS information and network platform to attract graduate students, young professionals, and industry engineers are crucial for post-pandemic era. This will promote the innovative research cooperation channels for young researchers participating in CASS activities. (e.g.: CASS sponsored conferences and CASS technical committees (TC)). Many young CASS members have participated the conferences and CASS TC. But CAS conferences and TC website information are sometimes inconsistent and insufficient for the post-pandemic era. I will strive to provide a basic website format for improving the CASS conferences and TC websites to provide CASS professional with friendly networking and timely technical information.

- 3) Mention three ways for CASS to reach/serve a specific part of the CAS community that you consider of particular importance (Industry, Academia, young CAS members, members of a specific region)
  - 1. CASS should provide proper chances for students, young professionals and industry members to participate CASS activities, such as conference organizing committee, the organization of special sessions/tutorials and strengthen industry-driven event on new emerging research areas.
  - 2. Improve CASS flagship conferences and TC website to provide technical trends/knowledge/network, job position announcements for students/young CAS members/industry members etc. Include video of TC introduction using YouTube in TC websites.
  - 3. Organize and provide keynotes, special sessions, tutorials, seminars, industry sessions, overview lectures, satellite workshop in CAS sponsored conferences on hot topics of new emerging multidisciplinary research areas.



**YONGFU LI** (S'09-GSM'13-M'14-SM'18) received his B.Eng. and Ph.D. degrees from the Department of Electrical and Computing Engineering, National University of Singapore (NUS), Singapore. I am an Associate Professor with the Department of Micro and Nano Electronics Engineering (DMNE) and MoE Key Lab of Artificial Intelligence, Shanghai Jiao Tong University (SJTU), China. Previously, I served as assistant head of DMNE, in charge of the industrial, outreach, alumni, and international collaboration programs. These duties allow me to promote our IEEE CASS to the local and international industrial communities. Before joining SJTU, I was working in NUS as a research engineer, from 2013 to 2014 and GLOBALFOUNDRIES as a senior engineer (2014-2016), principal engineer (2016-2018), and member of technical staff (2018-2019) in Design-to-Manufacturing (DFM) Computer-Aided Design (CAD) department.

Over the past few years, I have been appointed to the IEEE CASS Board of Governors as a Young Professionals Representative in 2020-2021, serving in the IEEE CASS Women in CAS - Young Professionals (WiCAS-YP) Steering

Committee, the IEEE CASS Publication (2021), and Technical Activities (2020) Division, IEEE CASS Digital Communications AdHoc Committee, and IEEE CASS Mentoring Program Committee (2021). I have been appointed as the Chair-Elect of IEEE CASS Standard Activities Sub Division. I am the advisor for the IEEE CAS SJTU Student Branch Chapter and co-founder of the IEEE CAS Shanghai Young Professionals Affinity Group. I am also involved as an organization duty or technical committee member for several IEEE flagship and regional CASS conferences/workshops such as IEEE ISCAS (2019-2021, 2024, 2026), ISICAS (2020-2021), BioCAS (2021-2022), NEWCAS (2019-2020), APCCAS/PrimeAsia (2018, 2021-2022), ASP-DAC (2019-2020), ICTA (2020-2022), ISVLSI (2018-2019), IEEE CAS Seasonal School (2019), and IEEE CASS AI-Forum (2019, 2021). I also served as an associate editor in TBioCAS (2020-2023), IEEE OJ-CAS (2019, 2022-2023), Springer Journal of SJTU Science (2020-2021), and Frontier in Computational Neuroscience (2022).

**Statement:** IEEE CASS is a multidisciplinary engineering professional body with world-leading industrial leaders and academic researchers. It plays a pivotal role in providing valuable services and specialized training to help individuals to gain the knowledge necessary to advance their careers, conveyed in a way that is most compatible with their needs.

From industry to academic, from Singapore to China, as a member of CASS for the past 13 years, CASS has significantly impacted and improved my professional career. I have been fortunate to get excellent mentorship, and guidance from my academic advisor, Professor Yong Lian, IEEE CASS Executive Committee, IEE CASS BoG members, and Industrial mentors. In 2019, I have joined Shanghai Jiao Tong University (SJTU) after working in the semiconductor industry for more than 5 years. This transition allows me to devote more time to serving our CASS community, from a combined perspective of industry and academics. During the past 2 years, I have done in the IEEE CASS BoG as the appointed Young Professional (YP) Chair. I have been able to witness every volunteer contributing towards accomplishing our society's mission and vision through this role. My dedication paid off when we received the prestigious IEEE YP Hall of Fame Award. This year, I was fortunate to be nominated and elected as the Chair-Elect for our IEEE CASS Standard Activities Sub Division (IEEE CASS SASD), supporting Dr. Kiran Gunnam and a team of excellent IEEE CASS seniors to establish various IEEE Standard Committees.

All our efforts are directed towards achieving the IEEE CASS Mission, which is to "foster technological innovation and excellence in fundamentals, emerging directions and application of circuits and systems for the benefits of humanity through an interdisciplinary community". Our IEEE CASS vision is to "advance and promote Circuits and Systems knowledge framed in interdisciplinary to be essential to the global and diverse technical community and be universally recognized for providing and leading solutions to the United Nations' Sustainable Development Goals". The transition from IEEE CASS YP to the IEEE CASS SASD and various important CASS events and initiatives is of significant importance for my personal development as well as my continuing commitment to our society. As I strongly believe in our IEEE CASS mission and vision, I hope to continue my effort through "enriching", "engaging" and "recognizing" (EER) with the three groups of our CASS members, namely (1) our YP/graduate student members, (2) our industrial members, and (3) our new members.

<Reaching out to our global community by establishing CASS student branch chapters and identifying CASS YP volunteers across all regions> To reinforce connections with our CASS chapters and student members, I hope to reach out to all chapters and work out a sustainable plan to establish the CASS student branch chapters (SBC). This allows us to build a network of active CASS YP volunteers across different geographical regions to organize similar regional activities with less effort. I have established the IEEE CASS SJTU SBC and Shanghai YP affinity group (YP AG). Now, I am trying out the concept of a joint CASS-SBC/YP/WIE interest group in Shanghai, not only to maintain sustainable costs but also to enrich the diversity of participants for CASS activities. We have constantly shared our activities on social networks and initiated a healthy group of more than 60 members in our SJTU SBC and YP AG. If I can represent the IEEE CASS R10 Regional Member at Large, I hope that this plan can be replicated across the country, the region, and the rest of the world.

<Increasing awareness among our local community through industrial engagement>

To increase our awareness and attract new members, especially members from our semiconductor industry, I have had the opportunity to work on several related activities over the past two years as the assistant head of the Department of Micro and Nanoelectronics at SJTU, where I was in charge of our department's industrial program, outreach program, alumni program, and international collaboration program.

In 2019, I organized the IEEE CASS Seasonal School, where I invited both academic and industrial speakers on AI and testing automation topics. Subsequently, I have also worked with our past IEEE CASS VP TA, YK Chen on the IEEE CASS Industrial Forum.

In 2021, as the pandemic starts to subside, I have the opportunity to be involved in the annual semiconductor industrial forum and SJTU alumni networking session. This event has drawn more than 4,000 key executive members in our semiconductor industry, which has allowed me to advertise our effort in IEEE CASS SASD. In addition, I organized an R10 interdisciplinary forum across China, creating more opportunities for our members to have face-to-face interactions. We had more than 150 people attend in person and 60,000 people watched the live stream. Moreover, our on-site publicity for IEEE CASS resulted in more than 50 students applying for IEEE student membership on-site. http://cassnewsletter.org/Volume15-Issue6/chapters-news.html

I am also working closely with the Shanghai Talent Hub and Shanghai Pudong Union to understand the needs of our semiconductor industry. We have successfully organized several industrial visits and the China EDA forum. Since October 2021, I have started recruiting volunteers to assist in the IEEE Global Membership Drive across our regional conferences, starting with ISICAS, BioCAS, APCCAS, and so on. This will help elevate our IEEE CASS members who have contributed significantly to our industry.

<Extending our influence in the online community through social media>

I have been fortunate to work with Professor Nicole and our CASS members on our digital communication platforms over the past 2 years. In particular, our TBioCAS digital communication committees (Professor Guoxing Wang, Professor Samuel Tang, and me) have regular Wechat posts and Linkedin activities. I have also started actively contributing articles to our IEEE CASS newsletter. I hope that I can influence my fellow chapters to build great branding in our newsletter and our social media platforms.

To conclude, I hope that I will be able to identify new members and provide excellent services to our existing members for the next three years or more.

Questions: 1) What are in your opinion the three most important services that CASS should provide to its membership?

- 1. Enrich our members: The MILEs and online webinars are outstanding programs that consolidate information on CASS's website and benefit our members. We need to continue developing more enriching programs, e.g. student design contests.
- 2. Engage our members: Our activities aim to connect people, where members meet and connect, build networks and support each other. Utilize our social media platforms to amplify our events and disseminate news.
- 3. Recognize our members: Reward our members for their active contributions in organizing local and global events, and rewarding our members who develop new technologies that enhance industry productivity or economy.

2) Mention one large long-term initiative that CASS should undertake in the next two years and that you would help to establish if elected.

To sustain this growth and continue assisting our IEE CASS VP RAM, I would like to assist in setting up various CASS chapters and student branches across R10. I would like to continue championing the IEEE Global Membership Drive and IEEE Mentoring Program, which aims to nurture our industrial and academic YP and graduate members. I have started organizing student design contests/grand challenges in our flagship and regional conferences (e.g. ISCAS, BioCAS and APCCAS.), to encourage them to participate and communicate more actively.

3) Mention three ways for CASS to reach/serve a specific part of the CAS community that you consider of particular importance (Industry, Academia, young CAS members, members of a specific region)

- 1. Academia and Industry Members: I would like to use our IEEE CASS SASD to draw our members to develop critical standards that will jointly advance our IEEE vision.
- 2. Graduate Members: I have created a joint CASS-SBC/YP/WIE interest group in Shanghai, to allow our members to organize events effectively.
- 3. R10 Members: In the 2021 R10 forum, we have drawn more than 150 people and 60,000 online audiences, creating opportunities for our members to have face-to-face and online interactions.
- I want to continue developing sustainable plans that can be replicated worldwide.



recognition.

**DOUGLAS O'SHAUGHNESSY** (S'74-M'76-SM'89-F'06-LF'16) received the B.Sc. and M.Sc. degrees in 1972 and the Ph.D. degree in 1976 from Massachusetts Institute of Technology, Cambridge, MA. He has been a professor at INRS-EMT (University of Quebec) in Montreal, Canada, since 1977 (the institute was renamed from INRS-Telecommunications in 2002). For this same period, he also taught every year as Adjunct Professor at McGill University in the Department of Electrical Engineering. For 2002-2020, he was Program Director at INRS-EMT. Dr. O'Shaughnessy has worked as a teacher and researcher in the speech communication field for 45 years in the areas of automatic speech synthesis, analysis, coding and

Dr. O'Shaughnessy is a Fellow of the IEEE (2006), of the Acoustical Society of America (1992), and of the ISCA (International Speech Communication Association) (2020). He was the Chair of the IEEE Signal Processing Society (SPS) Speech and Language Processing Technical Committee (2013-2014; with terms as member also: 1984-85, 2007-09, 2011-12, and 2021-2023). He was the Area Chair for Special Issues for the IEEE Signal Processing Magazine (2016-2018; associate editor, 2012-2016), and was a member of the Senior Editor Board for SPM (2017-2021). He is also an associate editor for the EURASIP Journal on Advances in Signal Processing (2008-2022) and for JASA Express Letters (2009-2022). He was Secretary and an elected member of the ISCA Board (2009-2017). He was the founding Editor-in-Chief, EURASIP Journal on Audio, Speech, and Music Processing (2005-2015).

He is currently a member of the IEEE Fellows Committee (2018-2020 and 2022-2023), the IEEE Tellers Committee (2018-2019 and 2022), was on the SPS Long Range Planning and Implementation Committee (2019-2021), the SPS TC Review Committee (2019-2020). He was a Member-at-Large, SPS Board of Governors (2019-2021).

He was: Member, IEEE TAB Periodicals Committee (2011-2013); elected a Regional Director of SPS, 2014-2015; Member, Technical Committee on Speech of the Acoustical Society of America (1995-97); Associate Editor, IEEE Transactions on Speech and Audio Processing (1995-99), Journal of Acoustical Society of America (1998-2010) and EURASIP Journal on Advances in Signal Processing (2006-11); Member, SPS Conference Board (2000-05); Member-at-Large, SPS Board of Governors (2002-04; non-voting member, 2014-2015); and General Chair, 2004 International Conference on Acoustics, Speech, and Signal Processing.

Dr. O'Shaughnessy is the author of the textbook, Speech Communications: Human and Machine (IEEE Press, 2000). He is co-author, with Li Deng, of the book Speech Processing: A Dynamic and Optimization-Oriented Approach (Marcel Dekker, 2003). He presented tutorials on speech recognition at ICASSP '96, ICASSP '01 and '09, and ICC '03. He has been a regular presenter at Interspeech, and has had papers at virtually every ICASSP from 1986 till 2017.

Statement: If elected, I would work to:

- Enhance the prestige of the society and its service to our members,
- Ensure the CASS Board of Governor's initiatives and activities match current and future needs of our members,
- Improve the quality and stature of CASS in terms of chapters and member services,
- increase our members' participation in IEEE meetings and other activities

I would favor collaboration with various IEEE Initiatives, IEEE Societies, and Councils as well as other relevant non-IEEE international organizations. An important goal would be to broaden the membership base and technical activities of CASS. We should improve the involvement of industry in CASS activities, such as participation in conferences, publications and governance. It is important to have a balanced representation so that academics and engineers can exchange research and application ideas.

There are many fields of research and development that involve the areas of interest to CASS, with many involving multidisciplinary research. We need to continue to build on recent CASS initiatives, to take our place in substantial leadership roles in our fields. We cover a wide range of fields for circuits and systems, and an equally wide range of applications. We must also focus on better education of CASS subjects. We also need to increase our CASS volunteer base.

My long experience in diverse positions in IEEE will help me address these challenges in the best interest of our membership. If elected, I would be committed to: 1) Maintain and strengthen the leadership of CASS and ensure that we remain the main source of information to professionals in our fields. 2) Help position CASS in emerging fields and make it more relevant to diverse membership from both academia and industry. While circuits and systems is a mature field, it is vibrant, characterized by rapid private sector innovation, and a constant stream of new products and technologies.

Questions: 1) What are in your opinion the three most important services that CASS should provide to its membership?

- 1. excellent conferences relevant for the CAS field
- 2. excellent publications for the CAS field
- 3. excellent opportunities for participation in various communities
- 2) Mention one large long-term initiative that CASS should undertake in the next two years and that you would help to establish if elected. Rather than seek new initiatives, CASS should concentrate on doing its current jobs well.
- 3) Mention three ways for CASS to reach/serve a specific part of the CAS community that you consider of particular importance (Industry, Academia, young CAS members, members of a specific region)
  - 1. seek ways to interest industry workers in the CAS field in the activities of CASS
  - 2. seek ways to offer valued services to CAS students after they graduate, as too many drop CASS and IEEE after graduation
  - 3. give significant support to CAS chapters, as their activities are a mainstay of CASS



**FRANCOIS RIVET** (M'11-SM'14) Dr. François RIVET obtained his Master and Doctorate degrees respectively in 2005 and 2009 at the University of Bordeaux. Since June 2010, he is Associate Professor at the Bordeaux Institute of Technology (Bordeaux INP). His research focuses on the design of radio frequencies integrated circuits within the IMS Laboratory, the microelectronics laboratory of the University of Bordeaux. In 2014, he founded the "Circuits and Systems" research team with 2 colleagues, 3 engineers and 9 PhD students. Since 2015, he is the director of the international relations department with 1250 students. Dr. Rivet has more than 120 IEEE publications in top journals, international conferences, but also national conferences and he holds 18 patents. He received the Best Paper Award at the Software Defined Radio Forum in 2008 in Washington DC, USA, at the Journées Nationales Micro-ondes in 2015 and 2017, at IEEE LASCAS in 2021 in Arequipa,

Peru and at AVIC 2021, Bordeaux. François Rivet is an IEEE member since 2010 and Senior Member since 2014. He is strongly involved in 4 IEEE flagship conferences (RFIC, ESSCIRC, ICECS and LASCAS), as a member of the steering committee or a member of the technical program committee (RFIC, ESSCIRC, ICECS, LASCAS, SBCCI, ASICON, ICSICT...) with different responsibilities. He has organized or participated in the organization of 17 conferences (mainly IEEE) including 3 as General Chair and 7 as TPC Chair. He is a reviewer for 10 IEEE journals (JSSC, TCAS-I, TCAS-II, TBioCAS, MTT, TAP, SSC-L, JETCAS, TNANO, OJCAS) of which he has been or is Guest Editor 3 times (TCAS-I and JSSC). He is a member of the IEEE-CAS, IEEE-MTT, IEEE-SSCS societies. He participated in the creation of the IEEE SiG AgriFood in 2021. Finally, he is an advisor of the Bordeaux Student Branch (BEE Branch) since 2019 and of its CAS chapter since 2013.

**Statement:** I would like to become a CASS board member to strengthen membership in the society with a particular focus on students and industry. I am convinced that we can expand our community with effective communication to this audience by showing them all the benefits that CASS can bring them and vice versa, especially to make CASS an incubator for wonderful encounters.

Questions: 1) What are in your opinion the three most important services that CASS should provide to its membership?

- 1. CASS should be a pleasant space to network and to provide opportunities to share and promote achievements, ideas and projects.
- 2. CASS should bridge the worlds of academia and industry. Students are looking for their first working experience and companies are looking for the best talents. I propose CASS as a trustful space where students and industrial members can interact.
- 3. CASS should give an active role to youths for coming challenges. CASS must advertize how powerfull and game changer it could be. I propose a free 1-year membership for each student with an efficient scheme for universities to enroll students.

2) Mention one large long-term initiative that CASS should undertake in the next two years and that you would help to establish if elected.

I would like to increase membership by building strong bridges between academia and industry with a moto: getting together to go further. Every student in circuits and systems should be an active member of CASS. Companies would seek for talents in CASS. Membership is the key to belong to a network where conferences are back to in-person participation, where contribution is a showcase with the legitimacy of CASS. Thus, I propose to involve more students as seeds for the future of our community with a renewal of responsibilities with young colleagues to secure the strength and continuity of CASS.

3) Mention three ways for CASS to reach/serve a specific part of the CAS community that you consider of particular importance (Industry, Academia, young CAS members, members of a specific region)

1. Increase student participation with a free 1-year membership for each student for their first registration with full access to CASS resources.

2. Federate CAS activities in Europe by proposing a new Region made of european chapters. It will be a catalyst to get strength, solidarity and share best know-how using European policies.

3. Improve conferences organization with increased industry participation by a better inclusion in TPC of conferences and adapted evaluation criteria of industry papers so they can be accepted into main conferences.



**HIROO SEKIYA** (S'97-M'99-SM'10) received the B.E., M.E., and Ph.D. degrees in Electrical Engineering from Keio University, Yokohama, Japan, in 1996, 1998, and 2001 respectively. Since April 2001, he has been with Chiba University, and now he is a Professor at Graduate School of Engineering, Chiba University, Chiba, Japan. Besides, he is the Honorary Professor of Xiangtan University, China, and the Specially Appointed Professor of Nagasaki Institute of Applied Science, Japan. From Feb. 2008 to Feb. 2010, he was also a visiting scholar with Electrical Engineering, Wright State University, Ohio, USA. His research interests include wireless power transfer systems, high-frequency tuned power amplifiers, resonant converters, nonlinear phenomena on electrical circuits, communication protocol designs, and digital signal processing for wireless communications, speech, and image.

He has 135 Journal papers, 232 conference papers, and 22 patents. He won 2008 Funai Information and Science Award for Young Scientist, 2008 Hiroshi Ando Memorial Young Engineering Award, Ericsson Young Scientist Award 2008, and 2019 Best Paper Award of IEICE Transactions, and Best paper award of ICRERA2021 and ICUFN2010.

Dr. Sekiya has served IEEE CASS Board of Governor (2020-2022), Vice-Chair of IEEE PELS Japan Joint Chapter (2022-2023), Associate Editor of IET Circuits, Devices & Systems, Editor of NOLTA, IEICE and Associate Editor of International Journal of Renewable Energy Research. Additionally, He served as Associate Editor of IEEE TCAS-II(2017-2019), Editor-in-Chief of IEICE Communication Express (2018-2019), Regional Editor of IET Circuits, Device & Systems (2018-2021), Secretary of IEEE CASS Japan Joint Chapter (2016-2017), Technical Committee Chair of IEEE CASS Nonlinear Circuits and Systems (NCAS) (2013-2014) and Power and Energy Circuits and Systems (PECAS) (2014-2015). He also did as Tutorial Co-Chair of ISCAS2020, Special Session Co-Chairs of ISCAS2019, Track Co-Chairs of ISCAS2010(NCAS), 2015(PECAS) and 2016(PECAS), IPEC2017, and PEDS2013. He was Chair of IEEE Keio University Student Branch (1999-2001); organizing committee member of many conferences such as APCCAS(Special Session Co-chair), NOLTA (General Chair, Technical Committee Chair, and Secretary), IPEC, ICUFN, EDAPS, WPMC, ICOIN, APCC, MITA, and AVIC(Secretary); Associate Editor of Journal of Signal Processing, IEICE Transactions on Fundamentals, and IEICE Electronics Express; and Guest Editor of the special sections on Springer Journal, Journal of Signal Processing, and NOLTA, IEICE.

**Statement:** Circuits and Systems Society (CASS) is a unique society with a long history within the IEEE; one of the special features of CASS is that it covers a wide range of research areas, from fundamental theory to systems applications, from nanoscale circuits to power systems. And it is important to note that most Technical Committees (TCs) have other related Societies in the IEEE. This diversity is the greatest strength of CASS, but it also becomes a weakness. In other words, in order to deepen the technology of a single TC, it may be better to discuss it in other Societies. In order to enhance the strength of CASS, I believe it is important to build bridges between TCs and activate interdisciplinary collaboration more actively.

I joined IEEE and CASS 25 years ago as a student member. As a student, I served as the chair of the IEEE Student Branch at Keio University, Japan. The activities of the IEEE Student Branch are not restricted to any research field. Through these activities, I learned the importance of friendship with colleagues from different affiliations and research fields. I still vividly remember the valuable suggestions I received at ISCAS, which I participated in as a student. My experience at ISCAS taught me to enjoy research, which led me to obtain Ph. D degree and continue my academic career.

After graduation, I was a TC member of Nonlinear Circuits and Systems (NCAS) and Power and Energy Circuits and Systems (PECAS) and chaired both Technical Committees (TC). I have made many international research friends through my experiences on the Technical Committee activities. The interaction with my colleagues is still a valuable experience and helps me to grow as a researcher. Later, I served as the secretary of the CASS Japan Joint Chapter in 2016 and 2017. Through this experience, I strengthened my relationship with CASS members in Japan. I believe that networking across research fields is one of the most excellent values of belonging to CASS.

I have served as a member of the Board of Governors since 2020. Although most of my activities have been online due to Covid-19, I have learned about outreach activities and initiatives at various levels of CASS through my work in the finance division. I hope to use this valuable experience to contribute to CASS further.

I realize the importance and value of personal and professional networking beyond my technical field at CASS. If elected, I would like to contribute to the following areas to enhance the activities of CASS.

## (1) Revitalization of region and chapter activities:

Region and chapter activities are fundamental to the revitalization of CASS. Each region has its characteristics and culture, as well as different problems it faces. Actively encouraging activities that respect these differences will lead to the revitalization of CASS as a whole. Therefore, we believe fair and active support for proposed initiatives from regions and chapters is necessary.

## (2) Strengthening networking among TCs, regions, and chapters:

If CASS members are confined to the shell of "technical fields," the attractiveness, characteristics, and strength of CASS will be reduced by half, which makes some members leave CASS. Cross-sectional networking among TCs is a typical feature of CASS, and we believe that its strengthening will lead to an increase in CASS member satisfaction. Specific examples include organizing special sessions at ISCAS on a system basis or building active cross-track sessions. Strengthening bottom-up activities by regions and chapters would also be effective in increasing the attractiveness of CASS. Therefore, we believe that joint activities among regions and chapters should be encouraged and supported.

#### (3) International Conferences Specializing in Specialty Areas:

While CASS's strength lies in its diversity of specialties, it must also be attractive to individual specialties, and we believe that holding international conferences specializing in TC-level specialties will directly enhance the value of CASS to its members. For example, AICAS, ISICAS, etc. are along these lines. By increasing the value of these conferences, the base of CASS will be broadened and strengthened. On top of that, we believe that region-based CASS conferences such as MWSCAS, LASCAS, and APCCAS will become more active, which will lead to the boosting of ISCAS.

#### (4) Removal of regional barriers with IT technology:

We understand that many of CASS members do not find it easy to attend ISCAS, the flagship annual conference of CASS, due to travel time, necessary expenses, and other issues. I attended ISCAS 2022 in person and was reminded of the importance of face-to-face meetings. On the other hand, I do not think that the rapid development of IT technology-based meetings, a side asset of Covid-19, should be wasted. Online meetings are a powerful means of removing regional barriers, and it is important to continue establishing hybrid holding methods through repeated trial and error. This will create an environment where CASS members around the world can receive services equally regardless of region.

#### (5) Encouragement of young researchers:

The energy of young researchers is a source of vitality for the activities of CASS. There is also an urgent need to develop human resources to support the next generation of CASS. In this sense, encouraging young researchers is an important mission of mine. I have participated in WiCAS/YP activities at ISCAS and other regional meetings, and I can use my experience in WiCAS / YP activities to encourage young researchers. We also believe that outreach activities to undergraduates and high school students are important events for recruiting young students into CASS research fields and should be actively supported.

Questions: 1) What are in your opinion the three most important services that CASS should provide to its membership?

- 1. Activation of regional activities: Regional activities are a strong foundation for CASS, building a strong network in their own countries and neighboring countries.
- 2. Organize high-quality symposia and conferences: Conferences are a core activity for CASS members to share cutting-edge research results and to build a network of researchers in specialized committees and among countries.
- 3. Publication of world-class papers, journals, and magazines covering the CASS field: High-quality articles stimulate the intellectual curiosity of members, which is undoubtedly fundamental to the activities of CASS.

### 2) Mention one large long-term initiative that CASS should undertake in the next two years and that you would help to establish if elected.

- 1. I would like to create as many opportunities as possible for CASS members to deepen technical friendships. We need to explore new forms after Covid-19.
- 2. One of the features of CASS is that it covers a wide range of technical fields. However, some technical committee members have shifted their main activities to other societies specializing in those fields. An initiative should be made to ensure that many members recognize the value of the technical diversity of CASS.

- 3) Mention three ways for CASS to reach/serve a specific part of the CAS community that you consider of particular importance (Industry, Academia, young CAS members, members of a specific region)
  - 1. Chapter Activity Enhancement: The success of next-generation YPs begins with the chapter and regional activity enhancement. I propose to enhance support for the activities that make this possible.
  - 2. Community Collaboration: Chapter activity enhancement will lead to the revitalization of regional cooperation and flagship conferences. I propose to use the IEEE networking tools actively to achieve inter-regional and academic-industry collaborations.
  - 3. Provide Recruiting Opportunities: It would be attractive for the industry to have an opportunity to meet with active young members. Why not hold initiatives such as the industry forum at ISCAS 2022 in chapters and regions?



**CARLOS SILVA-CARDENAS** (AM'91-M'93-SM'96) He holds a PhD from the Autonomous University of Barcelona (Spain). Full Professor at the Pontifical Catholic University of Peru (PUCP). Founder-Director of the Microelectronics Research Group; Director of the master's degree in Telecommunications Engineering (2010-2021). Since August 2019, he is Director of Research Management of the PUCP, this office is in charge of managing the projects of researchers who have national or international financing funds, as well as promoting and disseminating research, innovation and creation at the university. He is currently a member of the administrative court of the Telecommunications Supervisory and Regulatory Agency of Peru, OSIPTEL. Silva-Cárdenas has more than 74 publications, he is the author of a book, three book chapters and co-editor of 2 books that collect the most outstanding papers of congresses and respective conferences. He has been General

Chair of 10 congresses and conferences and Program Chair of 16 national and international congresses, conferences and symposiums, and a member of forty international program committees. Silva-Cárdenas is the author of the design of the first Peruvian digital integrated circuit. He received a mention: For providing Leadership to Latin American Test Workshop in the past decade and significant services as General Co-Chair in year 2007. He has been member of IEEE Prize Papers/Scholarship Awards Committee (2012-2015). He has received various awards such as the PUCP Research Recognition Award for the last 9 years, National Congress of Engineering Award, Recognition of the Peruvian Army for the development of the SCOME project and "The Eminent Engineer Award of IEEE Latin America Region 9 in 2019": for outstanding contribution to research and training human resources in the area of microelectronics in 2019.

He has taught master's and doctorate courses at the universities: Autonomous of Barcelona (1997-2000, 2003), Valencia (2004) and Complutense of Madrid (2005) as well as the National University of Tucumán-Argentina (2006, 2008).On the other hand, Silva-Cardenas has participated as a member of the International Evaluation Committee of the research activity in the Argentine universities of: Nacional de Cordoba (2021-2022), Moron (2019-2020), Patagonia Austral (2016-2017), Nacional Rio Negro (2016), Nacional La Pampa (2012) at the invitation of the Ministry of Science and Technology of the Argentine Republic

He was President of the IEEE PERU SECTION from 2009 to 2010, achieving significant growth in technical chapters. He has been presidentfounder of the Circuits and Systems Chapter (CAS) that since its foundation in 2008 has received 5 international awards as the best chapter worldwide (2010) and best chapter at the Region9.

A remarkable fact is that since the creation of the Microelectronics Group, Professor Silva-Cardenas has personally managed to obtain scholarships to carry out master's and doctoral studies in different universities of the world for around 70 members of the Group. These actions influenced the Region 9 awards committee to award Professor Silva-Cardenas "The Eminent Engineer Award of IEEE Latin America Region 9 in 2019": for outstanding contribution to research and training human resources in the area of microelectronics in 2019.

Statement: One of the actions I have thought of to better use the resources available to CASS and generate an increase in membership is the following:

CASS has top-level researchers among its members who spread their knowledge through various communication channels, for example: Distinguished lecturers, master conferences, short courses. This important effort made by CASS could also be channeled if they are geared towards teaching doctoral courses or parts of courses of the doctoral programs in many universities. This could be an effective way to take advantage of the wonderful resources that CASS has at its disposal. For this purpose, CASS could establish an agreement with universities and in this way other positive collateral effects are generated, such as increased membership and greater identification of researchers with the principles and actions of CASS.

In case I benefit from the vote of my colleagues and I am elected to be part of the BoG, I promise to generate the procedure to materialize this idea, assuming that the BoG approves this proposal. First, we would have to "gather" information from the universities with doctoral programs related to CASS and see their interest in the proposal. In parallel, it would be necessary to see which researchers who are members of CASS are interested in being part of this proposal, indicating availability over time, topic to be developed and acceptance to comply with the regulations of the doctoral program that will host to the CASS member researcher. The payments made by the university or doctoral program would be of two types: A payment to the CASS researcher and another payment to CASS for the administrative work performed.

On the other hand, the principles that guide the work of CASS are compatible with those that I have in my life and that translate into "love of others." This principle of "love of others" is appreciated every time we spread our knowledge and show the "state of the art" in the various topics that exist in CASS in the multiple events that CASS has and that we must always be evaluating its effectiveness to improve the access of people who have access limitations for any reason.

Questions: 1) What are in your opinion the three most important services that CASS should provide to its membership?

- 1. COVID19 pandemic has shown an opportunity to spread more and better the CASS activities as conferences, symposiums, congresses, using virtuality at affordable prices.
- 2. CASS could offer information and scholarships for access to master's and/or doctorate studies at leading universities in the world. The commitment of the beneficiaries is to collaborate in the formation of CAS Technical Student Chapter where they do not exist or, if they do exist, to be active participants in its activities.
- 3. Promote the participation of industry in CASS events with the active participation of CASS DLs and researchers, especially in countries with modest technological development.

2) Mention one large long-term initiative that CASS should undertake in the next two years and that you would help to establish if elected.

One large long-term initiative that I propose to the CASS is to establish a PostDoc program for CASS members who have obtained the academic degree of doctor or PhD in the last 5 years prior to the call for the program. This Postdoc CASS program should have its members interested in applying in a dynamic database with the necessary information and offer it to universities around the world who should contact interested researchers directly.

3) Mention three ways for CASS to reach/serve a specific part of the CAS community that you consider of particular importance (Industry, Academia, young CAS members, members of a specific region)

1. In countries of R9 it is appreciated that students are very dynamic in supporting CASS activities and a form of recognition would be to support their research training through short research internships in research institutes of other countries.

2. As a member of the BoG, I will strive to increase CASS-IEEE membership through increased value for members accessing CASS journals by trying to capture the impressive number of non-CASS member readers.

3. To call for the participation of industry personnel, we must generate products of interest: articles in CASS magazines on process management, human resource management in the electronics industry.