IEEE CIRCUITS AND SYSTEMS SOCIETY ELECTION OF MEMBERS TO THE BOARD OF GOVERNORS For a Three-Year Term 1 January 2024 – 31 December 2026

Candidates for Regional Member-at-Large from Regions 1-7 Vote for One



YEN-KUANG CHEN (S'92-M'98-SM'02-F'12) Dr. Yen-Kuang Chen has been an industrial researcher for more than 25 years, including at Intel Corporation, Alibaba, and Princeton AI Group. His research focuses on emerging applications that harness the full potential of multimedia and Internet of Things (IoT), as well as computer architecture tailored to support these applications. He has more than 100 patents and more than 100 technical publications. He is one of the key contributors to Supplemental Streaming SIMD Extension 3 and Advanced Vector Extension in Intel microprocessors.

Dr. Chen has actively contributed to IEEE Circuits and Systems Society (CASS). From 2018 to 2021, he served as a Board of

Governors member of CASS. In 2020 and 2021, he held the position of Vice President of Technical Activities (VP-TA) of CASS. In 2021, as VP-TA, he played a pivotal role in establishing the Standard Activities Sub-Division of CASS. He served as the founding chair of the Special Interest Group (SIG) on IoT of CASS from 2017 to 2021, and Chair of the Multimedia Systems and Applications (MSA) Technical Committee (TC) of CASS from 2012 to 2013.

In the realm of publications, from 2016 to 2017, he served as the Editor-in-Chief (EIC) of IEEE Journal on Emerging and Selected Topics in Circuits and Systems (JETCAS). Furthermore, he has served on the editorial boards of IEEE journals such as IEEE Transactions on Circuits and Systems 1 (TCAS-1), IEEE Transactions on Circuits and Systems for Video Technology (TCSVT), IEEE Transactions on Multimedia (TMM), JETCAS, and IEEE Signal Processing Magazine. He received the TCSVT Best Associate Editor awards twice from different EICs.

In the realm of conferences, he has served as a program committee member for over 50 international conferences, covering a wide range of topics, including Internet of Things, multimedia, video communication, image processing, VLSI circuits and systems, parallel processing, and software optimization. In 2023, he served as a Technical Program Committee (TPC) co-chair for IEEE AICAS. He chaired the theme track on Internet of Video Things (IoVT) at the IEEE International Symposium on Circuits and Systems (ISCAS) in 2016 and served as the chair of the Circuits and Systems Society Forum on Emerging and Selected Topics (CAS-FEST) at ISCAS in 2013. In the realm of outreach and knowledge dissemination, he served as a Distinguished Lecturer (DL) of CASS in 2016-2017 and again in 2023-2024. He has delivered keynote speeches at numerous conferences, including AICAS 2021. Additionally, he has shared his expertise through tutorials presented at IEEE conferences, including VCIP 2012 & 2011, ISCAS 2012 & 2009, and ICME 2010 & 2007.

In the realm of fostering industry-academia collaboration, he initiated the IEEE CASS Silicon Valley AI for Industry Forums in 2018 and IEEE CASS-Shanghai AI for Industry Forums in 2019, which later transformed into the CAS Emerging and Selected Topic Industry Forums (CASIF).

He received his Ph.D. degree from Princeton University and is an IEEE Fellow

Statement: Over the past 30 years, I have actively participated in CASS, serving in various leadership positions.

- (1) [CASS Executive Leadership] I had the honor of becoming an IEEE Fellow through CASS in 2012. I served as a Board of Governors member of CASS from 2018 to 2021 and held the position of VP of Technical Activities from 2020 to 2021.
- (2) [CASS Technical Activities] In addition to my roles as VP-TA and TA-division BOG member, I played a pivotal role as the founding chair of the SIG on IoT from 2017 to 2021 and served as the Chair of the MSA TC from 2012 to 2013. As VP-TA, I co-spearheaded the establishment of the Standard Activities Sub-Division of CASS in 2021.
- (3) [CASS Publications] I served as the Editor-in-Chief of IEEE JETCAS from 2016 to 2017 and have served on the editorial boards of IEEE TCAS-1, IEEE TCSVT, IEEE TMM. I received TCSVT best AE awards twice (from different EICs).
- (4) [CASS Conferences] Because of my active involvement in organizing AICAS, ICME, and ISCAS, I am on the steering committee of AICAS, had served on the steering committee of ICME on behalf of CASS, and was a chair of CASS Forum on Emerging and Selected Topics (CAS-FEST) in 2013.
- (5) [CASS Outreach] I was appointed as a Distinguished Lecturer of CASS in 2016-2017 and again in 2023-2024. In 2018, I initiated the IEEE CASS-Silicon Valley AI for Industry Forums, which subsequently transformed into the CAS Emerging and Selected Topic Industry Forums (CASIF).

Based on my extensive involvement in various IEEE activities, I have noticed areas where CASS could benefit from my expertise, particularly in leveraging my extensive experience within CASS and the industry.

If elected, I am committed to working closely with the Board of Governors and the Executive Committee to actively develop new policies, initiatives, and innovative approaches to ensure the highest level of service to our valued CASS members. The primary focus will be on providing the following:

(1) A reliable and comprehensive source of the latest information to tackle real-world challenges: CASS holds a significant advantage over other IEEE societies due to its ability to address real-world challenges through multidisciplinary collaboration effectively. With research areas spanning circuit theory, algorithm development, and design implementation, we will strive to deliver the most up-to-date technical knowledge to our members. To foster in-depth collaboration, we will establish Special Interest Groups (SIGs), particularly for topics that require collaboration between multiple Technical Committees (TCs) and IEEE societies. Additionally, we will publish special issues, organize theme-based forums that explore emerging and cross-disciplinary topics within CAS, and sponsor competitions focused on emerging and selected topics within CAS. These initiatives will also help expand CASS's expertise into new research areas and applications.

- (2) Enhanced collaboration between industry and academia: With our technical leadership and excellence, CASS can actively promote and facilitate better collaboration between industry and academia. The gap between industry and academia is widely recognized, stemming from the contrasting priorities each holds. Industry places significant emphasis on integrating technologies to solve real-world problems, while academic researchers tend to focus on the technology itself, irrespective of its applications. This fundamental difference forms the basis of the gap. While we cannot alter the primary focus of industry or academia, CASS has the ability to bridge this gap by establishing a platform that facilitates the exchange of research challenges and technological innovations between industry and academia members. This will involve establishing SIGs dedicated to addressing real-world challenges and organizing theme-based forums where industry professionals can present real-world challenges while academic researchers explore potential technologies to address these challenges. Additionally, we will sponsor competitions that attract collective community efforts to push the boundaries of technology, ultimately benefiting humanity.
- (3) Embracing inclusion alongside diversity: CASS recognizes the numerous benefits of a diverse culture within our society. Traditionally, diversity has been understood in terms of members (active or passive) from various backgrounds, races, genders, ages, and religions. We should proactively encourage the active participation of all members. For instance, we will increase the inclusion of young researchers and their contributions by expanding the pool of journal/conference reviewers to include students and graduates of the last decade (GLOD) members. We will also provide opportunities for students and GLOD members to participate in student paper awards and involve them in TCs/SIGs as student members alongside associate and affiliate members. Furthermore, to enhance technical exchanges between industry and academia members, we will increase the presence of industry participants in conference sessions, enabling them to share their insights and expertise through presentations even without publishing papers. By embracing both inclusion and diversity, CASS will thrive and benefit from a vibrant and varied community.

CASS offers its members three important services: (1) access to up-to-date information that can help solve real-world problems, (2) a platform for industry and academia to collaborate, and (3) an inclusive networking community.

- We should establish SIGs, publish special issues and organize theme-based forums for emerging and cross-discipline topics on CAS.
- We should organize theme-based forums, where industry describes real-world challenges, while the academic describes potential technologies that can address the challenges.
- We should include active participation from all members from a variety of backgrounds, race, gender, age, or religion.

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.

CASS can build a platform that facilitates the exchange of research challenges and technological innovations between industry and academia. Industry places significant importance on the integration of technologies to address practical problems, while academia tends to prioritize technology itself, irrespective of its applications. While we cannot alter the primary focus of either industry or academia, CASS can create a platform that simplifies the exchange of research challenges and technological innovations. One approach is to organize theme-based forums centered around emerging and cross disciplinary topics, where industry professionals discuss real-world challenges and academics explore potential technologies.

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)

- To facilitate the exchange of research challenges and technological innovations between industry and academia, we should arrange themebased forums focused on emerging and cross-disciplinary topics. During these forums, industry representatives can elaborate on real-world challenges, while academic researchers can present potential technologies.
- To enhance the involvement of young researchers and acknowledge their contributions to society, we should (1) expand the pool of journal/conference reviewers to include students or GLOD (graduates of the last decade) members, (2) involve students or GOLD members in student paper awards, and (3) incorporate student members into TCs/SIGs, alongside associate or affiliate members.



JENNIFER BLAIN CHRISTEN (S'97-M'06-SM'16) is an Assistant Professor in the School of Electrical, Computer, and Energy Engineering at Arizona State University. She received her Ph.D. from Johns Hopkins University in 2006, and she held a post-doctoral appointment in the Department of Immunogenetics at the Johns Hopkins School of Medicine in 2007. She is an expert in bioelectronics and systems integration for biomedical applications. Her research encompasses leveraging massmanufactured electronics (including CMOS and flat panel display) in biomimetic closed-loop feedback systems. These systems include both cyber physical systems enabled by smart and connected point-of-care diagnostics and engineered homeostatic systems that modulate neural pathways. This work is enabled by low-power and neuromorphic circuit design in tandem with biosensors along with their calibration and compensation, multi-modal system integration, microfluidics, and interface to biology: biomolecular, cellular, and animal model. She received an NSF CAREER award in 2015 and a Top 5 form the Fultar Schengle of Engineering State University in 2012. She is a negative of Eleverbio Teach here, a negative of Eleverbio Teach here, and the post-

percent Faculty award from the Fulton Schools of Engineering at Arizona State University in 2012. She is a co-founder of FlexBioTech Inc., a pointof-care medical diagnostics company. She has experience as an academic working with industry to develop technology for medical applications, including the challenges of IP, funding, publishing, and student support.

Her experience in IEEE dates back to 1997 as the secretary and chairperson (1998) of the student chapter at Johns Hopkins University. She has served on the CASS Sensory Systems and Biomedical and Life Science Technical Committees since 2007 including chair 2020-2022. She will serve as the co-chair for MWSCAS 2023. She is also an associate editor for Transactions on Biomedical Circuits and Systems. She has been very active in her local IEEE Phoenix Chapter serving as an executive committee member for over 10 years. She is the founder and chair of the local CASS Chapter, and a very active member of the local WIE affinity group. She has also started an educational outreach initiative that received two subsidy awards (2013, 2015) through the Phoenix Chapter, and an Outstanding Pre-College Educator award for pre-college initiatives for grades 6-12 on bio-electronics workshops and research. She is a VOLT graduate, and she continues to seek opportunities to improve the way IEEE serves all of its community.

Statement: I aspire to serve on the Board of Governors foremost because I care about the CAS community on a personal level. Since my first ISCAS over 20 years ago in 2002, I found an incredible sense of community in CASS. This feeling has only strengthened as I continued to attend conferences, joined technical committees, participated in our publication process, and contributed to conference organization. I understand how CAS builds up its community and strengthens our ability to contribute to both IEEE and scientific progress broadly. I am honored to be a part of a thriving community serving a diverse, multidisciplinary community embracing rather than minimizing our differences. My pride in our community along with my commitment to continued growth and ability to work well with others give me confidence that I will be a productive and valuable member.

I believe that one of the most profound strengths possessed by the CAS community is our focus on systems. This strength is demonstrated in our capacity to leverage advances originating from fundamental technologies such as devices, materials, or circuits and bring to fruition entire systems. We have been the most agile and creative society in IEEE, not only suggesting and adapting new ideas and solutions in an ever-changing technology landscape, but also creating fully functional systems. Unfortunately, I believe that we have undersold rather than emphasized this strength. I hope to help CASS better highlight our collective ability to leverage advances from a broad spectrum of technologies and innovate a clear pathway to implementation and adaptation into viable systems.

I believe that all our members will benefit from increased engagement and interaction between our industrial and academic members. One of the important strategies for achieving this is to better communicate our strengths. I am confident that, through better engagement with industry, the impact of academic work can be dramatically improved. This can be realized by working together and facilitating conversations between industry members and academic members. This will enable our academic members to engineer systems that are both more relevant and commercially viable. Of course, this path is not without its barriers. This is in large part due to vast differences in the incentives, rewards, and objectives of industrial vs academic careers. With this in mind, we need to examine, as a society, how to better align our activities to serve all our members and find ways to improve industry engagement without alienating our academic members. I believe we are making strong inroads toward this goal.

I am proud of my history of service as part of the organizing committee for CASS conferences. I have served on a CASS flagship conference organizing committee most years since 2010, and review committee every year. This year I am co-Chairing MWSCAS 2023 this August. We have a strong student program including a career fair, best paper award, research forum as well as sponsorship for students from the National Science Foundation. We are also holding a CHIPS workshop to better facilitate industry, startup, government, and academic interactions. I strongly believe through better partnership with industry that we will leverage our strengths to ensure our best innovations make real-world impact. The invaluable guidance from industry members to the academic members is a crucial, but often missing, part of this shift. When we improve the relevance of the research from our academic members, we can cultivate not only more interest from industry members but build meaningful partnerships between members as well. Through these partnerships CASS can facilitate the transformation of ideas to commercial products.

To bring these changes to bear, I believe there is a strong need to provide more consistency in our interactions with members. Given that members may attend only a few conferences yearly, if any, a consistent presence could be achieved through online communication, which we have yet to fully embrace. Platforms are emerging and reconfiguring to meet the needs of the community. We need leadership to guide this effort to create focus areas and special interest groups. I believe we can provide better opportunities for long-term, continuous engagement than is possible through conference attendance only. Additionally, we can more effectively engage industry members who may be unable to attend conferences.

Furthermore, as we emerge from the limitations of virtual-only meetings, our community needs to reexamine how we approach meetings and how hybrid attendance will play a role. As decisions are being made that will shape our conferences for decades to come, it is important to embed key individuals into the conversation. I believe that I can make positive contributions to that conversation given my experience in conference organization prior to and during the pandemic. I hope to foster new opportunities for inclusivity while maintaining the immeasurable value of face-to-face interactions. I believe that I can contribute the CASS Board of Governors by pushing forward these efforts. I know that CASS can be agile in both its engineering and service to our community. We as a society can adjust and adapt the ways in which we engage with our members to more effectively serve them and better facilitate their contributions and impact on the world. We have the opportunity to reexamine how we function and identify areas for improvement. Of course, this should not be an isolated endeavor, I hope to function as an approachable, open-minded member. It is my goal to act as a steward of this organization who represents the interests of all members within this vibrant, flourishing CAS community.

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

- 1. CAS conferences provide a venue for our member to communicate their latest results directly in person and through archival publication. They are incredible opportunities for networking and community-building.
- 2. CAS provides high quality technical publications for our community. They enable us to grow as a community through the collective knowledge and efforts of our members.
- 3. CAS has the opportunity to play a crucial role in transforming innovative ideas into technical realizations. I believe this is a role that could be better fulfilled by meaningful interactions between academics, entrepreneurs, and industry; interactions currently quite lacking.

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.

CASS represents an incredible wealth of knowledge not always represented in publications. Specifically, as circuits AND systems researchers, we acquire knowledge and skills that come with years of hands-on experience, successes and failures. We as a society have neglected to leverage this vast wealth of knowledge. CASS could facilitate more industry involvement by providing new approaches to innovation-specific networking. Online networking, e.g. Collabratech, provides unprecedented access to information and opportunities to create connections and collaborations. Not only will this create a better sense of community for members unable to attend conferences, it will provide more continuity in our communication.

- 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. Serving young CASS members ensures we retain a vibrant, growing community. Meaningful mentoring and professional development are areas for substantial improvements.
 - 2. CASS industry members have only modest engagement. We should identify avenues to provide better value to them including easily accessible services such as webinars on technical topics, industry-focused career building, and best practices.
 - 3. CASS can improve impact locally and service to industry by providing better incentives for industry members to organize more industrycentric local activities. Better recognition and incentives could encourage them to give seminars, hold workshops, or organize networking all geared toward industry relevance.



HAI (HELEN) LI (S'08-M'16-SM'19) is Professor and Chair of the Electrical and Computer Engineering Department at Duke University. She received the B.S. and M.S. degrees from Tsinghua University, Beijing, China, and the Ph.D. degree from the Department of Electrical and Computer Engineering, Purdue University, West Lafayette, IN, USA, in 2004. Prior to joining Duke University, she has been working with Qualcomm Inc., Intel Corporation, Seagate Technology, the Polytechnic Institute of New York University, and the University of Pittsburgh.

Prof. Li is now the chair of the IEEE teaching award committee. She serves as Associate Editor-in-Chief of IEEE Transactions on Circuits and Systems I (TCAS-I), Senior Editorial Board member of IEEE Journal on Emerging and Selected Topics in Circuits and Systems (JETCAS), as well as Associate Editor of IEEE Transactions on Circuits and Systems II (TCAS-II) and IEEE Transactions on Very Large Scale Integration (TVLSI) Systems. She has served as general chair and if of multiple IEEE conferences including ISVI SL SoCC and ISOED and the Technical Program Committee members of

technical program chair of multiple IEEE conferences, including ISVLSI, SoCC, and ISQED, and the Technical Program Committee members of over 30 international conference series. She has been the steering committee of ISVLSI and iNIS since 2016.

Prof. Li's research interests include neuromorphic computing systems, machine learning and deep neural networks, memory design and architecture, and cross-layer optimization for low power and high performance. She has authored or co-authored more than 300 technical papers in peer-reviewed journals and conferences and a book entitled Nonvolatile Memory Design: Magnetic, Resistive, and Phase Changing (CRC Press, 2011). She received 9 best paper awards and an additional 9 best paper nominations from international conferences.

Prof. Li is a Distinguished Lecturer of the IEEE CAS society (2018-2019) and a Distinguished Speaker of ACM (2017-2020). Prof. Li is a recipient of the NSF Career Award, DARPA Young Faculty Award (YFA), TUM-IAS Hans Fischer Fellowship from Germany, and ELATE Fellowship (2020). She is a fellow of ACM and IEEE.

Statement: My research studies are closely related to circuits and systems. Thus, it was natural for me to join CASS in 2008 when I decided to go back to academia. Since then, I have been actively involved in IEEE and CASS activities. I now serve as Associate Editor-in-Chief of TCAS-I. I have served as the chair of the IEEE teaching award committee, Senior Editorial Board member of JETCAS, as well as Associate Editor of TCAS-II and TVLSI Systems. I also have served as general chair and technical program chair of multiple IEEE conferences, including AICAS, ISVLSI, SoCC, and ISQED. Besides, I have served as the Technical Program Committee members of over 30 international conference series, including NanoGiga Technical Committee in ISCAS. I have been the steering committee of ISVLSI and iNIS since 2016.

In the past several decades, the rapid development in circuits and systems has been the primary driving power of technology revolutions and the enabler of emerging fields (e.g., A.I., IoT, 5G networks). The development of circuits and systems has been heavily entangled with other fields. Both academics and professionals need connections and assistance to stay on top of this ever-growing, ever-changing field. The role of the IEEE CAS Society is more important than ever before.

My goal is to contribute to new initiatives for the CAS Society as it moves into the future. Particularly, we need to increase opportunities for our members to communicate/collaborate with researchers/engineers in emerging directions and contribute to technological innovation and excellence. It would be a great way to help young CAS members develop their skills that are highly needed in the immediate future. I would like to invest my energy and research experience across CAS, AI/ML, and cybersecurity fields to develop and boost activities in Technical Committees and Special Interest Group (SiG). I would foster activities at the local chapter level aiming at multidisciplinary research and industry involvement.

Another important goal for me is increasing the inclusiveness and diversity of the CAS Society at all levels. I would like to promote diversity by supporting the career development of female engineers and other minor and underrepresented members. Building a big network can also provide opportunities to find mentors and role models for CAS members. To promote these initiatives, involving male engineers is very significant. Working with other societies like IEEE women in engineering (WIE) is essential too. Seminars, events, forums, and networking in CAS events related to diversity enhancement will be of great help and increase CAS membership.

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

- Create value for newer generations and foster them taking the reins of leadership in the years immediately ahead.
- Increase the inclusiveness and diversity at all levels.
- Improve communication opportunities and enhance connections within 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.

Increase opportunities for CAS members to communicate/collaborate with researchers/engineers in emerging directions (A.I., IoT, cybersecurity, and so on) and contribute to technological innovation and excellence. I would invest my energy and experience to boost activities in Technical Committees and Special Interest Group (SiG), foster activities at the local chapter level, aiming at multidisciplinary research and industry involvement.

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)

- Promote CAS activities in R1-R7. We can organize activities for members by leveraging the CAS outreaching funding, engage CAS members closely with researchers/engineers from both academics and industry, etc.
- Encourage young generations, women and underrepresented groups to involve in the CAS community and take leadership roles. Efforts could include technical conferences and workshops, social events, and career-development workshops and training sessions.
- Help the technical committees create new operating procedures. Conferences and professional publications are undergoing significant changes as the community works to increase rapid and increasingly open information dissemination.

Candidates for Regional Member-at-Large from Region 9 Vote for One



ALFREDO ARNAUD (AM'04-M'09-SM'11) Alfredo Arnaud (IEEE senior member), received his PhD, and MSc in microelectronics from UdelaR, Uruguay, in 2000 and 2004 respectively, and has participated since 1997 in several R+D projects in the field of electronics for the industry and in the University. His area of expertise is analog and mixed-mode circuit design, for RFID, IoT, medical, applications. Since 2004 he joined Electrical Engineering Department at Universidad Católica del Uruguay, where he started uDIE research group (http://die.ucu.edu.uy/microdie). Dr. Arnaud published more than 100 papers in international journals and scientific meetings. He is the co-founder of three technology companies: BQN in 2004 (http://www.bqn.com.uy) dedicated to electronics & SW for RFID devices & traceability within de agribusiness industry among others, Chipmate in 2009 aimed at the development of ASICs for medical devices, and ABM in 2018

(https://www.abmsolutions.com.uy/) providing several engineering services. For the industry, Dr. Arnaud participated in design and consultancy in the field of electronics for companies in Uruguay, Brazil, Canada, Belgium, and India, including the development of embedded electronics like portable POS equipment, FDA approved medical devices, cloud-connected sensor devices, and a portable RFID reader according to ISO11784/11785 standard, among others (the later product named Baqueano-Pro®, was awarded with Synopsys LA electronic product prize 2016. He is an IEEE Senior Member, former chair of IEEE Uruguay Section and CAS-Uruguay chapter, member of the ICT4V board (https://ict4v.org/), and a researcher of ANII (Uruguay national research council).

Statement: I believe that the CASS should be the natural space for professionals, academics, engineers, students, and other people with an interest in the field of Circuits & Systems, to contact colleagues, find up-to-date information, and in general, channel their professional concerns and technical interests.

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

- Provide an environment in which to network with colleagues with similar specific interests, from industry and academia.
- Be a reference, and bring members up-to-date technical information, standards, technological perspectives, in the field of Circuit and Systems.
- Help young professionals and students to take contact with the professional activity.

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.

There are many possible initiatives, but I think that the CASS should increase the participation of undergraduate students in its activities and conferences. To this end, specific activities for young people associated with CASS events should be organized, especially allowing students to keep in touch with the industry and/or to train specific skills in the field of Circuits and Systems.

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)

- To serve the industry, an international professional network can be developed.
- To reach young CAS members, specific social activities should be organized.
- To serve students of specific regions, CAS can help to access prototyping tools and provide/fund components for circuits.



FARUK FONTHAL RICO (M'08-SM'12) Dr. Fonthal is an academician dedicated to teaching, training, mentoring engineering students and advancing electronic devices using microsystems for biomedical applications. He obtained a degree in electronic engineering from the Autonomous University of West (UAO) in 1999 and received a Ph.D. degree in Electronic Engineering from Rovira i Virgili University in 2006. He served as coordinator in the electronic and telecommunication area management by the Engineering Faculty for more than ten years, as principal investigator in projects sponsored by the UAO, and as the main advisor of more than ten doctoral and master's students. He has taught one hundred engineering courses and advised hundreds of electronic, mechatronic and biomedical engineering students. He published over fifty technical papers and has served as a reviewer or guest editor of international journals, including Micromachines, Sensors, Molecules, Journal

of Electronic Materials, and IEEE Transactions on Circuits and Systems II: Express Briefs. Currently, he's IEEE senior member and an active member in IEEE Colombian section and R9 Latino American region for the Circuits and Systems society. Chair of the CASS Colombia Chapter.

Statement: In the first place, my proposal for the CASS Board of Governors to strengthen the alliances and links with the members and new active members of Region 9, supporting them in developing the different activities that promote the growth of society in Latin America. Secondly, the promotion of the society and the CASS chapter within the territories of Region 9, seeking to reach different institutions and organizations of the industry and governments. Third, to continue supporting the organization and participation in CASS events, such as international ones such as the IEEE Latin American Symposium on Circuits and Systems (LASCAS) and the IEEE International Symposium on Circuits and Systems (ISCAS) and at the national level in each country belonging to the R9.

The Society may offer specific programs and resources to engage and support CASS youth members, such as undergraduate students, graduate students, and young professionals. This can include mentoring, scholarships, research opportunities, discounts on workshops and conferences focused on skill development and professional networking for young CASS members.

The CASS partnership can develop specific initiatives to address the needs of a particular region or community. This could include organizing regional workshops, promoting collaboration between local research and development institutions, and identifying specific projects or challenges relevant to that region. Focusing on local needs and priorities, the CASS partnership can catalyze development and technological innovation in that specific geographic area.

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

In my opinion, the three services that should be promoted during the period 2024 - 2026 should be the promotion of the growth of the number of members and the elevation of more senior members within the society that can contribute to the industry of the region 9. It will allow the projecting of research and entrepreneurship proposals to the most vulnerable and low-income sectors, promoting industry, academia and government participation. Continue looking for a unit among the members where periodic meetings can be held and where the developments and advances of the research groups can be shown. 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 to be able to come up with innovative projects that allow solutions to the most impactful problems in the most vulnerable sectors of the region, such as renewable energy, potable water and health services. In the first months, a study would be carried out with each chapter to establish priorities and later make calls for financing from industry, government and educational institutions, which allow solutions to be provided in the short and medium term.

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. Support for CASS Youth Members: The Society may offer specific programs and resources to engage and support CASS youth members, such as undergraduate students, graduate students, and young professionals.
- 2. Linkage with industry: CASS society can play an important role in establishing and strengthening the relationship between academia and industry. You can organize conferences, colloquia and networking events to exchange knowledge and technology transfer.
- 3. Regional focus: The CASS partnership can develop specific initiatives to address the needs of a particular region or community. This could include organizing regional workshops, promoting collaboration between local research and development institutions.



CARLOS SILVA-CARDENAS (AM'91-M'93-SM'96) 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, conferences and symposiums as LASCAS (2021, 2013) 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 CoChair 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, SilvaCardenas 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 Region 9.

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.

- 1. 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.
- 2. Promote the participation of industry in CASS events with the active participation of CASS DLs and researchers, especially in countries with modest technological development.
- 3. COVID19 pandemic has shown an opportunity to spread more and better the CASS activities as conferences, symposiums, congresses, using virtuality at affordable prices.

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 R9 countries it is appreciated students that are 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 magazines 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 to them: articles in CASS magazines on process management, human resource management in the electronics industry.

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



PAMELA ABSHIRE (S'99-M'01-SM'16-F'18) is a Professor in the Department of Electrical and Computer Engineering and the Institute for Systems Research at the University of Maryland, College Park. She received the BS in physics from CalTech in 1992, and the MS and PhD in electrical and computer engineering from Johns Hopkins in 1997 and 2002. She is internationally known for her work in low power mixed-signal integrated circuits (IC), adaptive ICs and IC sensors, and CMOS biosensors. Her research focuses on better understanding and exploiting the tradeoffs between performance and resources in natural and engineered systems, including hybrid devices incorporating CMOS, MEMS, optoelectronics, microfluidics, and biological components. Her honors include an NSF CAREER award (2003), elevation to IEEE Fellow (2018) for contributions to CMOS biosensors, and recognition as a Distinguished Scholar-Teacher at the University of Maryland (2021). She previously served on the Emerging Technologies and Research Advisory Committee for the U.S. Department of Commerce (2008-2018), on the Board of Governors for the IEEE Circuits and Systems Society (2013-2018),

the IEEE Fellow Committee (2019-2021), and as General Co-Chair for the 2017 IEEE International Symposium on Circuits and Systems. She currently serves on the Microsystems Exploratory Council for the DARPA Microsystem Technology Office and as General Co-Chair for the 66th IEEE International Midwest Symposium on Circuits and Systems 2023.

She received a Distinguished Service Award from the IEEE Washington Section in 2004, the Corcoran Award for significant contributions to Electrical and Computer Engineering education (2004), the Poole and Kent Company Teaching Award for Junior Faculty (2011), the Jimmy H. C. Lin Award for Entrepreneurship (2011), and was named the outstanding faculty member of the Institute for Systems Research (2006). Her previous IEEE service includes organizing symposia for the Women in Engineering Washington Area Affinity Group in Spring 2003 and 2004, serving as Vice Chair for the Women in Engineering Washington Area Affinity Group in 2004, as an officer of the Neural Systems and Applications Technical Committee in 2007-2010, as Secretary to the Biomedical Circuits and Systems Technical Committee in 2011, as Chair of Women in Circuits and Systems in 2012 and 2013, as the CASS Representative to the IEEE Sensors Council in 2012 and 2013, and on the CASS Board of Governors from 2013 through 2018.

Statement: I've been fortunate to consider the IEEE Circuits and Systems Society as my professional home throughout my career. We are a vibrant and multidisciplinary community that has a strong history of cultivating creative, proof-of-concept research in a diverse range of technical domains at the interfaces between signals and circuits and systems. Clearly hardware is a central concept in CASS technical interests, but what often distinguishes CASS contributions are the novelty of applications and integration of hardware with other approaches (algorithms, nano, bio, energy, neural ...).

The present moment is a moonshot opportunity for our generation of circuit designers because many countries around the world are making major investments in microelectronics and semiconductors (i.e., the US CHIPS and Science Act, the EU Chips Act, and similar government investments in India and Asia). My fervent hope is that this can be managed well and can have lasting impact for the field – and the success for this moonshot will inevitably be measured by economic activity rather than technical activity. At the same time, this investment will fail in the long term if it does not cultivate the new research ideas that will lead to tomorrow's innovations – and this is precisely where a community like the Circuits and Systems Society can play an important role.

How can CASS help to build this robust future for our community?

Workshops can inform our community about opportunities and provide opportunities to connect with colleagues to network and collaborate. A good example of this is the MWSCAS CHIPS Workshop (https://www.mwscas2023.com/chips-workshop) – that we are organizing at MWSCAS 2023, with support from CASS. The goals are to provide information about opportunities associated with the CHIPS+Science Act, to foster collaborative

discussions and networking, and to help members of the CASS community to build collaborative networks and pursue research opportunities related to the CHIPS Act. The workshop will include an information session and panel discussions on the vision, approaches, and the role of academic research in the CHIPS Act, with time for networking.

Conferences provide a forum for our community to discuss research results and to develop relationships. These regular meetings provide the basis for interactions with other members of CASS which help to build community and advance the field. I have served as General Co-Chair for two flagship CASS conferences, ISCAS 2017 in Baltimore MD and MWSCAS 2023 in Phoenix AZ. In both instances, I strived to foster opportunities for industrial members to participate in the meeting, an important goal if you consider that nearly half of CASS members globally are industrial but nearly all of the participants at CASS conferences are academic. Fostering these interactions between academia and industry supports the development of new ideas leading to research results and innovations, and doing so successfully requires personal connection and outreach. Most recently, at MWSCAS 2023 we have focused on the conference role in workforce development and in disseminating information and knowledge about the CHIPS Act.

Publications play a critical role in disseminating research results and nurturing the technical advances in the field of circuits and systems. Ours is a field that reinvents itself continually, on a very fast time scale. In order to support this pace, CASS must continue to support and strengthen the quality of its excellent technical publications.

Advocacy for the field to external stakeholders is, in my opinion, the most important role that CASS can and should offer for its members, and the most difficult one for it to accomplish. External stakeholders include the companies that employ our members, the government agencies that fund our research, our parent organization IEEE and our sister societies and councils, and the general public. Successful advocacy requires personal connection and outreach and the ability to articulate CASS successes and opportunities. This is a critical time when microelectronics is very much in the public eye all around the world, and we should not waste this chance.

It's clearly crucial for CASS to provide real value to its members. Currently CASS does a good job of facilitating high quality technical interactions and publications through its conferences and journals. In the next five years, it is certain the field of microelectronics will receive significant investment around the world, and it is also certain that these resources will not be uniformly distributed – there will be winners and losers. CASS can and should play an important role in helping to inform its members about how to understand and navigate in the landscape of these opportunities and also in helping to the community to self-organize so that it is ready to respond collaboratively to those opportunities as they arise.

The most important long-term initiative that CASS should undertake in the next two years is to help its members understand how our field is changing in response to major national investments such as the US CHIPS Act (among others) and to help our members to influence and determine the directions that our field will develop and grow. CASS has an opportunity to offer value to our members by supporting and strengthening technical and professional development activities online and through local CASS chapters. It remains a fact that 90% of CAS members do not attend ISCAS in any given year, and our chapters are the primary mechanism of engagement for the majority of members. However, virtual events are effective engagement platforms only after connections have been forged at in-person events.

CASS should particularly strive to engage the interest and participation of industrial members, young members, and women. We can attract industrial members through personal outreach and high-quality events on meaningful and timely topics of interest. We can attract young members by helping them to understand the benefits of CASS for their careers, including establishing their scientific reputation and finding suitable mentors to support their career development. We can and must support women because we have historically had – and continue to have – a significant climate problem in CASS. This can only change with commitment from CASS leadership.

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

It's clearly crucial for CASS to provide real value to its members. CASS does a good job of facilitating high quality technical interactions and publications through its conferences and journals. In the next five years, microelectronics will receive significant investment globally, and these resources will not be uniformly distributed – there will be winners and losers. CASS can and should help to inform its members about how to understand and navigate in the landscape of these opportunities and also help the community to be ready to respond collaboratively to those opportunities as they arise.

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.

The most important long-term initiative that CASS should undertake in the next two years is to help its members understand how our field is changing in response to major national investments such as the US CHIPS Act (among other similar initiatives in Europe, India, and Asia) and to help our members to influence and determine the directions that our field will develop and grow.

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)

CASS should particularly strive to engage the interest and participation of industrial members, young members, and women. We can attract industrial members through personal outreach and high quality events on meaningful and timely topics of interest. We can attract young members by helping them to understand the benefits for their careers, including establishing their scientific reputation and finding suitable mentors to support their career development. We can and must support women because we have historically had – and continue to have – a significant climate problem in CASS. This can only change with commitment from CASS leadership.



YEN-KUANG CHEN (S'92-M'98-SM'02-F'12) Dr. Yen-Kuang Chen has been an industrial researcher for more than 25 years, including at Intel Corporation, Alibaba, and Princeton AI Group. His research focuses on emerging applications that harness the full potential of multimedia and Internet of Things (IoT), as well as computer architecture tailored to support these applications. He has more than 100 patents and more than 100 technical publications. He is one of the key contributors to Supplemental Streaming SIMD Extension 3 and Advanced Vector Extension in Intel microprocessors.

Dr. Chen has actively contributed to IEEE Circuits and Systems Society (CASS). From 2018 to 2021, he served as a Board of Governors member of CASS. In 2020 and 2021, he held the position of Vice President of Technical Activities (VP-TA) of

CASS. In 2021, as VP-TA, he played a pivotal role in establishing the Standard Activities Sub-Division of CASS. He served as the founding chair of the Special Interest Group (SIG) on IoT of CASS from 2017 to 2021, and Chair of the Multimedia Systems and Applications (MSA) Technical Committee (TC) of CASS from 2012 to 2013.

In the realm of publications, from 2016 to 2017, he served as the Editor-in-Chief (EIC) of IEEE Journal on Emerging and Selected Topics in Circuits and Systems (JETCAS). Furthermore, he has served on the editorial boards of IEEE journals such as IEEE Transactions on Circuits and Systems 1 (TCAS-1), IEEE Transactions on Circuits and Systems for Video Technology (TCSVT), IEEE Transactions on Multimedia (TMM), JETCAS, and IEEE Signal Processing Magazine. He received the TCSVT Best Associate Editor awards twice from different EICs.

In the realm of conferences, he has served as a program committee member for over 50 international conferences, covering a wide range of topics, including Internet of Things, multimedia, video communication, image processing, VLSI circuits and systems, parallel processing, and software optimization. In 2023, he served as a Technical Program Committee (TPC) co-chair for IEEE AICAS. He chaired the theme track on Internet of Video Things (IoVT) at the IEEE International Symposium on Circuits and Systems (ISCAS) in 2016 and served as the chair of the Circuits and Systems Society Forum on Emerging and Selected Topics (CAS-FEST) at ISCAS in 2013. In the realm of outreach and knowledge dissemination, he served as a Distinguished Lecturer (DL) of CASS in 2016-2017 and again in 2023-2024. He has delivered keynote speeches at numerous conferences, including AICAS 2021. Additionally, he has shared his expertise through tutorials presented at IEEE conferences, including VCIP 2012 & 2011, ISCAS 2012 & 2009, and ICME 2010 & 2007.

In the realm of fostering industry-academia collaboration, he initiated the IEEE CASS Silicon Valley AI for Industry Forums in 2018 and IEEE CASS-Shanghai AI for Industry Forums in 2019, which later transformed into the CAS Emerging and Selected Topic Industry Forums (CASIF).

He received his Ph.D. degree from Princeton University and is an IEEE Fellow

Statement: Over the past 30 years, I have actively participated in CASS, serving in various leadership positions.

- (6) [CASS Executive Leadership] I had the honor of becoming an IEEE Fellow through CASS in 2012. I served as a Board of Governors member of CASS from 2018 to 2021 and held the position of VP of Technical Activities from 2020 to 2021.
- (7) [CASS Technical Activities] In addition to my roles as VP-TA and TA-division BOG member, I played a pivotal role as the founding chair of the SIG on IoT from 2017 to 2021 and served as the Chair of the MSA TC from 2012 to 2013. As VP-TA, I co-spearheaded the establishment of the Standard Activities Sub-Division of CASS in 2021.
- (8) [CASS Publications] I served as the Editor-in-Chief of IEEE JETCAS from 2016 to 2017 and have served on the editorial boards of IEEE TCAS-1, IEEE TCSVT, IEEE TMM. I received TCSVT best AE awards twice (from different EICs).
- (9) [CASS Conferences] Because of my active involvement in organizing AICAS, ICME, and ISCAS, I am on the steering committee of AICAS, had served on the steering committee of ICME on behalf of CASS, and was a chair of CASS Forum on Emerging and Selected Topics (CAS-FEST) in 2013.
- (10) [CASS Outreach] I was appointed as a Distinguished Lecturer of CASS in 2016-2017 and again in 2023-2024. In 2018, I initiated the IEEE CASS-Silicon Valley AI for Industry Forums, which subsequently transformed into the CAS Emerging and Selected Topic Industry Forums (CASIF).

Based on my extensive involvement in various IEEE activities, I have noticed areas where CASS could benefit from my expertise, particularly in leveraging my extensive experience within CASS and the industry.

If elected, I am committed to working closely with the Board of Governors and the Executive Committee to actively develop new policies, initiatives, and innovative approaches to ensure the highest level of service to our valued CASS members. The primary focus will be on providing the following:

- (1) A reliable and comprehensive source of the latest information to tackle real-world challenges: CASS holds a significant advantage over other IEEE societies due to its ability to address real-world challenges through multidisciplinary collaboration effectively. With research areas spanning circuit theory, algorithm development, and design implementation, we will strive to deliver the most up-to-date technical knowledge to our members. To foster in-depth collaboration, we will establish Special Interest Groups (SIGs), particularly for topics that require collaboration between multiple Technical Committees (TCs) and IEEE societies. Additionally, we will publish special issues, organize theme-based forums that explore emerging and cross-disciplinary topics within CAS, and sponsor competitions focused on emerging and selected topics within CAS. These initiatives will also help expand CASS's expertise into new research areas and applications.
- (2) Enhanced collaboration between industry and academia: With our technical leadership and excellence, CASS can actively promote and facilitate better collaboration between industry and academia. The gap between industry and academia is widely recognized, stemming from the contrasting priorities each holds. Industry places significant emphasis on integrating technologies to solve real-world problems, while academic researchers tend to focus on the technology itself, irrespective of its applications. This fundamental difference forms the basis of the gap. While we cannot alter the primary focus of industry or academia, CASS has the ability to bridge this gap by establishing a platform that facilitates the exchange of research challenges and technological innovations between industry and academia members. This will involve establishing SIGs dedicated to addressing real-world challenges and organizing theme-based forums where industry professionals can present real-world challenges while academic researchers explore potential technologies to address these challenges. Additionally, we will sponsor competitions that attract collective community efforts to push the boundaries of technology, ultimately benefiting humanity.
- (3) Embracing inclusion alongside diversity: CASS recognizes the numerous benefits of a diverse culture within our society. Traditionally, diversity has been understood in terms of members (active or passive) from various backgrounds, races, genders, ages, and religions. We should proactively encourage the active participation of all members. For instance, we will increase the inclusion of young researchers and their contributions by expanding the pool of journal/conference reviewers to include students and graduates of the last decade (GLOD) members. We will also provide opportunities for students and GLOD members to participate in student paper awards and involve them in TCs/SIGs as student members alongside associate and affiliate members. Furthermore, to enhance technical exchanges between industry and academia members, we will increase the presence of industry participants in conference sessions, enabling them to share their insights and expertise through presentations even without publishing papers. By embracing both inclusion and diversity, CASS will thrive and benefit from a vibrant and varied community.

CASS offers its members three important services: (1) access to up-to-date information that can help solve real-world problems, (2) a platform for industry and academia to collaborate, and (3) an inclusive networking community.

- We should establish SIGs, publish special issues and organize theme-based forums for emerging and cross-discipline topics on CAS.
- We should organize theme-based forums, where industry describes real-world challenges, while the academic describes potential technologies that can address the challenges.
- We should include active participation from all members from a variety of backgrounds, race, gender, age, or religion.

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.

CASS can build a platform that facilitates the exchange of research challenges and technological innovations between industry and academia. Industry places significant importance on the integration of technologies to address practical problems, while academia tends to prioritize technology itself, irrespective of its applications. While we cannot alter the primary focus of either industry or academia, CASS can create a platform that simplifies the exchange of research challenges and technological innovations. One approach is to organize theme-based forums centered around emerging and cross disciplinary topics, where industry professionals discuss real-world challenges and academics explore potential technologies.

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)

- To facilitate the exchange of research challenges and technological innovations between industry and academia, we should arrange themebased forums focused on emerging and cross-disciplinary topics. During these forums, industry representatives can elaborate on real-world challenges, while academic researchers can present potential technologies.
- To enhance the involvement of young researchers and acknowledge their contributions to society, we should (1) expand the pool of journal/conference reviewers to include students or GLOD (graduates of the last decade) members, (2) involve students or GOLD members in student paper awards, and (3) incorporate student members into TCs/SIGs, alongside associate or affiliate members.



VICTOR GRIMBLATT (M'10-SM'13) has an engineering diploma in microelectronics from Institut Nationale Polytechnique de Grenoble (INPG – France) and an electronic engineering diploma from Universidad Tecnica Federico Santa Maria (Chile). He got his PhD on Electronics in 2021 from University of Bordeaux. He is currently R&D Group Director and General Manager of Synopsys Chile.

He has published several papers in IoT, EDA, Smart Agriculture, and embedded systems development. Since 2012 he is chair of the IEEE Chilean chapter of the CASS. He has been part of several conferences TCP (ISCAS, ICECS, LASCAS, VLSI SoC) and Steering Committees. He is a member of the IEEE CASS Board of Governors for the period 2021 – 2023. He founded the Electronics for Agrifood SIG at CASS and chairs it. He was Chair of LASCAS Steering Committee from 2018 to 2022. He is CASS representative at the IEEE Climate Change TAB.

He was President of the Chilean Electronic and Electrical Industry Association (AIE) from 2017 to 2021. From 2006 to 2008 he was a member of the "Chilean Offshoring Committee" organized by the Minister of Economy of Chile.

In 2010 he was awarded as "IEEE/AIE Best Engineer" in Chile. In 2023 he was awarded as "IEEE/AIE Best Engineer" in Chile. In 2023 he was awarded as "IEEE R9 Outstanding Engineer".

Victor's research areas are EDA (Electronic Design Automation), Climate Change, and Smart Agriculture.

Statement: I would like to be elected for my second term at BoG because I want to continue working on several topics that I consider very important for CASS and IEEE. Those topics are detailed below:

The world is facing big challenges that are affecting the continuity of the humankind on the surface of the earth. Climate change is impacting our health, our lives, our food security among other problems it is creating. There are several ways to face the impact of climate change and of course the collaboration between countries is an important one. Technology can also play an important role to help on the mitigation of climate change consequences. Being able to measure what is happening and create models that will allow us to predict what is going to happen will allow the humanity to better face the challenges. Measurement and process of the information is done through circuits and system, so we are an important player of this challenge. Disseminate the problem and how technology can help to mitigate is something I have been doing during the last few years and I would like to continue as part of the CASS Board of Governors.

Technology has been part of the development of the world. Several countries have moved to the state of developed countries through the implementation of a sophisticated and competitive technological industry. However, other countries, especially in Africa and Latin America have not yet reached that level, and their technological industry is almost nonexistent. In those areas of the world, the academia is leading some initiatives, but it is not enough to create an industry. CASS is already planning to play an important role through education and development of the necessary talent to work on technology. Programs such as UNIC CASS and CASS MiLe are key action in that direction. I have been collaborating, especially in the UNIC CASS program and I would like to continue doing it as part of the BoG.

CASS needs to involve more the industry in its activities, we need to attract industry to our conferences, to our journals, and in general to our activities. To achieve that objective, we need to well understand the industry and its interests. As I work in the industry, I can provide some relevant insights to achieve that objective.

CASS needs also to leverage the value of hardware among young people. Hardware is the basis of almost everything in technology and we need to promote the importance of the hardware and how fun is to do hardware. I would like the BoG to work also on that and my plan is to lead a work in this way re-enchanting young people on hardware design and hardware related jobs.

CASS can make the difference and I would like to be part of this work. I count on your vote to be elected for my second term at CASS Board of Governors.

- 1. CASS should lead the application of technology on the main humankind problems such as climate change and food security.
- 2. CASS should be a networking space where engineers from industry and academia, and students can share ideas, projects, knowledge, and challenges.
- 3. CASS should work on the attraction to STEM of young people, more engineers are needed in hardware, and we are the right organization to promote it.
- 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.

Application of technology to mitigate the impact of climate change and food security in the world. Organizing summer schools, contests, workshops, and conferences among other activities will help to raise the awareness of the problem and how technology can help.

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)

- I think that fresh graduates don't see a value added being a member of CASS, so I propose the following:
- 1. Improve the participation of the industry so the fresh engineer can use CASS to know what the industry is doing and how they can be part of that. We also need more industry participation at main CASS events.
- 2. Offer a reduced fee for the first 2 to 3 years
- 3. Do more events oriented to young engineers and their role into the industry. We need to understand young engineers, their interest and how they behave.



KIRAN GUNNAM (M'07-SM'07) Dr. Gunnam is a Director of Research at Micron. 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 realtime signal processing, communication, and machine learning systems that enabled ubiquitous computing.

Statement: I am currently serving my third 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 100+ industry and academic experts joining the CASS standards committees, study groups and working groups. If elected as a member of BoG for the term 2024-2026, 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 textbooks 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 Xplore 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 the 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 the Education Committee serves young CASS 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 the 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 Xplore 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 the 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 the Education Committee serves young CASS members as well as members from Africa, Asia and South America.



YAJUN HA (S'99-M'03-SM'09) received the B.S. degree from Zhejiang University, Hangzhou, China, in 1996, the M.Eng. degree from the National University of Singapore, Singapore, in 1999, and the Ph.D. degree from Katholieke Universiteit Leuven, Leuven, Belgium, in 2004, all in electrical engineering.

He is currently a Professor at ShanghaiTech University, China. Before this, he was a Scientist and Director, I2R-BYD Joint Lab at Institute for Infocomm Research, Singapore, and an Adjunct Associate Professor at the Department of Electrical & Computer Engineering, National University of Singapore. Prior to this, he was an Assistant Professor with National University of Singapore. His research interests include reconfigurable computing, ultra-low power digital circuits and systems, embedded system architecture and design tools for applications in robots, smart vehicles and intelligent systems. He has published around 150 internationally peer-reviewed journal/conference papers on these topics.

He has served a number of positions in the professional communities. He serves as the Editor-in-Chief for the IEEE Trans. on Circuits and Systems II: Express Briefs (2022-2023), the Associate Editor-in-Chief for the IEEE Trans. on Circuits and Systems II: Express Briefs (2020–2021), the Associate Editor for the IEEE Trans. on Circuits and Systems I: Regular Papers (2016–2019), the Associate Editor for the IEEE Trans. on Circuits and Systems II: Express Briefs (2011–2013), the Associate Editor for the IEEE Trans. on Circuits and Systems II: Express Briefs (2011–2013), the Associate Editor for the IEEE Trans. on Very Large Scale Integration (VLSI) Systems (2013–2014), and the Journal of Low Power Electronics (since 2009). He has served as the TPC Co-Chair of ISICAS 2020 and 2022, the General Co-Chair of ASP-DAC 2014; Program Co-Chair for FPT 2010 and FPT 2013; Chair of the Singapore Chapter of the IEEE Circuits and Systems (CAS) Society (2011 and 2012); Member of ASPDAC Steering Committee; and Member of IEEE CAS VLSI and Applications Technical Committee. He has been the Program Committee Member for a number of well-known conferences in the fields of FPGAs and design tools, such as DAC, DATE, ASP-DAC, FPGA, FPL and FPT. He is the recipient of two IEEE/ACM Best Paper Awards. He is a senior member of IEEE.

Statement: I have been actively involved in CAS activities for more than 16 years. I have served as Editor-in-Chief, IEEE Transactions on Circuits & Systems II (2022-2023), Associate Editor-in-Chief, IEEE Transactions on Circuits & Systems II (2020-2021), Member of Darlington Best Paper Awards Committee(2020-2023), Member of Guillemin-Cauer Best Paper Awards(2020-2023), Standing Member of CCF IC Design SIG(since 2020), Lead Guest Editor of the Special Issue of TCAS-II on ISCAS (2020-2021), Lead Guest Editor of the Special Issue of TCAS-II on ISCAS (2020-2021), Lead Guest Editor of the Special Issue of TCAS-II on ISCAS (2020-2021), Lead Guest Editor of the Special Issue of TCAS-II on ISICAS (2020-2021) and so on. In addition, I have served as the Associate Editor for TCAS-I (2016–2019), TCAS-II (2011–2013), TVLSI (2013–2014), and the Journal of Low Power Electronics (since 2009). I have served as the General Co-Chair of ASP-DAC 2014; Program Co-Chair of FPT 2010 and FPT 2013. I have also served as the Chair of the Singapore CAS Chapter (2011 and 2012); Member of ASP-DAC Steering Committee; and Member of IEEE CAS VLSI and Applications Technical Committee. I have been the Program Committee Member for a number of well-known conferences in the fields of FPGAs and design tools, such as DAC, DATE, ASP-DAC, FPGA, FPL and FPT. My research interests include reconfigurable computing, ultra-low power digital circuits and systems, and embedded system architecture and design tools for applications in robot, smart vehicles, machine learning and hardware security. I have published over 150 peer-reviewed journal/conference papers on these topics, and won 2 best paper/poster awards and several best paper nominations.

I am very excited to be nominated for the position of CASS Board of Governors (BoG). The Board of Governors represents the members of the Society and approves the Society's annual budget, amendments to the Constitution and Bylaws, elects Society Officers, and authorizes the expenditure of Society funds. All these responsibilities of a BoG member play a quite important role in the CASS strategy planning and daily operations. As a result, to be a BoG member of such a society is not only of honor, but also of great responsibility.

With this in mind, I would like to state my vision of serving the CASS as a member of BoG based on its excellent established practices, especially in the following aspects.

First of all, I believe CASS should continue to provide the following essential and valuable services to its membership:

- Service to promote the exchange of innovation ideas: An essential motivation for members to join IEEE and CASS is to educate themselves so as to benefit their career. They need to IEEE CASS services to get them exposed to a pool of innovation ideas, so as to enable fast spreading of novel methods, research roadmap, scientific challenges. This has usually been achieved through the attending of conferences, journals, seminars, and various initiatives organized by CASS.
- 2. Service to build the community of researchers: The path to explore innovation ideas is challenging and it will be much more joyful if there is a community together in this journey. It is essential for CASS to build such a community to enable effective and efficient networking of fellow researcher through technical committees, social activities, conferences, seminars, and various initiatives.
- 3. Service to recognize the contributions: To set models for the researcher community and reward researchers with the joy of achievements, it is essential to recognize the achievements of researchers through various technical and organization awards set and selected by CASS. It should be the integrated part of a well-designed system like CASS to have a full feedback loop.

In addition, I believe CASS should coordinate its various technical committees to update the EDICS of CASS journals especially on the emerging technologies. We live in an age full of emerging technologies. We need some holistic initiatives to address the relevant emerging technologies to which the CASS publication is currently not strongly focused yet. One of the major difficulties for emerging technology related manuscripts is that both authors and editors sometimes are not quite sure if the topic is within the scope of the journal or not. A comprehensive exercise should be executed in all CASS TCs to update EDICs. This will pass a clear message to potential authors working on emerging/interdisciplinary works and help push the emerging technologies forward. I would help to establish if I am elected.

Furthermore, I consider it is of particular importance that CASS needs to serve these three specific parts of the CAS community with some new initiatives:

- 1. Serve the industry part of CASS community with a specific new magazine that is focusing on the industry trends, products and people, new industry oriented technical committees and a new industry-focused award;
- 2. Serve the young CAS members with a new buddy and mentor program that engage several peers and seniors as a group to mentor a young CAS member together;
- 3. Serve the Middle East and Africa parts of Region 8 with more resources and focuses in the coming years and bring up the CASS community in these locations by supporting more scholarships, outreach support, conference sponsorship, and etc.

CASS has already implemented some initiatives to populate the three sub-communities, yet we have more room to do better.

In summary, to make sure CASS provides the valuable services to the community, I believe we should focus on the following three aspects, namely, a platform to exchange novel ideas, a community to grow together, and awards to recognize achievements. In addition, we should launch a large long-term initiative to facilitate the development of emerging technologies by updating the EDICS and so on. Furthermore, we should pay particular care to serve the less presented members of the CASS community, namely the industry, young CAS members and members in the Middle East and Africa locations. With the leadership of the CASS management, the various technical committees of CASS, and especially all the CASS member, I am confident that I can be a valuable member of BoG and help CASS to reach a new height.

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

I believe CASS should provide the following three services:

- 1. Service to promote the exchange of innovation ideas, to enable fast spreading of novel methods, research roadmap, scientific challenges, through conferences, journals, seminars, and various initiatives organized by CASS.
- 2. Service to build the community of researchers, to enable effective and efficient networking of fellow researcher through technical committees, social activities, conferences, seminars, and various initiatives organized by CASS.
- 3. Service to recognize the contributions, to set models for the community and reward researchers with the joy of achievements, through various technical and organization awards set and selected by 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.

I believe CASS should coordinate its various technical committees to update the EDICS of CASS journals especially on the emerging technologies. One of the major difficulties for emerging technology related manuscripts is that both authors and editors sometimes are not quite sure if the topic is within the scope of the journal or not. A comprehensive exercise should be executed in all CASS TCs to update EDICs. This will pass a clear message to potential authors working on emerging/interdisciplinary works and help push the emerging technologies forward. I would help to establish if I am elected.

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. Serve the industry part of CASS community with a specific new magazine that is focusing on industry trends, products and people, new industry oriented technical committees and a new industry award;
- 2. Serve the young CAS members with a new buddy and mentor program that engage several peers and seniors as a group to mentor a young CAS member together;
- 3. Serve the Middle East and Africa parts of Region 8 with more resources and focuses in the coming years and bring up the CASS community in these locations by supporting more scholarships, outreach support, conference sponsorship, and etc.



ALEX JAMES (GSM'05-M'09-SM'13) is a Full Professor of AI hardware at School of Electronic Systems and Automation, and Dean (Academic) at Digital University Kerala. An, electronics engineer by education, he received the Ph.D. degree in a short period of 2 years from the Queensland Micro and Nanotechnology Centre, Griffith University, Brisbane, QLD, Australia. He works in the broad area of memristive systems, intelligent devices, intelligent materials, circuits and imaging systems. He heads Maker Village that supports over 80+ hardware startups. He is Chief Investigator of national centres for excellence in Intelligent IoT Sensors, and India Innovation Centre for Graphene, developing new products to the market. He leads the efforts for the development of Graphene industrial ecosystem and setting up of Digital Science Park (~\$180 million budget) in Kerala. He is an Associate Editor for Frontiers in Neuroscience, IEEE Transactions on Circuits and Systems 1

(2018-2023), IEEE Access and IEEE OJCAS. He is appointed as the Associate EiC for the IEEE Open Journal of Circuits and Systems (2024-2025). Dr. James was the founding chair for IEEE Kerala Section Circuits and Systems Society Chapter. He is a member of IEEE CASS Technical committee on Nonlinear Circuits and Systems, IEEE CASS Technical committee on Cellular Nanoscale Networks and Memristor Array Computing, IEEE Consumer Technology Society Technical Committee on Quantum in Consumer Technology (QCT) and Technical Committee on Machine learning, Deep learning and AI in CE (MDA). He was awarded the best Associate editor of IEEE TCAS1 for 2020-21. He was awarded the IEEE Kerala Section outstanding researcher for 2022, for research contributions in neuro-memristive systems, product development and startup ecosystem. He was also awarded the prestigious Government of Kerala Kairali Research Award for Researchers in 2022. He has been active in as reviewer and TPC for IEEE ICCE, IEEE ISCAS, IEEE ICECS, IEEE APCASS etc. He is a Fellow of British Computer Society (FBCS), and Fellow of IET (FIET).

Statement: Valuing inclusiveness, carbon footprint and society for future. We live in a world today that is fragile yet at the pinnacle of innovations driven by human ingenuity, artificial intelligence and ever scaling semiconductor chips. I would like to propose to transform the CASS value to create wider influence and recognition among general public breaking the traditional boundaries of technical society.

A truly inclusive community requires understanding the wider needs of the community, working with local bodies, governments and local industries. This requires the CASS to go for policy driven outreach programs, that can bridge the divide and gaps between the policy makers and technical groups.

Creating influence of CASS through a variety of activities involving startups would be important to drive innovation and product development. I believe CASS can be a valuable platform to bring the connects between academia, researchers and startups.

Supporting areas of activities to create societal influence is critical for CASS to remain relevant in the years to come. With advent of technological singularity, it can be very-well assumed that next generation of CASS members will be extensively using data driven solutions for design to implementations of electronics products. Future studies initiatives for CASS is time sensitive and important to place contextual understanding with domain expertise in creating strategies for change and how CASS can be part of such changing times.

The low membership fee is a critical factor to attract students. However, to sustain the student members it's important to create attractive programs to support their career growth. I would take initiative to create CASS career platform for job and internship listing that can bring together startups, industries and academia help find student find the right match and advices.

If elected, I will strive to create a policy driven approach that is holistic yet relevant to address the major technical and societal challenges of today. Just like the recent initiatives on AgriFood Electronics, several important initiatives are the need of the hour. How about poverty eradication, climate change, political instability, business ethics - can electronic technologies provide some solutions or other? I believe we are at a stage of development where interdisciplinary thinking and approach is critical to drive the progress of humans and make earth a better place to live. Before its too late, I believe we can create a major difference by taking approaches that cut the traditional norms and boundaries of what CASS could do. I believe that opening up inter-connections with social sciences, medicine, informatics, materials and arts, can greatly help the CASS society to address a variety of realistic problems faced by the society today, creating meaningful impact going beyond the scientific quests.

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

In my opinion CASS society should provide the following:

- 1. Networking of like-minded people for jointly working on research collaborations in solving major societal problems. Specific emphasis should be to address grand challenges and problems of the future, including from poverty eradication, food security to climate change.
- 2. Create policy think tank to work with governments to implement large scale solutions for betterment of the people.
- 3. Empower the youth and be inclusive to take part in the development of individuals. Bring systems and problem-solving skills by outreach activities in remote and most marginalized sections.

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 work with governmental bodies and industries to influence the impact of CASS in wider society. In particular, I would like to initiate a strategic and policy driven committee, that can look at creating advisory reports and policies that can help influence the decision making in governments around the world. I believe it is big time that we as a CASS society take a deeper look into the major societal challenges of today, and collectively make efforts to apply the knowledge created over the years to the practical applications in the betterment of human and environmental health.

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)

I think, CASS is a society that is technically sound and generally holds the holy grail of all the major electronics innovations. However, being conventional, it has struggled to create impressions among the youth, women and startups. This I think, is something that requires major efforts to create a change. Creatively and innovation strives in startup communities, which if properly connected with CASS significantly improve the visibility and tenacity of CASS activities. I believe not enough is done for supporting inclusiveness in science beyond the boundaries of geography, gender and race, which is another area CASS needs to keep working.



KYUNG KI KIM (GSM'07-M'08-SM'19) Dr. Kyung Ki Kim (S'99-M'08-SM'19), a dedicated scholar and educator, currently holds the position of Professor at the School of Electronic and Electrical Engineering, Daegu University, South Korea. His academic journey began at Yeungnam University, South Korea, where he earned his BS and MS degrees in Electronic Engineering in 1995 and 1997, respectively. Motivated by his passion for knowledge, he pursued a Ph.D. in Computer Science at Sogang University, South Korea, from 1997 to 1999. Seeking to broaden his horizons, he moved to the United States and obtained his Ph.D. in Computer Engineering from Northeastern University, Boston, in 2008.

Throughout his professional career, Dr. Kim has played significant roles and made valuable contributions. In 2008, he joined Sun Microsystems in Santa Clara, CA, as a member of the technical staff, engaging in cutting-edge technological developments. The following year, he served as a senior researcher at the Illinois Institute of Technology in Chicago, USA, contributing to technological advancements through research and innovation. Since March 2010, he has been associated with the has progressed from Assistant Professor to Associate Professor and currently serves as a professor.

Daegu University, where he has progressed from Assistant Professor to Associate Professor and currently serves as a professor.

Dr. Kim's current research focuses on neuromorphic architecture, PIM (processing in memory), AI Processor, low power VLSI design, electronic CAD, and nano-electronics. His dedication to advancing knowledge in the field is evident in his prolific output of 70 journal papers and 90 conference papers from 2004 to 2022. His commitment to electronic and electrical engineering has been recognized through numerous awards and accolades, including the Outstanding Research Award from Daegu University (2012-2018), Best Paper Awards at ISOCC 2015, 2016, 2017, and a Best Paper Award at IEEE MWSCAS2014. In 2019, he was acknowledged for his contributions to the development of the intelligent semiconductor industry and received the Minister's Award from the Ministry of Science and ICT in Korea.

Dr. Kim is an active member of the IEEE and the IEEE Circuits and Systems Society (CASS). He has served on various technical program committees, including as the TPC Chair of the 2018 International SoC Design Conference (ISOCC), the General Chair of the 2020 International SoC Design Conference (ISOCC), the TPC Co-Chair of the 2021 IEEE International Symposium on Circuits and Systems (ISCAS), and the TPC Co-Chair of the 2022 IEEE International Conference on Artificial Intelligence Circuits and Systems (AICAS). His leadership and expertise have been instrumental in the success of these conferences.

In terms of CASS services, Dr. Kim has been a member of the Technical Committee of the IEEE CASS: Circuits and Systems for Communications Committee since 2016, as well as the VLSI Systems and Applications Committee since 2016. In 2017, he founded the IEEE CASS Taegu Chapter and has been serving as its Chapter Chair since its inception. His dedication to this role was recognized with the 2022 IEEE Circuits and Systems Regional Chapter-of-the-Year Award for Region 10, highlighting the chapter's efforts in promoting CASS's mission and serving its members. **Statement:** I am Dr. Kyung Ki Kim, currently serving as a Professor at the School of Electronic and Electrical Engineering at Daegu University, South Korea. I have been an active IEEE CASS member for more than 19 years since 2004. I am standing for election to the IEEE Circuits and Systems Society's (CASS) Board of Governors (BoG). My academic journey, which began at Northeastern University in Boston, has taken me through various roles in academia and industry, including Sun Microsystems and the Illinois Institute of Technology.

My journey with IEEE and CASS has been marked by significant roles and contributions. I have served on various technical program committees, including as the TPC Co-Chair of the 2021 IEEE International Symposium on Circuits and Systems (ISCAS), TPC Co-Chair of the 2022 IEEE International Conference on Artificial Intelligence Circuits and Systems (AICAS), and the General Chair of the 2020 International Soc Design Conference (ISOCC). These roles have allowed me to contribute to the success of these conferences and the advancement of our field.

In 2017, I founded the IEEE CASS Taegu Chapter and have been serving as its Chapter Chair since its inception. My dedication to this role has been recognized with the 2022 IEEE Circuits and Systems Regional Chapter-of-the-Year Award for Region 10, a testament to our chapter's efforts in promoting CASS's mission and serving our members.

The global education landscape has undergone significant changes since the onset of Covid. In this evolving environment, there is a growing need to strengthen online education and establish an online platform that allows worldwide members to connect without spatial limitations. Particularly, there is a pressing need to extensively improve the website contents of CASS flagship conferences and technical committees to provide valuable information for graduate students and young professionals. I am committed to building such an environment to the best of my abilities. By doing so, we can stimulate discussions on technological trends, generate interest, and encourage greater participation in CASS activities.

At a time when there is a major shift taking place in the field of Artificial Intelligence, it is essential to expand CASS membership through collaboration with experts and the organization of events that enable the dissemination of cutting-edge knowledge. I will strive to establish such events and collaborations to facilitate the growth of CASS in this era of the overarching theme of Artificial Intelligence.

The following are my prospective actions and missions as a BoG member for IEEE CASS:

- 1. Access to Cutting-Edge Knowledge: CASS should provide its members with the most recent and relevant research findings and educational resources in the field of circuits and systems. This can be achieved through various formats such as webinars, workshops, lectures, and tutorials. By doing so, CASS can ensure that its members are always at the forefront of their field.
- 2. Networking and Collaboration Opportunities: CASS should facilitate opportunities for its members to connect, collaborate, and share ideas with each other. This could be through organizing conferences, symposiums, or creating online platforms for discussion. These networking opportunities can lead to fruitful collaborations, the exchange of innovative ideas, and overall professional growth.
- 3. Professional Development and Training: CASS should provide opportunities for its members to continually develop their skills and knowledge. This could be through offering professional development courses, training programs, or certification courses that are relevant to the field of circuits and systems. By doing so, CASS can help its members stay competitive in their careers and contribute more effectively to their respective fields.

As a potential member of the BoG, I am committed to ensuring that these services are effectively delivered to all members of CASS. I believe that these services are crucial in supporting our members' professional growth and in advancing the field of circuits and systems.

I kindly request your support in my candidacy for the IEEE Circuits and Systems Society's Board of Governors. I am committed to serving the society and its members, and I believe that my experience and dedication will be beneficial for the future of CASS. With your support, I am confident that we can continue to advance the mission of CASS and serve our members effectively.

In conclusion, my passion for the field, my dedication to service, and my vision for the future of CASS make me an exceptional candidate for the Board of Governors. I am eager to contribute my skills and experience to further the mission of CASS and to serve its members. I kindly request your support in my candidacy and look forward to the opportunity to contribute to the continued success of the IEEE Circuits and Systems Society.

Thank you very much for your support!

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

- 1. Access to Cutting-Edge Knowledge: Providing the latest research and educational resources in circuits and systems.
- 2. Networking and Collaboration Opportunities: Facilitating opportunities for members to share ideas and foster professional growth.
- 3. Professional Development and Training: Offering programs to enhance members' skills and knowledge in the field.

These services are crucial for keeping members at the forefront of their field, promoting innovative collaborations, and ensuring career competitiveness.

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.

If elected to the CASS BoG, I would propose the establishment of a 'CASS Future Leaders Program.' This initiative would focus on nurturing young professionals and students in circuits and systems. The program would provide mentorship, leadership training, and early career exposure to R&D projects. This long-term investment in our future leaders will ensure the continued growth and innovation in our field. Additionally, this program would serve as a platform to attract more members to IEEE CASS, thereby expanding our community and influence.

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. Young CAS Members: Implement a mentorship program that pairs young members with experienced professionals in the field.
- 2. Academia: Establish partnerships with academic institutions to facilitate research collaborations, provide guest lecturers, and offer internships or practical experiences for students.
- 3. Members in Specific Regions: Organize regional events or chapters to cater to the needs of members in specific geographical areas. This could involve local workshops, seminars, or networking events that are more accessible to members in those regions.



SHADRACK MAMBO (M'14-SM'22) Dr. Eng. Shadrack Mambo is a holder of Doctor of Technology (D'Tech) degree in Electrical Engineering from Tshwane University of Technology and a Senior Lecturer at Walter Sisulu University. He received his Bachelors and Master's degree in Radio and TV Engineering from Odessa Polytechnic Institute (OPI), Odessa, Ukraine in 1991. He has industry experience of over 15 years gained from various telecommunications companies he has worked for. In 2006, he joined academia as a lecturer at Kenyatta University and held various key positions such as Founding Chairman, Electrical & Electronics Engineering Department and later as Dean, School of Engineering & Technology. Dr. Mambo is a member of the following professional bodies: Engineers Board of Kenya (EBK) No. A4143, Institute of Engineers of Kenya (IEK) No. M8322 and Senior Member (IEEE) No. 93168564 and Chair, IEEE CASS, Kenya Section. He is mentor to both his peers in the academic circles and students in the school. Currently, he is leading several research teams

as either a principal investigator or a technical leader in different research projects, supervising 3 PhD candidates and 3 master degree students, as well as final year undergraduate student projects.

Statement: I am humbled and honoured to present my candidacy for the Board of Governor position within the prestigious Institute of Electrical and Electronics Engineers (IEEE) Circuits and Systems Society. As an ardent advocate and dedicated professional in the field, I am committed to leveraging my expertise and leadership to further advance the Society's mission and contribute to its continuous growth. I am the current Chairperson, IEEE CASS Kenya Chapter where we have made tremendous steps into the Chapters growth and mentorship. Through our initiative, we have helped enrolment of many students in several universities in the country. We have also assisted in the launch of IEEE in our neighboring country Uganda and recently carried out a successful workshop in Rwanda. Several students have benefited from conferences, seminars, webinars, workshops, lectures, talks by industry experts and competitions as well as community engagement projects organized by our team of volunteers. We are planning a sensitization workshop at Walter Sisulu University on 11th August, 2023 with a view to petitioning for IEEE WSU Students Chapter.

I am a member of IEEE Africon Conference 2023 Organizing Committee and the Technical Committee Program member as Track 4 Chair.

My passion for circuits and systems is deeply rooted in my academic and professional journey. Throughout my career, I have actively engaged in research, development, and implementation of cutting-edge technologies, consistently striving to stay at the forefront of innovation. My experience spans various domains, from microelectronics, semiconductors technology and digital systems to signal processing and communications. This has helped mentor students in these areas of specialization to the extent of coming up with innovations such as the TIBA VENT medical ventilator during the COVID 19 Pandemic, Apollo Smart Access System for allowing access into a building if the visitor meets certain conditions, Smart Agri Tool for Soil Fertility Check etc. This diverse background equips me with a comprehensive understanding of the challenges and opportunities facing our industry today.

The three most important services that CASS should provide to its memberships are:

- 1. Fostering Technical Excellence for Knowledge Sharing and Education: I believe in the importance of nurturing a community that values technical excellence. By organizing workshops, seminars, and conferences, we can create a platform for knowledge sharing and skill enhancement, providing our members with the tools to succeed in their endeavors.
- 2. Enhancing Collaboration and Networking: To advance our field, collaboration among researchers, practitioners, and industry leaders is essential. I will actively promote networking opportunities, fostering meaningful connections within and beyond our Society, while encouraging partnerships with other IEEE societies to explore interdisciplinary possibilities. This initiative supports the above service through seminars and conferences.
- 3. Supporting Young Professionals and Students: Our Society's future lies in the hands of the next generation. I will work diligently to establish mentorship programs, scholarships, and initiatives that empower young professionals and students, encouraging their active participation and growth within the Circuits and Systems community. One large long-term initiative that the Circuits and Systems Society (CASS) should undertake in the next two years is the creation of a comprehensive online platform for continuous professional development and knowledge exchange, as well as promoting diversity and inclusion. A diverse membership ensures a richer exchange of ideas and perspectives, leading to more innovative solutions. I am committed to promoting diversity and inclusion within the Society, striving for equal representation and recognition for all members.

To better reach and serve specific segments of the CASS community that I consider of particular importance, such as young CASS members, academia, and industry professionals, the following three strategies that I believe already exists should be strengthened:

- 1. CASS Young Professionals Committee that focuses on specific needs and interests of early-career groups should be empowered to organize webinars, workshops and seminars to share information on special innovation topics.
- 2. Academic Resources in form of research grants should be easily accessible to young professionals and researchers. These resources should emphasize on innovative studies and approaches in the areas of circuits and systems that are likely to drive cutting-edge research topics, that solve community problems.
- 3. Industry Professionals should be encouraged to collaborate with academia and organize professional talks, seminars and webinars where topics of special interests are discussed and shared. On such platforms, real world challenges will be discussed, emerging technologies will be shared and practical solutions relevant to industry needs interrogated. This will help prepare young professionals for the industry and prepare them to be job market ready.

If entrusted with the honour of serving as a Board of Governor member, I will bring unwavering dedication, collaboration, and transparency to the role. I am committed to working closely with all members, listening to your voices, and representing your interests with integrity.

Thank you for considering my candidacy. Together, let us build a stronger Circuits and Systems Society that drives innovation, fosters collaboration, and positively impacts society at large.

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

The three most important services that CASS should provide to its memberships are:

- 1. Fostering Technical Excellence for Knowledge Sharing and Education: I believe in the importance of nurturing a community that values technical excellence by knowledge sharing and skill enhancement.
- Enhancing Collaboration and Networking: Collaboration among researchers, practitioners, and industry leaders is essential that will foster meaningful connections within and beyond our Society, while encouraging partnerships with other IEEE societies to explore interdisciplinary possibilities.
- 3. Supporting Young Professionals and Students: Establish mentorship programs, scholarships, and initiatives that empower young professionals and students, encouraging their active participation within 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.

One large long-term initiative that the Circuits and Systems Society (CASS) should undertake in the next two years is the creation of a comprehensive online platform for continuous professional development and knowledge exchange, as well as promoting diversity and inclusion. A diverse membership ensures a richer exchange of ideas and perspectives, leading to more innovative solutions. I am committed to promoting diversity and inclusion within the Society, striving for equal representation and recognition for all members, but also encouraging participation of the underrepresented segments of the society.

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)

Three ways for CASS to reach specific community will be:

- 1. CASS Young Professionals Committee that focuses on specific needs and interests of early-career groups.
- 2. Academic Resources in form of research grants should be easily accessible to young professionals and researchers.
- 3. Industry Professionals should be encouraged to collaborate with academia and organize professional talks, seminars and webinars where topics of special interests are discussed and shared. Real world challenges, emerging technologies and practical solutions relevant to industry needs interrogated. This will help prepare young professionals for the industry and prepare them to be job market ready.



FRANÇOIS 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 aspire to become a CASS board member in order to enhance and fortify our society. As a dedicated member of IEEE in Region 8, I have actively served in various capacities within IEEE. These include participation in steering committees and technical program committees, where I have shouldered responsibilities such as General Chair, TPC Chair, reviewer, and Guest Editor for esteemed journals. Additionally, I have served as a student branch counselor.

Federate Europe: My guiding principle is 'getting together to go further.' With this in mind, I aim to foster the consolidation of CAS activities in Europe by proposing the establishment of a new Region comprising European chapters. It is crucial for Europe to exhibit greater activity, visibility, and unity. Such consolidation will serve as a catalyst, enabling us to gather strength, promote solidarity, and share invaluable knowledge by leveraging European policies.

Increase student membership: I am particularly enthusiastic about increasing student membership within CASS. To this end, I propose offering a complimentary one-year CASS membership to every student upon their initial registration, granting them full access to CASS resources. I firmly believe that all students studying circuits and systems should be active members of CASS. By effectively communicating the multitude of benefits that CASS offers to this demographic, we can expand our community and establish CASS as an incubator for fostering remarkable connections.

Improve conferences: I am committed to enhancing conference organization by encouraging greater student and industry involvement and prioritizing sustainability. My approach involves optimizing the number of conferences held and increasing the prevalence of high-quality co-located events. This approach aims to reduce CO2 emissions by minimizing travel while promoting increased interaction and knowledge exchange through alternative means, all the while maintaining a robust network. Improving conference organization can be achieved through the implementation of comprehensive guidelines, particularly regarding the composition and evaluation of the Technical Program Committees (TPCs). This will guarantee the scientific reputation of our conferences and involve new, young, and enthusiastic volunteer members. As a means of ensuring transparency, I propose creating an official CASS list of certified TPC members, enabling TPC chairs to assemble their committees with legitimacy and credibility in the paper selection process.

Together, we can forge stronger connections between academia and industry, thereby attracting companies to seek talent within CASS. Membership serves as the gateway to belonging to a network where high-quality conferences once again embrace in-person participation. Contributions made to these conferences will serve as testaments to the legitimacy of CASS. In line with this, I advocate for greater student involvement, recognizing them as seeds for the future growth of our community. By entrusting them with renewed responsibilities, alongside their young colleagues, we can secure the strength and continuity of CASS. Our conferences shall serve as paramount networking opportunities, and it is imperative that we strive for only the highest quality events, as these will undoubtedly entice industry professionals. Europe, as a region, must synchronize its efforts, given its abundant CAS students, industrial partners, and captivating locations that foster meaningful connections.

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

- CASS should be a pleasant space to network and provide opportunities to share and promote achievements, ideas, and projects.
- 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.
- CASS should give an active role to youths in coming challenges. CASS must advertise how powerful and a game-changer it could be. I propose a free 1-year membership for each student with an efficient scheme for universities to enroll their 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 motto: getting together to go further. Every student in circuits and systems should be an active member of CASS. Companies would seek talents in CASS. Membership is the key to belonging to a network where conferences are back to in person participation, where the contribution is a showcase of 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)

- Increase student participation with a free 1-year membership for each student for their first registration with full access to CASS resources.
- 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 the best know-how using European policies.
- Improve conference organization with fruitful guidelines, especially for TPC composition and evaluation work to guarantee scientific reputation and involve new, young, and volunteer members.



YOKO UWATE (S'02-M'07-SM'19) was born in Tokushima, Japan, in 1980. She received the B.E., M.E. and Ph.D. degrees in Electrical and Electronic Engineering from Tokushima University, Tokushima, Japan, in 2003, 2005 and 2006, respectively. During October 2006 – March 2008, she was Post-Doctoral Research Fellow (PD) of the Japan Society for the Promotion Science (JSPS) at the same university, and she was also Visiting Post-Doctoral Research Fellow, Institute of Neuroinformatics (INI), University and ETH Zurich. From April 2008 to March 2010, she worked as Post-Doctoral Fellow for Research Abroad of Japan Society for the Promotion Science (JSPS) at Institute of Neuroinformatics (INI), University and ETH Zurich. From April 2008 to March 2010, she worked as Post-Doctoral Fellow for Research Abroad of Japan Society for the Promotion Science (JSPS) at Institute of Neuroinformatics (INI), University and ETH Zurich. From April 2010, she is currently working at Tokushima University, Japan as Associate Professor. Her research interests include complex phenomena in chaotic circuits and neural networks. She is author or co-author of more than 350 journal/conference papers.

Dr. Uwate has served Associate Editor of IEEE TCAS-I ('12-'13), IEEE TCAS-II ('17-'19) and IEEE CAS Society Newsletter ('12-'18). She is the committee member of Technical Committee on Nonlinear Circuits and Systems Society ('07.

May-), Technical Committee on NCSP, RISP ('11. April-), and Technical Committee on Neural Systems and Applications (NSA), IEEE Circuit and Systems Society ('11. May-). Since 2015, she has been working as officer (Secretary: '15-'17, Chair-Elect: '17-'19 and Chair: '19-'21). Furthermore, she is working at IEEE CAS Society Shikoku chapter since 2011. She is/was Treasurer ('11-'15), WiCAS-YP chair ('15-'19) and Secretary ('19-present).

She has been involved in both organizing and technical committees of many conferences which include CAS-sponsored conferences such as ISCAS, APPCAS, NOLTA, NDES and TJCAS. She served as Technical Program Chair for NCSP'20, as WiCAS chair for ISCAS'14- '15, '20-'21 and APCCAS'19, as WiCAS-YP chair for TJCAS'17-'19 and as Publication chair for ISCAS'19. She will serve as a WiCAS chair for ISCAS'24.

Statement: I have been doing my research life as a (young) CAS member since I presented my first major conference paper at ISCAS 2002. During these 21 years, I have learned a lot of things not only academically but also personally. I served as the YP (Gold) Member of the IEEE CAS Society Board-of-Governors for the 2013-2015 term. During that term, I served as WiCAS-YP committee chair ('14-'15) and worked hard to support WiCAS and YP members to organize fruitful events at ISCAS conferences. During the first BoG, I was not able to organise any new events. To develop myself, I tried many things for the next five years. First of all, I faced my own research, submitted two papers to the IEEE journals and were accepted. Second, I started collaborative research with the Switzerland venture company which is electronics and biotechnology company (MaxWell Biosystems) since 2018. Third, I visited National Cheng Kung University, Tainan, Taiwan in order to learn VSLI design for almost one month. Fourth, I served as a Publication co-chair for ISCAS'19. Through this work I was able to understand the series of processes from posting to publishing at the international conference. Finally, I tried to study English in Hastings, England to improve my English skills.

Later, I was elected as a BoG member for 2021-2023. During this period also supported many WiCAS-YP events as WiCAS-YP chair. I was particularly active in supporting WiCAS events at the chapter level: in two years we were able to support events in 13 chapters. Last May 2022, the WiCAS-YP Committee became the Diversity, Equity and Inclusion (DEI) Committee to support a wider membership. I serve as its chair. As chair, we now hold monthly meetings and work to support the activities of DEI events, including WiCAS, YP events. I have really been enjoying working with the other seven DEI committee members and hope to support the participants of DEI events to find as much useful information as possible in their research careers in the future.

I believe that taking over my experience to the next young generation is my mission. If re-elected, I will work hard on the following area especially: 1) Making the balance between traditional and innovative senses:

- Now that the life style of society has changed completely due to the effects of world situation, CAS must respond to the changes in society. In particular, it is necessary to use IT technology generously and consider holding an event in a form different from the conventional international conferences and workshops. Webinar and virtual international conferences are still held today, but there are many drawbacks unique to virtual. It is necessary to proactively provide events to resolve such issues and enable CAS members to have a fulfilling research life. Remember, it is not best to move in a completely new direction. The CAS tradition must continue to be preserved. It is necessary to consider strategies that strike a good balance between tradition and innovation.
- 2) Increasing CAS members:

I believe that it is very important to recruit new members, especially young researchers including students and women researchers for future of our society. I will do devote myself to make CAS society more attractive community for young researchers. It is necessary to take in the research topics which are match well with need timely. In addition, I will do support to make comfortable circumstance in this society for women researchers.

3) Making the link between academia and industry:

New technology with high quality could be produced for society by collaborating with industry. The CAS society has a mission to render many services to society.

4) Supporting exchange between different fields and different generations:

Recently, several multi-disciplinary conferences/workshops are organized and the participants in different research fields can exchange their ideas in such occasions. However, such events are not enough and there is ample scope for improvement. Especially, new research fields have many possibilities to collaborate with existing research fields. Furthermore, I wish to help to organize several types of evets where young members have an opportunity to communicate with senior/experienced members. This is a good opportunity for education for young members.

- I believe that the future direction of the CAS society depends on the education of young researchers. Namely, it is very important to show the direction/goal of the CAS society to young researchers from senior researchers.
- The CAS society has to lead the researchers of circuits and systems in the world. In order to keep No.1, it is necessary to provide high-quality journals and to organize high-level conferences.
- 3) A diverse society is important for the creation of new innovations. It is important to provide opportunities without regard race, religion, gender, disability, age, national origin and so on.

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.

A useful initiative for the CAS Society, which celebrates its 75th anniversary next year, is to enhance its online content platform. I think we should provide online content that allows interactive discussions using new IT technology. I would like to provide tutorials for the younger generation to learn the necessary skills and provide content in collaboration with universities and companies. I would also like to try organizing events using metaverse spaces.

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) By collaborating with industry, young CAS members know how to apply the latest research outcomes to the real world. This is a good motivation to continue their studies in the CAS society.
- 2) By organizing events/forums for YP members, they have many opportunities to exchange their opinions among the same generation.
- 3) Inviting distinguished people from industry to CAS society conferences/workshops in order to have opportunities obtaining opinions of industry people.



PREET YADAV (M'20-SM'20) is R & D SOC Technical Program Manager at NXP Semiconductors. He led 5nm Automotive Grade Chip development series S32N, 40nm S32K and is executing now MCX 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 across India, Mexico and USA.

He has 20+ years 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 PDK 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.

In past he worked for Semiconductor Complex Ltd (the only 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 serving IEEE over many years, presently he is,
- Chairman CASS Chapter Delhi Section
- Member Digital Communications Standing Committee
- Member CASS VLSI Systems & Applications Technical Committee-VSATC
- Member CASS Industry Engagement Committee
- Member Educational Activities, and Membership Development Committee, Delhi Section
- Content Manager (named for Associate Editor) of IEEE Sensors Alert

He is closely associated with CAS society and have contributed to multiple CASS initiative globally including ISCAS, APCAS over the years. Under his leadership CASS India membership has grown multifold with many new chapters getting formed. He served as Executive Committee member of IEEE CASS, Bangalore Chapter.

He is serving as General Chair of APCCAS 2023.

He is accoladed with various awards/certificates of merit throughout his academics and industrial endeavor:

- CCAS Bangalore Chapter Outstanding Industry Volunteer Award 2021
- President Award by President of India
- Three Best Paper Awards
- Youngest Fellow Member of ISSE
- Fellow of IETE
- Senior Member IEEE CASS, SSCS, Standards Association-SA, CEDA, Nanotechnology Council & Sensors Council
- Lifetime member of ISM
- Member of VLSI society of India
- Member VLSI Design Conference Steering Committee
- Member APCCAS Conference Steering Committee

Served as General Chair of '32nd International Conference on VLSI Design & 18th International Conference on Embedded Systems-VLSID2019. 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. He has delivered several keynote/invited talks/tutorials, and participated in paneldiscussion 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 graduate thesis from Tier-1 technical universities. 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 women, 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 development & growth of each category of members including students, YP, Women & diversity members.

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 CASS 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 member can voice their suggestion directly to regional representatives of BoG. An App/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 resulting in job offerings and internships.

[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 visionary 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 CASS 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 a 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)
- Member Digital Communications Standing Committee (2023-2024)
- 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: APCCAS2023 – General Chair, VLSID 2019 - General Chair, APCCAS2021 - Sponsorship & Exhibition Chair, ISCAS 2022/23/24/25/27 - Industrial Chair, VLSID 2021/2022 - Organizing Chair, IEEE APSCON 2023 - Sponsorship Chairs, VDAT2022 - Sponsorship Chair, VDAT2021 - Advisory Member, IEEECONECCT 2021- TPC, VLSID 2020/21 - TPC, ISCAS 2021 - TPC, IEEE INDICON 2019- TPC, VDAT2019 - Industry Chair, VDAT2018 - Sponsorship Chair, INAC-03 – TPC Session chair, VDAT2016/17 - TPC, Core Organizing Committee member – CAS- IAC 2021, CAS - MDW 2021, TPC - IEEE CONNECT 2021, ISCAS 2021, IEEE Liaison – VLSID 2022/23/24.

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 & diverse members

Expansion of CASS chapters & members

- Online & offline events covering different domains & participation levels
- Rewards-based system for each participation, contribution, and proliferations
- Membership elevation opportunities to senior and fellow members
- 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 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 CASS 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 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 with job and internship opportunities.

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 CASS Chapter members & their activities under a single umbrella that can be easily accessible through a Mobile App/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 YP, Women and Diverse 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 regions/communities, women and diverse categories to train them on basic technical know-how. Thus, uplifting their living style and education standards and seeding interest towards technical fields.