IEEE CIRCUITS AND SYSTEMS SOCIETY
ELECTION OF MEMBERS TO THE BOARD OF GOVERNORS
For a Three-Year Term 1 January 2021 – 31 December 2023

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

JIE CHEN (S'95-M'99-SM'04-F'16) received his B.Sc. degree in Electrical Engineering from Fudan University, China, M.Sc. and Ph.D. in Electrical and Computer Engineering from the University of Maryland, College Park, USA. He is currently a Professor in the Electrical and Computer Engineering Department and an Adjunct Professor in the Biomedical Engineering Department at the University of Alberta. He has co-authored two books, three book chapters, over 110 peer-reviewed journal papers, over 90 conference proceeding papers, and holds 11 patents. He is working on a textbook "Bionanotechnology: Engineering Principles and Practices" (McGraw Hill, 2021). According to the Google Scholar Search, his h-index is 36, and i10-index is 83. The highest citation number of a paper exceeds 813, and the total citation number is over 5448. Dr. Chen's research interests include biomedical circuits and system-on-chip designs, micro-/nano-fabricated microfluidic point-of-care biosensors, and artificial intelligence in healthcare.

Dr. Chen is an IEEE Fellow and Fellow of the Canadian Academy of Engineering. He has demonstrated his leadership by helping organize several international biomedical-related conferences and by serving as a general co-chair and technical program co-chair. He has served as a leading guest-editor of several special issue journals. He has volunteered his time as a technical committee chair of professional societies in IEEE Circuits and Systems Society, IEEE Medicine and Biology Society. He is an associated editor of several journals, such as IEEE Trans. on Biomedical Circuits and Systems. As an IEEE Distinguished Lecturer, Dr. Chen has given many talks to Universities and research communities. The Department of Electrical & Computer Engineering at the University of Maryland bestowed upon him the Distinguished Alumni Award in 2020.

Dr. Chen helped to establish two Bell-labs' spin-off companies. The first company focused on development of 4th generation wireless communication systems. It was acquired by QUALCOMM, a U.S. telecommunications company, in 2005. The second company produces digital HD-radios sold in most retail stores, such as BestBuy and Walmart. They are also installed in most brands of automobiles worldwide.

Dr. Chen was one of the first researchers to propose low-intensity pulsed ultrasound for root resorption. Reader's Digest Magazine reported his work and listed it as one of the major medical breakthroughs in Canada in 2006. A graduate student licensed the technology and created a spin-off company in 2008. Health Canada approval was granted in 2016, and the device is now marketed in most European countries, Canada and Australia.

Dr. Chen proposed to use glucose to coat gold nanoparticles to enhance radiation therapy. A poster describing this work received the best poster award by the International Union of Crystallography at the Conference of Biology and Synchrotron Radiation, 2013. His work was awarded the Best Student Paper in IEEE/NIH 2007 Life Science Systems & Applications Workshop. He received the Canadian Foundation of Innovation Leaders' Opportunity Award in 2008.

Dr. Chen is very supportive of diversity and equity in all his work. He received Killam Annual Professorship (among the highest honors given to Canadian professors) for his outstanding contributions in teaching, research, and community service.

Statement: If elected, I will promote the following initiatives.
1. Crisis management: The COVID-19 pandemic is a crisis, but it is also an opportunity for CASS. We can use advanced technologies to develop free online courses and discounted technical meetings so that members in specific regions and low-/middle-income countries can access these courses, meetings, and potential online networking opportunities. Such initiatives will also attract industrial members who are interested in ongoing advanced education and following current technology development trends. ISCAS should have better crisis management schemes in place so that it can continue to support the community and foster scientific advancement during times when travel and funds are restricted.

2. Equity, diversity, and inclusion (EDI). We should integrate many EDI initiatives into our regular society activities. IEEE is a professional technological society, and our events should be color and gender-blind. We should design our programs so that they are very appealing to women and underrepresented minorities, and empower them to pursue, impact, and succeed in the fields of circuits and systems. One way to do this is by encouraging industry participation and support for entrepreneurship in underrepresented minorities. In ISCAS, we could design a forum that provides a platform for all society members to discuss EDI and propose solutions for alleviating existing barriers. We also should advocate non-bias in peer paper review.

3. Entrepreneurship. Young members often change their jobs. We hope that they select the IEEE CAS as their home base. To achieve this goal, we will solicit academic and industry volunteers who can provide mentorship. In addition, we can teach students and early-career members entrepreneurship skills aimed at successful translation of ideas into business opportunities. We will invite experienced instructors to teach six-week courses. Topics will cover financial management, business proposition, intellectual property protection, commercialization strategies, etc. Up to 40 students can participate in the course. Each week instructors will teach 3 hours, and students will be required to do homework. At the end of six weeks, students will be required to present a business pitch. The top ten finalists will present their business cases in an ISCAS workshop in front of a panel of judges (judges will be invited from investment firms and industry). The top 3 candidates will win awards (certificates and small amounts of cash prizes), which will be presented on the last day of ISCAS.

4. Transparency. IEEE is a non-profit organization. We should make all financial elements transparent to its members, including sources of revenues and expenses. In addition, IEEE is a volunteer-based organization. We need to let members know how we operate and encourage member participation. IEEE CAS leaders should have a televised Townhall meeting region-by-region at least once every year. Such direct communication will let leaders know the needs of all members and support community engagement.

5. Reduction of overhead. IEEE conferences/workshops become more expensive every year. We will find ways to reduce overhead so that more members can participate. Although physical meetings are important for social networking, we can move some of the activities online to save costs.

Scientific communities are becoming increasingly innovative and creative in developing platforms for trainees, scientists and industry to present, engage, collaborate and network during the pandemic crisis.

6. Open access. We encourage the authors of journal articles and conference proceedings to make their data public so that others can repeat their design and experiments. Nowadays, data is crucial for research and product development. Most large companies control data. Through such initiatives, we can accelerate technology breakthroughs.

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

- Encouraging equity, diversity, and inclusion (EDI). Our society should be color and gender-blind. We should seek only those who are genuinely interested in and passionate about their work in engineering and science.
- Operational and financial transparency. We should encourage CASS leaders to have a Townhall meeting at least once a year with its members so that all members can voice their opinions.
- Industry engagement. Industry participation in circuits and systems research through open-courses, industrial internships, and mentorship is important to advancing the field. We should also provide coaching services for entrepreneurship, encouraging members to establish start-up companies.

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.

My long-term initiative is to engage industry through two main mechanisms:

- Free online courses to industry members for continuing education.
- Assisting young, talented members in translating ideas through start-up companies. This would involve a 6-week entrepreneurial program consisting of online courses and workshops. Online courses will host up to 40 participants (ensuring diversity, different regions, and women participants). Ten finalists will be selected for the pitch competition at ISCAS. The top three will be awarded.

I have worked in the industry for over 7 years. I helped establish several successful spin-off companies. My knowledge will support these initiatives.

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 industry attendance and participation of members of specific regions by offering free online courses. Provide more opportunities for industry to showcase their products and technologies.
- Teach academia and young CAS members about technology entrepreneurship, including market analysis, value proposition, business model, raising capital, regulatory approval processes.
- Provide additional discounts to students, recent graduates, and members of specific regions to facilitate greater involvement in society activities such as IEEE technical conferences. This will ensure trainees and early-career scientists remain connected to the latest advances by retaining free access to IEEE Xplore for several years after graduation.

HAI (HELEN) LI (M'08-SM'16-F'19) is Professor and Associate 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 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 crosslayer optimization for low power and high performance. She has authored or coauthored more than 250 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 8 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 an IEEE fellow and a distinguished member of the ACM.

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. Now, I serve as the chair of the IEEE teaching award committee, Associate Editor-in-Chief of TCASI, Senior Editorial Board member of JETCAS, as well as Associate Editor of TCAS-II and TVLSI Systems. I have served as general chair and technical program chair of multiple IEEE conferences, including ISVLSI, SoCC, and ISQED. I am currently preparing for AICAS 2021 as the General Chair. Besides, I have served as the Technical Program Committee members of over 30 international conference series, including Nano-Giga 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 (A.I., IoT, cybersecurity, and so on) 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 hybrid conferences and create virtual communication opportunities resulted by the COVID-19 pandemic

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-R6. 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.

BARIS TASKIN (S'02-M'05-SM'12) received the B.S. degree in electrical and electronics engineering from Middle East Technical University (METU), Ankara, Turkey, in 2000, and the M.S. and Ph.D. degrees in electrical engineering from University of Pittsburgh, Pittsburgh, PA, in 2003 and 2005, respectively.

He joined the Electrical and Computer Engineering Department at Drexel University, Philadelphia, PA in 2005, where currently he is a Professor. Between 2003-2004, he was a PhD intern engineer at MultiGiG Inc., Scotts Valley, CA, working on electronic design automation of integrated circuit timing and clocking. He is an "A. Richard Newton Award" winner from the ACM SIGDA in 2007 (for junior faculty starting new programs in EDA), a recipient of the Faculty Early Career Development Award (CAREER) from the National Science Foundation (NSF) in 2009, the Distinguished Service Award from ACM SIGDA in 2012, the Young Electrical Engineer of the Year Award from IEEE Philadelphia in 2013 and the Drexel ECE Department's Outstanding Research Award in 2015. He served as the General Chair for SLIP 2016 and GLVLSI 2019, as the Chair for IEEE CEDA Pennsylvania Chapter (2018-current), and is the Chair of the IEEE Circuits and Systems Society's VLSI and Systems Applications Technical Committee (IEEE CASS VSA-TC) (2018-2020). He is an associate editor for JCSC and Elsevier's Microelectronics.

Statement: IEEE CASS is my scholarly home. I have been a member of CAS for 15 years, since starting my academic career at my academic institution. The society looks different to members from different vantage points, the benefits to the membership should accordingly be shaped. If elected, I would serve in the BoG to install member-centric policies, maintaining and strengthening the commitment of service, recognition of service and the prestige of CASS membership. I will expand on these goals below, following my service to the CASS community since starting my CAS membership in 2005, that establish my qualifications:

2007-2013 MWSCAS Steering Committee

2017 ISCAS'17 Finance Chair

2018-2020 CASS VLSI Systems and Applications Technical Committee (VSA-TC) Chair

2023 ISCAS'23 Finance Chair

The three areas I believe CASS should provide value to CASS members are: 1) recognition, 2) growth opportunity and 3) quality.

1. Recognition: There is significant amount of volunteering work performed by active, committed CASS members every year. CAS-sponsored conferences, journals, and other CASS activities (like contests, summer schools, outreach programs) benefit from the contributions and innovation of our community. There is a growing need to recognize these types of services in order to promote growth, and recognize volunteer (organizational or scholarly) efforts. CASS awards, in general, accomplish to recognize long time accomplishments. Recognition of strong reviewers of scholarly work, annual service to chapters and events, among others, are also important.

2. Growth: Membership in societies is not only a financial commitment, with fees providing access to CASS publications, it is a time commitment to become a part of a society. The growth opportunities a society provides, to members at all stages of their career, are essential. The recognition of the work in the item above, is one clear example for CASS scholars early in their career. Recognition with established CASS awards is an example for those later in their career. In a society as large as CASS, the growth opportunities are best presented through active participation opportunities, mentoring and inclusion. Society will grow, as members of the society take increased responsibility and ownership.

3. Quality: CASS is very diverse in interest areas and the speed with which these sub areas evolve, impacting academia and industry. Standard metrics of quality that can be used to measure importance in one field does not fit another. Similar can be said for the quality of CASS with respect

to other societies, yet, the perceptions remain adamant. It is important that CASS establishes and improves its own quality control, through programs like the CAS liaison program, remaining true to the nurturing and enabling nature of the CASS society.

My long term initiative in CASS is the establishment of the CAS liaison program, aiming to establish principles of accountability, quality control and mentoring. CASS liaison program empowers CASS members (of all levels) within the quality-control feedback loop of CASS-sponsored events. CASS liaison is a volunteer CAS member nominates to CAS technically endorsed conferences. Liaison program serves two purposes: 1) for established programs that has traditionally enjoyed CASS sponsorship, CASS liaison improves communication between the society and event, and 2) for growing programs, CASS liaison provides guidance and mentorship to broaden the impact. Working closely with CASS leadership, during my time as the Chair of VSA-TC (130+ members) 2018-2020, we implemented the VSA-TC liaison program. As a result, the TC has a better communication line with conferences, TC members have increased participation in the organizing and technical committees of sponsored conferences, and conference organizations of emerging fields have benefited from the participation of TC members. These goals are directly aligned with 1) Recognition, 2) Growth, and 3) Quality. It provides opportunities for recognition and growth to each and every CASS member that participates in CASS activities. The society benefits, in quality, of committed and active service of CASS members, which happen already routinely, but through the direct, recognized and impactful mechanism of CASS liaison ship.

One particular area of importance I would like to focus my efforts on, as a BoG member, is the geographical areas. This is a strength of CASS and is deep in the DNA of the society; affecting how we schedule our flagship conferences, how we govern the society and how we benefit from and give back to the society. Consider how the CASS flagship conference ISCAS, unlike ISSCC (for SSC) and DAC/ICCAD (for CEDA), travels to different geographical regions each year. Recognize how the local CAS conferences are in the DNA of the society, spreading (the impact and nurture of) CASS from North Africa and Mediterranean to Nordic Regions of Europe, and from Latin America to North America and Asia-Pacific. These are locally held conferences (ICECS, NORCAS, LASCAS, NEWCAS, SOCC, APCCAS etc.), but of international recognition and participation, bringing pride and opportunities to local areas. In particular, the impact on local students are immense. Those CASS members who attended such conferences can attest to how the most memorable part of these local conferences is not the excursions; it is the student volunteers and their enthusiasm. I will work to strengthen and value these local conferences, provide mechanisms for CASS support (technically or through liaisons), and empower the local student members to be provided mentorship and networking opportunities in a structural manner. The geographical CASS hotspots also have the potential to lead internationally, in emerging areas of CAS. While locations where semiconductor industry is strong (such as Silicon Valley) dictate the repeating locations of ISSCC, DAC/ICCAD, the focus areas of ISCAS, and CAS in general, are broader. This is an opportunity to act on: Local CAS conferences sprouting in parts of the world where industry, government investment and/or human capital is strong (or emerging) in select sub areas, i.e. those focused on manufacturing or automotive or embedded systems or education & workforce development etc. These are areas I would like to focus my efforts in the development of the resource that is geographical diversity for CASS.

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

- Recognition of service, expanded from life-time achievements to just-in-time recognition of excellent service, such as scholarly reviews, conference organization, service to local/student chapters and other initiates.
- Growth opportunity, in empowering members at all levels to participate in CASS activities, be provided mentorship, with a keen eye on inclusion.
- Quality, in empowering CASS members through the new CAS liaison program, to establish accountability and quality control of CASS events, fine-tuned for the specific goals and expectations of the field.

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

My long term initiative is the "CAS liaison" program, aiming to establish principles of accountability, quality control and mentoring. CASS liaison programs bring CASS members (of all levels) into the feedback loop of CASS-sponsored events. Liaison program serves two purposes: 1) for established programs that has traditionally enjoyed CASS sponsorship, CASS liaison improves communication between the society and event, and 2) for growing programs, CASS liaison provides guidance and mentorship to broaden the impact. It provides opportunities for recognition and growth to each and every CASS member that participates in CASSS activities.

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)

Geographical areas are deep in the DNA of the society; affecting how we schedule our flagship conferences, how we govern the society and how we benefit from and give back to the society. I will work to 1) strengthen and value local CAS conferences, 2) provide mechanisms for CASS support (technically or through liaisons). The geographical CASS hotspots also have the potential to 3) lead internationally, in emerging areas of CAS, in select sub areas, i.e. those focused on manufacturing or automotive or embedded systems or education & workforce development etc.

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

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 is doing his PhD on IoT for Smart Agriculture at IMS lab, University of Bordeaux. He is currently R&D Group Director and General Manager of Synopsys Chile, leader in Electronic Design Automation (EDA). He opened the Synopsys Chile R&D Center in 2006. He has expertise and knowledge in business and technology and understands very well the trends of the electronic industry; therefore, he is often consulted for new technological business development.

Before joining Synopsys he worked for different Chilean and multinational companies, such as Motorola Semiconductors, Honeywell Bull, VLSI technology Inc., and Compass Design Automation Inc. He started to work in EDA in 1988 in VLSI Technology Inc. where he developed synthesis tools being one of the pioneers of this new technology. He also worked in embedded systems development in Motorola semiconductors.

He has published several papers in IoT, EDA and embedded systems development, and since 2007 he has been invited to several Latin American Conferences (Argentina, Brazil, Chile, Mexico, Peru and Uruguay) to talk about Circuit Design, EDA, IoT, and Embedded Systems. From 2006 to 2008 he was member of the "Chilean Offshoring Committee" organized by the Minister of Economy of Chile. In 2010 he was awarded as "Innovator of the Year in Services Export". In 2012 he was nominated to best engineer of Chile. He is also member of several Technical Program Committees on Circuit Design and Embedded Systems. Since 2012 he is chair of the IEEE Chilean chapter of the CASS. He was General Chair of LASCAS 2014 and since 2018 he is chair of LASCAS Steering Committee. He is also the President of the Chilean Electronic and Electrical Industry Association (AIE). Victor is a IEEE Senior member.

Victor Grimblatt was professor of Electronics and IC Design in Universidad de Chile and Universidad de los Andes. He is also lecturing courses of IoT and Smart Agriculture at several universities in Chile.

Victor's research areas are EDA (Electronic Design Automation), and Smart Agriculture applying Machine Learning, Artificial Intelligence, and IoT.

Statement: The world has changed, 2020 will be remembered for longtime as the year the world changed.

We were all discussing about Digital Transformation and Artificial Intelligence and how it will impact our life, and suddenly the pandemic shows us that we have no time to continue discussing and changes have to be implemented right now. We are seeing countries with no infrastructure to support the digital transformation, countries where students do not have computers to follow their courses online, countries where people are not prepared for remote work.

But not only that, we are also seeing how we are destroying our earth. We are exceeding the 9 planet boundaries and a conjunction between human behavior change and technology could modify this path to a situation we cannot imagine and stop. The application of technology in domains where it is not really present, such as the agribusiness, can create a real change.

The agribusiness is a major driver of the climate change phenomenon and is one of the most affected at the same time. Are we applying the right technology in this domain? Are we taking in account what is happening?

This is just an example of what I consider CASS should drive. CASS and its members, driven by the BoG, should be the leaders of sustainable changes based on the technology we are all creating. Having publications, talks, and keynotes on sustainable technology is critical for the future of the world.

We need more engineers, we need more scientist working on the domains covered by CASS, so it is also important to motivate young people and even children on the marvelous world of technology and science. What are we doing as society to motivate those children to learn science and technology? In my opinion, and especially in my region, R9, not enough. We just start taking care of young people when they are already at the University, so they already chose the way they want to live. We have to start motivating them earlier, in high school and even before.

As a member of the BoG I'll propose and work on such kind of initiatives that will allow us to build a better word with the technology and science as one of the main drivers.

I also want to drive initiatives that will bring high-tech representation to the regions that are far from technology development, such as R9. I already did it when I opened a Synopsys R&D Center in Chile, where more than 100 engineers work today developing EDA tools that are used worldwide. Talent can be found everywhere and as a member of BoG I'll work with all countries to develop the high-tech industry as a way to develop the country.

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

- Be a point of discussion about futures technologies in the domain of CASS that will have a real impact on the world.
- Access to experts on each domain covered by CASS though webinars and keynotes that are easily accessible from all members independent of their location.
- Motivate worldwide young people and engineers from emerging and underdeveloped countries to develop their career in the domains covered 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.

Provide remote access to all conferences and activities, so people from all around the world can get the best from the CASS professionals. People in emerging countries and underdeveloped countries cannot always attend conferences and other important events because of economic limitations.

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)

- Industry: In general CASS is far from industry and we can easily see that in conferences and other activities. To attract industry, we should do more industry-oriented activities, such as industry panels, keynotes from the industry, industry talks, improve the iDLP, etc.
- Young members: Make special activities to show them why CASS is important for their career.
- R9: Help the community to growth, attracting more people and providing more funds for regional activities. There are too many people that do not see the interest of CASS, let's show them what it is.

ROBERTO S. MURPHY-ARTEAGA (M'92-SM'02) received his B.Sc. degree in Physics from St. John's University, Minnesota, and got his M.Sc. and Ph.D. degrees from the National Institute for Research on Astrophysics, Optics and Electronics (INAOE), in Tonantzintla, Puebla, México. He has been a researcher at INAOE since 1988. Since then, he has presented over 110 talks at scientific conferences, directed ten Ph.D. theses, 18 M.Sc. and 2 B.Sc. theses, published more than 140 articles in scientific journals, conference proceedings and newspapers, and is the author of a text book on Electromagnetic Theory. He is currently a senior researcher with the Microelectronics Laboratory.

He served as the Academic Dean for the INAOE for 13 years, and as the Director of Research for two more. He also served as the Treasurer, Vice-president, and President of the Mexican Council for Graduate Studies (COMEPO), spanning eight years. He was an active member of the Iberoamerican Science and Technology Education Consortium (ISTEC), where he had the

roles of Member of the Board of Directors, Chairman of the Board of Directors and then President of the Consortium. His goal in all these honorary administrative positions was always to foster and improve graduate studies education in Latin America in particular, but also at a world level.

Within IEEE (M 1992, SM 2002), he has volunteered for several tasks, including the participation in the organization of scientific conferences, such as LASCAS, CASS's flagship conference for Latin America, for which he is a founder and member of the Steering Committee; several editions of the IEEE International Caribbean Conference on Devices, Circuits and Systems (ICCDCS); VLSI-SoC; Dependable Circuit Design Conference (DCDC); Workshop on Frontiers in Electronics (WOFE); among many other. He was the Chair of the Puebla EDS Chapter, is now the Chair for the I&MS Puebla Chapter, and also serves as an Associate Editor for Latin America Transactions.

His research interests are the physics, modeling and characterization of the MOS Transistor and passive components for high frequency applications, especially for CMOS wireless circuits, as well as antenna design for high-frequency applications.

He is a Senior Member of IEEE, a Distinguished Lecturer of the Electron Devices Society, a member of the Mexican Academy of Sciences, and a member of the Mexican National System of Researchers (SNI).

Statement: The era we are living in is marked by very fast and extraordinary technological changes which impact directly on our day to day activities. These changes are a direct product of research and development in all the fields of Electronics. In the last two decades, researchers in these fields have come to understand that in order to advance the state-of-the-art, Electronics has to be accepted as an interdisciplinary field of endeavor, not only with other sciences, but most importantly, within. Take for instance Internet of Things, a very loose generic name for a host of applications covering all human activities. The electronics needed for IoT span from material properties to fabrication processes; from circuit design to system architecture; from basic sensors to complex amplifiers. Moreover, the devices needed for efficient IoT applications have to be as small as possible, as efficient as possible, they must work with minimum power demands, and they have to communicate wirelessly.

If we thus look into the requirements of IoT, we find that a successful approach requires the collaboration of people in the fields of devices, materials, technology, circuit design, microwave theory, antenna design, radar, communications, measurement, computer science, and packaging, among many other fields within Electronics. And then, each particular application will demand the input of scientists from other areas, such as Chemistry, Biology, Medicine, Sociology, Law, and so on.

If we analyze all the areas under IoT, such as industrial processes, health care applications, vehicular control, Smart Cities, efficient and reliable communications, we reinforce this idea; therefore, we have to learn to see Electronics as a whole, and not only its constituent parts. In order to progress, and so in an orderly and methodical way, we have to learn to think outside the box, and look at the picture from above.

Notwithstanding, IEEE has been experiencing a continuous reduction of membership in the last few years. The causes of this desertion —or lack of new affiliations— are yet to be univocally determined, but we have to work towards changing the trend and increasing membership by improving the benefit-cost ratio of the society.

Therefore, if I have the honor to serve in the CASS BoG, I will strive to create a synergy relationship will most other IEEE Societies, aiming at enhancing interdisciplinary research and education, benefitting all members. I am sure such an approach will produce newer and better circuits and systems for all the applications listed above, and many more, present and future. In parallel, I would work towards identifying the causes and stopping the diminishing of membership by making CASS, in particular, and IEEE in general, a good alternative for professionals and students in the field.

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

- Making technical literature accessible to all members at reasonable costs, especially to students.
- Networking academia and industry in order for researchers and students to collaborate in up-to-date real-world problems, and thus advancing higher education.
- Access to other societies within IEEE in order to fulfill interdisciplinary goals to be more competitive when tackling social interest problems and limitations.

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 of the main problems we face nowadays, in spite of technological development, is isolation. I believe CASS should undertake a project to create an interactive address book of all willing CASS members in order for us to interact with each other in professional matters. This database could include topics of interest, links to publications, experiences and such. Someone researching on a topic could then find information more directly than going through the usual channels such as IEEE Xplore.

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 be more involved with industry aiming at forming stronger relations with academia, especially for students, undergraduate and graduate, to perform internships in local electronics companies.
- CASS could broker some agreements with several software vendors in order to make programs available to undergraduate and graduate IEEE student members, as well as teachers, at accessible costs.
- CASS could offer more webinars and lectures, from basic to complex, state-of-the-art solutions, and make them free of charge to members. These should not be tied to a specific schedule, but freely available on-line at any time.

RICARDO REIS (M'81-SM'06) was born in Cruz Alta, Brazil. He received a Bachelor degree in Electrical Engineering from Federal University of Rio Grande do Sul (UFRGS), Porto Alegre, Brazil, in 1978, and a Ph.D. degree in Microelectronics from the National Polytechnic Institute of Grenoble (INPG), France, in 1983. Doctor Honoris Causa by University of Montpellier, 2016. Since 1981, he is a professor at the Informatics Institute of Federal University of Rio Grande do Sul, and a leader of the Microelectronics Group. He has more than 650 publications including books, journals and conference proceedings. Professor and Advisor at the Microelectronics and Computer Science Graduate Programs at UFRGS. He was vice-president of IFIP (International Federation for Information Processing) and he was also president of the Brazilian Computer Society (two terms) and vice-president of the Brazilian Microelectronics Society.

He is member of the CASS BoG representing R9 (2018-2020). He representative of CASS at IEEE CEDA. He is an active

member of CASS and he received the 2015 IEEE CASS Meritorious Service Award. He was vice-president of CASS for two terms (2008/2011), representing R9. He is member of CASS VSA-TC, CASEO-TC and SIG-IoT.

He is founder of the Rio Grande do Sul CAS Chapter, which got the World CASS Chapter of The Year Award (2011, 2012, 2018), and R9 Chapter of The Year (2013, 2014, 2016, 2017, 2020). Speaker in the IEEE CASS Distinguished Lecturer Program 2014/2015. He was invited speaker in several IEEE conferences and IEEE CASS Chapters.

He is a founder of several conferences like LASCAS, the CASS Flagship Conference in Region 9, and SBCCI (sponsored by CASS in Brazil). He was the General or Program Chair of several conferences like IEEE LASCAS, ISVLSI, SBCCI, IFIP VLSI-SoC, ICECS, PATMOS. Member of the Editorial Board of IEEE Design&Test Magazine.

Member of the Steering Committee Several IEEE Conferences (LASCAS, SBCCI, ICECS, NEWCAS, VLSI-SoC, PATMOS, ISVLSI). Ricardo was the Chair of the IFIP/CEDA VLSI-SoC Steering Committee, vice-chair of the IFIP WG10.5 and Chair of IFIP TC10.

He also started with the EMicro, an annually microelectronics school in South Brazil, that now is co-sponsored by IEEE CAS chapter. He started several CASS Seasonal Schools and CASS Talks series. Research level 1A (top level) of the CNPq (Brazilian National Science Foundation).

In 2002 he received the Researcher of the Year Award in the state of Rio Grande do Sul.

Prof. Reis is a member of the IEEE since 1981 and senior member since 2006. He is also member of the ACM, founding member of the SBC (Brazilian Computer Society) and also founding member of SBMicro (Brazilian Microelectronics Society).

His main research includes physical design automation, design methodologies, fault tolerant systems and microelectronics education.

Statement: The IEEE Circuits and Systems Society has increased its visibility in Latin America during recent years. I think that a goal is to help extending this work to all regions of CASS, doing the necessary to increase the presence of CAS in all continents. I always understood that the exchange between professionals is an important point to promote the development and social interaction. I think that it is also important to increase the relations and exchanges between regions, as collaboration with regions is another way to contribute to bring experience and knowledge together. One experience that is working well in R9 is a series of CAS Seasonal Schools, where some of them started in the region and following editions where organized abroad (like Seasonal School on Physical Design Automation, that first edition was at Porto Alegre, Brazil and following ones were organized in Taiwan and China. I also would like to help the organization of new CASS Seasonal Schools in R9 and all around the world. The seasonal schools, DLP talks and CAS tours are good opportunities to increase the visibility of CAS Society and to continue spreading the society along the world. I also think that CASS should keep improving quality and recognition of its conferences and one way is to improve the recognition of the best conference papers by keep publishing extended versions in IEEE CASS journals, as from some years is being done for ISCAS, ICECS, LASCAS, APCCAS and now MWSCAS and NEWCAS. This action is also improving the submission of high-quality papers to our conferences. I think also that CASS can extend its DLP Program, that is an excellent way to promote CASS around the world and to bring stat-of-art talk to all CASS Chapter members. So, it is a way to bring CASS to the locations where the CASS members live. We need also to do actions to improve the participation of the Industry in CASS activities. Nowadays the organization of virtual conferences and talks by one Chapter can have attendees from all around the world, as the webinars being organized by Rio Grande do Sul Chapter, starting by covering all R9 and now attended by people from many locations in the world. This experience should be spread to all Chapters that can host other activities to be provided to all R9 and abroad.

I also believe that the attraction of new members is well related with the activities done by local chapters. CASS should keep providing grants to help the improvements of activities in each chapter around the world.

Finally, I am ready to do all my efforts and use all my energy to keep improving the activities and presence of CAS Society in R9 as well in all regions around the world. My first terms as R9 VP in the CASS BoG (as well my two terms as CASS VP) give me a better knowledge of the issues that CASS face to keep improving the benefices to CASS members. I can promise that I will keep being an active member of the BoG and R9 representative, motivating and helping all Chapter Chairs to promote activities and membership.

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

The main services of CAS should be the provision of:

1- updated technical information

2- the promotion of a high-quality education in the CAS professional fields and

3- to promote the technical exchanges between people all around the world. In the same time people face several bad issues due to Covid-19, it is also an opportunity to improve technical activities using internet facilities. That means that all listed services should use internet facilities, to provide them to all Region and to all world.

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

To increase the amount of state-of-art CAS Seasonal Schools in each region of the world and broadcast them around the world. The CASS Seasonal Schools should cover a state-of-art topic in depth and if possible the contents should become a book showing the state-of-the-art in a hot topic. Seasonal School is a way to attract professionals that wants to update their knowledge in the state-of-the-art and also a way to attract students to work in 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 provide materials with updated technical contents.
- to provide streaming videos with state-of-the-art lectures to help the continuous education of the professionals and students.
- to promote student's activities within the society and in its conferences, and promoting the contacts with professionals in the field of knowledge. The participation of students in CASS events is an important way to get young members that will be the leaders of the society in the future.

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

JIE CHEN (S'95-M'99-SM'04-F'16) received his B.Sc. degree in Electrical Engineering from Fudan University, China, M.Sc. and Ph.D. in Electrical and Computer Engineering from the University of Maryland, College Park, USA. He is currently a Professor in the Electrical and Computer Engineering Department and an Adjunct Professor in the Biomedical Engineering Department at the University of Alberta. He has co-authored two books, three book chapters, over 110 peer-reviewed journal papers, over 90 conference proceeding papers, and holds 11 patents. He is working on a textbook "Bionanotechnology: Engineering Principles and Practices" (McGraw Hill, 2021). According to the Google Scholar Search, his h-index is 36, and i10-index is 83. The highest citation number of a paper exceeds 813, and the total citation number is over 5448. Dr. Chen's research interests include biomedical circuits and system-on-chip designs, micro-/nano-fabricated microfluidic point-of-care biosensors, and artificial intelligence in healthcare.

Dr. Chen is an IEEE Fellow and Fellow of the Canadian Academy of Engineering. He has demonstrated his leadership by helping organize several international biomedical-related conferences and by serving as a general co-chair and technical program co-chair. He has served as a leading guest-editor of several special issue journals. He has volunteered his time as a technical committee chair of professional societies in IEEE Circuits and Systems Society, IEEE Medicine and Biology Society. He is an associated editor of several journals, such as IEEE Trans. on Biomedical Circuits and Systems. As an IEEE Distinguished Lecturer, Dr. Chen has given many talks to Universities and research communities. The Department of Electrical & Computer Engineering at the University of Maryland bestowed upon him the Distinguished Alumni Award in 2020.

Dr. Chen helped to establish two Bell-labs' spin-off companies. The first company focused on development of 4th generation wireless communication systems. It was acquired by QUALCOMM, a U.S. telecommunications company, in 2005. The second company produces digital HD-radios sold in most retail stores, such as BestBuy and Walmart. They are also installed in most brands of automobiles worldwide.

Dr. Chen was one of the first researchers to propose low-intensity pulsed ultrasound for root resorption. Reader's Digest Magazine reported his work and listed it as one of the major medical breakthroughs in Canada in 2006. A graduate student licensed the technology and created a spin-off company in 2008. Health Canada approval was granted in 2016, and the device is now marketed in most European countries, Canada and Australia.

Dr. Chen proposed to use glucose to coat gold nanoparticles to enhance radiation therapy. A poster describing this work received the best poster award by the International Union of Crystallography at the Conference of Biology and Synchrotron Radiation, 2013. His work was awarded the Best Student Paper in IEEE/NIH 2007 Life Science Systems & Applications Workshop. He received the Canadian Foundation of Innovation Leaders' Opportunity Award in 2008.

Dr. Chen is very supportive of diversity and equity in all his work. He received Killam Annual Professorship (among the highest honors given to Canadian professors) for his outstanding contributions in teaching, research, and community service.

Statement: If elected, I will promote the following initiatives.

1. Crisis management: The COVID-19 pandemic is a crisis, but it is also an opportunity for CASS. We can use advanced technologies to develop free online courses and discounted technical meetings so that members in specific regions and low-/middle-income countries can access these courses, meetings, and potential online networking opportunities. Such initiatives will also attract industrial members who are interested in ongoing advanced education and following current technology development trends. ISCAS should have better crisis management schemes in place so that it can continue to support the community and foster scientific advancement during times when travel and funds are restricted.

2. Equity, diversity, and inclusion (EDI). We should integrate many EDI initiatives into our regular society activities. IEEE is a professional technological society, and our events should be color and gender-blind. We should design our programs so that they are very appealing to women and underrepresented minorities, and empower them to pursue, impact, and succeed in the fields of circuits and systems. One way to do this is by encouraging industry participation and support for entrepreneurship in underrepresented minorities. In ISCAS, we could design a forum that provides a platform for all society members to discuss EDI and propose solutions for alleviating existing barriers. We also should advocate non-bias in peer paper review.

3. Entrepreneurship. Young members often change their jobs. We hope that they select the IEEE CAS as their home base. To achieve this goal, we will solicit academic and industry volunteers who can provide mentorship. In addition, we can teach students and early-career members entrepreneurship skills aimed at successful translation of ideas into business opportunities. We will invite experienced instructors to teach six-week courses. Topics will cover financial management, business proposition, intellectual property protection, commercialization strategies, etc. Up to 40 students can participate in the course. Each week instructors will teach 3 hours, and students will be required to do homework. At the end of six weeks, students will be required to present a business pitch. The top ten finalists will present their business cases in an ISCAS workshop in front of a panel of judges (judges will be invited from investment firms and industry). The top 3 candidates will win awards (certificates and small amounts of cash prizes), which will be presented on the last day of ISCAS.

4. Transparency. IEEE is a non-profit organization. We should make all financial elements transparent to its members, including sources of revenues and expenses. In addition, IEEE is a volunteer-based organization. We need to let members know how we operate and encourage member participation. IEEE CAS leaders should have a televised Townhall meeting region-by-region at least once every year. Such direct communication will let leaders know the needs of all members and support community engagement.

5. Reduction of overhead. IEEE conferences/workshops become more expensive every year. We will find ways to reduce overhead so that more members can participate. Although physical meetings are important for social networking, we can move some of the activities online to save costs. Scientific communities are becoming increasingly innovative and creative in developing platforms for trainees, scientists and industry to present, engage, collaborate and network during the pandemic crisis.

6. Open access. We encourage the authors of journal articles and conference proceedings to make their data public so that others can repeat their design and experiments. Nowadays, data is crucial for research and product development. Most large companies control data. Through such initiatives, we can accelerate technology breakthroughs.

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

- Encouraging equity, diversity, and inclusion (EDI). Our society should be color and gender-blind. We should seek only those who are genuinely interested in and passionate about their work in engineering and science.
- Operational and financial transparency. We should encourage CASS leaders to have a Townhall meeting at least once a year with its members so that all members can voice their opinions.
- Industry engagement. Industry participation in circuits and systems research through open-courses, industrial internships, and mentorship is important to advancing the field. We should also provide coaching services for entrepreneurship, encouraging members to establish start-up companies.

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.

My long-term initiative is to engage industry through two main mechanisms:

- Free online courses to industry members for continuing education.
- Assisting young, talented members in translating ideas through start-up companies. This would involve a 6-week entrepreneurial program consisting of online courses and workshops. Online courses will host up to 40 participants (ensuring diversity, different regions, and women participants). Ten finalists will be selected for the pitch competition at ISCAS. The top three will be awarded.

I have worked in the industry for over 7 years. I helped establish several successful spin-off companies. My knowledge will support these initiatives.

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 industry attendance and participation of members of specific regions by offering free online courses. Provide more opportunities for industry to showcase their products and technologies.
- Teach academia and young CAS members about technology entrepreneurship, including market analysis, value proposition, business model, raising capital, regulatory approval processes.
- Provide additional discounts to students, recent graduates, and members of specific regions to facilitate greater involvement in society activities such as IEEE technical conferences. This will ensure trainees and early-career scientists remain connected to the latest advances by retaining free access to IEEE Xplore for several years after graduation.

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 is doing his PhD on IoT for Smart Agriculture at IMS lab, University of Bordeaux. He is currently R&D Group Director and General Manager of Synopsys Chile, leader in Electronic Design Automation (EDA). He opened the Synopsys Chile R&D Center in 2006. He has expertise and knowledge in business and technology and understands very well the trends of the electronic industry; therefore, he is often consulted for new technological business development.

Before joining Synopsys he worked for different Chilean and multinational companies, such as Motorola Semiconductors, Honeywell Bull, VLSI technology Inc., and Compass Design Automation Inc. He started to work in EDA in 1988 in VLSI Technology Inc. where he developed synthesis tools being one of the pioneers of this new technology. He also worked in embedded systems development in Motorola semiconductors.

He has published several papers in IoT, EDA and embedded systems development, and since 2007 he has been invited to several Latin American Conferences (Argentina, Brazil, Chile, Mexico, Peru and Uruguay) to talk about Circuit Design, EDA, IoT, and Embedded Systems. From 2006 to 2008 he was member of the "Chilean Offshoring Committee" organized by the Minister of Economy of Chile. In 2010 he was awarded as "Innovator of the Year in Services Export". In 2012 he was nominated to best engineer of Chile. He is also member of several Technical Program Committees on Circuit Design and Embedded Systems. Since 2012 he is chair of the IEEE Chilean chapter of the CASS. He was General Chair of LASCAS 2014 and since 2018 he is chair of LASCAS Steering Committee. He is also the President of the Chilean Electronic and Electrical Industry Association (AIE). Victor is a IEEE Senior member.

Victor Grimblatt was professor of Electronics and IC Design in Universidad de Chile and Universidad de los Andes. He is also lecturing courses of IoT and Smart Agriculture at several universities in Chile.

Victor's research areas are EDA (Electronic Design Automation), and Smart Agriculture applying Machine Learning, Artificial Intelligence, and IoT.

Statement: The world has changed, 2020 will be remembered for longtime as the year the world changed.

We were all discussing about Digital Transformation and Artificial Intelligence and how it will impact our life, and suddenly the pandemic shows us that we have no time to continue discussing and changes have to be implemented right now. We are seeing countries with no infrastructure to support the digital transformation, countries where students do not have computers to follow their courses online, countries where people are not prepared for remote work.

But not only that, we are also seeing how we are destroying our earth. We are exceeding the 9 planet boundaries and a conjunction between human behavior change and technology could modify this path to a situation we cannot imagine and stop. The application of technology in domains where it is not really present, such as the agribusiness, can create a real change.

The agribusiness is a major driver of the climate change phenomenon and is one of the most affected at the same time. Are we applying the right technology in this domain? Are we taking in account what is happening?

This is just an example of what I consider CASS should drive. CASS and its members, driven by the BoG, should be the leaders of sustainable changes based on the technology we are all creating. Having publications, talks, and keynotes on sustainable technology is critical for the future of the world.

We need more engineers, we need more scientist working on the domains covered by CASS, so it is also important to motivate young people and even children on the marvelous world of technology and science. What are we doing as society to motivate those children to learn science and technology? In my opinion, and especially in my region, R9, not enough. We just start taking care of young people when they are already at the University, so they already chose the way they want to live. We have to start motivating them earlier, in high school and even before.

As a member of the BoG I'll propose and work on such kind of initiatives that will allow us to build a better word with the technology and science as one of the main drivers.

I also want to drive initiatives that will bring high-tech representation to the regions that are far from technology development, such as R9. I already did it when I opened a Synopsys R&D Center in Chile, where more than 100 engineers work today developing EDA tools that are used worldwide. Talent can be found everywhere and as a member of BoG I'll work with all countries to develop the high-tech industry as a way to develop the country.

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

- Be a point of discussion about futures technologies in the domain of CASS that will have a real impact on the world.
- Access to experts on each domain covered by CASS though webinars and keynotes that are easily accessible from all members independent of their location.
- Motivate worldwide young people and engineers from emerging and underdeveloped countries to develop their career in the domains covered 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.

Provide remote access to all conferences and activities, so people from all around the world can get the best from the CASS professionals. People in emerging countries and underdeveloped countries cannot always attend conferences and other important events because of economic limitations.

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)

- Industry: In general CASS is far from industry and we can easily see that in conferences and other activities. To attract industry, we should do more industry-oriented activities, such as industry panels, keynotes from the industry, industry talks, improve the iDLP, etc.
- Young members: Make special activities to show them why CASS is important for their career.
- R9: Help the community to growth, attracting more people and providing more funds for regional activities. There are too many people that do not see the interest of CASS, let's show them what it is.

HADI HEIDARI (GSM'12-M'15-SM'17) (PhD, SMIEEE) is Associate Professor (Senior Lecturer) in the James Watt School of Engineering at the University of Glasgow, United Kingdom. His Microelectronics Lab (meLAB) consists of 3 postdoctoral researchers and 8 PhD students, conducts pioneering research on magnetoelectronics and integrated microelectronics design for wearable and implantable devices.

Dr. Heidari's research has been funded by major research councils and funding organizations including the European Commission, EPSRC, Royal Society and Scottish Funding Council. He is PI for EU H2020 MSCA-IF "WiseCure: Wireless Implantable Devices for Neurological Disorders Cure" and the €8.4M EU H2020 FET-Proactive "Hybrid Enhanced Regenerative Medicine Systems (HERMES)" projects. He is a member of the eFutures Steering Group (an EPSRC-funded network representing the UK's electronic systems academic community). He is a member of EPSRC College, and also reviews proposals for the Croatian Science Foundation (HRZZ), the Swiss National Science Foundation (SNSF) and the Royal Society of New Zealand.

Dr. Heidari is a member of the IEEE Circuits and Systems Society Board of Governors (2018-2020), IEEE Sensors Council Member-at-Large (2020-2021), Senior Member of IEEE and Fellow of Higher Education Academy (FHEA). He is an Associate Editor for the IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology and IEEE Access, Editor of Elsevier Microelectronics Journal, and Guest Editor for the IEEE Sensors Journal, and Frontiers in Neuroscience. He is the General Chair of 27th IEEE ICECS 2020, Technical Program Chair of IEEE PRIME'19, and serves on the organising committee of several conferences including the UK Circuits and Systems Workshop (UKCAS), UK-China Emerging Technologies (UCET) Conference, IEEE SENSORS'16 and '17, NGCAS'17, BioCAS'18, PRIME'15, ISCAS'23, and the organiser of several special sessions on the IEEE Conferences.

Dr. Heidari has authored/co-authored over 150 peer-reviewed publications in top-tier journals or conference proceedings and acts as a reviewer for several journals and conferences. He has been the recipient of a number of awards including the 2019 IEEE Sensors Council Young Professional Award, the Rewards for Excellence prize from the University of Glasgow (2018), IEEE CASS Scholarship (NGCAS'17 conference), Silk Road Award from the Solid-State Circuits Conference (ISSCC'16), Best Paper Award from the IEEE ISCAS'14 conference, Gold Leaf Award from the IEEE PRIME'14 Conference. He has been an external examiner for multiple PhD theses, including students at Imperial College London, University of Southampton, and Aarhus University.

Group webpage: https://www.melabresearch.com/

University Webpage: www.gla.ac.uk/schools/engineering/staff/hadiheidari

Statement: IEEE offers worldwide-recognized platforms for knowledge development and challenging opportunities for knowledge sharing among the members of academia and industry at different levels. Our Circuits and Systems Society (CASS) brings engineers, researchers, scientists and others involved in circuits and systems applications access to the industry's most essential technical information, networking opportunities, career development tools and many other exclusive benefits.

Towards the IEEE goals, the CASS has a growing impact on our community, career and education. I believe in focusing on our commitment and our efforts to determine this to our members and to the society. We should persist in promoting and nurturing science, research and technology in our field of interest and continue expanding our attention to interdisciplinary areas in which our expertise is relevant. This will ensure effective use of our knowledge in further development of new and innovative knowledge, in the cross dissemination and in the collection of novel inspiration by other fields and related emerging needs and problems.

Promoting two-way communications with IEEE CASS members, Women in Circuits and Systems (WiCAS), and Young Professionals (YP):
The IEEE Circuit and Systems Society should shift and promote the innovative activities such as IEEE Young Professionals (YP) programme, Women in Circuits and Systems (WiCAS) and digital communications (e.g. Podcast, Twitter, YouTube, LinkedIn) which are tailored to the needs of the new generation of members. Dedicated events (Reception & meet up) are needed to be organised regularly at the CASS sponsored conferences and events. Over the past several years, evening functions or lunch events for young professionals have proven to foster improved direct contact between young professionals and colleagues at the peak of their careers. Here, being a (young) IEEE member at the beginning of your scientific or industrial career clearly makes a difference.

This is nicely illustrated by a statement by an attendee at a YP/WiCAS event: "I really enjoyed the short talks given by professionals. The talk I liked most was the one given by a representative of Industrial Medical Solutions. He is working in a field I have always been excited about, and where I would like to work after having completed my PhD. I got some valuable hints on how to get closer to my goal."

Another important point for our society is to for stimulating, coordinating and promoting the activities of CASS members and Chapters throughout Africa and Middle East Regions. I work with other CASS Board of Governors to reach this important goal. As a first step, we included a special registration fee discount for participants from African countries in our 27th ICECS Conference which we organise in Glasgow this year.

I believe our young researchers and students of today represent the future of the Circuits and Systems Society and, for this, I consider crucial favouring their technical growth with specific events in the Society life and with tutorials in the Society journals. The IEEE Circuit and Systems Society strives to develop the new generation further by extending the events and facilitate the communication between them and CASS fellows.

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

- Two-way communications through offering high-quality events including conferences/workshops/Symposiums where state-of-the-art research and technological development can be found.
- Providing continuing education opportunities with The Distinguished Lecturer Program and plenary talks in conferences, CAS Magazine, CAS newsletter, website etc. Improving the Social Media activities including Podcast, Twitter, Facebook, LinkedIn, YouTube etc.
- Particular attention to Young Professional researchers and students in the Circuit and Systems area. Young researchers are the main body of the CASS and a proper substrate should be provided to mentoring them by IEEE Fellows.

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.

Digital two-way communications with members through initiatives such as Podcast, Young Professional and Social Media (YP & SM). CASS promotes membership for students and young generation engineers and researchers (Young Professionals). We should start our activities, where all potential members are. We should attract more young generation by dedicating more events and Social Media as a strong tool to promote the activities.

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 website should include research positions announcements CAS can learn from good ideas of other IEEE Societies, that have proven to be effective. Continue to improve the CAS Magazine, CAS newsletter, website etc.
- Use the capacity of Young Professionals and Women in Circuits and Systems (WiCAS) in both academia and industry.
- Social Media including Podcast, Twitter, Facebook, LinkedIn, YouTube and WeChat (in China).

HAI (HELEN) LI (M'08-SM'16-F'19) is Professor and Associate 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 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 crosslayer optimization for low power and high performance. She has authored or coauthored more than 250 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 8 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 an IEEE fellow and a distinguished member of the ACM.

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. Now, I serve as the chair of the IEEE teaching award committee, Associate Editor-in-Chief of TCASI, Senior Editorial Board member of JETCAS, as well as Associate Editor of TCAS-II and TVLSI Systems. I have served as general chair and technical program chair of multiple IEEE conferences, including ISVLSI, SoCC, and ISQED. I am currently preparing for AICAS 2021 as the General Chair. Besides, I have served as the Technical Program Committee members of over 30 international conference series, including Nano-Giga 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 (A.I., IoT, cybersecurity, and so on) 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 hybrid conferences and create virtual communication opportunities resulted by the COVID-19 pandemic

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-R6. 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.

QIANG LI (S'04-M'06-SM'13) is a Full Professor and Founding Director of the Institute of Integrated Circuits and Systems, UESTC. He received the B.S. degree in Electrical Engineering from the Huazhong University of Science and Technology (HUST), Wuhan, China and the Ph.D. degree in Electronic Engineering from the Nanyang Technological University (NTU), Singapore, in 2001 and 2007, respectively. He has been working on analog/RF and mixed-signal circuits in both academia and industry, holding positions of Engineer, Project Leader & Technical Consultant in Singapore and Associate Professorship in Denmark. He has also served as the Vice Dean of the School of Microelectronics and Solid-State Electronics, UESTC. His research interests include low-voltage and low-power analog/RF circuits, data converters, and mixed-mode circuits for biomedical and sensor interfaces.

Qiang Li is the Founding Chair of IEEE Chengdu CASS Chapter. He serves/served as a Guest Editor of IEEE Transactions on Circuits and Systems I (TCAS-I) and as an Associate Editor of the newly-established IEEE Open Journal of Circuits and Systems. He has served as the TPC Chair of 2018 APCCAS and General Chair of 2018 PrimeAsia. He serves/served on the ASP-TC of CASS, SRP committee of ISSCC, TPC of CICC, ESSCIRC and A-SSCC. He is also serving as the Distinguished Lecturer of the IEEE Solid-State Circuits Society.

Qiang Li is a Young Changjiang Scholar, and was a recipient the UESTC Teaching Excellence Award (2011) and Serve Excellence Award (2018).

Statement: CASS is a unique society in IEEE, as it covers a very broad scope in electronics and information domain. CASS is also the origin of several other societies and councils in IEEE. "Open" is a wonderful nature of CASS as well as a challenging factor for the leaderships. The following describes several aspects I may contribute to make CASS an even better society.

Promoting CASS in R10: The wide spectrum of CASS gives a huge potential in promoting it in R10, where CASS (as well as IEEE) is actually less represented than it should. With the significant development in the past 40 years, R10 is now one of the most active regions and has the largest number of students, researchers and engineers among all IEEE regions, most of whom are the potential members for the society. I have been working with Professor Yoshifumi Nishio, the CAS VP for membership, on the survey and early development of CASS infrastructures, where I have witnessed the strong growth in the past years. I am quite inspired to devote more efforts in this direction, and I believe CASS will get significant return and accomplishment with a prosperous R10 community. Moreover, we will enhance the connections of CASS societies within R10.

Boosting the support level for students and young professionals: Students and young professionals are the future of the CAS society. It is an important responsibility of the society to support them. Being a university professor and group leader, I've witnessed the career development of many individual engineers and researchers, and thus understand their needs. In particular, they need more opportunities to access the state of the art, to interact with successful peers, mentors, teachers and engineers, to participate top-level conferences and workshops, and most importantly, to get those done in an affordable way – they are only in their early careers. The society may put more effort in supporting them.

Increasing the connections among chapters in difference regions: In my early career, I have studied and worked in different part of the world. I was an undergrad in China, a PhD, engineer, and technical consultant in Singapore, a professor in Denmark, and now a professor in China again. Along with my career, I have also been involved with service and administrative work in different cultures. Everybody and every country have unique

aspects that are worth learning from, and often the interaction itself is equally meaningful. CASS is the most diverse society, I believe, among all IEEE societies; and R10 is among the most diverse part of the world. Increasing the connections among different regions makes our society more attractive and joyful.

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

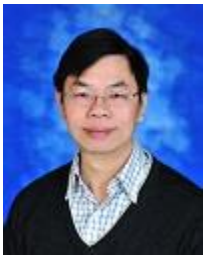
- A knowledge platform to access state-of-the-art scientific and engineering resources in CAS areas.
- A community platform to interact with all levels of researchers and engineers in CAS areas.
- A personal development platform where the young members get the best support and mentorship from CASS.

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.

To grow CASS in R10, which is very promising. Taking China as an example, the pool of potential researchers and engineers in CAS areas is the largest, while the presence of CAS in China is fairly behind what we've seen in Europe and US. I personally initiated the Chengdu chapter and have been working with Professor Yoshifumi Nishio, the CAS VP for membership, on the survey and early development of CASS infrastructures in R10 and in particular, China, where I have witnessed the strong growth in the past years. I will make every effort to contribute to this direction.

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)

- Financial support: to students and early career researchers to get involved with CASS. It is also very important for R9 and R10 where a large number of members are from developing countries.
- Local/regional workshops: organize local and regional workshops, e.g., PhD forums, industry forums, design contests, etc., so as to build up a platform for interaction among members as well as between industry and academia.
- Industrial events: the industry involvement in CASS is important and can positively attract students due to career opportunities. Such engagement also provides opportunities for industries to recruit new blood.



CHIA-WEN LIN (S'95-M'00-SM'04-F'18) received his PhD degree in Electrical Engineering from National Tsing Hua University (NTHU), Hsinchu, Taiwan in 2000. He is currently a Professor with the Department of Electrical Engineering, NTHU, Taiwan. He also serves as Deputy Director of the AI Research Center of NTHU, and Director of Multimedia Technology Research Center of the EECS College, NTHU. His research interests include image/video processing, computer vision, and video networking.

Dr. Lin is an IEEE Fellow. He was a Distinguished Lecturer of IEEE Circuits and Systems Society (CASS) during 2018-2019. He has served as Associate Editor of IEEE Transactions on Image Processing (2017-2020), IEEE Transactions on Multimedia (2011-2014), IEEE Transactions on Circuits and Systems for Video Technology (2009-2013), IEEE Multimedia (2012-2015), and Journal of Visual Communication and Image Representation (since 2007). He served as a Steering Committee member of the IEEE Transactions on Multimedia during 2013-2015. He was Chair of the Multimedia Systems and Applications Technical Committee of the IEEE CASS during 2013-2015. He is currently Chair of IEEE ICME Steering Committee (term: 2020-2021), and President of Chinese Image Processing and Pattern Recognition Association, Taiwan (term: 2019-2020). He has served as General Co-Chair of IEEE VCIP 2018, Technical Program Co-Chair of IEEE ICIP 2019, Technical Program Co-Chair of IEEE ICME 2010, Panel Co-Chair of IEEE AICAS 2019, and Track Chair of ISCAS 2013-2016. His papers won the Best Paper Award of IEEE VCIP 2015, the Best Student Paper Award of IEEE IVMSP 2016, the Young Investigator Award of VCIP 2005, top 10% Paper Award of IEEE ICIP 2004 and IEEE MMSP 2013. He has also served on the Best Paper Award Committees of IEEE ICIP 2017, ICME 2006, VCIP 2012, and APSIPA ASC 2013 (Committee Chair).

Statement: I started my professional career from CASS as a student member since 1994 and have been closely involved with CASS activities for 26 years. ISCAS was the international conference I first attended and TCSVT and TMM were the journals I published my Ph.D. work. My most important professional services were mainly related to CASS including editors of TCSVT and TMM, MSA TC Chair, Program Co- Chair of ICME 2010, and Conference Co-Chair of VCIP 2018. I have been benefited greatly from CASS by the networking, the conferences, and the top journals, which I feel are the most valuable resources to the career development of CASS members. Through my close involvement, I have observed a few areas that could be further improved for IEEE CASS. I would be grateful to have a chance to continue to serve CASS as a member of Board of Government to examine and tackle the following issues.

1. Journals and Conferences: High-quality journals and conferences are the core of the society. We should push an enhanced excellence and impact of CASS publications by reducing the backlog of journal publications and implementing new initiatives to encourage timely and high-quality reviews and decisions. Besides, CASS should develop facility and guidelines to support online conferences and meetings, and develop a new format of conferences to allow for both online and physical attendance to tackle the issues of health, safety, and travel expense for diverse attendees, while still maintaining good interactivities among attendees.
2. Multidisciplinary Research: CASS is unique in its diversity and multidisciplinary nature, including circuit theory, circuit design, algorithms, design implementations, etc. To maintain technical leadership and excellence, CASS should promote collaborations among technical committees and among journals (e.g., joint special issues) and proactively organize special sessions to promote multidisciplinary research, education and outreach activities.
3. CASS Membership Value: The CASS membership has been great, yet I think more can be done to increase its value:
    a. Offer mentorship program and career support to young professionals and student members
    b. Encourage participation from industry by organizing industry-oriented sessions industry-oriented sessions and industry-sponsored challenges in CASS conferences
    c. Provide recruiting information and organize job fairs at CASS conferences
    d. Strengthen our online education resources, including webinars, online workshops, seasonal schools, and distinguished lectures. We can also make the plenary and invited talks of CASS flagship conferences online to benefit our members
    e. Provide better networking connectivity to CASS members through the use of appropriate social media and online meeting tools

My qualifications:

1. I am an IEEE fellow, and has been a member of CASS for 26 years.

2. I served as a Distinguished Lecturer of CASS from 2018 to 2019
3. I served as Chair (2013-2015) and Chair-Elect (2011-2013) of Multimedia Systems and Applications (MSA) TC, where I have been a member since 2000. I have also served as a member of Visual Signal Processing & Communications (VSPC) Processing and Digital signal processing (DSP) TC
4. I served as Associate Editor of flagship CASS journals, including TCSVT (2009-2013) and TMM (2011-2014), and have also served as. Associate Editor for flagship journals of other sister societies including TIP (2017-2020) and Multimedia Magazine (2012-2015)
5. I have played several leading roles including Steering Committee Chair of ICME, Steering Committee member of TMM, Conference Co-Chair of VCIP 2018, Lead Program Chair of ICME 2010 and ICIP 2019, Track Chair of ISCAS (2013-2016), Panel Chair of AICAS 2019.
6. I am serving as President of Chinese Image Processing and Pattern Recognition Association, Taiwan, leading the largest association of computer vision and patter recognition professionals in Taiwan.

If elected, I will continue to serve for the CAS community with strong commitment and great enthusiasm. I will also actively collaborate with ExCom and other BoG members to promote aforementioned initiatives and tasks to bring CASS to the next level of excellence.

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

- Offer high-quality conferences with hybrid physical and online formats, especially the technology support and operation guidelines to ensure high quality online presentations with good interactivity.
- Increase the quality and timeliness publications in CASS journals and conferences, focusing on reducing the backlog of CASS journals, implementing new initiatives to encourage high-quality and timely reviews and decisions
- Publish a monthly e-booklet containing the table of contents of CASS journals, information about CASS conferences/workshops, webinars. distinguished lectures, and regional activities, etc. This can be an extension of the quarterly CASS ENewsletter.

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 COVID-19 pandemic has been greatly impacting the activities and networking of CASS members, we should make efforts to resolve the problem using our technologies and expertise. We should strengthen our online education resources, including webinars, online workshops, seasonal schools, and distinguished lectures. Besides, we can make the plenary and invited talks of CASS flagship conferences online to benefit our members. We should also provide better networking connectivity to CASS members through the use of appropriate social media and online meeting tools.

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)

- We can steer current conferences to attract more industry participation by arranging industry-oriented sessions in CASS conferences, e.g., industry workshops, forums, invited talks, and industry-sponsored challenges.
- We can promote the participation of young members in CAS activities through low registration fee and online attendance options to reduce their cost. We can also recruit established leaders to offer mentorship and career support to young members.
- We can offer recruiting information on CASS website and social media and invite the Industry to host job fairs at CASS conferences to benefit both young members and the industry.

NICOLE MCFARLANE (GSM'07-M'09-SM'17) received her received the B.S. and M.S. degrees in Electrical Engineering from the Howard University, Washington DC, in 2001 and 2003 respectively, and her Ph.D. in Electrical Engineering at the University of Maryland, College Park, in 2010. In the summers of 2000 and 2001 she worked as an electrical engineering intern at the Millstone Nuclear Power Plant. From 2001 to 2003 she worked as a Graduate Research Assistant at the Materials Science Research Center of Excellence at Howard University, characterizing III-V- Nitrides. From 2003 to 2010 she worked as a Graduate Research Assistant in the Integrated Biomorphic Information Systems Laboratory at the Institute for Systems Research of the University of Maryland. Her work focused on understanding information and power efficiency trade-offs in mixed-signal integrated circuit design, CMOS biosensors, and on CMOS/MEMS integration for lab-on-a-chip technologies.

She has been at the University of Tennessee since 2010 and is currently an Associate Professor working on circuits and devices for sensing systems. Her main research includes carbon based nanostructures and CMOS based solutions for biological, environmental, and nuclear science applications. In addition, she works on hardware implemented security solutions. Additionally, while at the University of Tennessee she has done significant outreach and mentoring to underrepresented groups at the high school, undergraduate, and graduate levels.

She currently serves on the Biomedical and Life Science Circuits and Systems and the Sensory Systems Technical Committees. She has also served on the organizing committee for ISCAS 2017 and is serving on the ISCAS 2022 and MWSCAS 2023 organizing committees. She is an associate editor for Transaction of Biomedical Circuits and Systems and the Open Journal on Circuits and Systems. Currently completing her term as a member of the Board of Governors, she is currently chairing the Ad-hoc committee on Digital Communications with the goal of improving the society's reach to all current as well as potential members.

Statement: I believe that CASS serves a necessary and vital function for faculty members in academia, researchers in industry, graduate students, and undergraduate students. Our members are multi-disciplinary, have varied geographic backgrounds, and are at different stages in their careers. As such, the needs of each group, while having some core overlap, can be different. To address some of these needs, as part of a current Board of Governors member, I have been involved in and am currently chairing an ad-hoc committee to improve our digital outreach. While we have developed initiatives to engage our membership, there is more work to be done.

The current Covid-19 situation has meant that many CASS conferences and distinguished lectures have moved or are moving to virtual platforms. This has meant that globally, our members and those outside the community, are more accepting of and engaged in having online events. In order for our circuits and systems community to continue having significant technological and societal impact we must impart the value of CASS to our diverse population both current members and potential members.

Short video descriptions of top journal papers could advertise the work we do to those outside CASS potentially attracting new members. This could be an important way to attract undergraduates or graduate students to be a part of CASS. It is also an important way to reach regions where there has traditionally been less interaction and engagement, particularly at the local level.

CASS currently involves undergraduates through undergraduate student competitions, however, I would also like to see bigger undergraduate involvement in CASS. I believe this actually goes hand in hand with increased industry involvement. If undergraduate students perceive that industry members are attending our conferences and are perhaps even hiring from our conferences, this could be significantly attractive to that population. One way this could be started is through our efforts to retain graduate students who go to industry. We could also incorporate career fair like events at our conferences or career poster boards. This could attract industry members, and their companies, to attend CASS conferences.

Often times, graduate students who attend CASS conferences do not remain involved upon entering industry due to a perceived lack of value from their managers/companies in attending, volunteering, or being involved in these events. To increase the value of CASS membership to our industry members we should have short videos or learning content on topics such as engineering ethics, communication and presentation skills, leadership, developing career goals, plagiarism, patents, and general management skills available on the CASS sites and social media. These topics can also be directly incorporated as events into conferences to attract more industry members to attend and engage with those from academia. These could be implemented as half day workshops, one day workshops or sessions. These topics also have value to our academic members and could be implemented as joint industry/academia sessions or industry only sessions at our flagship or regional conferences. These sessions or events could also focus on a specific current topic that leads to a position paper or standard. Industry demo sessions and industry only poster sessions where only a one page summary paper is required are also a great way to have more industry members involved.

I also believe we should educate and enable our members, including those who are in industry and the young professional category, on awards and elevations. Many times, these groups are simply not aware that these opportunities exist or may not consider themselves eligible for these awards. Thus, having short events targeted to these groups at our conferences and through digital means to discuss, for example, the senior membership elevation process, could be a significant way to showcase the value of CASS membership for our members.

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

- CASS should be providing opportunities for professional growth through its in person conferences and chapter activities as well as its print publications and digital presence (facebook, LinkedIn, twitter etc.).
- Opportunities for engagement of our diverse membership, including networking and discussions on current challenges.
- Lifelong learning opportunities for our diverse membership, including industry and academic members.

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

With the Covid-19 virus the society has moved many conferences and distinguished lecture series to virtual platforms. The society's purpose is to serve its members and I believe that we can address the needs of our students, young professionals, industry members, and academic members by expanding our digital footprint through country specific digital outreach. I envision we can expand our current outreach to include establishing

- Short videos which summarize CASS transactions articles
- Continuing education topics of interest (both technical and non-technical)
- Virtual networking across large areas/regions to increase collaboration between industry and academia.

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)

In order to better address the needs of our under-represented, young professionals, and industry members as well as potential new members, we should,

- Establish and improve our digital outreach and engagement with under-represented regions and groups through digital video series and virtual networking opportunities.
- Make volunteering and participating in CASS activities a valued practice for industry members by providing lifelong technical and professional learning opportunities in both digital and in-person formats.
- Organize events where industry and academia could come together (virtually or in-person) to collaboratively create new ideas or new directions in circuits and systems.

FAKHRUL ZAMAN ROKHANI (S'07-M'08) received the B.S. degree in University of Technology Malaysia, and the M.S. and Ph.D. degree from the University of Minnesota, USA. He is presently an associate professor at the Faculty of Engineering Universiti Putra Malaysia. He heads the Gerontechnology program at MyAgeing Institute and Smart System and System-on-Chip (S3oC) research group. He was with Intel Penang Design Center as visiting professor, was with Huawei Technologies, visiting scholar at the ASIC & Systems State Key Lab at Fudan University, visiting professor in several universities including Turkey, Sudan and Indonesia, among others.

His current research interests include designing energy-efficient system-on-chip (SoC) design and automation, IoT system integration, and sensors for food quality application. He has (co)-authored more than 100 peer-reviewed publications on international journals and conferences and 1 patent pending to date. Research works from his group have been recognized with several awards locally and internationally.

Within CAS Society, currently, he serves as Chair of AdCom for Education, AdCom Digital Communications, and Global Education Initiative committee. At local chapter and section, he has served/currently serving as CAS ExCom for financial and communication, chapter chair for IEEE Consumer Electronics, ExCom for IEEE Malaysia Section and GOLD/YP, among others. On the publication front, he has been contributing as an Associate Editor of CAS Society newsletter, founding Editor-in-Chief CAS Malaysia chapter newsletter, TCAS journal reviewer and Technical Program/Publication Chair/Track chairs of several IEEE CASS conferences (APCCAS, PrimeAsia, ICSys, ICCAS, SOCC, MCSoC).

Statement: I have been an active IEEE Circuits and Systems Society (CASS) member since 2007. It has been my privilege and great fulfilment in recent years to serve our CAS Society in several capacities, including as Chair of AdCom for Education, AdCom Digital Communications, and Global Education Initiative committee and associate editor for the society's newsletter, TCAS journal reviewer and technical program committee for

several CASS conferences. I have been actively involved in the South-East Asia region and local chapter as ExCom for financial and communication, chapter chair for IEEE Consumer Electronics, ExCom for IEEE Malaysia Section and GOLD/YP, among others.

The involvement at various levels has acquainted me with challenges posed to our society and the essential needs of the members, in this ever-changing world. Focusing on augmenting society's agility and leadership in the disciplinary convergence era, my 13 years as a dynamic volunteer in CASS and experiences being in both academia and industry, enables me to provide fresh perspectives and practices that are relevant, global and timely. Together with my enthusiasm and determined volunteer spirit, I aim to enhance society's competitive position than it is today through inclusivity, collaborative, and sustainable leadership. Given a chance to serve as a member of the Board of Governor (BoG), I will work with other BoG members and Society ExCom to make a difference through initiating the following activities:

1. Inclusive lifelong learning initiative –
Ensuring equitable access to quality education and training is essential so that every member, regardless of geo-location, socio-economic status, gender or age, can benefit from the learning opportunities. Leveraging on digital communication and MOOC platforms, CAS society would be able to bring its solid line-up of proficient speakers/educators on timely topics to a broader audience. Coupled with learner-centered settings, peer-learning strategies, and engaging content, members would experience personalized learning that offers competencies needed for their professional and career development.

2. Collaborative professional development initiative –
The disciplinary convergence where experts from various institutions/organizations are intertwined across disciplinary boundaries presents an excellent opportunity to cultivate closer interactions among society members, internally and externally. Synergizing on complementary strength of academia and industry, between IEEE societies as well as younger and experienced members, we could spur more meaningful engagements, for instance, joint technical forums, awareness and demo events, student's competition, publications, and R&D opportunities. Through real interaction and the ability to collaborate across a broad set of disciplines, the knowledge, resource, and technology divide can be overcome to address fundamental knowledge discovery challenges.

3. Sustainable leadership initiative –
Sustainable leadership embraces planning and preparing for succession—not as an afterthought, but from day one. Replicating the society's strong technical leadership, CASS ought to engage in a leadership development-focused mentorship program. Through this program, a more diverse talent pool of future leaders would be groomed through structured guidance and active volunteerism activities and subsequently empowered to take up roles within the society for effective succession management. I firmly believe that through sustainable leadership, CAS society enhances its competitive position as an enabler to address humanity's grand challenges and create new and innovative solutions in the ever-changing world.

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

- Promote an inclusive lifelong learning opportunity that offers on-demand competencies, for advancing the professional and career development.
- Increase the value of the technical events and publications to the members on emerging and converging disciplinary topics.
- Spur close collaboration and engagement between members to tackle fundamental challenges in the knowledge discovery process.

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.

An inclusive lifelong learning initiative in the form of micro-learning deliveries. I hope to establish equitable access to quality education and training for every member, regardless of geo-location, socio-economic status, gender or age. Leveraging on digital communication and MOOC platforms, CAS society would be able to bring its solid line-up of proficient speakers/educators on timely topics to a broader audience. Coupled with learner-centered settings, peer-learning strategies, and engaging content, members would experience personalized learning that offers competencies needed for their professional and career development.

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)

- Groom and empower a diverse talent pool of young esteemed members for professional and career development
- Leveraging on digital communication and MOOC platforms for underserved members by giving equitable access to high-quality education and research material dissemination.
- Actively engage industry practitioners through jointly organized social and technical activities and publications on various fronts.

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 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 320 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) at NSA TC and she is currently working as NSA TC-Chair ('19. May-). 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 and APCCAS'19, as WiCAS-YP chair for TJCAS'17-'19 and as Publication chair for ISCAS'19. She will serve as a WiCAS co-chair for ISCAS'20 and 21.

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 18 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. Unfortunately, I could only do the same as the events the past chairs did, and I couldn't try new things. I've tried my best at that time, but I regret that I could have planned something more groundbreaking for the CAS members. After the previous BoG term, I tried various things to make up for my missing skills. 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. (I was forced to return home in half of the planned period due to the corona virus outbreak.) 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 coronaviruses, 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.

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

- 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.
- In order to improve each research field, collaborating with other research fields is very important way. We can find completely new ideas via exchanging our knowledge.

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.

Currently, it is difficult to move abroad due to the coronavirus. Because of this situation, we should develop and provide online events that allow CAS members around the world to participate. I think there is room for improving these online contents. I think we should provide online content that allows interactive.

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)

- 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.
- By organizing events/forums for YP members, they have many opportunities to exchange their opinions among the same generation.
- Inviting distinguished people from industry to CAS society conferences/workshops in order to have opportunities obtaining opinions of industry people.