JINWOOK BURM (S'98-SM'19) was born in Korea. He received the B.S. degree in physics from Seoul National University, Seoul, Korea, in 1987, the M.S. degree in physics from the University of Michigan, Ann Arbor, in 1989, and the Ph.D. degree in applied physics from Cornell University, Ithaca, NY, in 1995. After postdoctoral work at Cornell University and Bell Labs, Lucent Technologies, Murray Hill, NJ, he joined the Department of Electronics Engineering at Sogang University, Seoul, Korea, as an Assistant Professor in 1998, where he is now a Professor. He also worked as a Principal Scientist at Pixelplus Semiconductor, Inc., in San Jose, CA, USA for one year starting in August 2006.

He worked on millimeter wave ICs and high-speed GaN transistors at Cornell, being an author of the first microwave GaN transistors. While in Bell Labs., Lucent technologies he worked on high speed optoelectronic circuits enabling the information high-way. At Sogang University, he is currently working on various research projects including high speed CMOS interface circuits, sensors, and neuromorphic circuits. He has advanced low power CMOS image sensor technologies using a 2-step conversion structure. His group recently invented a frequency detector for high speed communications from the incoming data enabling referenceless Clock and Data Recovery Circuit. He has also served as the advisor of optoelectronic division of Samsung Electronics for 5 years and worked in Pixelplus semiconductor for 1 year as a principal scientist.

He has authored over 200 papers and also holds 40 patents. He received research awards including award from Ministry of Trade, Industry and Energy of Korea, best paper awards from International SoC Design Conference (ISOCC) and the Institute of Electronics Engineers of Korea (IEEK). He has been the chair of CASS Seoul Chapter since 2019. He has served various positions in conferences including TPC co-chair of AP-ASIC 2004, Treasurer of International Symposium on Circuits and Systems (ISCAS) 2012, Seoul, Korea, General Chair of International SoC Design Conference (ISOCC) 2015, and General Co-Chair of ISCAS 2021, Daegu, Korea. In 2021, he is the president of the Institute of Semiconductor Engineers, a Korea based semiconductor society.

Statement: Developing cultures and technologies has brought the modern digital and AI-driven era. New products from these break-throughs are at hand to be used in our daily lives. CASS being in the top front line of these technical activities, I am very honored for the chance of serving CASS and its members.

The best society attracts the best people. IEEE CASS has been very successful leading the technical frontier, unveiling new technologies and coping with challenges, through organizing new workshops and outreach programs. CASS has played an essential role in stimulating interactions between industry and academia and bridging the gap between the generations in various inter-disciplinary fields.

CASS is a very special society with talented members. To progress further, CASS should stay technically competitive and invite members outside of CASS to join. Based on the technical excellence, we can add activities to make CASS strong. CASS is the place to get involved with its members on the research topics with constructive feedbacks. As a member of board of governors, if elected, working for members and for their benefit to help CASS members to reach their goals, seeking the demands and providing programs to meet the demands. I would like to have emphases on the following subjects.

Expanding CASS membership to young professionals:
For forward-moving CASS, expanding CASS membership and embracing generations of members are probably one of the most important topics that many CASS leaders have in mind. With many organizations and societies available to join, CASS should be special to meet the demands of colleagues and to benefit its members. I have been involved in organizing many of conferences and technical workshops, including ISCAS 2012 and 2021 (General Co-Chair), APCCAS 2016, ISOCCs (International SoC Design Conferences) and more. At these technical activities, I have experienced that inviting people, especially students, to experience the quality program is very effective in expanding the membership, since CASS has so many opportunities to offer. IEEE CASS Seoul Chapter where I am currently serving as the Chapter Chair, has been aggressively driving student membership every year. In technical events for the students, we have encouraged them to join CASS so that they can experience technical excellence of CASS. The membership drive was quite successful such that number of CASS members in Korea has drastically increased to be recognized by CASS. The Seoul chapter received CASS incentive funds almost every year. For the membership expansion, especially for young CASS memberships, I would like to pursue the following activities:

1) Discount membership fee for the first-time student members to facilitate students' involvement with CASS.
2) Extend on-line educational and technical materials to learn new and emerging fields.
3) Encourage young CAS members to participate CASS meetings. Special sessions such as YP (young professional) CAS, student travel grants, and design competitions in CAS conferences are the examples of the encouragements.

Expanding CASS membership to industry:
Industry participation in CASS is not strong enough. However, the industry, converting new technology into practical use, should be one of the main column supporting CASS. I have always felt that talking with industry people is like getting new research topics. Being in the front of the technological market, industry is so much advanced, I think, in terms of knowing the topics worth working for. Inviting industry to CASS will certainly enrich its activities. Based on the well-developed relations and co-operations with industry, I will start bringing industry in my neighborhood to CASS first, then develop a program to attract industry worldwide. During the ISCAS 2021, Daegu, where I served as the General Co-chair, we invited keynote speakers from two major semiconductor companies in Korea, which were certainly insightful. Since industry is interested in recruiting good graduates, the invitations of industry people for technical talks benefit both sides. The strong collaboration between academia and industry is one of the essential elements for CASS.

Extending Educational Programs on New and Emerging Technologies:
Being in the front line of technologies, CASS members are urged to learn new technologies. Answering to these needs, CASS has been quite successful providing various educational programs: tutorials and overview lectures through its flagship conferences. DL program is also the valuable

resources to meet educational and technical demands. For ISCAS 2021, we tried to provide extensive educational programs of 10 tutorials, 5 mini-tutorials, and 16 overview lectures. The educational demand is especially high in CASS because CASS embraces many of emerging technologies including AI and Autonomous driving. With all the experts already in the society, I believe that the educational front of CASS has a large room to expand. Tutorials and overview lectures can be serviced to CASS members as a member benefit. Turning CASS with excellent technical contents into the life-long educational system is a way to confront the ever-changing technical fields with new tools for the members. To serve CASS members better, I will work on the extending the educational contents on various topics, especially in new and emerging fields, and at many different levels. The benefit to meet the technical needs of members will in-turn bring the growth of CASS.

In summary I would consider the board of governor position my lifetime privilege and honor, if elected. I will do the best to serve CASS and its members better, especially in the areas of providing valuable technical contents to help the members to thrive in their research frontiers and expanding the CASS.

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

CASS is a society fostering technical activities. Helping members to achieve more in his/her technical area is the most essential role of CASS. This lofty goal can be achieved by the followings.
1. The lectures, reviews, tutorials, and technical talks on state-of-the-art technologies are the great resources on technical information for the current and emerging fields of research.
2. Quality publications of journals, books, and magazines publish members' work and encourage the communications on their works.
3. Technical and social interactions among members are essential to facilitate the exchange information and to guide the better way of solving problems.

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 maintain the high competitiveness, the best services to CASS members is important. CASS has so many excellent services to offer to its members. To extend the learning opportunities of CASS members, I would like to propose video streaming services of keynote speeches, tutorials, and overview lectures from CASS flagship conferences and DL lectures, preferably free of charge as a CASS membership benefit with some exceptions if necessary. Inviting lecturers from industry is also helpful to extend the horizon of technical contents as well as to increase the industry involvement in CASS 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)

Fostering young scientists and engineers' involvement in CAS activities is important, I think, in continuing technical innovations.
1. Provide exemptions or discounts of membership fee for the first-time student members to provide the chance to experience CASS benefits.
2. Extend on-line educational and technical materials to help young professionals to learn new and emerging fields.
3. Encourage young CAS members to participate CASS meetings. Special sessions such as YP (young professional) CAS, student travel grants, and design competitions in CAS conferences are the examples of the encouragements.

DEEPU JOHN (M'05-SM'14) received the B.Tech. degree in electronics and communication engineering from the University of Kerala, India, in 2002, and the M.Sc. and Ph.D. degrees in electrical engineering from National University Singapore, Singapore, in 2008 and 2014, respectively. He is currently an Assistant Professor with the School of Electrical and Electronics Engineering, University College Dublin, Ireland, and is a principal investigator for projects funded by Microelectronic Circuit Centre Ireland, Irish Research Council, Science Federation Ireland ML-Labs. Previously, he was a postdoctoral researcher with the Bioelectronics Lab, National University Singapore (2014-2017) and worked as a senior engineer with Sanyo Semiconductors, Japan (2004-2006).

Deepu John is one of the founding members of IEEE Young Professionals, Singapore Chapter. He served in the roles of Chairman (2012), Secretary (2010-11), and Executive committee member (2013-15) for IEEE Young professional Singapore Chapter. He also served as the coordinator for Young Professionals Southeast & North Asia Region in R10 YP committee (2013-15). He is a recipient of the Institution of Engineers Singapore Prestigious Engineering Achievement Award in 2011, the Best Design Award at the Asian Solid-State Circuit Conference in 2013, and the IEEE Young Professionals, Region 10 Individual Achievement Award in 2013.

He served as a member of the organizing committee/technical program committee for several IEEE conferences, including TENCON, ASICON, BioCAS, and ICTA. He is a reviewer of several IEEE journals and conferences and served as a Guest Editor for *IEEE Transactions on Circuits and Systems-I* and *IEEE Open Journal of Circuits and Systems*. He has been an Associate Editor for *IEEE Transactions on Biomedical Circuits and Systems* since 2019. His research interests include low-power biomedical circuit design, energy-efficient signal processing, and edge computing.

Statement: As someone who has been involved with and flourished through IEEE and IEEE Young Professionals, and currently working as an academic staff at a university, I am very well aware of the challenges and issues faced by young people in IEEE and in CAS Society. The main challenges include 1) Lack of mentoring towards early career guidance 2) Lack of venues for meeting, collaborating, and networking with peers, academicians, researchers, and industry veterans 3) Lack of encouragement and appreciation for specific sections, minorities, female CAS members 4) Lack of training opportunities for upcoming and new technical areas. If elected, I would dedicate my full attention to the improvement of young professionals, Women in CAS, Minority sections by

1) Improving their technical capabilities through focused online training sessions on upcoming research topics. These sessions will be hosted by eminent academicians and industry personnel who has expertise in the field.

2) By providing Integration opportunities with mainstream CAS society members for technical and career guidance. I will start an initiative to provide opportunities for young professionals, Women, and Minority section members to meet up with researchers, academicians at conferences and symposiums. In addition, these upcoming potential CAS members will be provided one-to-one guidance on research and career via the IEEE Collabratec platform.

3) Establishing awards from CAS society for best papers, technical contributions, prototype developments, organizational achievements etc., targeted at IEEE Young Professionals, Women in CAS, Regions with minimal representations. This way these members who are often sidelined and marginalized due to their limited contributions wouldn't get demoralized to continue with the CAS Society.

My background in working with IEEE Young Professionals for over a decade in various roles such as Singapore YP Chairman and Secretary; Experience in working with engineers, scientists, and students in five different countries (India, China, Japan, Singapore, Ireland) for the last 19 years; Experience in working with Industry (4 years) and academia (15 years), will help support the various initiatives that I am planning to undertake as part of the Young Professionals representative in the CAS BoG. I request your vote for the opportunity to serve for the development of young professionals in the CAS society.

Questions: 1) What are in your opinion the three most important services that CASS should provide to its membership?
1. Encourage, Motivate, provide training and Mentor young professionals and engineers to pursue a career in CAS domain
2. Provide high-quality venues for interaction between students, researchers, industry professionals, academicians through conferences, online platforms, symposiums, research publications.
3. Provide continuous and lifelong learning on upcoming and emerging fields for all its 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.

If elected, I would start a support forum for Young Professionals and students and empower them with opportunities for training, collaboration, career development, and networking by connecting them with other senior members, researchers, industry professionals of CAS society. In this initiative, I would include and support people from diverse backgrounds and IEEE regions to improve diversity and equality in the CAS Society.

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

Based on the long-term initiative, that I proposed above, I would implement the following strategies to reach Young Professionals, Women in CAS, Members from underrepresented regions.
1. Initiate one-to-one mentoring sessions on IEEE Collabratec for Young Professionals, Women in CAS, and Members from Underrepresented regions by teaming up with Senior CAS members from industry and academia.
2. Initiate technical & peer networking sessions in CAS conferences specifically for Young Professionals, Women In CAS, and members from underrepresented IEEE regions.
3. Establish short online courses on upcoming topics to encourage, train, and retain Young Professionals, Women in IEEE CAS Society.

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 three books, three book chapters, over 117 peer-reviewed journal papers, over 91 conference proceeding papers, and holds 11 patents. According to the Google Scholar Search, his h-index is 38, and i10-index is 92. The highest citation number of a paper exceeds 858, and the total citation number is over 6193. 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, Fellow of the Canadian Academy of Engineering and Fellow of American Institute for Medical and Biological 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 tooth 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?
  (a)   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.
  (b) 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.
  (c) 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:
  (a) Free online courses to industry members for continuing education.
  (b) 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)
  (a) 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.
  (b) Teach academia and young CAS members about technology entrepreneurship, including market analysis, value proposition, business model, raising capital, regulatory approval processes.
  (c) 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.

ERIKA COVI (GSM'12-M'18-SM'19) is a Scientist in NaMLab gGmbH, Dresden (Germany). She received her PhD in Microelectronics in 2014 from the University of Pavia (Italy), where she worked on designing integrated systems for the characterisation of memristive devices. Her research interests lie at the intersection of circuit design, emerging devices, and brain-inspired computing. More specifically, they focus on exploiting the intrinsic physical characteristics of memristive devices to reproduce computational primitives of the brain in mixed neuromorphic-memristive systems. She has been involved in multiple European projects, all dealing with the implementation of neuromorphic memristive systems. She has authored/co-authored over 25 peer-reviewed publications in top-tier journals or international conference proceedings.

She was a member of the Organising Committee of 2020 IEEE International Conference on Electronics Circuits and Systems (ICECS 2020) and of the Technical Program Committee of MEMRISYS - International Conference on Memristive Materials, Devices & Systems (2018, 2017, and 2015) and she served as Symposium Assistant at the conference on Materials for Advanced Metallization (MAM) in 2018. She was a Review Committee Member of 2021 IEEE International Symposium on Circuits and Systems (ISCAS 2021).

She is the recipient of the Women in Circuits and Systems (WiCAS) best Paper Award of IEEE ICECS 2019, Genoa, Italy. She will serve as a member of the Organising Committee of ICECS 2022 and as Technical Program Chair in IEEE NEWCAS 2023 (Edinburgh, UK).

She is Lead Guest Associate Editor of *Frontiers in Neuroscience*, and an active reviewer for more than 20 journals (including IEEE journals) and conferences. She is a member of the Cellular Nanoscale Networks and Memristor Array Computing (CNN-MAC) Technical Committee in the IEEE Circuits and Systems Society.

Statement: IEEE is the most renowned society at the world-scale level. It offers many important services and opportunities to its members by nurturing knowledge and fostering networking between Industry and Academia. In this framework, the Circuit and System Society (CASS) has undoubtedly played a pivotal role in bringing together experts in circuits and systems coming from different backgrounds and levels of experience and facilitating the circulation of new ideas and state-of-the-art technology.

I firmly believe that we need to continue along this path and further expand the basin of interest in interdisciplinary areas where our expertise is relevant. I believe that promoting cross-fertilisation among disciplines, also the ones that not often join forces, will lead to the development of innovative concepts and ideas that are going to have a life-changing impact on our society.

CASS has already done an excellent work by offering its members high-quality services and by undertaking a series of actions that preserved the high standards of the events which had to necessarily migrate to a virtual environment due to the worldwide health emergency situation. The fast response of CASS to adapt to new paradigms demanded by the current situation has provided the substrate needed for a more widespread worldwide presence. Now is therefore the right time to further invest in the future of our society and its members, with a special care for the ones that belong to minorities or areas where the institutions cannot always guarantee their employee access to the invaluable resources of IEEE.

We should promote the free circulation of ideas by offering (i) special discounts to enable the participation of a broader public in conferences and workshops, (ii) promote special events in synergy with Young Professionals and Women in Circuits and Systems to support their members, who represent our future, and (iii) fostering the networking between younger and more experienced members by, e.g., organising round-table discussion on specific topics, both scientific and of career development, or "Scientific Speed Dates" where a young member and an experienced one can have a face-to-face meeting and have a mutually beneficial conversation. To this end, we should use and strengthen the digital facilities of CASS, to grant everyone the possibility of benefit from these events even when in-person meetings are not possible.

Questions: 1) What are in your opinion the three most important services that CASS should provide to its membership?
1. Promotion of equality, diversity and inclusion as well as equal opportunities for scientists and engineers all over the world. This can be done by accessible dedicated online resources and by offering financial support to attend conferences and workshops.
2. Invest in the future generations through mentorship programmes where IEEE Fellows can share their experience with students and young professionals and guide them during the first steps of their careers.
3. Promote professional networking, scientific discussions, and education through in-person, virtual, and hybrid events where new ideas and state-of-the-art results are presented.

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.
IEEE CASS has the Women in Circuits and Systems (WiCAS) committee to encourage and inspire female and early career stage researchers and professionals. We should bring the concept further ahead by boosting diversity and inclusion rather than mentioning their difficulties and obstacles. We should promote networking between these members and more experienced ones and create opportunities for future collaborations and jobs by connecting group leaders seeking for brilliant professionals and young members trying to consolidate their skills. We should particularly care about members belonging to minorities by offering them dedicated events in which they meet IEEE Senior and Fellow Members.

3) Mention three ways for CASS to reach/serve a specific part of the CAS community that you consider of particular importance (Industry, Academia, young CAS members, members of a specific region)
1. Promote the Society through events and social media, especially in those regions where IEEE CASS is under-represented.
2. Offer a networking platform where members can discuss and exchange ideas to promote scientific and technological progress or also post job offers.
3. Offer special discount to access IEEE CASS journals and conferences for the regions where the average income is so low that institutions cannot afford a subscription to a journal or to pay for the conference registration fees.

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

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

He is or was the Keynote Speaker for IEEE PAINE 2020, IEEE APCCAS 2020 and IEEE MCSoC 2021. He was awarded the Defence Technology Prize, Singapore, in 2016.

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

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

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

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

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

RAJIV JOSHI (M'89-SM'94-F'02) Dr. Rajiv V. Joshi is a research staff member and key technical lead at T. J. Watson research center, IBM. He received his B.Tech I.I.T (Bombay, India), M.S (M.I.T) and Dr. Eng. Sc. (Columbia University). His novel interconnects processes and structures for aluminum, tungsten and copper technologies which are widely used globally in various technologies from sub-0.5µm to 5nm. He has led successfully predictive failure analytic techniques for yield prediction and the technology-driven SRAM at IBM Server Group. His predictive analytics techniques which he commercialized are tailored for machine learning and AI. He developed novel memory designs in SRAMS, DRAMS, TRAMS, MRAMs which are widely used in industries. He received 4 Outstanding Technical Achievement (OTAs), 3 highest Corporate Patent Portfolio awards from IBM for licensing contributions, holds 69 invention plateaus, issued to his name over 250 US and over 400 including international patents. Many of his patents are related to PVD, CVD metal deposition techniques which have impacted over billions of dollars. His interests are in in-memory computation, CNN, DNN accelerators and Quantum computing. He has authored and co-authored over 210 papers. He has given over 50 invited/keynote talks and given several Seminars. NY IP Law association awarded him as the "Inventor of the year" in Feb 2020. He received prestigious IEEE Daniel Noble award in 2018. Also he is the recipient of the Best Editor Award from IEEE TVLSI journal and 2015 BMM award. He is inducted into New Jersey Inventor Hall of Fame in Aug 2014 along with pioneer Nicola Tesla. He is a recipient of 2013 IEEE CAS Industrial Pioneer award and 2013 Mehboob Khan Award from Semiconductor Research Corporation. He was given the same award again in 2020 for AI initiatives in BRIC program funded by SRC. He won several best paper awards from ISSCC 1992, ICCAD 2012, ISQED, VMIC. He is a member of IBM Academy of technology and a master inventor. He served as a Distinguished Lecturer for IEEE CAS and EDS society. He is currently Distinguished Lecturer for CEDA. He is IEEE, ISQED and World Technology Network fellow and distinguished alumnus of IIT Bombay. He serves in the Board of Governors for IEEE CAS as industrial liaison and CAS ambassador to India. He serves as an Associate Editor of TVLSI. He will and has served on committees of DAC 2019, He is visiting chaired professor at Delft University and distinguished visiting professor at IIT Roorkie. AICAS 2019, ISCAS, ISLPED (Int. Symposium Low Power Electronic Design), IEEE VLSI design, IEEE CICC, IEEE Int. SOI conference, ISQED and Advanced Metallisation Program committees. He initiated IBM CAS EDS symposium at IBM in 2017 and will continue into 2018 with Artificial Intelligence as the focal area. He served as a general chair for IEEE ISLPED. He is an industry liaison for universities as a part of the Semiconductor Research Corporation. Also, he is in the industry liaison committee for IEEE CAS society.

Statement: A. Passion

I have already good experience in serving in BOG as Industry Liaison and have successfully started initiatives which are beneficial to Industry and Universities:

1. Started initiative to promote CAS with Prof. Massimo Aliato to reward Best Editor and reviewers of TVLSI journal and are CAS members. Both industries and universities are promoted in this endeavor.
2. I have actively participated in Industry Board of ISCAS 2017-2020 to bring in quality speakers in emerging areas from Industries.
3. Hosted Emerging Technology Symposium in IBM, T. J. Watson Research Center for industry and universities through sponsorship of IBM, CAS and EDS. Every year new emerging themes were created. First conference attended over 200 students/faculty and industry folks and was a great success. This exposed CAS to industry very well.
4. Continued to have industry visibility of CAS in 2018 by focusing IBM CAS EDS symposium on AI Compute- Brain to brainstorming. This focus and initiative have driven CAS to start AI related conferences such as AICAS.
5. AI Compute Symposium 2020 – From Atoms to Application was held virtually in pandemic year. It was huge success over 700 academicians as well as industry folks attended this symposium. As a result, IBM executives used this symposium for press releases,
6. Also worked in the Industrial committee/advisor of newly initiated AICAS 2019-2020 (Artificial Intelligence related conference).
7. First time promoted CAS booth in Techfest IIT Bombay, India. The 3 day event was attended by more than 10000 students, faculties and industry folks. Many of them visited the booth and got to know CAS closely.
8. Through keynote talk at Techfest at IIT Bombay I showcased impact of CAS and its benefit to allure potential members.
9. Served as a CAS ambassador to India for 2020-2021. During this tenure started a virtual booth concept in major non-CAS conference which was very well attended. Working with South Asian CAS members to enhance CAS conference base and membership.

Apart from these I would like IEEE CAS to grow by catering to the needs of its membership in all aspects of circuits and systems exploring other emerging areas such as: big data/analytics, AI/cognitive computing, quantum computing, circuit driven security, sensor networks (IoT), bioelectronics, medical electronics, wearable computing and nano and other relevant topics. CAS also needs strength from the industry, proper representation of the industry and needs to be attractive to the industry. To maintain a leadership universally CAS needs to position itself to support, stimulate and promote these future directions. As the technology scales and cost of investment have become hyper issues which make many top tier companies to think twice in this field. Hardware is coupled tightly with core foundry technologies and impact the development of circuits and systems. As a result, many industries related to technology, Circuits and Systems fields are pursuing high yielding and new areas where there is a big bang for the buck. Many disciplines in universities will go through similar changes. In my opinion Industries-CAS-Universities is a symbiotic triangle. I will make sure that through this reinventing phase CAS would embrace industries and universities closely. To achieve I will help CAS to work with capable people from industry as well as universities offer opportunities to implement new out of the box ideas in emerging fields, and walk the walk of industries. Also, I will push for creation of new activities, seminars, invite lecturers, webinars, workshops in this field working with CAS, EDS and SSCS.

Thus, I would like to provide visionary implementations by bringing all the interested parties closer to CAS.

B. Relevant Experience:

I have already served in BOG for last 3 years as an Industry Member. I passionately worked to introduce new themes to increase industry participation. I have been in the industry close to 32 years and as IEEE member for 27 years. I have had distinguished career in the industry, IBM in particular and served as an adjunct professor in SUNY, NY, and serving as a visiting chaired professor at Delft University. I worked with many IBM alliance partners as well as external clients and I know well most of the leading researchers in circuits and systems. I have been promoting CAS for many through years through my lectures and keynote talks. I have been actively involved in IEEE as organizer, journal editor, conference organizer and member of various committees (ISCAS, AICAS, DAC, ISLPED, VLSI design, CICC, SOI, ISQED etc).

I am also industry-university liaison through SRC organization and connected with high profile folks in the industry and government. Thus, I am familiar with both: industry and academia and member needs and expectations from both, have a broad organizing experience and perfect for this job.

C. Generating Revenues for CAS through Industry Participation:

Transition to electronic delivery, combined data-bases and web delivery is occurring. Such transition does impact the existing revenue model. The challenge is to find new and creative ways to generate revenues in light of occurring transition and shrinking revenues based on paper content in journals. Industry advertisement/sponsorship for journals and conferences is key. We must strive for the top quality of the material that is published in keeping high-standards and reputation.

D. Attracting New Members:

CAS must be constantly attracting new members by reaching out and communicating the benefits associated with membership in CAS. Attracting new hires in the industry, widening the domain to other discipline would be really essential. Reward them with free offers for advertisements in CAS newsletters or online sites. Create some service positions in the CAS organization and attract new hires for these positions from industry and universities. For their service reward them with certificates/plaques etc. Set-up few industry awards for innovative work to make a win-win situation. Advertise CAS, their award system in the technical magazines. Create awareness of CAS in every university by sending board members/CAS fellows/senior members for awareness/benefit talks. I would like to pursue some of these goals if I am elected.

Questions: 1) What are in your opinion the three most important services that CASS should provide to its membership?
   (a) Continuing education and offering new emerging themes i.e currently moving in the direction of AI, big data analytics, quantum, low power direction. Working with industries provide knowledge to members.
   (b) Publication of quality journals, conferences and workshops; Request experts in the emerging field to write articles and provide know-how in this area. Promote some of these themes in Flagship conferences like ISCAS and develop new ones like AICAS.
   (c) Providing voice in the profession.
Conduct online town hall meetings through local CAS chapters. Get the opinion of members and provide to the BOG and take appropriate measures.

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.
   Implement emerging themes such cognitive AI techniques in variety of CAS activities – CAS journal reviews. Establishment of a continuing education program that would encompass various facets such as: short courses and certificate programs created, supervised and maintained by top industry professionals in emerging fields, enhanced web site containing podcasts of such and including most important and relevant

keynote speeches from CAS conferences, web-based education and drive new areas relevant to Industries but fall under the domain of CASS etc. Provide the retraining opportunities to CAS members. Also, tie-up industry, university CASS partnership and education.

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)
   (a) Provide service awards in the form of certifications to students, provide relevant and quality publications (IEEE journals) in the emerging and most sought areas.
   (b) Providing CAS web site, but enhancing it by a page dedicated to new graduates with links to jobs and job postings, blogs, bulletin boards, podcasts of relevant and interesting talks. Create job fairs at the conference.
   (c) Providing continuing training, certificate courses in an organized fashion that covers specialties and is designed, supervised by industry and university experts. Organizing symposium at industries would attract students (e.g. IBM CAS symposium, online international workshops).

YONGFU LI (S'09-M'14-SM'18) received the B.Eng. and Ph.D. degrees from the Department of Electrical and Computing Engineering, National University of Singapore (NUS), Singapore. I am currently an Associate Professor with the Department of Micro and Nano Electronics Engineering (DMNE) and MoE Key Lab of Artificial Intelligence, Shanghai Jiao Tong University, China. I also currently served as assistant head of department (DMNE), in charge of the industrial program, outreach program, alumni program, and international collaboration program. These duties allow him to promote the IEEE CASS to the local and international communities. Previously, I was a research engineer with NUS, from 2013 to 2014. I was a senior engineer (2014-2016), principal engineer (2016-2018), and member of technical staff (2018-2019) with GLOBALFOUNDRIES, as a Design-to-Manufacturing (DFM) Computer-Aided Design (CAD) research and development engineer. His research interests include analog/mixed-signal circuits, data converters, power converters, biomedical signal processing with deep learning techniques, and DFM circuit automation.

In the past few years, I am involved in the IEEE CASS Board of Governors (Young Professionals) 2020-2021, serving in the IEEE CASS Women in CAS - Young Professionals (WiCAS-YP) Steering Committee, the IEEE CASS Publication (2021), and Technical Activities (2020) Division, IEEE CASS Digital Communications AdHoc Committee, and IEEE CASS Mentoring Program Committee (2021). I am the advisor for IEEE CAS SJTU Student Branch Chapter Advisor and co-founded the IEEE CAS Shanghai Young Professionals Affinity Group. I am also involved and organized in several IEEE flagship and regional CASS conferences/workshops such as IEEE ISCAS (2019-2021, 2024), ISICAS (2020-2021), BioCAS (2021), NEWCAS (2019-2020), APCCAS (2018, 2021, 2022), ASP-DAC (2019-2020), ICTA (2020-2021), ISVLSI (2018-2019), IEEE CAS Seasonal School (2019), and IEEE CASS AI-Forum (2019, 2021). I also served as an associate editor in TBioCAS and guest editor in IEEE OJ-CAS (2019), Springer Journal of SJTU Science (2020-2021), and Frontier in Computational Neuroscience (2021).

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

As a member of CASS for the past 12 years, CASS has greatly impacted and improved my own professional career. I have been fortunate to get excellent mentorship, guidance from my academic advisor, Professor Yong Lian, IEEE BoG members, and Industrial/advisors mentors. In 2019, I have joined the Shanghai Jiao Tong University (SJTU) after working in the industry for more than 5 years. This transition allows me to devote more time to serve our CASS community. Thus, during the past 1.5 years, I have served in the IEEE CASS BoG as the Young Professional Representative, where I have witnessed the efforts and contributions from the committees to work towards our society's mission and vision.

Our IEEE Mission is to ""foster technological innovation and excellence in fundamentals, emerging directions and application of circuits and systems for the benefits of humanity through an interdisciplinary community"". Our IEEE vision is to ""advance and promote Circuits and Systems knowledge framed in interdisciplinary to be essential to the global and diverse technical community and be universally recognized for providing and leading solutions to the United Nations' Sustainable Development Goals"".

As I strongly believe in our IEEE CASS mission and vision, I hope to continue my effort through ""enriching"", ""engaging"" and ""recognizing"" (EER) with these three groups of members, namely (1) our young professionals/graduate student members, (2) our industrial members, and (3) our new members.

[Reaching out to our global community by establishing CASS student branch chapters and identify CASS YP volunteers across all regions (EE)]
To reinforce connections with our CASS chapters and student members, I hope to reach out to all chapters and work out a sustainable plan to establish the CASS student branch chapters (SBC). This allows us to build a network of active CASS YP volunteers across different geographical regions to organize similar regional activities with less effort. I have established the IEEE CASS SJTU SBC and Shanghai Young Professionals affinity group (YP AG). Now, I am trying out the concept of a joint CASS-SBC/YP/WIE interest group in Shanghai, where we can organize activities more effectively with minimal resources so that they can be sustainable throughout the year. We have constantly shared our activities on our Wechat and maintaining a healthy group of more than 60 members in our SJTU SBC and YP AG. I hope that this plan can be easily replicated across the country, the region, and the world.

[Increasing awareness among our local community through industrial engagement (EER)]
To increase our awareness and attract new members, especially members from our semiconductor industry, I have the opportunity to work on several related activities over the past two years. In December 2019, I have organized the IEEE CASS Seasonal School, where I have invited Cadence, National Instrument, and so on to give technical classes. I have also worked with our IEEE CASS TA VP, Chen YK on the IEEE CASS Industrial Forum. As the pandemic has subsided in China, I have started working with a social media company IJIWEI, which I plan to organize multiple industrial forums across china, creating more opportunities for our members to have face-to-face interaction. For example, in June 2021, I have the opportunity to involve in their annual semiconductor industrial forum and SJTU alumni networking session. This event has drawn more than 4,000 key executives members in our semiconductor industry. In addition, I am also working closely with the Shanghai Talent Hub and Shanghai Pudong Union to understand the needs of our semiconductor industry. We have successfully organized several industrial visits and the China EDA forum from April to July 2021. Lastly, I have started recruiting volunteers to assist in the IEEE Global Membership Drive across our regional conferences, starting from ISICAS, BioCAS, APCCAS, and so on. This will help to elevate our IEEE CASS members who have contributed significantly to our industry.

[Extending our influence in the online community through social media (EER)]
Besides working with the social media company, IJIWEI, I have been involved with Prof. Nicole and our CASS members for our digital communication platforms. In particular, for our TBioCAS, our digital communication committees (Prof. Wang Guoxing and Prof. Samuel Tang) have regular Wechat posts, Linkedin activities. I have also started actively contributing articles to our IEEE CASS newsletter. I hope that I can influence neighboring chapters to actively contribute to our newsletter. Thus, we can build great branding in our Linkedin and other social media platforms with our CASS members' help.

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

Questions: 1) What are in your opinion the three most important services that CASS should provide to its membership?
- [Enrich our members] The MiLEs and online webinars are several excellent programs that consolidate information on a common platform and enrich our members. We need to continue to publicize this information.
- [Engage our members] Our activities aim to connect people, where members meet and connect, build networks and support each other. We need to continuously leverage the new social media platforms to disseminate news to them.
- [Recognise our members] Rewarding our members for their active contributions in organizing local and global events, and rewarding our members who develop new technologies that enhance industry productivity or economy.

2) Mention one large long-term initiative that CASS should undertake in the next two years and that you would help to establish if elected.
Despite a decrease in IEEE membership, our society has seen an increase of 4.39%, currently ranked 5th largest among 39 societies. To sustain this growth and continue assisting RAM VP, I would like to continue setting up various CASS chapters and student branches across R10. I would like to continue championing the IEEE Global Membership Drive and IEEE Mentoring Program, which aims to nurture our industrial and academic young professionals and graduate members. These events are held in our flagship and regional conferences to encourage them to participate more actively even without publication.

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)
- [Graduate Members] Besides establishing CASS-SBC, we can promote the concept of a joint CASS-SBC/YP/WIE interest group, allowing them to effectively organize events. I have created a pilot program in Shanghai and I felt that it can be easily replicated across the world.
- [Industry Members] Previously, I have worked with TA VP on the industrial forums. This year, I am working with a social media company IJIWEI, to organize multiple industrial forums across china, creating more opportunities for our members to have face-to-face interaction.
- [Africa Members] More members should step forward to assist Prof. Jose Silva-Martinez in Africa's activities.
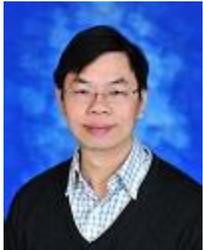
CHIA-WEN LIN (S'95-M'00-SM'04-F'18) received his PhD degree in Electrical Engineering from National Tsing Hua University (NTHU), Hsinchu, Taiwan in 2000. He is currently a Professor with the Department of Electrical Engineering, NTHU, Taiwan. He also serves as Deputy Director of the AI Research Center 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 (class of 2018). He has been an IEEE CASS Fellow Evaluating Committee member since 2021. He was a Distinguished Lecturer of IEEE 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 was President of Chinese Image Processing and Pattern Recognition Association, Taiwan (term:2019-2020). He has served as General Co-Chair of IEEE VCIP 2018 (sponsored by CASS), Technical Program Co-Chair of IEEE ICIP 2019 and 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 27 years. ISCAS was the international conference I first attended (since 1999) and TCSVT and TMM were the journals I chose to publish my very first research works. 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, Conference Co-Chair of VCIP 2018, and Distinguished Lecturer of CASS. I have been benefiting greatly from CASS by the networking, the conferences, and the premier 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 hybrid 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:
- Offer a carefully designed mentorship program and career support to young professionals and student members
- Encourage participation from industry by organizing industry-oriented sessions industry-oriented sessions and industry-sponsored challenges in CASS conferences
- Provide recruiting information and organize job fairs at CASS conferences

My qualifications:
    (1) I am an IEEE fellow, and has been a member of CASS for 27 years.
    (2) I have served as an IEEE CASS Fellow Evaluating Committee member since 2021.
    (3) I served as a Distinguished Lecturer of CASS from 2018-2019
    (4) 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), and Digital Signal Processing (DSP) TC
    (5) I served as Associate Editor of premier CASS journals, including TCSVT (2009-2013) and TMM (2011-2014), and have also served as Associate Editor for several premier journals of SPS and Computer including TIP (2017-2020) and Multimedia Magazine (2012-2015)
    (6) 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.
    (7) I served 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 the 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?
    1. 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.
    2. 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
    3. Establish a well-designed online information-hub collecting the table of contents of CASS journals, links to CASS conferences/workshops, webinars. distinguished lectures, TC and regional activities, etc. This can be an extension of current CASS E-Newsletter.

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)
    1. 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.
    2. 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.
    3. 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.

XINMIAO ZHANG (S'04-M'05-SM'10) received her Ph.D. degree in Electrical Engineering from the University of Minnesota in 2005. She has been an Associate Professor at The Ohio State University since 2017. Prior to that, she was a Timothy E. and Allison L. Schroeder Assistant Professor 2005-2010 and Associate Professor 2010-2013 at Case Western Reserve University. Between her academic positions, she was a Senior Technologist at Western Digital/SanDisk Corporation. She also held visiting positions at the University of Washington, Seattle, 2011-2013 and Qualcomm in 2008.

Dr. Zhang's research spans the areas of VLSI architecture design, digital storage, communications, security, and signal processing. She developed many architectures to improve the hardware efficiency of state-of-the-art error-correcting coding and cryptography schemes. She authored the book "VLSI Architectures for Modern Error-Correcting Codes" (CRC 2015) and co-edited "Wireless Security and Cryptography: Specifications and Implementations" (CRC 2007). Dr. Zhang received an NSF CAREER Award in January 2009. She is also a recipient of the Best Paper Award at 2004 ACM Great Lakes Symposium on VLSI and 2016 International SanDisk Technology Conference. Her work on the Advanced Encryption Standard (AES) received more than 1000 citations.

Dr. Zhang is elected to serve on the Board of Governors of the IEEE Circuits and Systems Society (CASS) for the 2019-2021 term and has been a member of the Circuits and Systems for Communications (CASCOM) Technical Committee since 2007 and VLSI Systems and Applications (VSA) Technical Committee since 2006. She served as a Co-Chair of the Late Breaking News Track and an Industrial Board Member of ISCAS 2018, has been a RCM of ISCAS since 2007, and will be a WiCAS Co-Chair of ISCAS 2024. She is also a Track Chair of IFIP/IEEE International Conference on Very large Scale Integration (VLSI-SoC) 2021. She was an Associate Editor of the *IEEE Transactions on Circuits and Systems-I* 2010-2019 and received a Best Associate Editor Award in 2013. Since 2019, she has been an Associate Editor of *IEEE Open Journal of Circuits and Systems*.

Besides CASS, Dr. Zhang has served on many committees of other IEEE societies. She is the Chair for the 2021-2022 term and was a Vice-Chair 2017-2020 of the Data Storage Technical Committee (DSTC) of the IEEE Communications Society. She is also a member of the Industry Technical Working Group (ITWG) 2020-2022 and was the Chair of the Seasonal Schools Program 2013-2015 of the IEEE Signal Processing Society. She was

a TPC Co-Chair of the IEEE Workshop on Signal Processing Systems (SiPS) 2019 and the Chair of the Data Storage Track of IEEE International Conference on Communications (ICC) 2019. Besides SiPS and ICC, She has also served on the organization and technical program committees of many other conferences, such as IEEE Global Communications Conference (GLOBECOM), IEEE Global Conference on Signal and Information Processing (GlobalSIP), and ACM Great Lakes Symposium on VLSI (GLSVLSI).

Statement: I am currently serving on the BoG for the 2019-2021 term. If re-elected, I will continue my dedication to broadening the impacts and improving the diversity of CASS. My expertise includes circuits, error-correcting coding, cryptography, and signal processing. I am actively serving in various committees of the CASS, Signal Processing Society, and Communications Society of IEEE. With my cross-society background, I will enthusiastically help to develop new initiatives and contribute to the services needed to facilitate interdisciplinary collaborations and discussions. I also have unique experience in both academia and industry. Between my academic positions at The Ohio State University and Case Western Reserve University, I have been working for Western Digital/SanDisk for four years. Besides, I am currently serving on the Industry Technical Working Group (ITWG) of the IEEE Signal Processing Society. My experience allows me to better understand the participation in CASS from both academic and industry perspectives. Although industrial research usually does not focus on high-risk and long-term topics, technology development often brings interesting problems to solve, which may also lead to avalanche of new research in academia. Increasing the participation of industrial members in CASS would help to promote idea exchanging between academia and industry on high-impact topics. If elected, I will also be devoted to increasing the participation of industry, young professionals, and under-represented groups.

It has been my privilege and pleasure to provide services to CASS. Besides the BoG and ITWG, I have also taken roles in many other committees. I am a member of the Circuits and Systems for Communications (CASCOM) TC since 2007, VLSI Systems and Applications (VSA) TC since 2006, and the Applied Signal Processing Systems (ASPS) TC of the Signal Processing Society 2008-2014. I have been an Associate Editor for IEEE Open Journal of Circuits and Systems since 2019 and a reviewer committee member of ISCAS since 2007, was an Associate Editor for TCAS-I 2010-2019, Late Breaking News Track Co-Chair and Industrial Board member of ISCAS 2018, and will be a WiCAS Co-Chair of ISCAS 2024. I am serving as a Track Chair of IFIP/IEEE International Conference on Very Large Scale Integration (VLSI-SoC) 2021, and was a TPC Co-Chair of IEEE International Workshop on Signal Processing Systems (SiPS) 2019 and a Track Chair of IEEE International Conference on Communications (ICC) 2019. I also served as technical program committee members of SiPS (2008-2018, 2020-2021), GLOBECOM (2009, 2016-2021), and ICC (2014, 2015, 2018, 2020-2021), as well as publication, industry liaison, student paper contest, and tutorial chairs for many other conferences. Besides, I am the Chair for the 2021-2022 term and was a Vice-Chair 2017-2020 of the Data Storage Technical Committee (DSTC) of the IEEE Communications Society. I was also the Chair of the Seasonal Schools Program of the IEEE Signal Processing Society 2013-2015. Building on my service experiences from different roles in multiple IEEE societies, I look forward to further contributing to CASS and helping to broaden the impacts and provide better services to under-represented groups.

Questions: 1) What are in your opinion the three most important services that CASS should provide to its membership?
1. Facilitate career development of young professionals by providing networking, mentoring, and training opportunities. Young professionals are the future of CASS. We need a strong next generation to ensure the continued growth of CASS.
2. Maintain high-quality journals, conferences, and workshops for both well-established and emerging research areas. Encourage interdisciplinary research and collaboration among CASS TCs and with other IEEE societies, such as by organizing special sessions, special journal issues, and/or discussion panels.
3. Provide more opportunities to under-represented groups and industry members for participating in CASS conferences and committees."

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.
Many new technologies and concepts cross the border of traditional research areas. To facilitate the development of new technologies and increase the impacts of CASS, one potential initiative is to form a special interest group for interdisciplinary collaboration. This group will build bridges and initiate discussions among the TCs in CASS and with the TCs in other IEEE societies. Special conference sessions and/or special journal issues will also be organized for interdisciplinary topics. Industry participation is essential to this group. If elected, I will help to establish this group and start initial discussions.

3) Mention three ways for CASS to reach/serve a specific part of the CAS community that you consider of particular importance (Industry, Academia, young CAS members, members of a specific region)
1. Offer one-on-one mentoring opportunities to young members at CASS conferences; form a group of mentors from different research areas who provide virtual mentoring on request through web/email.
2. Allocate special sessions in CASS conferences for students who are graduating and seeking permanent positions to showcase their research; offer travel grants to students from under-represented groups.
3. Organize conference sessions that allow industry to showcase their designs and offer plenary talks and technical sessions in a hybrid mode so that industry members do not have to travel or leave their work behind in order to participate.