

# Incoming Editorial

**D**EAR Readers,  
It is a great honor and privilege for me to start my two-year term of duty as Editor-in-Chief (EiC) of IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS—PART II: EXPRESS BRIEFS (TCAS-II) and I am very thankful to the IEEE Circuits and Systems Society (CASS) for giving me this opportunity. During the last four years, I have been very fortunate to work as Deputy Editor-in-Chief (DEiC) of TCAS-II together with Professor C.K. Michael Tse, who has set the bar very high for me! I would like to begin this first issue of TCAS-II in 2020 by expressing my most sincere and warm gratitude to Professor Tse for his great job, dedication, and guidance during all this time working together. I learned a lot from him. Thank you so much, Michael!

Thanks to the excellent diligence and intense dedication of my predecessors and the past Editorial Boards (EBs), the performance of TCAS-II has significantly improved in the last few years. The huge reputation of TCAS-II can be quantitatively measured by its high impact factor, its good balance between industry and academic works, theoretical analyses versus practical applications, as well as innovative papers written by well recognized experts in diverse research topics of circuits and systems. In the last years, the scope of the journal has been extended not only from CASS areas, but others such as complex networks, advanced control, and signal processing, among others. Apart from its good performance metrics, there is no doubt that TCAS-II is one of the flagship journals of IEEE CASS, and its charter is to deliver the latest and some of the most exciting research results and ideas at the shortest turnaround time.

I am therefore in an enviable position to steer this ship in great condition, and on a good or even better course. Prompted by this huge challenge, be sure that I will put all my efforts to push TCAS-II forward, by improving (even more) its prestigious as a premier international forum for first disclosure research in the diverse areas of CASS, putting special emphasis on further reducing the time from submission to publication – one of my firm goals. I have a strong willingness and illusion to assume this huge responsibility, which will be translated into the required time and dedication to maintain the excellence of our Transactions.

There are several challenges ahead that the incoming EB must address in order to operate and thrive. Among others, I will put special emphasis on the initiatives described below.

## A. Scope of the Journal and Emerging Topics

It is my firm intention to expand the scope of the journal and to attract papers dealing with some emerging topics such

as for instance neuromorphic computing, artificial intelligence and beyond-CMOS technologies, as well as new application scenarios such as smart agriculture, sustainable development, robotics, etc. These topics are within the general interest of IEEE members – not only from CASS but also from other IEEE societies – and may help attract also the interest by other readers and authors to publish their works in our Transactions. The past EiCs of TCAS-II have done a great effort in this direction and I am firmly committed to continue pushing this strategy forward.

With this objective in mind, I have the intention to invite some keynote and tutorial contributions written by outstanding authors from academia and industry, particularly those covering emerging areas, to write a brief for TCAS-II. These seminal articles are usually well received by readers and will have a positive effect on the visibility of TCAS-II in other IEEE societies and also some non-IEEE scientific communities.

## B. Special Issues and Conference Co-Publication Initiatives

Following the tradition initiated two years ago, we will keep the current special issue on the *IEEE International Symposium on Circuits and Systems (ISCAS)* – the CASS flagship conference – in which a selection of the best papers accepted for presentation are published in TCAS-II as the only record in IEEE Xplore. This is a successful initiative of IEEE-CASS (and other IEEE Societies), and I had the privilege, as former DEiC of TCAS-II, to conduct the first two special issues of TCAS-II on *ISCAS* based on this conference/journal co-publication format. Prompted by the need to have all papers available during the conference, the overall review process – from submission to publication – is less than two months in order to have the issue published in May and available for *ISCAS*. This is a good evidence that a rapid publication of new ideas, concepts, experimental results, etc. can be implemented in the form of briefs at TCAS-II, thus following the spirit of other high-impact journals, which focus on short communications.

Another successful format of special issue published in TCAS-II is the so-called journal-track symposium. This format has been implemented for the first time at the *International Symposium on Integrated Circuits and Systems (ISICAS)*, held in Taormina, Italy, in September 2018, and continued in 2019 with its second edition held in Venice. This symposium – focused on integrated circuits and systems verified by experimental results – includes a selection of original works, which have been previously accepted in the special issue. This is another successful initiative, which I have the firm intention to keep on going in the future.

In addition to these special issues, some other special sections may be also published based on the selection of the best

papers presented in main IEEE-CASS regional flagship conferences, such as *NEWCAS* and *MWSCAS* (Regions 1-7), *ICECS* (Region 8), *LASCAS* (Region 9) and *APCCAS* (Region 10). These sections would be made up of only the best three or four papers of each conference and will be published following the same co-publication approach as that used in *ISCAS*, so that will have also a direct positive impact on the conferences.

### C. Supplementary Materials in a Web-Based Repository

Another initiative is to provide TCAS-II readers with a Web-based repository containing additional material of the published manuscripts like, for instance, algorithm source codes, electrical simulation netlists, extra figures, multimedia content, etc. These pieces of information would add more value to the publications and would enrich the experience of the authors and readers of the Transactions. I will explore the best way to implement this Web-based repository in coordination with the publishing staff of IEEE and IEEE CASS Vice President (VP) Publications, Professor Mohamad Sawan.

Given the hard limitation in the number of pages published in TCAS-II briefs, this strategy will give the authors the opportunity to complement their published works with additional material available for IEEE community. Moreover, it would increase the visibility and impact of the research works published at TCAS-II, following other similar approaches like for instance in *Nature Letters*. This initiative is in line with IEEE CASS strategy to promote its publications in digital media and social networks, as will be discussed below.

### D. Review Process and Feedback to Authors

None of the initiatives listed above would make sense if the review process is not carried out with the required care and devotion. On the one hand, if a manuscript needs a revision, it is very important to provide authors the adequate comments and recommendations in order to help them improve their revised manuscript, so that it can reach the requested quality to be published in TCAS-II. On the other hand, if a manuscript is rejected, the feedback becomes essential, since it must give authors a fair explanation about why they did not succeed and more importantly, it can be the vehicle to help authors improve their works in the future.

One of the decisions for papers submitted to TCAS-II which usually causes some confusion is “Reject and Invite to Resubmit.” Although this type of recommendation is used sparingly, it can give the authors an erroneous impression if the decision is not suitably argued and justified. Indeed, many authors feel that this decision is similar to “Resubmit after a major revision”—which does not exist in our Transactions.

Based on these considerations, I will encourage our Associate Editors (AEs) to consider basically three main decisions, namely: accept, reject, or minor revision. The latter will be only considered if the paper can be improved to the required level within a short time (typically less than four weeks).

Hence, “minor revision” means doing very small changes or amendments that AEs and reviewers believe are necessary, plus edits and *cosmetic* changes that improve presentation and readability. If the paper requires substantial, major changes, “reject” would be likely the right option.

Last but not least, I will be firmly committed to work together with IEEE-CASS officers, and very specifically with CASS VP Publications, Professor M. Sawan, to do all actions needed to improve the quality, impact and visibility of TCAS-II, addressing some in-coming challenges – such as the open-access publication policy of the European Union – as well as any other issues that might arise during my term of duty.

### E. Editorial Board and Associate Editors in Chief

Addressing the aforementioned initiatives, as well as other ones, which may come out, constitute a great challenge and responsibility for me. Fortunately, I will count on the help of a great team led by my Associate Editors in Chief (AEiC) – formerly named DEiC — Professor Yajun Ha and Prof. Edoardo Bonizzoni, as well as our AEs and reviewers. The incoming EB has been selected to achieve a good balance between experienced and fresh AEs, all of them with recognized expertise in the diverse research areas of circuits and systems, in both academia and industry.

The AEiCs have also several important roles to play, like handling the special issues mentioned above, clarifying the scope of the Transactions and dealing with issues like plagiarism, prepublication, etc. These duties will be mainly carried out by Professor Ha, with the help of Professor Bonizzoni, who will be mainly in charge on the new duties required to promote our Transactions in the digital media and networks.

To conclude this editorial, I would like to express again my deepest gratitude to Professor Tse, for his excellence service, enormous dedication, professionalism and huge efforts during his term of duty as EiC of TCAS-II in the last four years. Without his help and guidance, some of the initiatives already running at TCAS-II would have been impossible to do it and many of the projects mentioned here would be very difficult even to imagine. On top of all the initiatives mentioned in this editorial, the contributions of all our authors and the feedback from our readers will be fundamental to maintain and improve the quality of our journal.

On behalf of the entire Editorial Board of TCAS-II, I wish all of you a wonderful year ahead and I look forward to your excellent contributions!

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**José M. de la Rosa** (S'96–M'01–SM'06–F'20) received the M.S. degree in physics and the Ph.D. degree in microelectronics from the University of Seville, Spain, in 1993 and 2000, respectively.

Since 1993, he has been working with the Institute of Microelectronics of Seville (IMSE), which is its turn part of the Spanish Microelectronics Center of the Spanish National Council of Scientific Research (CSIC). He is currently the Vice Director of IMSE and he is also a Full Professor with the Department of Electronics and Electromagnetism, University of Seville. He has coauthored over 230 international publications, including journal and conference papers, book chapters and the books *Systematic Design of CMOS Switched-Current Bandpass Sigma-Delta Modulators for Digital Communication Chips* (Kluwer, 2002), *CMOS Cascade Sigma-Delta Modulators for Sensors and Telecom: Error Analysis and Practical Design* (Springer, 2006), *Nanometer CMOS Sigma-Delta Modulators for Software Defined Radio* (Springer, 2011), and *CMOS Sigma-Delta Converters: Practical Design Guide* (Wiley–IEEE Press, 2013, 2nd Edition, 2018). His main

research interests are in the field of analog and mixed-signal integrated circuits, especially high-performance data converters, including analysis, behavioral modeling, design and design automation of such circuits. He has participated in a number of Spanish and European research and industrial projects in the above areas.

Prof. de la Rosa has served as a Distinguished Lecturer for the IEEE Circuits and Systems Society from 2017 to 2018. He is a member of the Analog Signal Processing Technical Committee of IEEE-CASS. He has served as the Chair of the Spain Chapter of IEEE-CASS from 2016 to 2017. He served as the Deputy Editor-in-Chief for the IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS—PART II: EXPRESS BRIEFS and as an Associate Editor for the IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS—PART I: REGULAR PAPERS, where he received the 2012–2013 Best Associate Editor Award. He was also a Guest Editor for the Special Issue on the Custom Integrated Circuits Conference in 2013 and 2014 and the Special Issue of the IEEE JOURNAL ON EMERGING AND SELECTED TOPICS IN CIRCUITS AND SYSTEMS on Next-Generation Delta-Sigma Converters. He is a member of the Steering Committee of IEEE MWSCAS and he has been involved in the organizing and technical committees of diverse international conferences, among others IEEE ISCAS, IEEE MWSCAS, IEEE ICECS, IEEE LASCAS, IFIP/IEEE VLSI-SoC, and DATE. He served as the TPC Chair of IEEE MWSCAS 2012, IEEE ICECS 2012, IEEE LASCAS 2015, and IEEE ISICAS 2018 and 2019. He has been a member of the Executive Committee of the IEEE Spain Section from 2014 to 2015 and from 2016 to 2017, where he served as a Membership Development Officer from 2016 to 2017.