

Editorial

How to maintain the highest quality standards of a leading journal after three decades: An extraordinary Editor-in-Chief leading by example

This is my deep honor and great pleasure to share my thoughts on the celebration of almost 3 decades of continuous publication of the *Integrated Computer-Aided Engineering* (ICAE) Journal. Of course such an international journal is indebted to its Editorial Board, to the numerous reviewers, to the even more numerous authors who trusted the journal and to the readers, and I would like to thank them all for their willingness, their work and their trust. In the current case, the journal's excellence is also in no small measure due to the work and personal involvement of its founder and Editor-in-Chief, Professor Hojjat Adeli, and I would like to emphasize his vision and work in the next paragraphs.

I was greatly honored when Prof. Adeli asked me to join the ICAE Editorial Advisory Board in 2000. This enrolment lasted until 2006. Around this date, I became the Chief of the French section of IEEE Signal Processing Society (2003–2013), then an Associate Editor of the IEEE Transactions on Signal Processing (2005–2008); since these commitments generated more demanding tasks, I had to resign from my ICAE duties. But I have been serving the ICAE journal as a member of the Editorial Board again since 2017, which is very motivating. Thus, in the light of my own experience, I can make several remarks.

First, it is most unusual for scientific journals to keep the same Editor-in-Chief for such a long time: such a position must generate an enormous workload, obviously not compatible with a mere scientific activity, and the enthusiasm of any normally skilled scientist begins to fade over the years. When I compare my two terms with ICAE, I can assure that our EIC's engagement in

this journal has been constant over the years, albeit Prof. Adeli's scientific outreach is one of the most prominent and influential researchers of our time. Second, one can see that, nowadays, high standard scientific journals have to cope with a couple of rather new challenges: the growing number of potential publications and the inevitable broadening of their scope.

On the one hand, the number of papers spreading over the scientific and technical fields of the journal has been dramatically increasing over the last decades. Many new small conferences in touristic locations, many internet-only journals, without solid reviewing policy, generate a lot of papers, which is part of the equation. Concurrently, it is fairly easy for a scientist to upload preprints over the Internet which are made available without any review, which are sometimes unfinished papers (or papers without any verified result), all these materials making cross-references: this is another quite substantial part of the same equation. One of the risks in such an absence of sufficiently strict rules and sufficiently rigorous selection criteria is that excellent works may be drowned among the noise.

Nevertheless, the ICAE journal has always maintained (almost) drastic selection rules. I have reviewed plenty of submissions myself and managed 3 special issues for the journal over the years. Each time, I noticed how rigorous and demanding the selection process was, which may be highlighted by the fact that the number of detailed reviews requested by Prof. Adeli may amount up to 8 (which may be a side-effect of my second argument below).

On the other hand, in the era of global approaches and systems of systems, most of the works have to deal with several Applied Mathematics and Computer Science fields. The potential applications of a paper, in terms of multidisciplinary, are a key issue; for instance, it might be difficult for a journal to focus on classical Signal Processing only, since the variety of techniques and approaches useful for Signal Processing is enormous. Moreover, modern readers may be interested in publications on innovative techniques with a clear positioning and synthesis of their domain. It is therefore desirable to favor interdisciplinarity at the scientific level.

As stated by its founder, the ICAE journal has interdisciplinarity in its DNA. I found in the inaugural issue of the journal published, in July 1993, the following excerpt: “[. . .] *ICAE is based on the premise that interdisciplinary thinking and synergistic collaboration of disciplines can solve complex problems, open new frontiers, and lead to true innovations and breakthroughs*”. The editorial policy, this visionary statement in particular, added to Prof. Adeli’s firm but courteous (and patient!) lead, have resulted in a journal whose impact factor comes top in the ranking of similar publications.

The qualities of the journal pertain to the variety and homogeneity of the subjects, the very high selection criteria, and the quite short publication delays. They are the result of a considerable work, and we are grateful to Prof. Adeli for having achieved it over such a long time and for his dedication to the journal. This work related to the dissemination of knowledge is highly respectable and matches the same excellence standard as the remarkable career of the Editor-in-Chief: Professor Hojjat Adeli has been awarded five Honorary Doctorate and appointed Honorary Professor for his outstanding scientific achievements at many universities around the globe.

To sum up, happy birthday to the journal, and let us remain focused for the next decade.

Jacques Blanc-Talon
Directorate General of Armament, Paris, France
E-mail: sci.blancalon@sfr.fr