Editorial: A Message from the New Editor-in-Chief

In the past 10 years, *ACM Transactions on Reconfigurable Technology and Systems (TRETs)* has offered the research community an exciting window to reconfigurable technology and systems research. Led by a couple of remarkable Editor-in-Chiefs (EiCs), the journal has been truly exceptional to provide the community an outstanding forum to advance the most innovative ideals, visions, and solutions in the reconfigurable technology world. The journal is also designed to help the community grow significantly in terms of the scope of research, the number of active researchers in our community, the number of attendees at our conferences, and the engagement of industry.

Meanwhile, our community has also become increasingly interdisciplinary, with acceleration for machine learning, cloud computing, and IoT applications emerging as prominent directions. We have an exciting opportunity now to significantly grow the societal impact of the reconfigurable technology and the footprint of research on TRETs-related topics if we can act swiftly and wisely. As the new EiC, my goal is to make *TRETs* a top journal in ACM, and a stronger *TRETs* will also help our community to grow stronger with a bigger impact. To achieve this goal, I think we need to focus and work on the following five areas.

- (1) Build an effective editorial board in ensuring the journal's health and success. Generally, the AE (Associate Editor) board should meet the following criteria: (1) Each AE has research interests in common with the mission and scope of *TRETs*. (2) Each AE is well-respected in the reconfigurable technology community and is actively involved in research. (3) Each AE has a strong willingness to drive journal activities responsibly in a timely fashion. (4) Each AE helps broaden the scope and increase the visibility of the journal across a rich set of disciplines, sub-disciplines, and research areas. (5) The AE board formation also supports strong diversity in terms of both gender and racial representativeness and geographical areas. (6) As our field continues to expand into new directions and applications, it is critical that we appoint new AEs that possess the expertise to handle papers in these emerging areas. Based on the criteria described above, I am excited to announce that a new AE board has been formed for the 2019–2022 term with 23 AEs, covering various existing and emerging research areas on reconfigurable technology and systems. Among them, 11 are new AEs who joined the AE board on March 1, 2019. The typical AE term length is 3 years, and the term can be renewed once if the AE has been doing an excellent job and is passionate about continued service.
- (2) One of the greatest challenges facing *TRETs* (and, in fact, all journals in ACM) is the community's adoption of our top conference (FPGA, FCCM, FPL, and FPT) papers as terminal in the sense that many authors do not expand their conference papers into journal articles. However, I believe science is better served by researchers taking the reviewers' comments out of the review process and feedback they received at a conference, and extending/improving their work in a more developed journal article. A journal article not only offers an iterative rebuttal process, but its increased length provides additional space for the technical details required for reproducibility. As a matter of fact, I recently increased the page limit to 32 pages for all *TRETs* articles to further strengthen this

important aspect. Meanwhile, the mechanisms already introduced, such as conference “top papers” fast-tracked as *TRETS* journal articles and special issues/sections on emerging topics, all represent effective incentives for *TRETS* submissions. We should continue to explore creative ways to incentivize conference paper authors to take the time to further develop their work and submit it to *TRETS*.

- (3) Another important challenge is further enhancing the reputation and impact factor of the journal. *In any given year, the impact factor of a journal is the number of citations, received in that year, of articles published in that journal during the 2 preceding years, divided by the total number of articles published in that journal during the 2 preceding years.* Based on this criterion, high article quality and top articles published on important or emerging research areas would lead to higher citation numbers. Timely special issues/sections and fast-tracking the best set of papers from the top reconfigurable technology conferences will continue to provide strong incentives to submission and improve the citation count of the journal. Invited industrial papers on important topics or future trends can be effective to provide leadership for the journal as well. Meanwhile, I will work closely with the staff members of the journal to support pilot initiatives that might help further streamline the review process for reducing the average-time-to-decision, which can incentivize the top researchers to submit their work to the journal. We will also evaluate the possibility and potential benefit of the “journal first” model, where *TRETS* would coordinate with one of the conferences in our community so that the review process for the conference is actually the journal review. Accepted papers appear in the journal, and then authors are invited to attend the conference to present their work.
- (4) We will make a coordinated effort to reach out to conferences and communities where reconfigurable technology can potentially play a growing role. Such areas can be related to cloud computing; software-defined hardware; programming and compilation; IoT; machine learning; vision and language processing; biology and health; robotics; security; embedded systems; automobile, aerospace, and manufacturing industry; and the like. We will develop informational materials for such outreach purposes. All the AEs are encouraged to attend such conferences for mutual benefits as well.
- (5) An Industrial Advisory Board will be formed with about 5–7 members. Such an Advisory Board can become a tremendously valuable resource to provide input on the new challenges and trends taking place in our community and industry, suggest industrial authors for writing invited or keynote papers, suggest names for industrial AEs, recommend topics for special issues, and provide advice for the future directions of the journal. Also, one important topic to discuss is the right balance between the industrial and academic papers. While many R&D results from the industry are not published due to various reasons, encouraging industrial researchers to share more of their innovative solutions through *TRETS* publications can be very helpful for stronger industry/academia collaborations, which can lead to faster technical advances in our field.

I am very excited to lead the journal for its continued success and growth for the next 3 years, relying on great help from the AEs, industrial advisors, and journal staff members. With determination, vision, passion, and diligence, we will succeed.

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