

# The Best Job in the IEEE

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*Editor-in-Chief, 2013–2018*

I am ending my term as the Editor-In-Chief (EIC) of the PROCEEDINGS OF THE IEEE in December 2018. My reflections on the past six years are overwhelmingly good. Since I cannot repeat any tenure with the PROCEEDINGS due to term limits (probably a good rule for many positions both in professional societies and politics), I am looking for other opportunities to serve my professional society. After some searching and discussions with colleagues, I have come to the conclusion that I have reached the pinnacle of opportunities in the IEEE. Simply put, this is the best job in the IEEE.

There are undoubtedly IEEE positions that are more influential and have a higher profile. It is not a position that allows one to direct the future of the organization. I do not think that the EIC position is a stepping-stone to administrative or organizational greatness. For me, the position has many benefits and very few liabilities.

One of the advantages of being EIC of a journal is the ability to keep current on the special topics of the publication. The IEEE TRANSACTIONS are among the most highly rated technical publications in the engineering community. The editors of these journals see most of the new ideas in their areas and help guide authors and reviewers to produce top quality research papers. This is certainly gratifying and much appreciated by the IEEE community. However, it is also highly stressful. Dealing with conflicts in technical judgments and producing diplomatic decisions take a toll on one's emotional well-being. Finally, the EICs of transactions must deal with very heavy loads of manuscripts, which are parceled out to associate editors, who often must be monitored to assure that the flow of reviews is maintained in a timely manner. The supervision of people and manuscripts is a difficult administrative task.

The PROCEEDINGS has several advantages over other IEEE journals that make the life of the EIC much better. The scope of the PROCEEDINGS is the entire technical domain of the IEEE. This might seem daunting, since nobody can be an expert in all areas of electrical and computer engineering and computer science. While the scope is huge, the goal of the PROCEEDINGS is not to publish cutting-edge research but to produce surveys, reviews, and tutorials that inform the IEEE Community about the current state of technology, its possible directions, and future problems and opportunities. A major emphasis is to explore the relationships between technical areas. We encourage the authors to write at a level that will allow readers with a solid engineering background to learn about the authors' areas. To be sure, the papers are not trivial but we hope that the introductions to papers and to special issues will present the readers with the basic principles needed to widen their understanding of our tremendously diverse field.

One of the advantages of the EIC position is getting the notices of the papers ahead of time and being able to browse them without having to be responsible

for the technical review of the papers. I get to sense the directions of various fields with the IEEE Community, without the stress of detailed evaluation of the papers. The heavy lifting of evaluating the papers in a special issue is done by the guest editors of the issue. In the case of regular papers, Vaishali Damle, the Managing Editor, coordinates most of the reviews, keeps track of the reviewers, and keeps them on schedule. Ultimately, the EIC is responsible for the final product, but there are very few really tough decisions.

The reason for my easy life as EIC is that the PROCEEDINGS has an excellent Editorial Board that is supported by outstanding IEEE staff. There are only a few things that I can claim credit for in helping the PROCEEDINGS maintain its high standing in technical publishing. One of them is working with Vaishali Damle to nominate members of the Editorial Board. The board meets once a year to review the past year and to plan for the future by suggesting topics for special issues and regular papers. This brainstorming session lasts only one day. The hard work comes afterward when the board suggests the candidates for guest editors and authors of regular papers. This selection is probably the most crucial step in the process of producing our high-quality journal. Good people with good reputations and

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solid credentials are needed to produce good work.

As mentioned, the PROCEEDINGS specializes in surveys, reviews, and tutorials. The guest editors and authors that we seek are those who have deep knowledge of a topic and a wide perspective to see the relationships between various aspects of their topic and other topical areas of the IEEE. Working with these people is usually very easy. Their experience and high standards are large contributors to the success of the PROCEEDINGS. But, this is just to start.

Once the topic is selected and the guest editors have accepted the invitation to submit a proposal for the special issue, their work begins and our work is mainly keeping track of their progress. When the proposal is submitted, then the editorial board's work begins. The board is composed of just under 40 members, whose expertise covers almost all major areas of interest within the IEEE. For any particular topic, there is almost always a member, and sometimes several, who is familiar with the topic. However, remember that our surveys, reviews, and tutorials are meant to acquaint readers with new areas and new ways of seeing-related problems. This means that it is important to get the evaluations of board members who are obviously smart, but are not experts in the proposed topic. We need to know if the proposal shows that the issue will be widely read by the IEEE membership. The considerations for this include the importance of the topic to a large percentage of IEEE members, the quality and coverage of the subtopics addressed by the issue, and the level at which the papers are written. The papers need to contain the introductory material needed by readers in areas peripheral to the main topic that will allow them to put the new ideas in perspective for their interests.

The IEEE is an international organization with diverse members spread across the world. We try to have a board that reflects this geographic diversity. This is beneficial to me, since I get to interact with a group of highly accomplished engineers from all over the world. I gain new perspectives and insights not only from the annual board meeting, but also from dinner conversations at other IEEE venues and email exchanges during the year. The board's diversity is also one of the things that makes my job both easy and enjoyable. These people, collectively, have a tremendous network of technical connections. In reviewing the proposals, they often suggest additional topics to augment those proposed and suggest additional authors who can give details and perspectives from regions with which the guest editors may not be familiar. I may have my ideas on the proposal, but I have the resources of the Editorial Board that makes most decisions relatively easy.

A typical section of the outgoing EIC's article is one that summarizes the success of their journal. My problem with the PROCEEDINGS is that it was doing very well when I came on board in 2013. I would have liked to have moved us from number two to number one or from number six to number four, depending on which category we are considering. The truth is that the PROCEEDINGS is pretty much in the same relative position within all journals in the ECE area and within all IEEE JOURNALS. The same is true of the bibliometrics such as impact factor, eigenfactor, and article influence score. They have all varied closely about 9.1, 0.04, and 3.3, respectively. Some years up slightly; some years down slightly, but always in the top six. I like to think of the long tail of citations of the PROCEEDINGS. Articles published many years ago are still highly cited. The cited half-life of the

PROCEEDINGS, the year for which half of the year's citations occurred before and half after, is over ten years. That is as precise as the metrics get.

Another measure of usefulness is the number of downloaded articles. This is an interesting metric but subject to much debate as to its significance. On the one hand, there is no way to tell whether the downloaded article was actually useful or not. We do not know if it was read and later cited, or used by someone in industry to create a product, or just deleted after the user read the abstract. On the other hand, downloads are a measure of popularity, not unlike having many friends on Facebook or "retweets" of your Twitter comment. It is a positive indication that people are frequently downloading articles published over 30 years ago.

Perhaps, I should be satisfied with succeeding in what I thought was part of the Hippocratic Oath, "First do no harm." I checked online and discovered that this was not part of the original oath, but added much later. This is another good thing about the EIC job. In addition to clearing the low bar of doing no harm, I get to throw in a bit of trivia and nobody can stop me.

I thank the IEEE staff, who were most helpful during my tenure: Vaishali Damle, the Managing Editor, and Jo Sun, the Senior Publications Editor, for the PROCEEDINGS. They were fun to work with and kept me out of trouble—mostly. It was a pleasure to work with Fran Zappula and Dawn Melley, who served as Senior Directors of Publishing Operations during my tenure. The members of the Editorial Board during my six years as EIC are too many to name individually. As I have noted above, they are the ones who are most responsible for the continued quality of the journal. I leave the PROCEEDINGS in their good hands. ■