



publications | ahmed rubaai

Our Review Process and Impact Factor

The IEEE Industry Applications Society (IAS) Executive Board has decided upon a number of steps to further improve the ranking of its publications, particularly that of *IEEE Transactions on Industry Applications* (*TIA*). This special report is aimed at authors, reviewers, and associate editors and encourages them to become acquainted with these new policies. There is no intention here to significantly change the way the transactions function, and have functioned for almost 50 years, to everyone's benefit. However, the minor adjustments, detailed below, are expected to go a long way in helping the transactions last for another 50 years or more in an increasingly global, diverse, and competitive environment.

Background

Whether we find it desirable or not, the reality is that all IAS publications are increasingly being measured against and compared with other publications. Various metrics for this have been proposed over the years, the most widely used being the "impact factor." This was created by Thomson ISI in 1975 and is now calculated and tabulated, along with several other publication metrics, in the biannual *Journal Citation Report* published by Thomson Reuters, Inc. (a private company headquartered in New York). The impact factor is defined as

the average number of citations of articles in a given journal over a two-year period divided by the number of articles published in that journal over the same period.

In 2011, *TIA* ranked 66th out of 244 worldwide journals in the electrical and electronics engineering category. In the narrower "multidisciplinary engineering category," its ranking is 11 out of 90 worldwide journals (and first among IEEE journals). There is another less-used metric where the IAS clearly shines. This is the "half-life" of its transactions, which has been consistent over ten years. This means, in a nutshell, that IAS papers are still being read ten years after they are published. Only 11 IEEE publications have such a longevity (out of a total of 106). Taken together, this is a clear indication of long-lasting quality. However, it may be argued that the shorter-term metrics cannot accurately reflect to an outside observer what practitioners in the field of industry applications know of the transactions. It is for these reasons that the IAS Board has taken the following steps.

Decisions

As is clear from the definition of the impact factor, there are two ways to improve this metric. One is to make sure the papers accepted for publication draw significant readership. The other is to ensure that IAS papers are properly referenced. Accordingly, authors, reviewers, and editors are encouraged to do the following:

- Ensure that papers fall well within the scope of the IAS.

One way of showing relevance is by reviewing the content of previous IAS publications and including them as references when appropriate.

- IAS transactions papers are always previously presented at conferences. It is critical, before a paper goes to print in the transactions, to update any reference to an IAS conference paper with the newer, peer-reviewed version published in *TIA* or *IEEE Industry Applications Magazine* (*IAM*), if it is available.
- Strongly encourage special issues and survey papers. These papers, with their exhaustive bibliographies, are very popular with the readership.
- Engage more guest editors to attract quality papers and improve the review process.
- Encourage committee leaders and others to invite high-quality papers from IAS conferences for publication in *TIA* or *IAM*.

Importantly, all of these measures, although encouraged, should remain voluntary. It is not the intent of the IAS to place a new, artificial burden on prospective authors. Rather, the goal is to further enhance the professional quality of *TIA*, built over time by our predecessors, for the benefit of the next generation of engineers.

If you have any questions or comments, or are looking for further clarification, please contact me, the IAS publications chair, at arubaai@howard.edu. **IAS**