From the Editor’s Desk: Reviewing Reviewers

Abstract: This is an Editorial for the August, 2010 issue of IEEE Microwave Magazine. Kate Remley, the Editor-in-Chief, writes about timely topics for the members of the Microwave Theory and Techniques Society (MTT-S).

Keywords: Editorial; Microwave Magazine

Disclaimer: Publication of the U.S. government, not subject to copyright in the United States.

A cornerstone of the IEEE publication process is the anonymous peer review that every manuscript receives. All technical manuscripts submitted to any of the three MTT Society publications – IEEE Transactions on Microwave Theory and Techniques, IEEE Microwave and Wireless Components Letters, and IEEE Microwave Magazine – receive at least two reviews (the minimum required by the IEEE). With one or two exceptions, we have managed to find at least three reviews for every technical feature and Application Note published in the Magazine since I have been the Editor.

The reviews are intended to ensure technical accuracy, quality, and clarity, by asking experts in a given topic area to read and comment on the material. The idea behind conducting anonymous peer reviews is one of fairness: articles by well-known authors with “big names” receive the same level of scrutiny that articles by graduate students do. Each publication uses a different set of criteria by which articles are judged, because each publication emphasizes different aspects of microwave engineering. For your information, the currently used set of review questions for each publication are listed in the sidebar “MTT-S Publication Review Questions.” Each editor is free to tweak them during his or her tenure, so the questions change from time to time.

Most reviewers follow the golden rule “Do unto others as you would have them do unto you” by offering constructive criticism to authors. However, I have been amazed by the extent to which some reviewers “pull the stops” and launch into attacks on authors whose primary offense was to write a less-than-stellar, inaccurate, or incomplete paper.

I understand that, during these busy times, reviewers do not want their time wasted. But please, let’s not forget civility! Here are some examples (paraphrased), along with some thoughts on what would have sufficed instead:

“In all my years of reviewing, I find that this to be a world champion for excess waste of space. The article is written like an encyclopedia, by someone paid by the word.” Here, I would suggest that the reviewer simply state plainly that the article is too long.

“This article seems to be about measuring resonators of some sort.” Here, a statement such as “Please clarify the contribution of the manuscript” would do.
“I am exasperated by the woeful lack of references” and “The use of the English language is painful to read.” The modifiers probably aren’t necessary.

As discussed in the March 21, 2010 column “Texts Without Context” by Michiko Kakutani in the NY Times Sunday Magazine, the internet has exacerbated a mode of interaction that emphasizes a critic’s interpretation of a text, rather than the text’s actual content. These qualities are enhanced, he says, by the anonymity, peer pressure and mob rule that thrive online. While I don’t think “mob rule” is an appropriate term for what we are experiencing, it does seem that the anonymity of the review process enables some reviewers to “take the gloves off,” that is, come up with rather rough ways of getting their point across.

Let me reiterate that reviewers are the lifeblood of the IEEE’s publications: technical reviews are of invaluable help to editors who are trying to judge manuscripts that may be outside the area of expertise of the editor and to authors who are trying to understand areas where their manuscript shines and where it needs help. It is interesting how a manuscript that seems to be complete and well written will almost always have some subtle errors, lack the historical context, or draw a faulty conclusion when evaluated by experts. We are fortunate that our Society has many such experts and that they are willing to give of their time to assist in making our publications some of the highest rated in the IEEE. This is my way of saying that the MTT-S is a professional society – and a classy one. I hope we can all do our part to live up to these expectations.

-----------------------------------------------
SIDEBAR: MTT-S Publications Review Questions

Each of the three MTT-S print publications fills a distinct role within the Society, and the questions that are used in their technical reviews reflect this. Articles in the Transactions on Microwave Theory and Techniques are intended to provide a comprehensive description of a new area of research, distinct from previous publications by the authors. Microwave and Wireless Components Letters of course emphasizes speed of publication, but also a description of the contribution in a concise, complete way. Finally, anyone who has recently submitted an article to IEEE Microwave Magazine knows that we emphasize overviews and tutorials, rather than original research. The Magazine’s goal is to publish clearly written articles that are technically sound, yet not written for experts only. The review questions are interesting in that the editors develop them to try and ascertain whether each manuscript fits within the scope of their particular publication, as well as being technically accurate.

Transactions on Microwave Theory and Techniques review questions:

FOR THE AUTHOR:
1. The Transactions on Microwave Theory and Techniques only accepts new and original articles describing significant work and/or ideas not found elsewhere in the literature. Is this work a new and original contribution in the area of Microwave Theory and Techniques?
2. The Transactions does not accept incremental submissions. After considering all prior work published by the authors and others, would you characterize this submission as incremental?
3. All related previous work by the authors must be referenced, even if it was presented in conference. Is previous work by the authors properly referenced?
4. Is the work of others properly referenced?
5. The Transactions generally requires that theory, measurements, and simulations be supported by careful comparisons. Do the theory, measurements, and simulations presented meet this requirement?
6. Please comment on the organization, quality of the writing, spelling and grammar. Does this manuscript need grammatical revision?
7. How significant is this work?
Additional comments and suggestions for the author:

FOR THE EDITOR:
1. If you were the editor, would you accept this paper? (If not, and this is not clear from your previous comments, please explain.)
2. Would you like to nominate the paper for the Microwave Prize?

-------------------------------------------------------------

IEEE Microwave Magazine review questions:

FOR THE AUTHOR:
1. Is this work of interest to a broad cross-section of MTT-society members?
2. Is the manuscript written at a level that will allow most MTT-society members to understand it? It should not be written for experts or researchers only.
3. Is the paper well organized and clearly presented?
4. Is the work technically sound?
5. Is the English satisfactory?
6. Does the article make good use of color figures and tables? If not, are there places where color could provide value?
7. Do the authors depend too much on equations? Are there places where conceptual descriptions or figures could be used to replace equations?
8. Is the presentation of the work new? (e.g. does it provide an overview of the state-of-the-art?, a unique historical perspective?, an emerging applications perspective?, etc.)
9. Is previous work by the authors and others properly referenced?
Additional comments and suggestions for the author:

FOR THE EDITOR:
1. If you were the editor, would you accept this paper?
2. Other comments?

-------------------------------------------------------------

IEEE Microwave and Wireless Components Letters:
The Letters focuses on originality, novelty, (both strongly related to references to earlier work) and repeatability (can the results of the paper be repeated by others or not). These are emphasized in the “Score Sheet” used by reviewers in Manuscript Central, the web-based program where papers are submitted and reviews are uploaded.