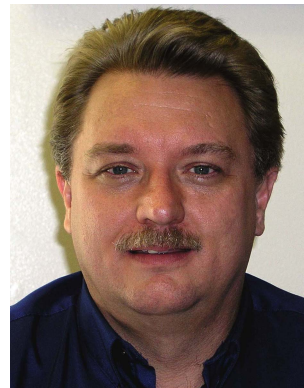


# From the Editor-In-Chief:

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## Value of Peer-Review

I have served as an editor for peer-reviewed journals since 1996 and during those thirteen years, I have been exposed to numerous complaints about the peer review and publication processes. The most common complaint relates to the delay in publication that results from the peer review process. Another common complaint relates to popular opinion that novel results from newcomers are rejected to protect the interests of those in the research community. In other words, the researchers are members of a “good old boys club” that rejects the results of those outside the “club.” Before I address these criticisms, let us consider the value of the peer review and publication processes.

In order to illustrate the value of peer review and publication process for journals, I conducted a search of IEEE Xplore for papers with keywords of interest to those involved in information fusion. I restricted the searches to IEEE journal articles in 2008. I then restricted the search to IEEE conference articles in 2008. I also restricted the searches to IET journal articles or IET conference articles. The results are shown in the table. For “target tracking” as a keyword, 83 articles were found in IEEE Journals and more than 500 articles were found in IEEE conference proceedings. These are the numbers of manuscripts published in only one year. Similar ratios of IEEE journal articles to IEEE conference articles were found for “data fusion,” “information fusion,” and “nonlinear filtering” as keywords. Since it is unrealistic for a researcher to read all of these manuscripts in their active areas, researchers must focus their energy on selected articles. By focusing on journal articles, researchers can greatly improve their efficiency.

Why should researchers focus their energy on the journal articles? First, each journal article has been reviewed by at least two peers who have recommended it for publication as an original contribution with accurate results. The standards for peer review of conference papers vary from a single review of an abstract to a review of the complete manuscript. Second, the referees of journal articles provide input to the authors for improving their manuscript and two or three review

cycles are conducted to ensure that the comments of the referees are properly addressed. The peer review of conference papers is often time driven by the conference schedule and typically includes no checks of manuscript revisions. Third, the editorial staff of journals read the manuscript for inconsistencies, clarity, and typographical errors, while the final version articles of conference proceedings are seldom read by the technical program committee. Therefore, the peer review and publication processes of journals greatly improve the efficiency of researchers by helping them to focus their efforts on articles that have meet standards on quality and originality. With the high rate of publications in the areas of information fusion, it is unrealistic for researchers to spend time on all articles in their area and spending time on articles that are not original or incorrect will further degrade their efficiency.

Information-Fusion Related Articles found in IEEE Xplore from 2008

Keyword	Number of Articles from 2008 in IEEE Xplore			
	IEEE Journals	IET Journals	IEEE Conferences	IET Conferences
Target Tracking	83	16	>500	19
Nonlinear Filtering	43	2	256	2
Data Fusion	42	2	383	5
Information Fusion	17	0	238	0

During my first few years as an editor, it was common for the first review cycle for a manuscript to take a year and completion of the peer review process would take more than two years. Today, with the use of web-based systems for managing the peer review process, the typical review periods have been reduced to four months for the first cycle of review and less than a year

to complete the peer review process. Thus, significant progress has been made in reducing the delay in the publication of manuscripts due to the peer review. Considering the value of a rigorous peer review process, the current delays are very reasonable. This is particularly true for JAIF that is operated by editors and referees who are volunteers. Achieving further reductions in the time required by the peer review process presents a significant challenge because the more talented reviewers tend to be very busy with other projects for their employer and JAIF is competing for their time to serve our profession as a volunteer.

From history, we know that innovative solutions to challenging problems have been rejected by the peer review process. With today's standards of three or four reviewers per manuscript, the rejection of papers with innovative results is less likely. If one of the reviewers provides evidence of a thorough review and recommends the manuscript for publication, it is difficult for an Associate Editor to reject the paper unless a second reviewer finds a technical flaw in the results. Since all manuscript reviews are archived in the web-based review system, the peer review process can be audited at any time by the EIC. Furthermore, the EIC regularly monitors the performance of the Associate Editors in order to ensure the integrity of the peer review process. Also, the authors can appeal the publication decision of the Associate Editor to the Area Editor and EIC. Since the review process is thoroughly documented and archived, these appeals can be addressed fairly in a timely manner. Thus, the likelihood of a paper being rejected because of the personal biases of the reviewers or editors is greatly diminished with the peer review processes in use today.

Sincerely,  
William Dale Blair  
Editor-In-Chief