

IEEE Strengthens Publishing Integrity

IEEE, the world's largest technical professional organization dedicated to advancing technology for humanity, is committed to ensuring the integrity and quality of published research. IEEE is the publisher of more than 30% of the world's current literature in electrical engineering, electronics, and computer science, and sponsors or cosponsors over 1,900 technical events around the globe.

IEEE focuses on quality in all aspects of its published research and requires strict adherence to its publication policies. When IEEE identifies potential violations of its ethical standards or publication misconduct, it conducts careful reviews, providing due process for all involved, and will retract articles if warranted.

Last year, IEEE retracted 29 articles due to violations of its peer-review process. Recognizing that a high-integrity peer-review process is essential to maintaining trust in the published record, the IEEE Board of Directors formed a Committee to review the policies, processes, and systems used by IEEE to manage peer-review.

This report is a summary of the Committee's findings and recommendations, which will be implemented over the next year.

Retractions represent a commitment to integrity

IEEE seeks to be a leader in developing and sharing best publication practices and implementing procedures that ensure that the highest quality research reaches the largest readership. IEEE recognizes that industry-wide, there will be situations where individuals might engage in unethical behavior for their personal advantage. As a result, there is a need to remain continually vigilant and to seek to refine and improve our publication integrity measures.

It has been reported that news of publication retractions is increasing specifically because editorial practices are improving and journals are serious about rooting out misconduct.¹

IEEE continually reviews and updates its community-led, consensus-driven processes and provides robust guidance and tools for authors and peer reviewers to ensure the integrity of research before publication and minimize the need for retractions. IEEE takes research integrity seriously and will continue to retract papers as necessary and appropriate.

IEEE takes concrete action to address misconduct

IEEE is committed to continuously improve the quality control processes used in its publishing workflow. With over 5 million documents available through IEEE Xplore®, IEEE understands that an effective peer-review process is essential to ensure that published research can meet our expectations for the highest quality and credibility. IEEE is committed to continuing to take action to prevent publishing misconduct through a variety of measures and by applying appropriate sanctions to violators when deemed necessary.

To further strengthen the peer-review and editorial processes, IEEE formed a Committee to examine its peer-review management practices and systems. The IEEE Board of Directors recently approved a series of recommendations based on the work of this Committee.

The key findings and recommendations adopted are as follows.

¹ Science

1. Peer-Review Monitoring

IEEE will enhance its ability to carry out a systematic, real-time analysis of peer-review data. The Committee agreed that analysis should focus on two types of metrics: metrics at the publication level and metrics relating to the actions of individuals participating in the peer-review process.

This process will consider not only data from IEEE's sources, but also data available from other publications in IEEE's fields of interest, in order to provide a comprehensive view of publication-related activities. The Committee also recommended that IEEE consider the feasibility of developing alternative or additional publication quality and impact metrics for application to its fields of interest.

2. IEEE Publications Policy Updates

IEEE has adopted robust policies to maintain the high quality of its publications and is confident of the trustworthiness, professionalism, and integrity of the individuals that contribute to creating these publications. Although IEEE has existing research integrity policies in place, we recognize that there are opportunities to strengthen these policies. To support this goal, the organization has moved toward adopting an approach of "trust but verify" regarding its editorial processes, especially the peer-review process. To deter misconduct, IEEE will, as it always has, continue to treat violations of the publication process as serious offenses.

IEEE has made several revisions to its current policies that target various forms of publishing misconduct:

- Plagiarism detection and adjudication
- Detection of inappropriate citations
- Detection of coercion of authors by editors or reviewers

These policies and IEEE's Principles of Ethical Publishing can be found in the IEEE Publication Services and Products Board [Operations Manual](#).

In addition to journals, IEEE annually publishes content from over 1,900 premier technical events around the world. IEEE is equally committed to ensuring the integrity and quality of the research published in conference proceedings and works hand-in-hand with diverse communities of conference organizers, reviewers, and authors to strengthen enforcement of its protocols, impose strict research quality guidelines, and implement a continuous educational process for authors and reviewers.

Some of the improvements already implemented include:

- IEEE has performed a comprehensive review of conference content within the IEEE *Xplore* platform.
- IEEE has created a role-based educational [curriculum](#) with over 20 courses for conference organizers on technical program and publications best practices.
- IEEE has added educational content aimed at conference authors in the [IEEE Author Center](#).
- IEEE has led a cross-publisher initiative that resulted in a [white paper](#) on best practices to address industry-wide conference publishing issues.

3. Deterrents and Sanctions

IEEE is committed to maintaining an open and transparent environment and is continually monitoring, reviewing, and adapting its processes for the future.

IEEE will continue to refine its process for the review and adjudication of cases of misconduct and impose consistent sanctions, when necessary. IEEE is developing an escalating system of sanctions that correspond with severity of violation. IEEE processes for the review of publishing misconduct include:

- Data gathering and analysis
- Formation of an independent committee to review all available data and investigate any possible misconduct
- Provision of an opportunity for any accused person to respond to allegations of misconduct
- Identification and application of appropriate sanctions for any identified misconduct

Sanctions for publications-related misconduct may include:

- Prohibition on publishing with IEEE
- Prohibition on participating in IEEE publication-related activity
- Removal of persons from IEEE editorial positions
- Article retraction

A critical step forward

IEEE recognizes the importance of ensuring a strong peer-review process and the need to protect the integrity of our publishing process. IEEE understands that the threat of unethical behavior and publication misconduct needs to be taken very seriously. IEEE is taking actions to address the issue and will continue to support these efforts. IEEE's updated procedures are intended to further strengthen IEEE's ability to maintain the highest quality and integrity of its publications.

IEEE will implement the recommendations contained in this report over the next year.