International Conference on Environmental Systems Guide to Ethical Publications and the Peer Review Process

Drafted by: ICES Committee 2022

1 Introduction

The International Conference on Environmental Systems (ICES) is an independent, not-for-profit organization dedicated to the dissemination of novel, relevant, and high-quality technical data and information. Topics pertaining to humans living and working in extreme environments with applications inside or outside of terrestrial or outer space habitats or vehicles, including aerospace human factors; environmental control and life-support system technology; environmental monitoring and controls; planetary protection; EVA system technology; life sciences; planetary habitats and systems; and thermal control systems technology for both crewed and uncrewed vehicles are discussed. Through the combined efforts of five committees and an ongoing collaboration with Texas Tech University, conference papers are submitted, peer reviewed, and published online with open access.

The purpose of this document is to clarify publication acceptance criteria for ICES, to outline guidance for the ethical review of conference papers, to define the roles and responsibilities of the ICES Organization Committee members, session organizers, reviewers, and authors, and to provide a clear process for appealing decisions. These processes have been developed based on *COPE Ethical Guidelines for Peer Reviewers* [1] and *Wiley's Best Practice Guidelines on Publishing Ethics: A Publishers Perspective, Second Edition.* [2]

2 Roles and Responsibilities in the Peer Review Process

There are numerous individuals involved in the submission, review, and acceptance of conference publications submitted to each ICES conference. Individuals can assume multiple roles within their participation with the conference, but only a single role with respect to a single submission.

2.1 Author

Authors are considered significant contributors to the technical advancement described in a manuscript and/or to the drafting of the manuscript. Authors are responsible for all content of the manuscript, for ensuring their required organizational reviews are conducted and necessary approvals are received prior to submission, for responding to reviewer comments and questions, and for meeting the published manuscript deadlines.

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[1] COPE Council. COPE Ethical guidelines for peer reviewers — English. https://doi.org/10.24318/cope.2019.1.9 Version 2: September 2017.

[2] https://authorservices.wiley.com/ethics-guidelines/index.html.

2.2   Reviewer

Manuscript reviewers are pivotal to ensuring the overall technical excellence of ICES. Because each manuscript must have three reviews, authors of a manuscript should assume that they will provide three reviews of other papers in order to have sufficient coverage for all conference contributions. Once assigned by a session chair, a reviewer is responsible for reviewing the abstract and confirming that no conflict of interest exists (see Section 3) and for reading the manuscript and providing comments that meet the following criteria:

- Identifies strengths and weaknesses
- Is objective and constructive
- Is specific with recommendations for how to improve and provides references, as appropriate
- Addresses technical content, rather than stylistic preferences

Further, reviewers are responsible for providing their reviews by the requested due date and maintaining the confidentiality of their reviews.

2.3   Session Chair

Each year, dozens of sessions are available for abstract and manuscript submission to the ICES conference. Each session is led by a Session chair and one or more co-chairs. Session chairs are responsible for reviewing abstracts for applicability to their specific session(s), for notifying Committee Chairs if an abstract does not meet the targeted content of their session, for recommending alternative sessions for an abstract (if applicable), for identifying knowledgeable reviewers for manuscripts, for compiling reviews and distributing to corresponding authors, for reviewing final drafts for edited content, for facilitating subsequent reviews, when necessary, and for designating an initial decision on manuscripts (Accept or Reject). It is imperative that Session Chair maintain the anonymity of reviewers throughout the process. Further, Session Chairs are empowered to make the final adjudication to accept or reject a manuscript. However, they are not authorized to communicate the abstract accept or reject disposition; that decision comes directly from the Conference Vice Chair.

2.4   Committee Chair

There are five active committees within the ICES organization. Committee Chairs are responsible for facilitating the submission and review process by engaging and supporting session chairs, by helping to coordinate abstract and paper moves between sessions when needed, and by supporting the review of abstracts and manuscripts for technical content and acceptability. They work with other Committee Chairs to organize the conference as members of the Steering Committee.

2.5   ICES Steering Committee

The ICES Steering Committee is made up of the five Committee Chairs, the Conference Chair and Vice Chair, and the two previous conference chairs. The committee is responsible for upholding the technical excellence of manuscripts and the success of the conference.

2.6   Conference Vice Chair

The conference Vice Chair is considered the Editor of the conference proceedings and is responsible for the final judgement on all content-related decisions, including the decision to accept or reject submitted abstracts and manuscripts.

3   Conflicts of Interest

The ICES-related topics community is relatively small, often resulting in the same individuals organizing, submitting papers, reviewing papers, and presenting papers all in the same session. However, every effort is made to eliminate conflicts of interest in the peer review process. The following rules apply to all reviews:

1. No individual may provide a review of an abstract or manuscript on which they are an author.
2. No Session/Committee Chair or Co-Chair may recommend an accept or reject an abstract or manuscript on which they are an author.
3. No Session/Committee Chair or Co-Chair may modify or update any review of an abstract or manuscript on which they are an author.
4. Committee Chairs may not participate in an appeal of a paper on which they are an author.
5. The Conference Chair will serve as the final decision-maker on papers in which the Vice Chair is an author.
6. The Committee Chairs, Conference Vice Chair, and Conference Chair shall ensure that the conflict of interest scenarios are followed.

4   Acceptance Criteria

Submissions to the ICES conference may only be accepted if they meet the following criteria:
- Relevant to the ICES conference and its technical intent
- Identical paper must not have been published elsewhere prior to ICES
- Focus on the details of technical work and/or progress (versus a sales pitch for a new product or company)
- Provide meaningful NEW information (not simply a summary of previous work)
- Meet basic requirements for technical rigor and quality (e.g., assumptions, analyses, tests, etc. must be valid)
- Satisfactorily address all legitimate comments from reviewers

The process by which these criteria are evaluated for abstracts and manuscripts is described in Section 5. The appeal process is described in Section 6.

5   Abstract and Manuscript Review Process

5.1   Abstract Review Process

ICES has adopted a pre-publication open review process for abstracts[3]. Session chairs perform the abstract review of the submissions to their sessions, and their identities are published each year in the call for papers. Figure 1 provides a process diagram for the ICES abstract review process. An abstract is submitted through EasyChair and is screened by the Session chair and/or co-chairs. Abstracts are designated as ACCEPT, MOVE, or REJECT. An abstract that meets the criteria for the session and meets the acceptance criteria as outlined in Section 3 will be ACCEPTed. An abstract that is determined by either the Session Chair or the Committee Chair to not meet the criteria for the session, but has the

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[3] COPE Council. COPE Discussion document: *Who "owns" peer reviews.* September 2017. www.publicationethics.org.

potential to meet the criteria for a different ICES session, is marked MOVE. An abstract that is either irrelevant to the conference or does not meet the acceptance criteria outlined in Section 3 will be marked REJECT.

All abstracts are reviewed by the ICES Steering Committee following the initial evaluation by the session chairs. Abstracts marked MOVE are discussed and reviewed by the appropriate session chairs before moving to a new session. The Steering Committee designates all abstracts as ACCEPT or REJECT. Authors of accepted abstracts are invited to submit manuscripts per the published conference deadlines. Authors of rejected abstracts have the option of modifying their abstract and/or appealing the decision. See Section 6.1 for the abstract appeal process.
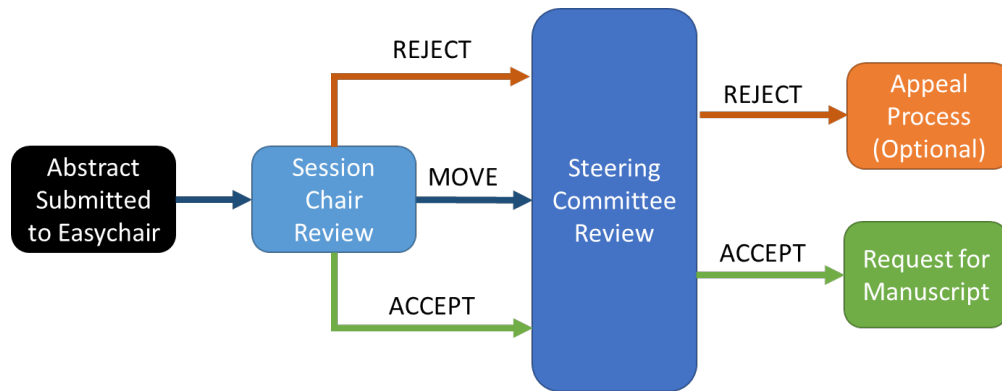

Figure 1. Abstract Review Process.

5.2   Manuscript Review Process

ICES has adopted a pre-publication, single-blind peer review approach for manuscripts.[3] The identity of peer reviewers for manuscripts are never intentionally disclosed and no recognition is given for completion of reviews. Pre-publication drafts are available only to ICES session chairs, committee chairs, the ICES steering committee, and invited peer reviewers. Pre-publication drafts are not disclosed to the public for review. Figure 2 provides a diagram for the initial manuscript review.
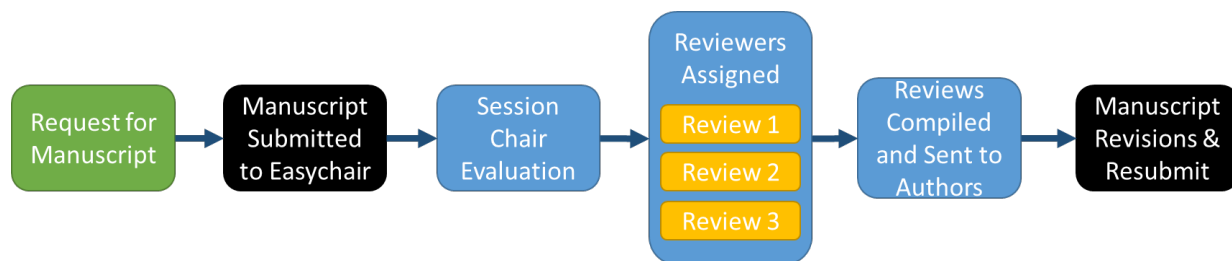

Figure 2. Initial Manuscript Review Process.

Manuscript drafts are submitted to Easychair and the Session chairs conduct an initial evaluation to assess the expertise necessary for a quality technical review. Three reviewers are assigned to each manuscript. Reviewers provide formatting, editorial, and technical review comments and assign a score from -3 to +3 as defined in Table 1. Once complete, the session chairs compile the comments and scores and provide the feedback to the authors. Accurate manuscript formatting is required for final acceptance of the manuscript. Changes to the manuscript based on editorial comments are not required

for acceptance unless they are sufficiently numerous or severe so as to reduce the overall quality of the content. Technical comments must be addressed with either changes to the manuscript or responses to the relevant reviewers.

Revised manuscripts are submitted and the Final Manuscript Review is conducted per the process shown in Figure 3. If all reviewers scored the manuscript between +1 and +3, the session chair will review the edits and confirm that the required content was updated. If it was not, the session chair will contact the authors to complete the additional edits. Once complete, the manuscript is accepted and published. If any of the reviewers scored the manuscript at zero or below, the revised manuscript must be resubmitted to the reviewers for concurrence that the comments were adequately addressed and be rescored in Easychair. At this time, the session chair may add an additional reviewer, particularly if initial review scores varied considerably.

Table 1. Manuscript Scoring Definitions.

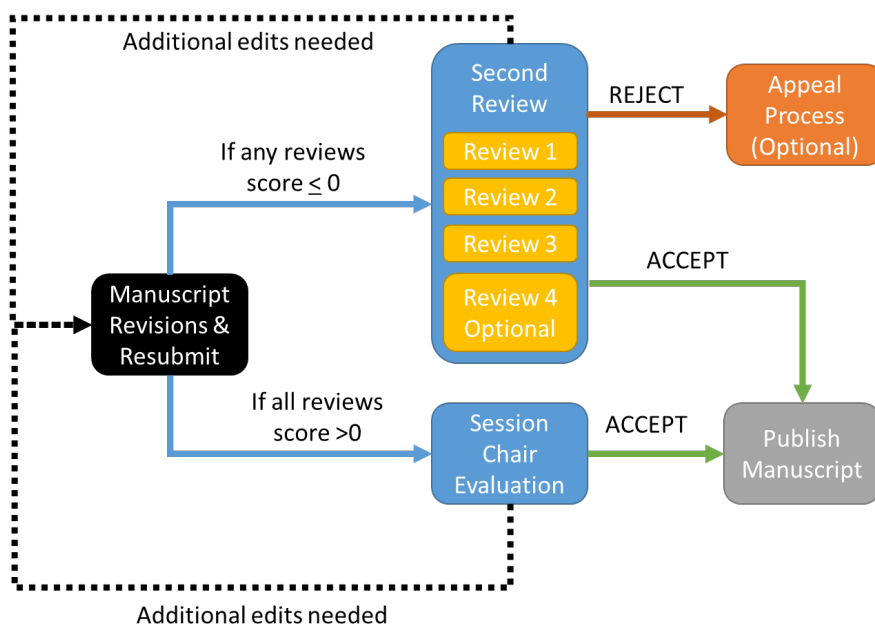| Score	Description
+3	Strong accept
+2	Accept
+1	Weak accept
0	Borderline Paper
-1	Weak reject
-2	Reject
-3	Strong reject

Figure 3. Final Manuscript Review Process.

If the revised manuscript has been revised to the satisfaction of all reviewers, the manuscript is accepted and published. If the manuscript has not been revised to the satisfaction of all reviewers, additional edits can be requested and the manuscript re-reviewed. However, if the authors and one or more of the reviewers are at an impasse, the manuscript is rejected. The authors have the option of appealing the decision. See Section 6.2 for the manuscript appeal process.

6 Appeal Process

Abstracts or manuscripts that receive comments from a peer reviewer must be edited to the satisfaction of any reviewer who gave the document a "reject" rating, if that reviewer had legitimate criticism. A single reviewer's comments matter. A single reviewer can see an error or may have a criticism that may not be seen by other reviewers. All legitimate comments must be satisfactorily addressed in a revision. Authors that wish to appeal the final decision shall follow the appeals process outlined here.

6.1 Abstract Rejection Appeal Process

In the event an abstract is rejected, authors may request an appeal. A diagram of the abstract appeal process is shown in Figure 4. Authors request an appeal through the session or committee chair. The session/committee chair provides the abstract to the conference Vice-Chair for review. The Vice Chair has the options of 1) accepting the abstract and requesting a manuscript, 2) requesting edits to the abstract and re-reviewing, or 3) rejecting the abstract. The Vice Chair has final authority on all abstract acceptance and rejections and their decision is final. The Vice Chair may or may not provide additional comments to the authors.
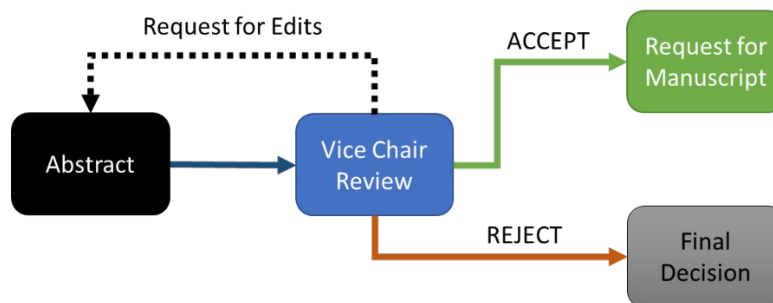

Figure 4. Abstract Rejection Appeal Process.

6.2 Manuscript Appeal Process

In the event a manuscript is rejected, authors may request an appeal. A diagram of the manuscript appeal process is shown in Figure 5. Authors request an appeal through appropriate committee chair. The Committee chair reviews the initial manuscript, the reviewer comments and scores, the final manuscript, and any additional reviewer comments from the second review. The Committee Chair has the option to accept the manuscript or to reject the manuscript. Accepted manuscripts are published. Rejected manuscripts are sent, along with supporting information, to the Vice Chair for review. The Vice chair reviews all documentation and makes the final decision to accept or reject the manuscript. The Vice Chair has final authority on all manuscript acceptance and rejections and their decision is final. The Vice Chair may or may not provide additional comments to the authors.
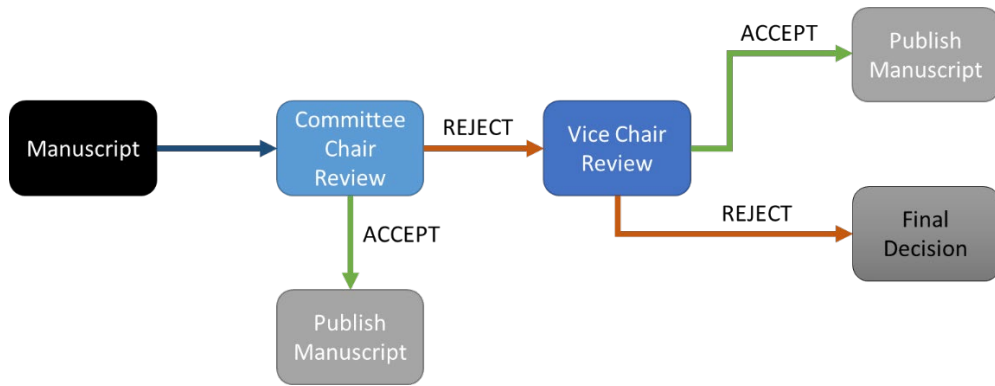
Figure 5. Manuscript Rejection Appeal Process.