Guidelines and Workflow for Articles Submitted to CiSE Departments

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February 22, 2024

Abstract

Purpose: This document provides guidelines for authors of CiSE department articles, and outlines the workflow that department editors follow for submitting articles for publication. **Scope:** The information in this document applies to department articles that are reviewed by department editors. It does not apply to regular articles that are submitted to the journal to be put through the standard peer review; these use ScholarOne for submission management as described in the CiSE Author Information page.

CiSE Departments

Computing in Science and Engineering (CiSE) is a technical magazine of the IEEE Computer Society, in publication since 1999. It publishes peer-reviewed research articles, and also articles in the following departments (or regular columns):

1. Computing Prescriptions
2. Computer Simulations
3. Data Track (peer reviewed)
4. Diversity and Inclusion
5. Education
6. Leadership Computing
7. Novel Architectures
8. Reproducible Research Track (hybrid)
9. Scientific Programming
10. Software Engineering (hybrid)
11. Translational Computer Science
12. Visualization Corner
13. Your Homework Assignment

In the list above, "hybrid" indicates the department publishes both articles by the department editors and invited contributed and peer reviewed papers by members of the computing community. "Peer reviewed" means the department publishes only peer reviewed papers that have been solicited by the department editors.

The corresponding editors and a short description for each department can be found on the CiSE website, under the "Write for Us" menu choice: Department Guidelines.

Guidelines for Authors of Department Articles

CiSE department articles are either written by the department editors themselves, or may be solicited by editors from authors outside the editorial board. In either case, these guidelines govern the form and content of those articles.

CiSE is an interdisciplinary magazine, and articles must avoid use of jargon and be written for a general, technical audience. No advertisements or commercial endorsements will be accepted. Department articles are typically up to 3000 words in length, *including the abstract, references, author bios, figures, and all other text in the article.* When counting words, note that *tables and figures should be counted as 250 words each.* The minimum word count is 1000 words unless you want the article limited to a single page.

Reference lists should have less than twelve items. As a matter of style, do not use references as parts of speech. Citation numbers (e.g., [3]) should be treated as silent elements in sentences that read correctly without them. Note that the IEEE article style in LaTeX will typeset the reference numbers as superscripts.

The length of articles and reference lists are limited because a) the goal of department articles is to give readers rapid insights into a particular topic, and this is best done with a short article that can serve as a guide to further exploration; and b) CiSE has a total page budget set each year by the IEEE Computer Society, and respecting length guidelines means the other parts of the magazine don't have to cut back to account for our overrun.

We have no official template for department articles and any rationally organized, readable form of text is acceptable. If you wish, you can use the standard article template for Computer Society magazines. See the "Article Template" section of the Write For Us page on our website, and follow the link to the IEEE Template Selector.

Department articles are not submitted to the magazine via ScholarOne unless the department editor has identified this as a peer-reviewed submission; review of department articles is the responsibility of the department editors and the Associate Editor-in-Chief for Departments (AEiC/D). Articles may be submitted to the department editors via email or document share as .doc(x) or .tex files (with all accompanying style, bibliography, etc. files, usually all collected in a .zip file), or they may be submitted via Authorea. Once they have approved a submission the department editors are responsible for transmitting the manuscript to the AEiC/Departments who completes a final review and copy edits the article for style and correctness.

Optional Authorea workflow

Authors who are invited to contribute a department article may choose to write or upload their article to the Authorea platform, then send the manuscript to us for review via the green "Submit" button on our Authorea collection. Note that authors will have to create a free Authorea account to take advantage of this option. We will not consider unsolicited articles sent to us via this route.

After review by the department editors, and the Associate Editor-in-Chief for departments, an article sent to us via Authorea can be made public on the platform as an electronic preprint, and will be assigned a DOI. This achieves Green Open Access for the piece. The editorial comments submitted to the author via an Authorea review can also be made public as a preprint. After the version of record is published in CiSE (in print, and online on IEEE Xplore and the Computer Society Digital Library), Authorea will eventually link the two artifacts and display the DOI of the version of record on the preprint.

Guidelines for Department Editors

Expectations for Department Articles and Scheduling

CiSE targets about four or five department articles each issue, depending on the content balance for the issue. Each department should plan to contribute at least two articles per year, ideally three. Articles should be complete and transmitted to the AEiC/D two weeks before the closing deadline for issue content. The Editor-in-Chief (EiC) or the Associate Editor-in-Chief for Departments (AEiC/D) can provide these dates, but they can also be found on the team's "Editorial Schedule" Trello board. All CiSE editors are invited as members to the Trello workspace. The date that we use for department articles corresponds to the "Final decisions" date, which is two weeks before the "Materials due" date. This period of two weeks is to provide input on the article content and for the AEiC/D to do a copy editing pass.

As a reference, these are the deadlines for department articles to appear in 2022 issues:

1. Jan/Feb issue: 11/10/2021
2. Mar/Apr issue: 1/13/2022
3. May/June issue: 3/11/2022
4. July/Aug issue: 5/5/2022
5. Sep/Oct issue: 7/1/2022
6. Nov/Dec issue: 8/26/2022

The EiC and the IEEE publications team is responsible for scheduling completed and approved department articles into issues. If you have an interest in being scheduled into a specific issue, let the AEiC/D know when you plan to submit.

Topics for department articles are selected by the department editor(s), and often written by them as well. *Department articles are not submitted or managed in ScholarOne, the IEEE's peer-review system.*

Publication Workflow: Other than Authorea

When a department editor has an article ready for publication and Authorea has not been used to create or deliver the article, they should follow these steps:

1. Assemble article source

Assemble the final text in a source format convenient for you and broadly used. Editors not taking advantage of Authorea typically deliver .doc(x) or LaTeX source files. This form should include the text features that you believe will help readers navigate the article, including the title, abstract, body text, and subheadings (if applicable), along with tables and figures. As noted above, there is no template, so any rationally organized, readable form of the text is acceptable.

If you are using word-processing software that supports advanced revision and collaboration features (such as MS Word or Google Docs), make sure that the final document is free of tracked changes and make sure the document has no comments; comments that include information for the AEiC/D should be included in the transmitting email, not in the article source.

2. Render the article in final typeset form

It is helpful for department editors to have a PDF version of the article in order for the publications staff to validate that what they get as a proof from the publishing system has the elements you intended in the locations you intended. This is an optional step but does help to minimize confusion.

3. Assemble high-resolution images

Please include "native" images at the highest resolution available as separate files when you deliver your article; many word processors automatically transform inserted images so that the higher-resolution original is not recoverable. Please make sure each image file is clearly named.

- **If you are using software that includes some layout ability** (such as MS Word or Google Docs), you should include a version of the image in your document, about where it should appear in relation to the text. Include a short, meaningful caption, and number the element (i.e., Figure 1, Table 2, ...). Then when you transmit your high-resolution version for publication, use the element label and number (i.e., Figure-1) in the file name such that it is clear to someone with no background in computing or knowledge of your article which element from your document the high-resolution version is intended to replace.
- **If you are using flat text** (i.e., a LaTeX file), include the element label and number along with a short, meaningful caption in the text near the content that supports it. Then, use the element label and number (i.e., Figure-1) in the file name such that it is clear to someone with no background in computing or knowledge of your article where the element goes in your article.

4. Transmit content

Transmit the content to the AEiC/D by email or by a file-sharing service. If you are emailing, be sure to attach all the parts of your article to an email that includes whatever extra information the editor may need.

Department editors have access to a shared Google Drive space maintained by the AEiC/D, and content may be uploaded there. Within this space select the "Departments" folder, select your department and create a folder in which to deposit your article source and related files. You may name it anything sensible, and the AEiC/D will change it to match the convention. *Note that when using this option the submitting editor must notify the AEiC/D of the submission by email;* failure to do so may result in a delay in publication.

If you are using a personal file-sharing service, you may use whatever platform (i.e., Google Drive, Dropbox, Box, etc.) you prefer. Email the link/share the directory to the AEiC/D. You should create a new directory for the submission that contains

- **only** the content related to this specific article
- **all** of the content that relates to this article, and
- **only** the final version of that content to prevent confusion (no drafts, earlier versions, etc.).

What happens next

The AEiC/D will acknowledge your submission by email, generally within 1-2 business days of when it is received. After receipt, the submission will be logged into the tracking spreadsheet, which is available for all department editors to review. After verifying compliance with guidance and resolving any issues or questions, the AEiC/D will transmit the submission to IEEE publications, notify the Editor-in-Chief that the article is ready to be scheduled into a future issue, and update the status in the log. IEEE publications will deliver pre-publication proofs to the authors directly for review.

Publication Workflow: Authorea

CiSE has been trialing the Authorea service for collecting department articles, conducting informal peer review (when the article is by outside authors), and posting of preprints—this achieves Green Open Access. When a department editor has an article ready to be delivered in Authorea, they should follow the steps described below. The figure provides a graphic overview of the full process, as we have implemented it, including various manual notifications.
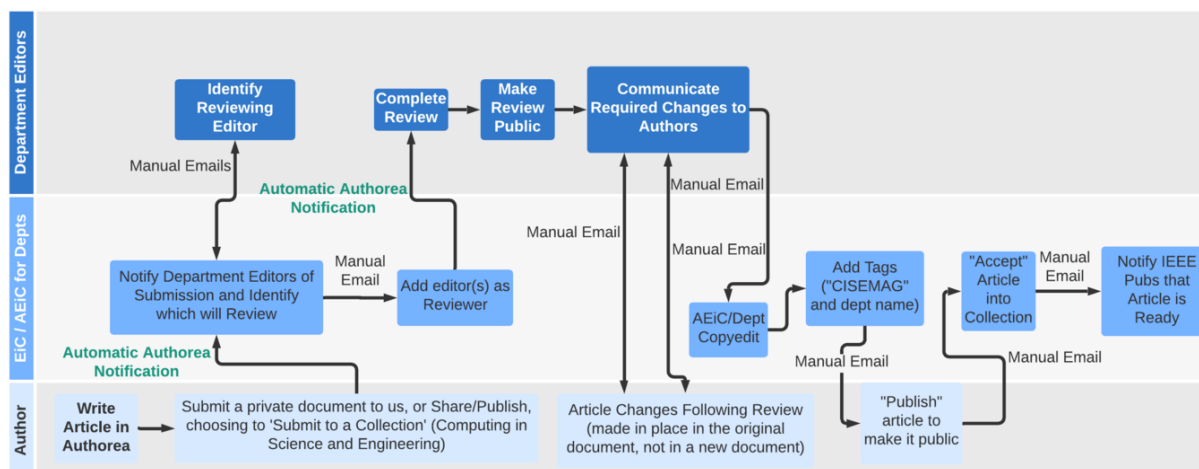
Figure 1: The process for preparing an Article for submission and publication within Authorea.

1. Create and submit the article

The article authors (either the department editors or invited contributors) will create free Authorea accounts and either create or import an existing article text onto the platform. All authors should be included on the Authorea article with names and affiliations as they should appear in print (see the Authorea documentation). Once the manuscript is complete (and after the authors have verified that the requirements for department articles have been met as described in Section above), the authors submit to the CiSE collection on Authorea by pressing the "..." menu, "View all options" and then selection the option to "Submit your document to a collection" (search for "Computing in Science and Engineering").

2. Article review and copy editing

Once the document is submitted to the collection, Authorea notifies the EiC and AEiC/D of the submission and they will either review and copy edit the article in-place, or assign (one of) the department editors as reviewers in the case of contributed content. The reviewers will then complete their review within Authorea, and communicate required changes as needed with the authors. Authors should implement changes in the original Authorea document rather than creating a new document.

Once authors and the department editor(s) have completed changes and agree that the article is ready to proceed to publication, the AEiC/D will complete a final review and copy editing pass. It is convenient but not required at this stage for the authors to add the AEiC/D as a contributor (hidden from the authors list) so that minor corrections and copy edits can be made quickly without contacting the authors or department editors. This will not impact publication credit.

3. Final steps and release of online preprint

Once the copy editing pass is complete, the AEiC/D adds tags to the article and notifies the EiC that the article is ready for final review before publication. Once they approve the article to go to publication, the AEiC/D notifies the authors to press the green "Publish" button to make the document public and mint a preprint DOI. The AEiC/D will accept the article into the CiSE magazine Authorea collection and notify the IEEE Publications staff that the article is ready to go to press, providing them with the published URL. Note that there can be a delay of up to 24 hours between when the article is "Published" in Authorea and the DOI completes and the article is publicly visible; during this time IEEE Publications staff will not be able to access the article.

What happens next

Authors may begin sharing the DOI for the preprint immediately without waiting for formal publication in CiSE. The AEiC/D will also notify the Editor-in-Chief that the article is ready to be scheduled into a future issue, and update the status in the log. IEEE publications will deliver pre-publication proofs to the department editors directly for review.

After the article appears published in CiSE—in print, and online on IEEE Xplore and the Computer Society Digital Library—the Authorea platform will crawl the DOI and link the preprint to the version of record.

Role of the Associate Editor-in-Chief for Departments (AEiC/D)

The guidelines above have involved the AEiC/D in many places, but here we list the duties of this role in one place. The AEiC/D is responsible for the following:

1. prompt department editors to provide article plans for each year
2. review all department articles to ensure adherence to magazine guidelines (no advertising content, length, reference count, etc.) and appropriateness for the CiSE audience
3. copy edit department articles
4. transmit complete articles ready for publication to the IEEE Publications staff
5. notify EiC when articles are ready for publication so they can be scheduled into an issue
6. maintain a list of issue deadlines for department editors
7. maintain a report of article counts by department by year
8. maintain a log of completed and planned articles for the department in order to assist editors in meeting their minimum article count of 2 articles per year

At a tactical level, the AEiC/D should foresee low-content issues and communicate with department editors when they should be increasing their attention to delivering content. It will often be necessary to follow up with editors with reminders and encouragement so the planned articles do make it into the editorial calendar in a timely fashion. Beyond this, the AEiC/D participates in strategizing with the EiC about departments that may need more vitality or new editors.