

Checklist for Technical Articles

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General Checks

1. Run *iThenticate* on the paper and identify overlap with published materials. [Include the iThenticate report with the paper when you send for review.] **There must not be any overlap (full sentence or paragraph, except explicit quotes) with existing papers.** Note that for journal extension of your own conference paper, it is generally allowed to have some overlap.
2. Make sure there is **NO** copyright issue with the figures/plots you've obtained from various sources and used in your paper. If you've drawn it without reference to any other source, you do not need to worry. If you've reproduced it based on a reference, you need to note that and cite the reference appropriately.
3. Run *Grammarly* on the paper and **fix all major errors/warnings. There must NOT be any English mistake or typo in the paper.**
4. Proof-read multiple times before you submit your article. Remember, iterations with careful effort to improve the readability makes it perfect!

Formatting Checks

5. **Figures and Table Placement:** The figures and tables must be placed close to where they are referred for the first time.
6. **Embedded Fonts:** The embedded fonts in figures must not be more than 1 point smaller than that of the text. Figure resolution should be high (clearly readable even 200% zoom).
7. **Figure/Table Captions:** Figure table captions must be detailed enough to describe an illustration well and contents of a table well. Reviewers are not fond of very short or vague captions. End each figure caption consistently put a ".". Be sure to explain any abbreviations introduced in the table or figure.
8. **References:** Make sure all references are consistently represented. If you're using bibtex, make sure the compiled list of Reference is consistent. Bibtex does not capitalize keywords (e.g., SAT) or keep symbols (e.g., %) – hence, you need to address them in the .bib files. For each article you refer, try to put as much information as possible. You may use "et al." with more than three authors. If you do use "et al." be consistent in its application.

9. Make sure all figures, tables, and references **have been cited inside the manuscript** in the right places and **in the order they appear in the text**.

Checks on the Content

10. **Title:** The title is a very important part of the paper. It should clearly highlight the topic and novelty of your contributions. First make a list of keywords you like to include in the title. Then try to arrange them in a way that's simple, short, unique and convincing.
11. **Keywords:** Provide keywords that represent and encompass the content of the article. Keep in mind that keywords are used to search articles on a specific topic; therefore, you should choose keywords judiciously such that readers are likely to find your article when searching on a relevant topic.
12. **Abstract:** Abstract needs to highlight the relevance of the problem and the novel contributions. It should also add a sentence or two summarizing the results (i.e., a quantitative evaluation of the proposed approach in comparison with existing ones.)
13. **Introduction:** The introduction should have the following flow: The Problem, Existing Solutions, Limitation of Existing Solutions, Motivation for a New Solution, Proposed Solution, [Itemized Contributions], [Summary of Results], and the Paper Organization.

Checks on the Flow

14. Body of the manuscript

In the body of the manuscript, the general flow after the Introduction should be:

- **Background [& Motivation]:** Problem, Related Work and Motivation
 - **[Contribution]** (Itemized list of contributions if not already provided in the Introduction). Also, clearly acknowledge any background work you have built your work on or taken inspiration from.
 - **[Background]** The background section should be used to introduce an unfamiliar reader to the core concepts or fundamentals related to your proposed approach. Judiciously include figures or illustrative examples to explain these topics.
 - **[Related Works]** Give a brief explanation of previous works, their limitations, and how your proposed approach addresses these limitations. This section can be broken into multiple sub-sections.
 - **[Motivational Example]** (If you have a simple, easy-to-understand example to illustrate the key ideas, include it before going into details of the approach or proposed solution.
- **Technical Approach:**
 - You can break this up into multiple sections or sub-sections.

- This is the central part of your contribution, so make sure you explain your solution in enough details and with enough clarity to ensure your readers understand.
 - Use illustrative figures and examples to help explain the key aspects of your approach.
 - Judiciously use mathematical analysis, proofs, lemmas, etc. to make certain claims convincing.
- **Results and Analysis:** Simulation/Experimental Setup followed by Results and Analysis.
 - For each result shown as a table or graph/plot, describe (1) the objective of the specific study; (2) the test setup and benchmarks used; (3) what you expect to observe; and (4) what you actually observe or what are the key insights presented by them.
 - Include an analysis of the observed trend, and provide explanations on how and why you observed the trend. Make sure to describe the comparison points (i.e. competitive approach) and describe the merit of the proposed approach compared to the best existing ones.
 - It will be better to mention the overall trend and summarize the observed benefits/issues at the end of the results section.
 - **Discussion:**
 - Here, discuss any extension of the approach, any shortcomings, or additional results. Feel free to discuss scalability, flexibility, or generality of your approach, if relevant.
 - **Future Directions:** Describe possible extensions of the approach or application of the approach to other areas.
 - **Conclusion:** do **not** repeat the abstract or introduction. A good Conclusion section should have the following flow:
 - One sentence to describe the context of the work
 - The presented solution
 - Summary of important observations (e.g. the proposed solution can improve the energy efficiency....)
 - Challenges faced and the ways they are addressed
 - Potential pitfalls (limitations of the proposed solution e.g. in terms of the scope AND possible cost/overhead)
 - The ways to combine the proposed approach with existing approaches (e.g. this is complementary to voltage scaling and can be combined with those approaches to improve energy saving.)
 - If you've not included a section of sub-section in your article on "Future Directions", it's a good idea to end the Conclusion section with 1-2 sentences on future work on this topic.

General Guidelines

1. Sentences should be short and clear. The goal is to clearly articulate your research – not to hide/obfuscate.
2. The text should have a LOGICAL flow. Make sure you do not use fluffy repetitive text, instead try to reasonably condense the text.
3. Readability is key: make sure your text is readable, and ensure that the major points describing your contributions are highlighted.
4. Feel free to italicize or boldface the important claims/concepts.
5. Sometimes abbreviating a new term you're introducing is helpful in avoiding too much repetition of the same set of words, as well as reducing the size of the text.
6. The illustrations and plots must be clear and crisp. (Some people read the paper through figures/plots - so they should be self-explanatory.) Be METICULOUS and CONSISTENT with the figures and plots. DO NOT clutter them - but make sure to provide important details in the figures. Make sure the figures are “illustrative” – i.e. they help in explaining a key concept or a trend. If the figures include text, be sure to use the same font style throughout.
7. It may help to proof-read the printed hardcopy (at least) once before submission! Note that some reviewers like to read printed version instead of a soft copy.
8. The tables may have foot notes to explain some important points. For example, if you leave an entry blank, you can explain why it is blank.
9. Feel free to put footnotes in the paper to explain a keyword or idea which is not directly related but is still in context.
10. Check for overflows (especially tables). Fix any formatting issues arising from vspace utilization in Latex.
11. All abbreviations must be explained before use.
12. Try to include a brief description on the key points the figure/table is illustrating.
 - Sometimes, adding an **Appendix** help us provide more useful details on an approach or its foundation (e.g., proof of an algorithm, hardware implementation details of a chip, or experiment/simulation process) would be helpful.
 - Check if the target journal/conference proceedings allow adding an appendix to your article.