

Procedural Instructions

(over)

IEEE Transactions on RELIABILITY

- * The instructions apply to all papers. Please READ AND FOLLOW them carefully.
 - * Look at a current issue for examples.
1. EVERYTHING in the manuscript must conform to the IEEE writing style. The editors must be able to read every character, letter, word, sentence, and paragraph unambiguously.
 2. Send one copy in PDF format. Also, you must work with and send either a single .tex file, or a single .doc file.
 3. Send separate (in addition to that in the text) figure ORIGINALS (several may be on 1 page). For virtually all figures, the lettering and legends must be large enough so that the figure can be reduced to 3.5 inches (8.9 cm) wide; it is much better if YOU produce the figures to that width. Check your figures with the IEEE graphical checker on their website too. Instructions are in each issue, in *Information for Readers & Authors*. Realize that the same rules apply to tables too.
 4. Supply Index Terms. The individual *key words* are specific to the topic. See a current issue for examples. "Reliability" and similar terms are not key words, as they apply to all papers equally.
 5. Supply an informative *Summary & Conclusions* for the paper, at the front. It will be called the *Abstract*, but will contain a summary of your work, and your key conclusions. Do not use equations here. Do not refer to a Reference List.
 6. Put the Title Page in the following format. See a current issue for examples. Do NOT use all capitals for anything.
Title
Authors (put IEEE membership after each name, and place institution & contact information for each author as a footnote)
Index Terms -
Abstract – (containing your Summary, and Conclusions)
 7. Provide a *Nomenclature* or *Notation* list, and/or *Abbreviations & Acronyms* list, as (an) unnumbered section(s) just after the *Abstract*. If you have anything in your paper which belongs in these sections, you must have these sections. Notation which is repeatedly used belongs in this notation section. Only define notation in the body when it is used only at that location. You can point out specific uses at key points in the body, as that will be helpful to the reader.
 8. Provide a numbered list(s) of Assumptions for the mathematical derivations.
 9. References for equations go inside "(“ ”)", while references for other documents go in "[“ ”]". To differentiate from interval notation, be sure to make multiple references with the brackets around the item, as in "(3)-(5)", or "[2], [4]-[7]".
 10. Make all mathematical equations and symbols as math type, not standard text. IEEE style is to have fractions in sentences using the "/" symbol (inline) so be sure to follow that convention.
 11. Do not use too many *significant figures* artificially. Be sure to reflect reality.
 12. Use a references list at the end; never use end notes. Use numbered footnotes for side explanations.
 13. Put your references into our IEEE format. The format for author names is "Initials Family-Name, Initials Family-Name, and Initials Family-Name." Do not capitalize the paper-title, except for proper nouns. Spell out all the important words in journal names; give journal volume, year, month, pages. Paper titles are in double quotes, and the comma goes inside the closing quotes. See a current issue for examples.
 14. The biographies appear after the references, untitled, and should contain a brief technical biography, and the IEEE serial number if available. All biographies together must fit on one page (double spaced)! The more authors you have in the paper, the less average space exists for each biography. We do not print photos with the biographies.
 15. Proofs should be placed in the Appendix of the paper, unless the proof is useful in explaining to the reader how to use or interpret the results. Create one Appendix for everything, listed chronologically.
 16. See *Information for Readers & Authors* in a current issue, on line, or the enclosed copy if provided. Also see other relevant information at these locations, including our Publication Guidelines Editorial, and examples of both good and bad graphic productions.
 17. There is no need to produce a two column formatted paper in journal format any more. IEEE handles that after you and the Managing Editor agree that the paper is ready, considering the Cs: clear, correct, concise, convincing, conforming, and critical to the state of the art.
 18. If you have additional questions or need additional help, contact the Managing Editor at jrupe@ieee.org.

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Conformance to our policies and principles helps to ensure that the paper is not only technically correct but is useful to specialized, and non-specialized readers alike. Write to the broadest of audiences

A. The spelling, syntax, and structure are important because they can help to make the paper:

- clear, concise, convincing, correct, critical, and conforming to IEEE policies;
- easy to read and understand and interpret correctly; and
- hard to read or understand or interpret incorrectly.

B. *There must be a one-to-one correspondence between a concept, and its name.* Where there is more than one name for a particular concept, you must choose one, and drop the other(s). You should explain the nomenclature in a Nomenclature list. For some concepts, such as the idea or program being proposed in the paper, it helps to choose an acronym or abbreviation for the concept-name, then to use that acronym or abbreviation everywhere.

C. *The ampersand (&)* is optionally used to close-couple words, and useful for referencing coauthors of a paper. The "and" can be ambiguous because it can both close-couple and separate words and phrases. When joining ideas, it is best to use "&," or strings of "and," but reserve the use of ", and" for lists of separate items. Be sure to always use a comma before you use separating "and," unless the comma causes confusion. See the bullets in A above for examples.

D. The hyphen (-) is often used to close-couple words, where several nouns and adjectives appear together in a string, to show which word goes with which, and thus reduce ambiguity; *the hyphen is used only when the ambiguity would otherwise be present.* Do not give into temptation to use a hyphen where a colon or semicolon belongs, or where words should be provided.

E. Mark the end of a list or unnumbered segment whose end might otherwise be unclear, such as a proof. I suggest a black box.

F. Dual-meaning statistical-jargon can be a very real stumbling block for both authors, and readers. Some words, in their statistical use, mean something quite different from their ordinary-language meaning (*e.g.*, "independent," "significant," "expected"). If you intend the exact statistical meaning, then precede the word with s- (to imply "statistical"); otherwise, a) choose a synonym (*e.g.*, "important" or "appreciable" in place of "significant"), or b) precede the word with an adjective that implies the exact meaning of the word (*e.g.*, physically independent). You can write out "statistical" instead of "s-" if you prefer.

G. The purposes of equations are to facilitate computation, and to increase understanding. Long, complicated equations do neither. When an expression appears several times, especially if it is long, complicated, or both, it should be replaced by a simpler symbol. That symbol will usually have subscripts, arguments, or both (as in a function). That substitution will help everyone, from the author (in proofing) to the reader (easier to read correctly). It is very desirable (but not essential) that the replaced expression have a specific meaning or implication (something that would be a separate function or procedure in a computer program).

H. *All writing is influential.* Clearly state your contributions, and your purpose for writing. Your paper must influence readers that your work is important enough for them to spend their time reading it! Organize it well to do so!

I. *Please write your paper in first person, with an early subject, and close following verb in each sentence.* Sentences like this one here should not be written unless the subject is necessarily unidentifiable. Write clear sentences like this one.

J. *Create figures and tables with as little clutter as possible, and avoid unnecessary color.* For guidance on how to create top quality scientific graphics, see the work of Edward R. Tufte, and refer to the image examples attached to your packet. We accepted color graphics in the following formats: EPS, PS, TIFF, Word, Power Point, Excel, or PDF. The resolution of a RGB color TIFF file should be 400 dpi. The print version will be printed in grey-scale, unless you elect to pay the appreciable color printing charges. So do not rely on color in your graphics unless you intend to pay the print fees.

Additional detailed guidelines are available on the IEEE website under their links to information for authors. Included there, you will find IEEE's graphics checker, among other resources. See also the additional material available where you found this document, including our publications guidelines.