

IAS Paper Template

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Abstract—This document is an example of the preferred layout of IEEE conference papers (inclusive of this abstract) and can be used as a template. The document contains information regarding desktop publishing format, type sizes, and typefaces. Style rules are provided that explain how to handle equations, units, figures, tables, abbreviations, and acronyms. Sections are also devoted to the preparation of acknowledgments, and references. The abstract should not exceed 150 words and cannot contain equations, figures, tables, or references. It should concisely state what was done, how it was done, principal results, and their significance

Index Terms—The author should provide up to 10 keywords (in alphabetical order) to help identify the major topics of the paper. The thesaurus of IEEE indexing keywords should be referenced prior to selecting the keywords to ensure that the words selected are acceptable. The thesaurus 2009 IEEE Taxonomy is posted at http://www.ieee.org/organizations/pubs/ani_prod/keywrd98.txt.

I. NOMENCLATURE

A nomenclature list, if needed, should precede the Introduction.

II. INTRODUCTION

This document provides an example of the desired layout and can be used as a \LaTeX template. This template uses the `IEEEtran` document class. The document class and this template define the publishing format, style rules, and the preparation of various special sections. The electronic manuscript you prepare will be reproduced without further editing in the Proceedings (or Conference Record) at the conference at which your paper is presented, and must conform to the standard adopted by the organizers of the conference. *Do not change the format of this template.* For additional information, please refer to the Information for Authors available on the IAS web site at <http://ias.ieee.org>.

A. Technical Work Preparation

Words hyphenation can be defined in the document preamble with the \LaTeX command `\hyphenation{}`. Use a editor with a spelling tool. Additionally, be sure your sentences are complete and that there is continuity within your paragraphs. Check the numbering of your graphics (figures and tables) and make sure that all appropriate references are included. Use the provided \LaTeX command `\fref{fig:label}` to make a figure

reference, `\tref{eq:label}` for table references and `\eqref{eq:label}` for equation references.

B. Template

This document was designed to be used as a template. \LaTeX take into account the text style and the section styles through the document class `IEEEtran`: do not change the document class and use the provided template provided (this document).

C. Format

The standard format for IEEE conference papers is the two column format illustrated by this template document. Some IAS-sponsored conferences allow papers in a single-column arrangement; if there is any question about what is acceptable, you should ask the conference organizers.

To change the document into a single column, simply use `onecolumn` option in the document class.

Occasionally, authors encounter problems with content that doesn't conveniently fit into the two column format. It is acceptable to switch short sections of the manuscript to single-column to accommodate figures or equations that won't fit into a single column of a double-column page (*i.e.*, so that the material spans both columns on the page).

For this, \LaTeX provides figure and table starred commands (see the `IEEEtran_HOWTO` pdf file). Here is an example of the starred figure environment:

```
\begin{figure*}[htpb]
\includegraphics{figurename.eps}
\caption{Figure caption}
\label{figure caption}
\end{figure*}
```

Fig. 1 provides an example of a single column figure. Fig. 2 provides an example of a figure included in the two column text.

And it is also acceptable to rotate individual figures 90° in the counterclockwise direction to fit onto a full page. However, text should never be rotated on the page.

Margins are defined by the \LaTeX template, please do not redefine them. Do not include headers, footers, or page numbers.

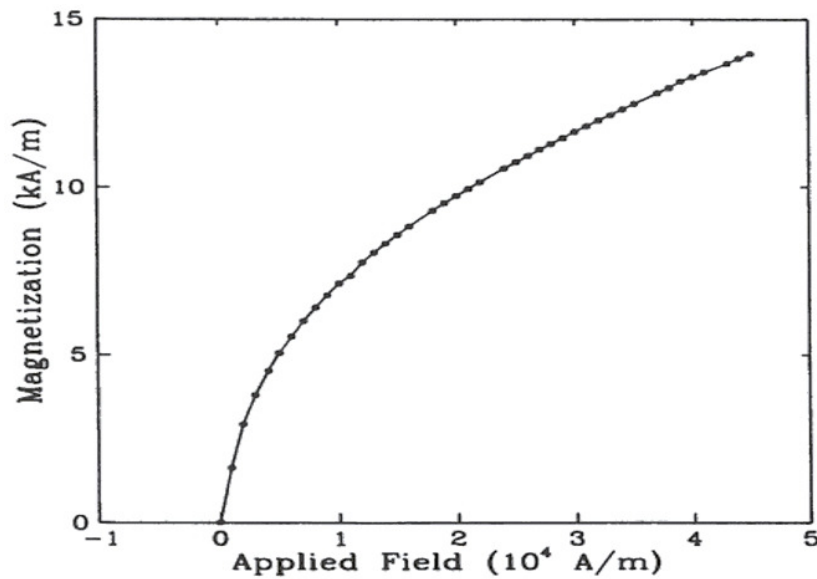


Fig. 1. Caption of a figure on a single column using starred figure command

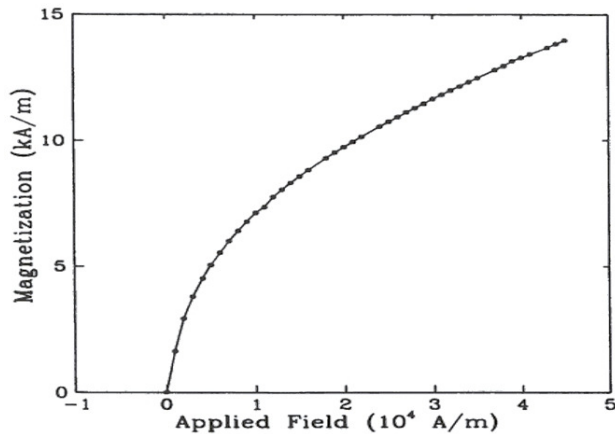


Fig. 2. Caption of a figure included in the two columns

TABLE I
AN EXAMPLE OF A TABLE

Title 1	Title 2
One	Two
Three	Four

F. Section headings

Section heading are defined by the `IEEEtran` document class: it is mandatory to keep the defined style.

G. Figures and Headings

Figure axis labels are often a source of confusion. Try to use words rather than symbols. As an example, write the quantity “Magnetization”, or “Magnetization, M ,” not just “ M ”. Put units in parentheses. Do not label axes only with units. As in Fig. 2, write “Magnetization (kA/m)” or “Magnetization (kA m^{-1})”, not just “kA/m”. Do not label axes with a ratio of quantities and units. For example, write “Temperature (K)”, not “Temperature/K”.

Large figures and tables may span both columns using the starred command, but may not extend into the page margins. Figure captions should be written with the command `\caption{}`; table captions should be above the tables like in TABLE I. Do not put borders around your figures. All figures and tables must be in place in the text near, but not before, where they are first mentioned.

H. Numbering

Citation references should be used with the `LaTeX` command `\cite{key1}`. Multiple references should be include in the same command as `\cite{key1,key2,key3}`. Do not use `Ref. \cite{key}` or reference `\cite{key}` except at the beginning of a sentence: Reference `\cite{key}` shows....

D. Use of Color

Author’s manuscripts will be reproduced directly into the Conference Record of IAS-sponsored conferences. It is commonplace for Conference Records to be electronic, and in those instances, it is possible to include color in the anuscript. However, some IAS-sponsored conferences produce a hard-copy conference record that is printed only in monochrome (ie, black and white). Therefore, figures should be designed to be legible when reduced to grayscale.

In general, the use of color should be limited to figures only. Text may not be in color, and color shading is never acceptable.

E. Typefaces and Sizes

Fonts and font size of section titles and caption are defined by the `IEEEtran` document class: it is mandatory to keep these fonts.

Footnotes have to be done with the command `\footnote{fote texte}`. For footnote in Tables, use letter : for this, it is necessary to load the `threeparttable` package¹.

I. Units

Metric units are strongly encouraged for use in IEEE publications in light of their global readership and the inherent convenience of these units in many fields. In particular, the use of the International System of Units (“Système International d’Unités” or SI Units) is advocated. This system includes a subsystem of units based on the meter, kilogram, second, and ampere (MKSA). British units may be used as secondary units (in parentheses). An exception is when British units are used as identifiers in trade, such as 3.5-inch disk drive.

J. Abbreviations and Acronyms

Define less common abbreviations and acronyms the first time they are used in the text, even after they have been defined in the abstract. Abbreviations such as IEEE, SI, MKS, CGS, AC, DC, and rms do not have to be defined. Do not use abbreviations in the title unless they are unavoidable.

K. Math and Equations

Use the \LaTeX command to write equation. Specific \LaTeX math package (e.g., `amslatex` or `amsmath`) can be used if necessary. It is mandatory to keep the math style defined by the template: do not change the math fonts. Use parentheses to avoid ambiguities in denominators.

Use the `equation` environment to have numbered equations. Do not change the numbering format defined by the template. Be sure that the symbols in your equation have been defined before the equation appears or immediately following.

$$I_F = I_B = -I_C = A^2 \cdot I_{A1} + A \cdot I_{A2} + I_{A0} = \frac{-J \sqrt{3} E_A}{Z_1 + Z_2} \quad (1)$$

where I_F is the fault current.

Use `\eqref{label}` and not `Eq. \eqref{label}` or `equation \eqref{label}` except at the beginning of a sentence: Equation `\eqref{label}` is....

L. Originality of Content

Plagiarism in any form is expressly forbidden, and the content of your paper should be totally original. However, there are situations where it is appropriate to include quoted material in technical papers. If you copy text from other sources, you must clearly differentiate copied text from original text that you actually write. Quotation marks are best way to identify quoted material, but you may also delineate such material by using a different type face or indentation. The \LaTeX environment `quote` provide an indentation environment. You must also clearly cite the source from which the quoted text was taken . Copying figures is more involved. IEEE

requires that you include the phrase “XXXX, reprinted by permission” on figures that you copy from published sources, that you obtain written permission from the person or entity that owns the copyright for the source from which the figure was taken, and that you cite that source as a reference.

M. Author information

Contributors to the paper should be listed immediately below the title of the paper as illustrated in this template. Including an e-mail addresses for each author is not mandatory, but is a convenience for readers of the paper.

It is not necessary that author biographies be included in the manuscript itself although some authors choose to include that material after the references. Limit author biographies to 200 words. If a paper is subsequently approved for publication in *IEEE Transactions on Industry Applications*, you will be required to furnish author biographies and photographs that will be appended to the published paper. Author biographies and photographs are not included when papers are published in *IEEE Industry Applications Magazine*.

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The name of a contributor may not be removed from a paper after it has been submitted without written permission from that author.

Occasionally, IAS Technical Committees create Working Groups to investigate and report on some subject. Papers written by working groups are subject to the same rules as papers written by individual authors or groups of authors. The only practical consideration is that rather than listing all of the authors of a working group paper under the manuscript title, the membership of the working group may be listed in either a block of text placed at the bottom of the left column on the first page of the manuscript, or in the acknowledgement at the end of the manuscript.

N. References

References are important to the reader; therefore, each citation must be complete and correct. There is no editorial check on references; therefore, an incomplete or wrong reference will be published and will detract from the authority and value of the paper. References should be readily available publications.

It is common for papers to be presented first at conferences, and later reviewed and approved for publication in *IAS Transactions* or *IAS Magazine*. Citing the peer-reviewed version of the paper rather than the conference version will enhance the credibility of your paper as well as increase the impact factor of the journal that published the work you are citing. List only one reference per reference number. If a reference is available from two sources, each should be listed as a separate reference. Give all authors’ names; do not use *et al*.

¹The `threeparttable` is available on the \TeX Comprehensive Archive Network, <http://www.ctan.org>

It is strongly recommended to use BibTeX to build the reference section. Tools are available to help you to build the bibliography file (bib extension) like the free software JabRef² which can download citation directly from IEEE. References can also be downloaded as bib files directly from IEEEExplore or Google Scholar.

III. CONCLUSION

The conclusion goes here.

APPENDIX

A. Name of appendix section

Appendixes, if needed, appear before the acknowledgment and after the `\appendix` command.

ACKNOWLEDGMENT

Use `\section*{Acknowledgment}` for acknowledgment. The following is an example of an acknowledgment :

The authors gratefully acknowledge the contributions of I.X. Austan, A.H. Burgmeyer, C.J. Essel, and S.H. Gold for their work on the original version of this document.

Please note that financial support should be acknowledged in an unnumbered footnote on the title page using the command `\thanks` : conference papers do not typically use `\thanks` and this command is locked out in conference mode. If really needed, such as for the acknowledgment of grants, issue a `\IEEEoverridecommandlockouts` after `\documentclass`

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²JabRef is available at <http://jabref.sourceforge.net/>