2022 IEEE / IAS PPFIC STYLE OF PAPERS AND PAPER FORMAT

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*Abstract* - This is an overview for preparing papers for the IEEE/IAS PPIC (Pulp & Paper Industry Committee) conference. It is intended to define the format style for PPIC papers for publication in the PPIC Conference Record. In general this format also complies with the style requirements for IEEE (Institute of Electrical and Electronic Engineers), and IAS (Industry Applications Society). Information regarding text style, margins, headings, abbreviations, figures, tables, etc. is included.

*Index Terms* - PPIC Paper Format, Style requirements.

1. Introduction

PPIC conference papers are to be created using Microsoft Word® (or other similar word processing programs). This document provides detail formatting guidance for authors to properly preparing their papers. Papers not meeting this format will be returned to the author for correction.

Authors can utilize this document as a starting point for the creation of their work. If you type directly into the appropriate sections, the original document formatting will be retained. You can also copy text into the document if you paste only text without any additional formatting. DO NOT use the format described in the paper format or style guide described in the IAS Authors Guide [1]. This is not an acceptable format for this conference. The IEEE Pulp and Paper Committee Author’s Guide provides additional details outlining the process for submitting your paper. The Author’s Guide, and other author resources, are located on the committee website;

<http://sites.ieee.org/ias-pulpandpapercommittee/author-resources> .

Papers must be created using a letter-size (8.5 X 11) page size. Paper length, including appendices, should typically be 7 to 10 pages in length, when produced in the format described below. The maximum length for any paper is 15 pages including appendices.

1. Style for PPIC Conference Papers
2. Organization

A PPIC paper generally consists of eight major sections. These are as follows, and should *always* appear in this order: 1) title; 2) author information; 3) abstract; 4) index terms; 5) introduction; 6) body; 7) conclusion; and 8) references. This order should be altered only if the author chooses to use the following additional parts: 9) nomenclature (glossary of symbols); 10) appendices; 11) acknowledgment. The conclusion must *always* follow the body of the paper and the references must *always* be the last part of the paper. The requirements of style and content for each of these parts are discussed next.

1. *Title*: The title should indicate the subject of the paper as clearly and succinctly as possible. It is typed at the top and center of the paper on the first page.
2. *Author Information*: The name of each author should include a full first name and last name; use of middle names and/or initials is optional. Each author's IEEE membership grade (where applicable), should appear under his or her name. These parts of the author information should be typed in all capital and lower case letters as shown. Finally, each author's business affiliation and mailing address, complete with post office box number, zip code, and country, are required; this information should be typed below each author's name (and IEEE membership grade, where applicable) in upper and lower case letters.
3. *Abstract*: The abstract is a very important part of the paper. It is used for library purposes and may appear by itself in an abstract journal and/or be stored in a database. Its contents will determine how and where it is referenced by those who compile the annual indexes of the literature. It should therefore be written with extreme care.

The abstract is a concise, one-paragraph collection of statements that describes the most significant ideas, procedures, and/or results of the paper. It typically contains 125 - 200 words, but is never longer than necessary and never explores concepts beyond those actually described in the paper. A satisfactory abstract will briefly answer these questions: 1) What is the problem being discussed, and what is the scope of its treatment? 2) What is the author's unique approach or important contributions; and is it primary information, a review, or tutorial in nature? 3) What is the principal result or typical application?

The abstract does not serve as an introduction, nor does it contain acronyms, abbreviations, footnotes, tables, figures, or references. It is indented, and then identified by the word "Abstract," followed by a dash, which is immediately followed by the text of the abstract, as shown above. The writing style is confined to the passive voice; for example, instead of "We measured the results of the test," the author should write: "The results of the test were measured."

1. *Index Terms*: Not more than 8 index terms should be on this line, under the Abstract, and on the same line as the heading 'Index Terms'. These should be selected to entice the database searcher to look further into this paper. The index terms may be a mixture of phrase(s) and words, with each phrase and separate word separated from the others by a comma.
2. *Introduction*: The introduction prepares the reader for the body of the paper by giving historical and/or background information and by serving as a guide to the author's approach to, and organization of, the material. The introduction should not be a repetition of the abstract and, unlike the abstract, may be as long as is necessary.

The introduction will serve as the first major part of text, and is therefore the first section of the paper to be enumerated, when and if the author chooses to use an enumerated heads system (See Section B, "Style for Headings").

1. *Body*: The body of the paper contains the primary message of the paper in detail. Its purpose is to communicate information efficiently and effectively to the reader. Frequent guideposts are essential for non-specialists who want to understand the general nature and significance of the work, and even workers in the same field appreciate clear indications of the line of thought being followed. Therefore the body of the paper should be broken down into specialized sections that are identifiable by the use of an orderly headings system (see Section B).

In any breakdown of the body into several sections, the author's significant contribution should be the subject of the longest section; the supporting or peripheral material should be condensed into shorter sections. This gives proper emphasis to the main subject of the paper and yields a high information density in the overall structure.

1. *Conclusion*: The conclusion should be a clearly stated finish to the paper and should cover the following issues. What is shown by this work and what is its significance? What are the limitations and advantages of the information? Where applicable, the following points should also be included: applications of the results and recommendations for further work.
2. *Nomenclature*: The nomenclature consists of the symbols and meanings of those symbols used in the paper. The symbols are indented from the left margin; separated from their definitions by space only with the first letter of the definition capitalized and the remainder lower case. Each definition is ended with a period; and no articles (introductory words such as "the" or "a') precede the definition. An example follows.

NOMENCLATURE

Ei Initial energy (J).

M0 Initial drop mass (kg).

M2 Sibling mass (kg).

M1 Residual drop mass (kg).

1. *Appendices*: Mathematical details that are ancillary to the main discussion of the paper, such as many derivations and proofs are among the items to be placed in the appendices. Other items that bear on or support the topic as developed by the author may also be included in the appendices.
2. *Acknowledgment*: If the paper deals with prior work by other author(s), and/or others have made important contributions to the paper, this fact should be clearly stated in the acknowledgment section. If contributions by others are a substantial portion of the paper, consideration should be given to their inclusion as co-authors.

Acknowledgment of financial support (e.g., grants or government contracts) should appear as a footnote to the title or to the introduction of the paper. However, in no case should it appear in the abstract. Footnotes should be avoided as far as possible by integrating the information into the text.

1. *References*: Reference information must be complete. Titles of papers must be given, as well as beginning and ending page numbers, where appropriate. Normally, references should be commonly available publications.
2. Style for Headings

An organized headings system serves to divide the body of the paper into clearly marked areas point the reader to points of interest. They also help authors develop the topic in an orderly manner, with the focus of each division of the paper indicated by its heading. Between this paragraph and the end of page lies the proper heading style(s) with description.

1. Section Title (Preferred)

There are a minimum of five (5) sections in any PPFIC paper. These are Introduction, Body, Conclusion, References, and Vitae. As you can see, the section title is separated from the text that follows by one full line of space, is centered above that text, and requires the “small caps” format. NOTE: This is the ONLY heading which uses Arial 10; the others use Arial 9. The preferred method consecutively numbers these section titles using Roman numerals; an alternative method is to leave the Roman number out. Be consistent throughout the paper – use the same Section Title format throughout the document.

1. *First Secondary Heading.*

The secondary heading is separated from the text that follows by one line of space. It is flush with the left margin, with initial letters of all words capitalized; the rest are lower case.

1. *Second Secondary Heading.*

Secondary headings are numbered sequentially within a section, using capital letters followed by a period. The entire secondary heading is italicized (preferred) or underlined (alternate).

1. The Next Level: A tertiary heading is the same as a secondary heading, except that the heading is not separated from the text; it is joined to it by a colon.
2. Enumerating Tertiary Headings: Tertiary headings are enumerated using Arabic numerals, and a closing parenthesis. Tertiary headings number consecutively within a secondary heading, starting over with the next secondary heading. It is indented once and underlined (preferred) or italicized.
3. Going one step further: We have what are called quaternary headings. These are styled the same as the previous (tertiary) level headings, except for the following.
4. Indentation and enumeration: This level of heading is indented twice; only the first word of the heading is capitalized; and it is enumerated using lower case letters followed by a closing parenthesis.
5. Style for Figure and Tables

The following are the criteria the author should use in preparing figures and tables for a PPIC technical paper. References to reduction are of concern mainly to those authors using the old model-paper format but authors of papers using the non-reduced PC-generated paper format should heed the *intentions* of these instructions nonetheless.

1. Page space is costly. All unessential figures and tables should be eliminated. The author should combine the information of different tables and/or figures whenever and wherever it is practical and possible.
2. All figures and tables should be numbered consecutively and should be mentioned in the text in the order of their appearance.
3. *Figure captions* should be centered neatly below their respective figures. Both in the text of the paper and in the caption, the figure should be identified by an Arabic numeral and the word "figure" abbreviated. For example: Fig. 1 (plural is "Figs."). Parts of the figure should always be labeled and referred to using lowercase letters enclosed in parentheses. For example, in text: Fig. 2(a); in captions: Fig. 2. (leave a space here) (a) Measurement for phase-controlled rectifier.

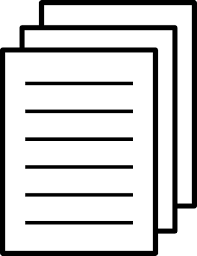


Fig. 1 Sample Full-Column Figure

1. Table captions are bi-level in nature and are centered above the double lines used to separate the caption from the body of the table. The top line of the caption should be in all capital letters and should identify only the number of the table using a Roman numeral. For example: TABLE I. The lines of the second caption should be centered below the top caption in all capital letters. This second caption should describe briefly the information of the table. For example: TYPE SIZES FOR CAMERA-READY PAPERS.

Note: Both figure and table captions should use as few words as possible.

Tables are typically inserted into the text of the paper, as long as they are simple and brief. Longer, bigger, or more complicated tables may be separated from the text. TABLE I is an example of a table that also provides information on the size of fonts for PPIC papers.

1. All lettering used on or in figures and tables should be large enough to be visible, especially in formats resulting in a final, reduced size. This final size should never be less than 0.047 in (1.2 mm) high.
2. The size of the lettering used for figures and tables should be kept uniform throughout the paper. Hand lettering should be avoided, if possible; but if necessary, must be done neatly in black India ink.
3. Photographs and photographic prints are acceptable, but should preferably be black and white. All photographs must be copyright free and the property of the author.
4. Figures should never exceed 8.5 X 11 (216 X 279 mm).
5. Graph-type figures should show only the major coordinate lines; and the author should use short "ticks" that extend but a short distance from the axes, for convenience in reading intermediate values. Two or more simple graphs having the same scale often may be combined to save space and increase effectiveness.
6. Style for Mathematical Notations and Equations

Handwriting of all letters and symbols that can be typed should be avoided; but if necessary, had-lettering must be done neatly in black India ink. To prevent errors by readers, subscripts, superscripts, Greek letters, and other symbols should be identified very clearly, with explanations included wherever ambiguity may arise. The following are examples of terms that often are confusing.

1. Capital and lower-case letters, when used as symbols.
2. Zero and the letter "o".
3. The small letter "l," the numeral one, and the prime sign.
4. The letters "k" and kappa; "u" and mu; "v" and nu; and n" and eta.

Vectors and matrices should be in boldface type, if available to the author. Symbols, markings, and/or lines (except underlining) below letters should be avoided. A new symbol for a complicated expression that will be repeated often should be introduced in the text. Care should be taken in the use of solid (slants), vertical bars, radical signs, parentheses, and brackets to avoid ambiguities in equations. The author should adhere to the conventional order of brackets: {[( )]}.

|  |  |  |  |
| --- | --- | --- | --- |
| TABLE I | | | |
| TYPE SIZES FOR CAMERA-READY PAPERS | | | |
| Type size | Appearance | | |
| (pts.) | Regular | Bold | Italic |
| 8 | Table captions,a table superscripts |  |  |
| 9 | Main text, section titles,a  references, tables, table names,a first letters in table captions,a figure captions, footnotes, text subscripts and superscripts | Abstract | Subheadings, Reference publication name |
| 10 | Authors’ affiliations, equations, first letters in section titlesa |  |  |
| 12 | Authors’ names |  |  |
| 14 |  | Paper Titlea |  |
| a Uppercase | | | |

When fractions are typed on one line, ambiguities often arise. For example, 1/2 r may mean 1/(2r) or ½(r). The author should use the devices at his or her disposal to ensure that the meaning is not misconstrued.

To facilitate the reading of numbers and to eliminate confusion arising from different uses of the comma and the period in different countries, IEEE editorial practice is to separate numbers consisting of more than four digits with a space. Such numbers are separated by the space into

groups of three, counting from the decimal sign to either the left or the right. Examples are as follows.

12 351 7465 9.216 492

If the magnitude of the number is less than unity, the decimal sign should be preceded by a zero; for example: 0.102.

Where more than one equation is displayed in the paper, the author should be consistent in his or her style for fractions: either built up or broken down. Equations should be separated from the text with a line of space above and below, and numbered consecutively. The numbers should be enclosed in parentheses and flush with the right margin. In text the equations should be referred to only by their number in parentheses. The word "equation" precedes the number in parentheses only when used at the beginning of a sentence; for example: "Equation (23) enables us to write (17) in the form …".

Samples of typical equations with concluding text are as follows.

where

|  |  |
| --- | --- |
| αi | firing angle of upper and lower thyristor group i = 1,2 |
| ui | commutation overlap angle of upper and lower thyristor group i = 1,2 |
| toff | thyristor turn-off time |

1. Style for Units and Abbreviations

The use of the International System of Units (SI units) is preferred for use in IEEE publications because of its international readership and inherent convenience in many fields. This system includes as a subsystem the MKSA units, which are based on the meter, kilogram, second, and ampere. If an author expresses quantities in British- American units, he or she is urged to give the metric equivalents in parentheses; for example, "a distance of 4.7 in (11.9 cm)." However, this practice may be impractical for certain industrial specifications, such as those giving drill sizes or power ratings of motors.

All units should be abbreviated when they appear with numerals; for example: 480 V or 18 ft. Units are written out only in such cases as "... the distance in inches is measured from... ".

The unit of frequency used in IEEE publications is the "hertz" rather than "cycles per second."

The use of abbreviations, other than for units, is optional. Authors should avoid abbreviations that are not generally accepted. All abbreviations and acronyms must be defined where first mentioned. Abbreviations and symbols used on illustrations should conform to those used in the text.

1. Word Usage

It is most important that the paper be correct, concise, and clear. Attention to grammar fosters clarity. Here are some suggestions on usage.

1. Write in complete sentences.
2. Avoid jargon. Introduce new terminology only when it is indispensable.
3. Do not write one-sentence paragraphs. In revising, combine any series of very short paragraphs where possible.
4. Do not use slang or contractions. Avoid expressions that are used only in familiar speech.

***No:*** "Taking a time interval, say, t = t2 – t1, in which the quantity... ".

***Yes:*** "Taking a time interval, for example, t = t2 – t1, in which the quantity... ".

1. Write in third person; not first or second person.
2. Avoid overuse of italics and overuse of quotation marks around single words.
3. Capitalize adjectives and nouns derived from proper names, except in the case of units of measures, which are lower case. For example: "Gaussian noise"; "Cartesian coordinates"; "The Hamiltonian of the system is ... "; "The inductance is in henrys."
4. Abbreviations and acronyms should be defined where first used, even those considered by the author to be commonly used and understood.
5. Typing

The typeface should be sanserif 9 point (e.g. Arial, Univers, Swiss or Helvetica). Arial is the preferred font. (This document was produced using Microsoft Word® with typeface Arial). The paper should be prepared in double column format. The left and right margins should be 0.70 inch (18mm), the column width is 3.45 inches (88mm) and the column spacing at 0.20 inch (5mm). Justification should be both left and right sides. The top and bottom margins should be I inch (25mm) each (if you are using A4 paper, set the right margin to 12 mm and the bottom margin to 43mm). Paragraphs should be indented about 0.14 inches (3.5mm) and spaces should not be left between paragraphs. Two spaces should follow a period.

Printer quality must be very good (e.g. 300 dpi minimum). Documents must be reproduced from laser printers or printers of equal clarity. Print on one side only.

Center the title on the page so as to run across the upper portions of both columns as illustrated above. The title of the paper is typed in upper case letters only, bold, typeface size 14 point, and spaced 1 inch below the top of the page. As a general rule, the title should fit on one line. If the title exceeds this length, the author should seriously consider shortening the title.

There should be one (1) 10 point blank line below the title and above the name(s) of the author(s). The lead author should be listed first and the other authors in alphabetical order, center justified and listed in column format as illustrated above. The name information should be typeface size 10 point. There should be two (2) 10 point blank lines below the author(s) information.

Section titles are centered in the column. Use upper case letters. The typeface is bold size 10 point. All other headings typeface is 9 point.

Page numbers should be included on the draft copy only. These should be 9 point font and should be centered at the bottom of the page. **No page numbers are to appear on the final copy.**

1. Commercialism

From the beginning of the PPIC, it has been revered as a technical conference free from commercialism. To assure that the PPIC remains free from commercialism, a policy regarding commercialism is enforced.

In summary, the technical papers and the oral presentations will be free from commercialism by all authors whether affiliated with manufacturers, users, or contractors. It is acceptable to present valid technical data. It is not acceptable to show company logos, use company names, use trade names, use trademarks, use facility names, or use facility locations. Please refer to the IEEE PPIC Author’s Guide.

1. Conclusions

This paper describes the basic format and style for PPIC papers. For additional information, refer to your Author's Guide or contact the chair of the technical subcommittee for which your paper is being prepared.

1. Acknowledgements

It is common practice when writing technical papers to acknowledge people who have contributed to the paper, but are not authors. It is acceptable to specifically name an individual and company affiliation for those who have provided significant contributions to the paper and in general note their contribution. It is not acceptable to thank companies, or promote any product.

1. References

List and number all bibliographical references at the end of the paper. All references should be numbered consecutively in the document. When referring to them in the text, type the corresponding reference number in square brackets as [1].

In the reference list, the number should be listed left justified with brackets. The reference title and publisher information should be indented as shown below. Examples are given for pamphlets [1], transaction papers [2], standards [3], conference records [4], books [5], and National Electrical Code [6].

1. IEEE, January 1997, *IEEE Industry Applications Society Author's Guide and Guide to Procedures for Processing Technical Papers for use in IAS Conferences and Transactions, and for the IEEE Industry Applications Magazine*, Piscataway, NJ: IEEE.
2. D. S. Baker, "Generator Backup Overcurrent Protection," *IEEE Transactions on Industry Applications*, vol IA-1B, pp 632-640, Nov/Dec 1982.
3. ANSI/IEEE C37.102-1990, *IEEE Guide for AC Generator Protection*, New York, NY: IEEE.
4. J. S. Dudor and L. K. Padden, "Protective Relaying on Medium and High Voltage Systems, Some Lessons To Be Learned," in *IEEE PCIC Conference Record*, 1994, pp 53-61.
5. J. L. Blackburn, *Applied Protective Relaying, Principles and Applications*, New York, NY: Marcel Dekker, Inc. 1987.
6. NFPA 70, 1996 *National Electrical Code*, Quincy, MA: NFPA.
7. Authors’ Information

For PPIC conference papers, **no** author photographs are to be included in the paper; only author biographical information and current employment history, for each author, are to be included. If papers are later selected for IEEE IAS Transactions, author's photographs, biographical information and current employment history will be needed. Authors will be requested to submit information to the PPIC Technical Program Chair to be used to introduce the presenters at the PPIC Conference.

1. Appendix

If the paper has an appendix, it should start on a separate page following the eight major parts of the paper as described in Section II A. The Appendices should be lettered A, B, C, *etc*. The words "Appendix A" should be typeface size 12 point, bold, and centered. The title of the Appendix should be below the "Appendix A" with a line between them. The title should be typeface size 12 point, bold, and centered.

The text, headings, subheadings, figures, and tables should follow the same format as the paper. Figures should be numbered A-1, A-2, A-3, *etc*. Tables should be numbered A-I, A-II, A-III, *etc*.

*If you have questions regarding the paper or presentation formatting, please contact the 2022 PPIC Technical Program Chair (Chris Heron) via email at the following address.*

[*chris.heron@ieee.org*](mailto:chris.heron@ieee.org)