

IM2022 GUIDELINES FOR STYLE OF PAPERS

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Abstract – This is a template for preparing papers for the IM 2022 Symposium. It is intended to define the recommended format style for IM 2022 papers for publication in the conference record. Information regarding text style, margins, headings, abbreviations, figures, tables, etc. is included. Note that the layout, margins, and style of this paper follow the requirements described in this paper.

Keywords – IM 2022 paper format, style requirements.

I. INTRODUCTION

In general, IM 2022 symposium papers are created using the document preparation system L^AT_EX or PC word processing programs such as Microsoft Word or Word Perfect. Papers must be formatted in the style described and shown in this document. The final document must be submitted electronically in pdf format via e-mail to im2022@jku.at. The proceedings format is A4 size (21.0 cm × 29.7 cm). Paper length, including appendix, should not exceed 6 pages, when produced in the format described below.

II. STYLE FOR IM 2022 CONFERENCE PAPERS

A. Organization

An IM 2022 paper generally consists of ten major sections. These are: 1) title; 2) author information; 3) abstract; 4) key words; 5) introduction; 6) body; 7) conclusion; 8) acknowledgment; 9) references. The sections should always appear in this order. The conclusion must *always* follow the body of the paper and the references must *always* be the last part of the paper. The optional vita is always at the very end of the document, following all other sections. The requirements concerning style and content for each of these parts are discussed next. The various possible parts of a paper should appear in the order which is presented in this text.

1) *Title*: The title should indicate the subject of the paper as clearly and succinctly as possible. It is typed entirely in bold capital letters and positioned on the

first page, centered at the top of the paper.

2) *Author Information*: The name of each author should include a full first name and last name; the use of middle names and/or initials is optional. Finally each author's business affiliation and mailing address, complete with zip code, country, and e-mail is required; this information should be typed below each author's name in upper and lower case letters.

3) *Abstract*: The abstract is a very important part of the paper. It should therefore be written with extreme care. It 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.

- What is the problem being discussed, and what is the scope of its treatment?
- What is the author's unique approach or important contribution; and is it primary information, a review, or tutorial in nature?
- 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 identified by the italicized and bold word "Abstract," followed by a em 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."

4) *Keywords*: The italicized word "Keywords" and an em dash are followed by no more than 8 keywords. This part of the paper is separated by one empty line of text from the Abstract and each keyword is separated from the others by a comma.

5) *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, is not restricted in word count. The introduction will serve as

the first major part of text, and is therefore the first section of the paper to be enumerated (see Subsection B, "Style for Headings").

6) *Body*: The body of the paper contains the primary message of the paper in detail. Its purpose is to present 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 which are identifiable by the use of an orderly headings system (see Subsection 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 in shorter sections. This gives proper emphasis to the main subject of the paper and yields a high density of information in the overall structure.

7) *Conclusion*: The conclusion should be a clearly stated finish to the paper and should cover the following issues: What are the most significant statements of this work? What are the limitations and advantages? Where applicable, the following points should also be included: applications of the results and recommendations for further work.

8) *Acknowledgements*: Any person who has contributed to the work, but is not an author, may be acknowledged in this section.

9) *References*: Reference information must be complete and numbered in the order of appearance in the paper. Titles of papers must be given, as well as beginning and ending page numbers, where appropriate. Normally, references should be commonly available publications. See Section V., "References" for an example.

10) *Vita*: The vita (a short biographical or autobiographical account) should provide background information about the author(s) and would typically include current employment and other activities items related to the paper such as previous papers, activities within organizations, licenses and similar information. The biography should be limited to about 75 – 100 words per author. The biography should not include a photograph.

B. Style for Headings

A well organized headings system serves to divide the body of the paper into clearly marked sections. They also help the author to develop his or her topic in an orderly manner. The focus of each division of the paper should be indicated by its heading. This subsection will describe and give examples of the proper style for headings.

1) *Primary Heading*: A primary heading is separated from the text that follows by one empty line. It is centered above that text, and it is all capital letters. The

primary heading is assigned a roman numeral followed by a period. An example of a primary heading follows.

I. PRIMARY HEADING EXAMPLE

2) *Secondary Heading*: A secondary heading is separated from the text that follows by one empty line. It is flushed to the left margin, with the initial letters of all words capitalized; the rest are lower case. Enumeration of the secondary heading is in capital letters followed by a period. The entire secondary heading is italicized. An example of a secondary heading follows.

A. Secondary Heading Example

3) *Tertiary Heading*: 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. The tertiary heading is enumerated using Arabic numerals and a closing parenthesis. It is indented once and italicized. An example follows.

1) Tertiary Heading: This is an Example

C. Style for Figures and Tables

The author should adhere to the following criteria for preparing figures and tables for an IM 2022 technical paper.

1) All figures and tables should be numbered consecutively and should be referred to in the text in the order of their appearance.

2) All lettering used on or in figures and tables should be large enough to be visible. The final font size should never be less than 1.2 mm.

3) The size of the lettering used in figures and tables should be kept uniform throughout the paper. Hand lettering is not an option.

4) Photographs are acceptable, but should preferably be black and white. All photographs and photographic prints must be positive; negatives are not acceptable.

5) Figure captions should be placed below the 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 as "Fig." (plural is "Figs."). A short title in small capitals followed by an em dash should lead the caption. Sub-figures should always be labeled and referred to using lowercase letters enclosed in parentheses. For example, in text: Fig. 2(a); in captions: Fig. 2: EXAMPLE — (a) Measurement for phase-controlled rectifier.

6) Table captions should be placed below the respective tables. Both in the text of the paper and in the caption, the table should be identified by an Arabic numeral and the word "table" abbreviated. For example: Tab. 1: (plural is "Tabs."). A short title in small capitals followed by an em dash should introduce the

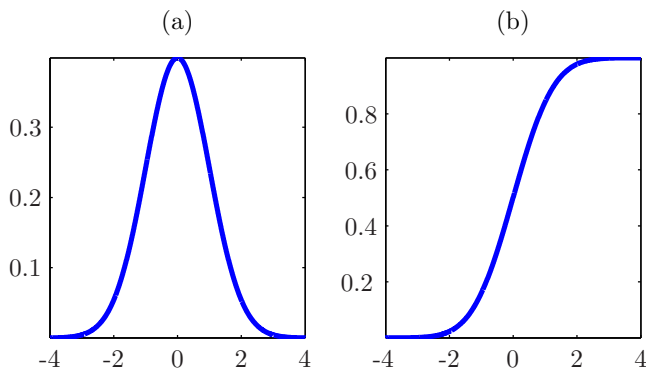


Fig. 1: NORMAL DISTRIBUTION – (a) The density function $f(x)$ and (b) the cumulative distribution function $F(x)$.

caption’s text.

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

Type size (pts.)	Appearance		
	Regular	Bold	Italic
10	Table captions, table superscripts		
10	Section titles, references, tables, table names, first letters in table captions, footnotes, text		Reference publication name
10	subscripts and superscripts		
10	main text, Authors’ affiliations, equations, first letters in section titles	Abstract	Subheadings
12	Authors’ names		
15	Paper title		

Tab. 1: TYPE SIZES FOR PAPERS – Tables are typically inserted into the text on the paper, as long as they are simple and brief. Longer, bigger or more complicated tables may be separated from the text. This table is an example of a table that also provides information on the size of fonts for IM 2022 papers.

7) Figures should fit into a single column, but must not exceed 17.4 cm × 24.7 cm to fit the text body of an A4 sized page.

8) Graph-type figures should show only the major co-ordinate lines. 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.

D. Style for Mathematical Notations and Equations

Handwriting of any letters or symbols is not permitted. 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.

- Capital and lower-case letters, when used as symbols.
- Zero and the letter “O”.
- The capital letter “I,” the small letter “l,” and the numeral one.
- The letters “k” and kappa; “u” and mu; “v” and nu; and “n” and eta.

Vectors and matrices should be in boldface type. Symbols, markings, and 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 when using slashes, vertical bars, radical signs, parentheses, and brackets to avoid ambiguities in equations. The author should adhere to the conventional order of brackets: $\{[()]\}$. When fractions are typed in one line, ambiguities often arise. For example, $1/2r$ may mean $1/(2r)$ or $(1/2)r$. 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, IM 2022 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 either to the left or the right. Examples are presented below.

123 517 465 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. 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 an empty line above and below, and numbered consecutively. The numbers should be enclosed in parentheses and flushed to the right margin. In text, 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 followed by an explanation of the occurring variables are

given below.

$$\alpha_1 + u_1 + \omega \cdot t_{\text{off}} > \alpha_2 + \frac{\pi}{3} \quad (1)$$

$$\alpha_2 + u_2 + \frac{\pi}{3} + \omega \cdot t_{\text{off}} > \alpha_1 \quad (2)$$

where

- α_i firing angle of upper and lower thyristor group $i = 1, 2$;
- u_i commutation overlap angle of upper and lower thyristor group $i = 1, 2$;
- t_{off} thyristor turn-off time.

E. Style for Units and Abbreviations

The use of the International System of Units (SI units) is preferred for use in IM 2022 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 IM 2022 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.

F. Word Usage

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

- Write in complete sentences.
- Avoid jargon. Introduce new terminology only when it is unavoidable.
- Do not write one-sentence paragraphs. In revising, combine any series of very short paragraphs whenever possible.
- Do not use slang or contractions. Avoid expressions that are used only in familiar speech.
No: “Taking a time interval, say, $t = t_2 - t_1$, in which the quantity...”
Yes: “Taking a time interval, for example, $t = t_2 - t_1$, in which the quantity...”

- Write in third person, not first or second person.
- Avoid overuse of italics and overuse of quotation marks around single words.
- 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 given in Henrys.”
- Abbreviations and acronyms should be defined where first used, even those considered by the author to be commonly used and understood.

G. Typing

The typeface should be serif 10 point (e.g. Computer Modern or Times New Roman). Computer Modern is the preferred font. (This document was produced using L^AT_EX with typeface Computer Modern). The paper should be prepared in double column format. The left and right margins should be 18 mm (0.70 in), the column width is 84.5 mm (3.32 in) and the column spacing is 5 mm (0.20 in). The lines of the text should be justified so that both edges of the text are straight. The top and bottom margins should be 25 mm (1.0 in) each. Paragraphs should be indented by 3.5 mm (0.14 in) and no spaces should be left between paragraphs. 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 15 point, and spaced 30 mm (1.18 in) 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. The name(s) of the author(s) should be two (2) 10 point spaces below the paper title line. The lead author should be listed first and the other authors in alphabetical order, centered as illustrated above. The name(s) should be typeface size 12 point, all other author(s) information should be typeface 10 point. There should be two (2) 10 point blank lines below the author(s) information. Primary headings are centered in the column. Use upper case letters. The typeface is bold size 10 point. All other headings typeface is 10 point. Page numbers should be included. These should be 10 point font and should be centered at the bottom of the page.

Note that you should have received a proper L^AT_EX style IM2022.sty with this document.

III. CONCLUSIONS

This paper describes the basic format and style for IM 2022 papers. For additional information, contact the chair of the technical subcommittee for which your paper is being prepared.

IV. ACKNOWLEDGEMENTS

It is common practice when writing technical papers to acknowledge people who have contributed to the work, 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.

V. REFERENCES

List and number all bibliographical references at the end of the paper. All references should be numbered in the order of their appearance in the document. When referring to them in the text, type the corresponding reference number in square brackets. 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-18, 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 *Petroleum and Chemical Industry Conference, 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.

VI. VITA

This section provides a short biographical or autobiographical account of the author(s). An example would be: John Smith graduated from State University in 1995 with a BSEE degree. He has been a design engineer

for the Ace Engineering Company of Houston TX since 1996. This section is optional.