

# Recommended Submission Format for CPEM 2024

Author1<sup>1</sup>, Author2<sup>2</sup>, and Author3<sup>1</sup>

<sup>1</sup>Affiliation1

Email1

<sup>2</sup>Affiliation2

(Please give e-mail for corresponding author; other e-mails optional)

**Abstract**—This paper describes how to prepare a 2-page summary paper for CPEM 2024. Please observe the instructions carefully. The abstract is the first paragraph of the summary: it identifies the paper and its major contribution. It should be limited to a few lines (ideally no more than 150 words). After the abstract, you should list key words that describe your paper. Keywords can be chosen from the IEEE Taxonomy list (available at [iee.org](http://iee.org)). Typically, you should list about 5 to 7 key words, alphabetically.

**Index Terms**—Measurement, measurement standards, measurement techniques, measurement uncertainty, precision measurements, uncertainty.

## I. INTRODUCTION

Please read through this entire template before you start using it to create your paper. This will save you and the CPEM organizers considerable time and improve your paper's chances for acceptance. We request that you follow these guidelines as closely as possible so that the Digest has a professional look and resembles the I&M Transactions.

## II. OVERVIEW OF THE DIGEST FORMAT

The length of the paper is strictly limited to two pages, including illustrations and references. Use 8.5 x 11-inch paper, with a top margin of 0.75 inch, a bottom margin of 1 inch, and 0.625 inch for the left and right margins. Except for Title, Authors and Affiliations, use a double column format. The column width is 3.5 inches and the column spacing is 0.25 inch. All paragraphs of text, including the abstract, figure captions, and references, should be justified at the left and the right edges. In general, fonts and format should follow the example of this template.

For the Title, the Author List, the Authors' Affiliations, the Abstract, and the Index Terms, use the fonts and spacing indicated above. Use an additional line spacing of 12 points before the beginning of the double column section, as shown above. Each major section begins with a Heading in 10 point Times New Roman font centered within the column and numbered using Roman numerals (except for ACKNOWLEDGEMENT and REFERENCES), followed by a period, a single space, and the title using an initial capital letter for each word. The remaining letters are in SMALL CAPITALS. The paragraph description of the section heading line should be set for 18 points before, 6 points after, and the line spacing should be set to exactly 12 points.

For the body of your paper, use 10-point Times New Roman font and set your line spacing at "exactly 12 points" with 0 points before and after. Indent each paragraph by 0.125 inches.

Customize the Copyright notice at the bottom of the first page by using one of the four options below:

- U.S. Government work not protected by U.S. copyright
- 979-8-3503-6104-9/24/\$31.00 ©2024 Crown
- 979-8-3503-6104-9/24/\$31.00 ©2024 European Union
- 979-8-3503-6104-9/24/\$31.00 ©2024 IEEE

## III. DETAILED TEXT FORMATTING

### A. Major Subsections

As shown, denote subsections with left justified 10-point Times New Roman Italic. Order them with capitalized alphabetic characters (A, B, . . .). Follow the letter designation with a period, a single space, and then the subsection title capitalizing the first letter of each word. The paragraph description of the subsection heading is set to "exactly 12-point" line spacing with 6 points before and after.

### B. Page Numbers

Do not type any page numbers. Page numbers will be added in the digest editing/production process.

### C. Equations

Equations should be centered in the column and numbered sequentially. Place the equation number to the right of the equation within a parenthesis, with right justification within its column. An example would be

$$\oint \mathbf{E} \cdot d\mathbf{L} = -\frac{\partial}{\partial t} \iint \mathbf{B} \cdot d\mathbf{S}. \quad (1)$$

Note that a period is used to properly punctuate the previous sentence. It is placed at the end of the second equation. Make sure that any subscripts in your equations are legible and are not too small to read! When referring to an equation, use the number within parenthesis. For example, you would usually refer to the second equation as (2) rather than equation (2). If possible, use the Symbol font for all special characters. The paragraph description of the line containing the equation should be set for 6 points before and 6 points after. The paragraph spacing will need to be set to "single" rather than "exactly 12 point" so the height autoscales to fit the equation.

#### D. Figures

Most of the following applies to Microsoft Word. Figures should utilize as much of the column width as possible in order to maximize legibility. Use a sans serif font, such as Helvetica. Helvetica is larger and much easier to read than Times New Roman. Using 8- to 10-point Helvetica usually results in a legible figure. Do not use any font smaller than 8-point! It must be legible. When referring to a figure, use the abbreviation Fig. followed by its number. Color figures will be included in the Digest, which will be available for download on the conference website/app.

Place figure captions directly below each figure, as in the example, Fig. 1 below. Use 9-point Times with the paragraph spacing set at “exactly 10 points.” Set a tab at 0.5 inch. Type “Fig. #.” (# is the numeral) then tab over to the 0.5 inch mark before beginning the text of the figure caption. Note that figure captions are always (left and right) justified, rather than centered, even if they are less than a single full line in length. See the caption for Fig. 1.

Within  $\LaTeX$  there is basically only one option for placing figures within your paper. Often the easiest way is to insert them into the top of the next column. Do not lump all figures at the end of the paper! If you have difficulties with the titles on your figures, you can always elect to add in the titles as separate text boxes, rather than importing the titles with the graph. This is sometimes helpful in getting a lengthy vertically-oriented title to display correctly.

Notice that prior to the graph, a single 12-point line is used to separate the preceding text from the graph. The equivalent of a blank line should exist between the bottom of the graph (the x-axis caption) and the figure caption. (In this particular case, there was no need to add a blank line between the x-axis label and the figure caption, because there was already adequate spacing provided by the image border.) After the figure caption, there should be a single 12-point blank line before the text resumes.  $\LaTeX$  accepts encapsulated post script files as figures. Standard post script figures will not expand and contract to fill the designate area on the page. Encapsulated post script files will. Thus, encapsulated post script files must obviously be only one page long. It is often easy to convert a post script file to encapsulated post script. In Linux this can be done with the command, “ps2epsi.”

#### E. Tables

Use the same font type as the text (no smaller than 8-point). Small tables should fit in one column. Larger tables can be typed across two columns, preferably at the top or bottom of the page. Each table should have a short heading.

#### IV. CITING PREVIOUS WORK

When referencing a journal article [1], a conference digest article [2] or a book [3], place the reference numbers within square brackets. To simultaneously cite these references [1] - [3] use the format just demonstrated. The reference list is the last section and references are listed in the order cited. Use 9 point Times. The paragraph description is set for a line spacing of exactly 10 points with 0 point spacing before

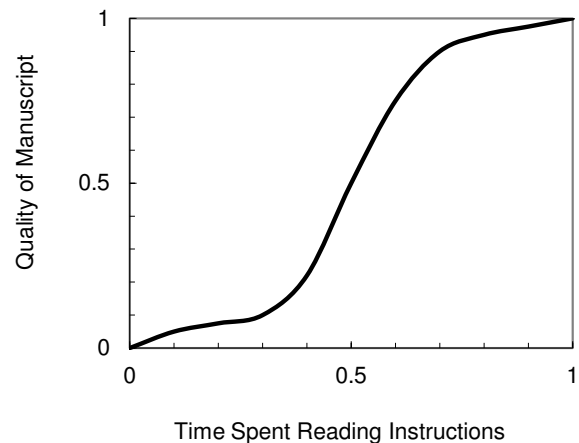


Fig. 1. Estimated relationship between the time an author spends reading these instructions and the quality of the author's digest article.

and after. A 0.25 inch hanging indentation should be specified. Generally speaking, references should be very detailed. For journal articles, list all authors by initials and last name, the title of the paper in quotations (capitalizing only the first letter of the first word, unless it would be capitalized in a sentence, e.g., a proper noun), the journal name in italics, the volume number, the issue number, the page numbers, and the date. Use the examples provided [1] - [3] as a guide.

#### V. CREATION OF THE PDF FILE

The IEEE mandates that all published papers comply with certain IEEE conference standards for electronic searchability. Adhering to these standards ensures compatibility with the search requirements for the IEEE Xplore database. Your final submission must be IEEE Xplore Compatible, or your paper will not be published in the digest. The IEEE PDF eXpress web site will be available to aid you in this process. IEEE PDF eXpress is an online tool that will convert your document into a PDF format that complies with IEEE Xplore® standards. Authors should refer to the CPEM 2024 “Instructions for Authors” for detailed instructions. As always with a conversion to PDF, authors should very carefully check a printed copy and resolve any problems before submitting their manuscript.

#### VI. CONCLUSION

Write your conclusions here.

#### ACKNOWLEDGMENT

Acknowledgements can go here.

#### REFERENCES

- [1] M. E. Bierzychudek and R. E. Elmquist, “Uncertainty evaluation in a two-terminal cryogenic current comparator,” *IEEE Trans. Instrum. Meas.*, vol. 58, no. 4, pp. 1170 – 1175, April 2009.
- [2] D. G. Jarrett and R. E. Elmquist, “Settling time of high-value standard resistors,” CPEM 2004 Conf. Digest, p. 522, June 2004.
- [3] H. L. Krauss, C. W. Bostian, and F. H. Raab, *Solid State Radio Engineering*, New York: J. Wiley & Sons, 1980.