Preparation of Project Papers

P. Matsakis
University of Guelph, Ontario, Canada
pmatsaki@uoguelph.ca

***Abstract*—The guidelines presented in this article are almost identical to those for the preparation of papers for IEEE conference proceedings. The intended audience is students taking a Computing and Information Science course with Dr. Pascal Matsakis at the University of Guelph, Ontario, Canada. Draft and final project papers must be in US letter and two-column format, Times New Roman, single spacing, exactly as shown here. Please refer to the *IEEE Style Manual* for additional instructions. In case of any discrepancy between the two articles, the present one shall prevail. Note that the abstract must be between 100 and 200 words in length.**

I. Introduction

Margins are as follows: bottom = 20 mm (0.8 in), top = 25 mm (1 in), side = 15 mm (0.6 in). Paragraph indentation is 5 mm (0.2 in). The space between the two columns is 8 mm (0.3 in). Left- and right-justify your columns. Use tables and figures to adjust column length. On the last page of your paper, adjust the lengths of the columns so that they are equal. Use automatic hyphenation and check spelling.

Follow the type sizes specified in Table I. Use 10-point line spacing for the abstract; 12-point line spacing for the main text and all headings; 9-point line spacing for all references, figure and table captions.

Leave at least 12-point spacing before and after each table and figure. Leave 12-point spacing above and 6-point spacing below each primary heading; 6-point spacing above and below each secondary heading and each equation; 6-point spacing above each tertiary heading.

TABLE I
TYPE SIZES

Type size (pts.)	Appearance		
	Regular	Bold	Italic
6	Table captions [a] (except first letters)		
8	Primary headings [a] (except first letters), table names,[a] first letters in table captions,[a] text in tables, figure captions, footnotes, text subscripts and superscripts, references		
9		Abstract	
10	Header [a], authors' affiliations, main text, equations, first letters in primary headings [a]		Subheadings
12			Authors' names
24	Paper title		

[a] Uppercase

II. Helpful Hints

A. Figures and Tables

1) Figures: Position figures at the tops and bottoms of columns. Avoid placing them in the middle of columns. Large figures may span across both columns. Figure captions should be centered below the figures. Avoid placing figures before their first mention in the text. Use the abbreviation "Fig. 1," except at the beginning of a sentence: "Figure 1 shows…"

Figure axis labels are often a source of confusion. Use words rather than symbols. For example, write "Magnetization," or "Magnetization, M," not just "M." Put units in parentheses. Do not label axes only with units. Do not label axes with a ratio of quantities and units. For example, write "Temperature (K)," not "Temperature/K."

Multipliers can be especially confusing. Write "Magnetization (kA/m)" or "Magnetization (10^3 A/m)." Figure labels should be legible, about 10-point type.

2) Tables: Position tables at the tops and bottoms of columns. Avoid placing them in the middle of columns. Large tables may span across both columns. Table captions should be centered above the tables. Avoid placing tables before their first mention in the text.

B. References and Footnotes

Number citations consecutively in square brackets, e.g., let us cite this journal paper [1], this conference paper [2], and this book chapter [3]. Use "Reference [2]" at the beginning of a sentence: "Reference [2] was the first …" Papers that have

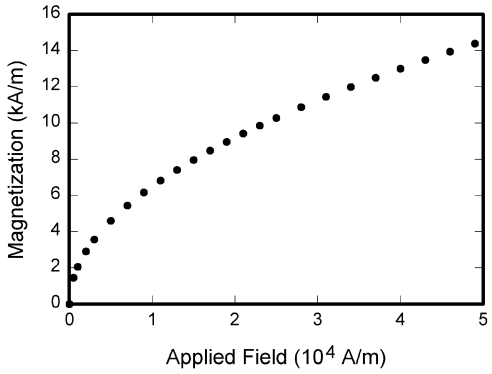

Fig. 1. Magnetization as a function of applied field.
Note that there is a period after the figure number, followed by two spaces.
It is good practice to explain the significance of the figure in the caption.
Note how the caption is centered in the column.

not been published, even if they have been submitted for publication, should be cited as "unpublished" [4]. Papers that have been accepted for publication should be cited as "in press" [5]. Here are examples of how to handle Ph.D. dissertations [6] and online sources [7]. Give all authors' names if there are less than three authors (e.g., the paper by Jacobs and Bean [3]). Use "et al." if there are three authors or more (e.g., the paper by Eason et al. [1]).

Number footnotes separately in superscripts. Place the actual footnote at the bottom of the column in which it was cited. Do not put footnotes in the reference list. Use letters for table footnotes (see Table I).

C. Abbreviations and Acronyms

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

D. Equations

Number equations consecutively with equation numbers in parentheses flush with the right margin, as in (1). To make your equations more compact, you may use the solidus (/), the exp function, or appropriate exponents. Italicize Roman symbols for quantities and variables, but not Greek symbols. Use an en dash (–) rather than a hyphen for a minus sign. Use parentheses to avoid ambiguities in denominators. Punctuate equations with commas or periods when they are part of a sentence, as in

$$a + b = c. \tag{1}$$

Symbols in your equation should be defined before the equation appears or immediately following. Use "(1)," not "Eq. (1)" or "equation (1)," except at the beginning of a sentence: "Equation (1) is …"

E. Other Recommendations

In the paper title, capitalize the first word and all other words except for articles, coordinating conjunctions, and prepositions of three letters or less.

Do not number REFERENCES and ACKNOWLEDGMENT (the preferred spelling in America is without an "e" after the "g"). Hyphenate complex modifiers: "zero-field-cooled magnetization." Avoid dangling participles, such as, "Using (1), the potential was calculated." Write instead, "The potential was calculated using (1)," or "Using (1), we calculated the potential."

Use a zero before decimal points: "0.25," not ".25." Use "cm^3," not "cc." Do not mix complete spellings and abbreviations of units: "wb/m^2" or "webers per square meter," not "$webers/m^2$." Spell units when they appear in text: "…a few henries," not "…a few H." If your native language is not English, try to get a native English-speaking colleague to proofread your paper.

III. UNITS

Use SI (MKS) as primary units. English units may be used as secondary units (in parentheses). An exception would be the use of English units as identifiers in trade, such as "3.5-inch disk drive."

IV. SOME COMMON MISTAKES

The word "data" is plural, not singular. In American English, periods and commas are within quotation marks, like "this period." A parenthetical statement at the end of a sentence is punctuated outside of the closing parenthesis (like this). (A parenthetical *sentence* is punctuated within the parentheses.) The word alternatively is preferred to the word "alternately" (unless you mean something that alternates). Do not use the word "essentially" to mean "approximately" or "effectively." Be aware of the different meanings of the homophones "affect" and "effect," "complement" and "compliment," "discreet" and "discrete," "principal" and "principle." Do not confuse "imply" and "infer." The prefix "non" is not a word; it should be joined to the word it modifies, usually without a hyphen. There is no period after the "et" in the Latin abbreviation "et al." The abbreviation "i.e." means "that is," and the abbreviation "e.g." means "for example." An excellent style manual for science writers is [8].

V. CONCLUSION

Conclusion goes here.

APPENDIX A

Do not enumerate this appendix if it is the only one.

APPENDIX B

There might be no appendix at all. See also Appendix A.

ACKNOWLEDGMENT

There might be no acknowledgment.

REFERENCES

[1] G. Eason, B. Noble, and I. N. Sneddon, "On certain integrals of Lipschitz-Hankel type involving products of Bessel functions," *Phil. Trans. Roy. Soc. London*, vol. A247, pp. 529-551, 1955.

[2] C. Janow, "Guidance and control components for space applications," in *Proc. Nat. Electronics Conf.*, 1994, vol. 24, pp. 30-35.

[3] I. S. Jacobs and C. P. Bean, "Fine particles, thin films and exchange anisotropy," in *Magnetism*, vol. III, G. T. Rado and H. Suhl, Eds., New York: Academic, 1963, pp. 271-350.

[4] K. Elissa, "Title of paper if known," unpublished.

[5] R. Nicole, "Title of paper with only first word capitalized," *J. Name Stand. Abbrev.*, in press.

[6] J. O. Williams, "Narrow-band analyzer," Ph.D. dissertation, Dept. Elect. Eng., Harvard Univ., Cambridge, MA, 1993.

[7] P. Matsakis. (2015, Nov.). Preparation of project papers. [Online]. Available: http://www.socs.uoguelph.ca/~matsakis/CIS6320/notes.htm

[8] M. Young, *The Technical Writer's Handbook*, Mill Valley, CA: University Science, 1989.