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Abstract

Abstracts are required for all papers. An abstract of 150-400 words should be included at the beginning of the paper. The abstract should be formatted as an unnumbered section and is preferred to be presented in a single paragraph. Abstracts are required for all papers. Ensure that all symbols used in the abstract are defined, and all abbreviations are expanded., Do not cite references in the abstract.

1. Electronic Submission

These instructions provide guidance for preparing papers for the publications of the Embedded Real Time Systems (ERTS) congress. Use this document as a template if you are using Microsoft Word 2007 or later. If you are using previous versions of Word, this document may be saved as a .doc file and special care must be taken to make sure all equations and figures are properly formatted. If you would prefer to use LaTeX, download the LaTeX style and sample files from the conference webpage. The full text of the paper (except certain large figures and tables that need to span across two columns) is formatted in two-columns. Manuscripts should be written in clear, concise and grammatically correct English. Manuscripts that do not conform to these requirements and the following manuscript format will be returned to the author prior to review for correction.

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The following section outlines general (non-formatting) guidelines to follow. These guidelines are applicable to all authors and include information on the policies and practices relevant to the publication of your manuscript.

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* Ensure that the year in the footer is the correct year of the ERTS congress.
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1. Paper Format

Papers size should be “A4” (210 mm x 297 mm; 8.3 by 11.7 inches), with two-column format, except for the title, author information and figures and tables placed after the references. Margins should be 2.0 cm top and bottom, and 1.5 cm left and right. An exception is for the first page who top margin needs to be 1.27 cm. Columns should be equally sized, 8.68 cm, with 0.64 cm separation. Paragraphs should be unindented, with a 6-point vertical spacing between paragraphs. All papers should use Times Roman 10-point font throughout.

* 1. Title and Author Information

All items in the title block should be centered across both columns. The title should be set in 17 pt bold, with a 16 pt space below. The paper title should be in the “Title Case”' or ``Headline Style'', i.e., capitalized the first and last words of the title and all nouns, pronouns, adjectives, verbs, adverbs, and subordinating conjunctions (such as, `if', `because', `as', `that', and so on). For example, the title of the paper should be “A Manuscript Template for the European Congress of Embedded Real Time Systems” instead of “A manuscript template for the European congress of embedded real time systems”.

The author’s names should be set in 11pt font, with an 11pt space below. For each author, a numbered superscript should be used to indicate institutional affiliation. Following the author information, each institution with which any of the authors are affiliated should be listed, including addresses. These should be indicated by superscripts as well, and set in 9 pt italic, with a 12 pt space below the final one. The final item in the title block is the author’s email address in 9 pt italics. A 24 pt space should follow this line.

* 1. Section and Subsection Headings

Section and subsection headings are numbered using Arabic numerals separated by a period (‘.’). Section headings (heading 1, in Word) are “small capitals”, 10pt, boldface, and flush left. Subsections (heading 2, in Word) are 10pt, boldface, and flush left. Sub-subsections (heading 3, in Word) are 10pt, boldface, and flush left. All levels below this are unnumbered, 10pt, boldface, with text beginning immediately following the heading on the same line.

* 1. Tables and Figures

Large figures and tables may span across columns. Figure captions should be below the figures; table heads should appear below the tables. Insert figures and tables after they are cited in the text.

To insert images in Word, position the cursor at the insertion point and either use Insert | Picture | From File or copy the image to the Windows clipboard and then Edit | Paste Special | Picture (with “float over text” unchecked). Tables and figures should be numbered consecutively, with captions below the table or figure. Captions should be 10pt, and centered. Two-column-wide figures and tables may be used as appropriate.

Tables should be self-contained and complement, but not duplicate, information contained in the text. Individual numbering of sub-figures (using lower-case letters) is also encouraged where appropriate. See Table 1 example of table style and column alignment.

|  |  |
| --- | --- |
| **Time** | **Event** |
| 15:56:21.194 | Start of scenario |
| 15:56:21.236 | Sample of sensors |
| 15:56:21.736 | Sample of sensors |
| … |  |
| 15:57:04.736 | Sample of sensors |
| 15:57:05.080 | Fault injection |
| 15:57:05.236 | Sample of sensors |
| … |  |
| 15:57:42.252 | End of scenario |

Table 1. Caption of the table

Place figure captions below all figures. If your figure has multiple parts, include the labels “a),” “b),” etc., below and to the left of each part, above the figure caption. Please verify that the figures and tables you mention in the text actually exist. Number each different type of illustration (i.e., figures, tables, images) sequentially with relation to other illustrations of the same type.

The size of the font in the figure must match the size of the font in the manuscript text; it must be legible and not blurred or pixelated. The line weight of figures must not appear broken or rasterized. For vector graphics, the preferred format is EPS; for halftones, please use TIFF format. Vector graphics containing fonts must have the fonts embedded in the files. Do not use faint lines and/or lettering and check that all lines and lettering within the figures are legible at final size. All lines should be at least 0.1 mm (0.3 pt) wide. Scanned line drawings and line drawings in bitmap format should have a minimum resolution of 300 dpi. Color figures are acceptable but you must ensure that data are distinguishable in grayscale prints.

* + 1. Figures Styles

When creating figures, there are several formatting guidelines which should be followed:

* do not put a frame around the figure outside the axes
* do not color the background of a figure
* do always include a clear and distinct legend
* avoid using only color to distinguish data (i.e., use point and line shapes)
* where possible, may be figures entirely in grayscale

Note that the default settings for Microsoft Excel violate many of these guidelines, and more generally, it is quite difficult to create publication-quality figures using Excel.

Figure 1. This is an example of figure caption

* 1. Equations, Numbers, Symbols, and Abbreviations

Equations are centered and numbered consecutively, with equation numbers in parentheses flush right, as in Eq. (1). Insert a blank line on either side of the equation. First use the equation editor to create the equation.

A sample equation is included here, formatted using the preceding instructions. To make your equation more compact, you can use the solidus (/) or appropriate exponents when the expression is five or fewer characters. Use parentheses to avoid ambiguities in denominators.

|  |  |
| --- | --- |
|  | (1) |

Be sure that the symbols in your equation are defined before the equation appears, or immediately following. Italicize symbols (T might refer to temperature, but T is the unit tesla). Refer to “Eq. (1),” not “(1)” or “equation (1)” except at the beginning of a sentence: “Equation (1) is.” Equations can be labeled other than “Eq.” should they represent inequalities, matrices, or boundary conditions. If what is represented is really more than one equation, the abbreviation “Eqs.” can be used. Please DO NOT copy equations as images from other applications. It is highly recommended that equations be typed, wherever possible.

Define abbreviations and acronyms the first time they are used in the main text. Very common abbreviations such as PHM and SI do not have to be defined. Abbreviations that incorporate periods should not have spaces: write “P.R.,” not “P. R.” Delete periods between initials if the abbreviation has three or more initials; e.g., U.N. but ESA. Do not use abbreviations in the title unless they are unavoidable.

* 1. PDF Conversion

All submissions to the publications of ERTS must be in PDF form. Since, different PDF writing software do it differently following guidelines must be followed for the sake of standardized viewing across various computer platforms. It is required that fonts are embedded in to the PDF files during conversions. If you are using windows 2007 or higher (highly recommended) on the Save to PDF dialog, check the 'Options' button and check the ISO 19005-1 compliant box. This should embed the TNR font in the PDF. Without this box checked, the PDF uses resident fonts when viewed.

If you are using MAC OS X there are two options available to create a PDF file with embedded fonts from a MSWord file. The first option is to generate the PDF file directly using the export option in MSWord 2011. Select "File->Save As" from the main menu and then select the PDF option on the "Format:" drop down menu in the "Save As" pop-up window and click "Save". The second option is using the PDF conversion infrastructure of MAC OS X. Select "File->Print" from the main menu and then click on the "PDF" button in the lower left of the "Save As" pop-up window, select the "Save as PDF" option on and click "Save" on the new pop-up window.



* 1. Citing Literature

The ERTS Proceedings use as a citation reference the numerical IEEE format.

* + 1. References in Text

The following entries are intended to provide examples of the different reference types. All references should be in 10-point font.

Works by a single author are cited by the last name of the author and the year of publication are inserted in the text at the appropriate point, e.g., “early work on this topic [1]”. If the name of the author or the date appear as part of the narrative, cite only missing information in parentheses, e.g., “in her early work, Hyndman, R. J., & Koehler, A. B. [2] found”.

Works by associations, corporations, government agencies, etc. are referenced by the name of the body that created the work, e.g., “the 2004 ISO report [3]”. When appropriate, abbreviations can be used in all subsequent citations, provided that there is enough information in the text citation for a reader to locate its source in the reference list without difficulty, e.g., “the report [3] showed”.

* + 1. Formatting the “References” Section

The references should be grouped at the end of the paper, following these general guidelines:

1. All lines after the first line of each entry should be indented one-quarter inch from the left margin. This is called hanging indentation.
2. Authors' names are inverted (last name first); give the last name and initials (first and middle) for all authors of a particular work.
3. Reference list entries should be alphabetized by the last name of the first author of each work.
4. If you have more than one article by the same author, single-author references or multiple-author references with the exact same authors in the exact same order are listed in order by the year of publication, starting with the earliest.
5. When referring to any work that is not a journal, such as a book, article, or Web page, capitalize only the first letter of the first word of a title and subtitle, the first word after a colon or a dash in the title, and proper nouns. Do not capitalize the first letter of the second word in a hyphenated compound word.
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Specific examples of common reference types are given below.

Articles in Periodicals

Authors are named last name followed by initials; multiple authors are followed by a comma; the final author is connected using an ampersand (&) rather than “and”. Publication year goes between parentheses, followed by a period. The title of the article is in sentence-case, meaning only the first word and proper nouns in the title are capitalized. The periodical title is run in italicized title case, and is followed by the volume number, issue number (if any, in parentheses), and pages. Each section of the entry ends with a period followed by a single space This is the basic format:

Author, A. A., Author, B. B., & Author, C. C. (Year). Title of article. *Title of Periodical*, volume number (issue number), pages. doi:0000000/000000000000

Books

This is the basic format for books:

Author, A. A., & Author B. B. (Year). *Title of work: Capital letter also for subtitle*. Location: Publisher.

Edited books:

Author, A. A., & Author B. B. (Eds.). (Year). *Title of work: Capital letter also for subtitle*. Location: Publisher.

Chapters in edited books:

Author, A. A., & Author, B. B. (Year). Title of chapter. In Editor A., & Editor B. (Eds.), *Title of book* (pages of chapter). Location: Publisher.

Articles in Conference Proceedings

This is the basic format for articles appearing in conference proceedings:

Author, A. A., & Author, B. B. (Year). Title of paper. *Title of conference* (page numbers), month day-day, conference location. doi:0000000/000000000000

Dissertations

This is the basic format for articles appearing as dissertations:

Author, A. A., (Year). *Title of dissertation*. Doctoral dissertation. Name of Institution, Location. URL

1. Conclusion

Although a conclusion may review the main points of the paper, it must not replicate the abstract. A conclusion might elaborate on the importance of the work or suggest applications and extensions. Note that the conclusion section is the last section of the paper to be numbered. The appendix (if present), acknowledgment (if present), nomenclature (if present), and references are listed without numbers.

Acknowledgment

The acknowledgment section is optional. Please list any acknowledgment here using a single paragraph.

Nomenclature

*A* amplitude of oscillation

*a* acceleration

*Cp* pressure coefficient

*m* mass

*dt* time step

*T* temperature

*P* pressure

*f, g* generic functions

*h* height

*I* current

*V* voltage

** dummy variable

Note that this section is optional.

References

|  |  |
| --- | --- |
| [1]  | B. L. Ferrel, “JSF Prognostics and Health Management,” in *Proceedings of IEEE Aerospace ConferenceProceedings of IEEE Aerospace Conference*, Big Sky, 1999.  |
| [2]  | R. J. Hyndman and A. B. Koehler, “Another look at measures of forecast accuracy,” *International Journal of Forecasting,* vol. 22, pp. 679-688, 2006.  |
| [3]  | “Condition Monitoring and Diagnostics of Machines - Prognostics part 1: General Guidelines. In ISO, ISO13381-1:2004(e). vol. ISO/IEC Directives Part 2, I. O. f. S. (ISO), (p. 14).,” International Standards Organization (ISO) , Genève, Switzerland, 2004. |
| [4]  | W. Chen, Nonlinear Analysis of Electronic Prognostics, Doctoral dissertation ed., Napoli, Italy: The Technical University of Napoli, 1991.  |