

# Preparation of Papers for Publication in IJCAAM

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**Abstract** — *These instructions (new version, as of November 2010) provide guidelines for preparing papers for the IEEE TRANSACTIONS ON CONSUMER ELECTRONICS. Use this document as a template with Microsoft Word 6.0 or later. Define all symbols used in the abstract. Do not cite references in the abstract. The abstract body copy should be in Times New Roman, 10 pt. Italic and not in bold type*<sup>1</sup>.

**Index Terms** — **About four key words or phrases in order of importance, separated by commas.**

## I. INTRODUCTION

This document is a template for Microsoft Word versions 6.0 or later. If you are reading a paper or PDF version of this document, please download the electronic template from [http://www.ewh.ieee.org/soc/ces/publications\\_trans\\_ce.html](http://www.ewh.ieee.org/soc/ces/publications_trans_ce.html) to prepare your manuscript. Failure to read, understand and follow all aspects of these instructions, especially formatting, is a major cause for rejections.

The objective of this document is to provide a template for the preparation of a paper for publication in the IEEE TRANSACTIONS ON CONSUMER ELECTRONICS. The use of this template and its included styles for the parts of the document will ensure the professional appearance of your paper as well as providing a uniform digital source from which to satisfy the electronic publication requirements of *IEEE Xplore*.

When you open this document, select “Page Layout” or “Print Layout” from the “View” menu in the menu bar, which allows you to see the footnotes. Then type over sections of this document or cut from another document and paste and then use markup styles. The pull-down style menu is at the left of the Formatting Toolbar at the top of your *Word* window (for example, the style at this point in the document is “Text”).

<sup>1</sup> This work was supported in part by the U.S. Department of Commerce under Grant No. BS123456 (sponsor acknowledgment goes here).

Paper titles should be written in uppercase and lowercase letters, not all uppercase. Avoid writing long formulas with subscripts in the title. Do not write “(Invited)” in the title. Do not begin a title with the word “On ...” Full names of authors are preferred in the author field, but are not required. Put a space between authors’ initials. Do not list author affiliation at the top of this page under the title. Do not enter correspondence author information.

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Highlight a section that you want to designate with a certain style, and then select the appropriate name on the style menu. The style will adjust your fonts and line spacing. *Do not change the font sizes or line spacing to squeeze more text into a limited number of pages. Do not increase the line spacing either.*

Use italics for emphasis; do not underline. Turn off “smart quotes” (Tools | AutoCorrect | AutoFormat tabs). Turn off automatic hyphenation (Tools | Language | Hyphenation).

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). See figure in section VII for further instructions.

## II. PROCEDURE FOR PAPER SUBMISSION

This section covers the details regarding preparation of your manuscript for submission, the submission procedure, review process and copyright information.

### A. Preparation of Manuscript

In the interest of speed and economy, the IEEE TRANSACTIONS ON CONSUMER ELECTRONICS is printed directly from this electronic template as furnished by the author. *Since the final printed pages look exactly like the submitted copy*, we urge that utmost care be taken in the preparation utilizing this electronic template. For your information, page size is 8.5x11 inches and column width is 3.375 inches. All figures and tables should have adequate titles or captions, and must be integrally placed at their proper location(s) in the text. For the benefit of the readers, the figures, tables, graphs and photos should be placed near the corresponding text; *that is, not accumulated at the end of the text or at the end of the manuscript*. Further information on Figures and Tables can be found in Section VII-A.

Do not include any blank pages either at the beginning or end of your manuscript, or any messages to the editor or reviewers in your submission. Paper is expensive, so do not leave any excessive white/unused spaces in your paper.

Due care should be exercised to avoid the use of abbreviations and phrases which may not be familiar to all readers. Readers of the IEEE TRANSACTIONS ON CONSUMER ELECTRONICS have wide and diverse backgrounds and may not be employed in the specific area of any given paper, but are still interested in following the state-of-the-art. All abbreviations and phrases need to be suitably defined in the

text, usually, the first time they occur.

The length of contributed technical papers is limited to 9 pages or less (including all figures and biographies). The length of invited papers is at the discretion of the editor.

Page numbers and page headings are not to be added by authors. Neither is “Manuscript Received” or “Correspondence Author” information.

Only those who personally write the paper are to be listed as authors. Since it is unlikely that a large number of authors can write a cohesive paper, *submissions listing more than five authors will not be accepted*. Papers listing more than five will be rejected or, if considered exceptional, will be accepted with the list of authors reduced to the first five. The efforts of the persons who contributed to the project described, or who otherwise provide help to the author(s) may be recognized in an Acknowledgments section at the end of the paper.

For each author, we require a brief biography to be included within this template. We also encourage the inclusion of a small photograph (head only) of each author, but do not leave empty boxes where photos would be placed

#### B. Submission Procedure

The *only* acceptable electronic format is *Word 6.0 or later* (.doc or .docx). The title of the electronic file should include the last name of the first author; i.e., smith.doc. For papers presented at the ICCE (IEEE International Conference on Consumer Electronics), the file should also include the paper presentation date and the paper number, e.g., 1234567890. For non-conference papers, use the first two words of the paper title and last name of first author, e.g., Preparation\_of\_FirstAuthor.doc.

Papers must be submitted electronically to the following web site: <http://www.cloznet.com/ieee-ce/>. The web site will require you to enter information about the paper as well as contact information. If the paper was presented at ICCE, the paper number must be entered in the appropriate location. Upon successful submission of the paper, an automatic email confirmation will be sent to the contact author.

The above contact information will also be used to provide a complimentary copy of the issue in which the paper is published to each author. However, as from 2012, only one complimentary copy per paper of the issue in which the paper is published will be sent to the contact author, a complimentary copy will not be sent to each author. The T-CE cannot be responsible for wrong, incomplete, or changed mailing addresses or delays by postal services.

If there are questions, the prospective author may wish to contact:

R. Simon Sherratt, Editor-in-Chief  
*IEEE Transactions on Consumer Electronics*  
[sherratt@ieee.org](mailto:sherratt@ieee.org)

#### C. Submission Timing

We publish four issues per year, dated February, May, August and November. Deadlines for these four issues are

January 15, April 15, July 15 and October 15, respectively. The February issue is restricted to papers presented at the January ICCE. Authors should note that as a consequence of the February issue being reserved for ICCE papers, then contributed (non ICCE) papers submitted after the 15<sup>th</sup> October are considered for the following May issue.

#### D. Review Process

All papers submitted to the IEEE TRANSACTIONS ON CONSUMER ELECTRONICS are subject to a thorough review process. The Editor-in-Chief is responsible for coordinating the review among members of the Editorial Board and making final decisions on each paper. Authors will be notified by email at the conclusion of this Review Process. *Routine inquiries as to the status of the submitted paper within the Review process or questions about when the issue will be completed and available, either in hard copy or on IEEE Xplore, will not be accommodated.*

If the paper is accepted, there is no opportunity to make any changes from what was originally submitted. What was submitted is what will be printed and posted on *IEEE Xplore*.

#### E. Resubmissions

In cases where the Publications Committee rejects a submission, resubmission may be encouraged. The only way to resubmit a corrected manuscript is via the same T-CE web site, being sure to select the “Yes” button near the bottom of the on-line submission form.

#### F. Copyright

It is the policy of the IEEE to own the copyright to the technical contributions that it publishes on behalf of the interests of the IEEE, its authors, and their employers, and to facilitate the appropriate re-use of this material by others. To comply with the U.S. copyright law, authors are required to sign an *IEEE Copyright Form* before publication. This form returns to authors, and their employers, full rights to reuse their material for their own purposes. Authors must submit a signed copy of this form with their manuscripts. The form will be generated during the electronic submission process.

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### III. CRITERIA FOR PUBLICATION

The IEEE TRANSACTIONS ON CONSUMER ELECTRONICS publishes papers presenting *new technology* that is relevant,

interesting, enlightening and instructive for members of the Consumer Electronics Society. It should be emphasized that new technology does not simply imply new product development where unusual technical achievement has been attained. The key factor is the emphasis placed on the *technology* rather than the product.

Submitted papers must discuss aspects or sub-systems of electronic equipment owned or leased *by consumers*.

Technologies which will be considered include: Camera/Display/Transducer systems, Communications technology related to consumer products, Consumer Networks, Consumer Record/Playback/Storage systems, Signal Processing techniques applicable to consumer products, and Software for Consumer Products.

For authors' who have not submitted to *IEEE TRANSACTIONS ON CONSUMER ELECTRONICS* before, it is requested that a number of past issues are examined to learn the style and language of the journal.

It is strongly recommended that papers submitted to the IEEE T-CE be based on papers previously published in the T-CE and show their relevance to T-CE by citing relevant previous T-CE papers. Our Publications Review Committee will check for such basis when reviewing the References section of all submitted papers.

Gate-level design of integrated circuits, detailed security systems (including watermarking), internet and personal computer design, in general will *not* be accepted.

The emphasis of technology implies certain criteria must be observed in papers presented for publication in the IEEE TRANSACTIONS ON CONSUMER ELECTRONICS. The material in the text of the paper should be of the nature of a revelation of technical information not generally known or familiar to the consumer engineering fraternity. This may be in the form of new technical developments or tutorial in nature where scattered sources of information are brought together in one coherent reference.

*All evidence of commercialism is to be meticulously avoided in the title, text, tables and figures of the paper.* This includes company names, trademarks and commercial part numbers. It is appropriate to put the company affiliation of the authors(s), along with email addresses within the footnote on the first page, as indicated by this template. *All commercial part numbers, whether the subject of the paper or not, are to be avoided in the title, text, tables and illustrations.* When the paper describes an item commercially identified with a company part number, that part number may be placed in a footnote along with a generic or descriptive name that identifies it in the title or text but the company name should not be given

The IEEE TRANSACTIONS ON CONSUMER ELECTRONICS must convey a professional approach to its readers and attempts at injecting commercialism in papers presented for publication have been, and will continue to be, adequate cause for rejection.

Per IEEE policy, authors may not submit a given

manuscript to two or more publications without informing the editor that the paper is concurrently under consideration by another publication. Violators are subject to suspension of publication opportunities.

It is requested that an author does not submit more than 3 papers for consideration, per issue, including resubmissions.

#### IV. AWARDS

All papers published in the Transactions on Consumer Electronics become candidates for one of the three *Chester W. Sall Best Paper* awards. Three papers are chosen each year by the Society's Awards Committee.

#### V. MATH

When using *Word*, use either the Microsoft Equation Editor or the *MathType* add-on (<http://www.mathtype.com/>) for equations in your paper (Insert | Object | Create New | Microsoft Equation *or* MathType Equation). "Float over text" should *not* be selected.

#### VI. UNITS

Use either SI (MKS) or CGS as primary units. (SI units are strongly encouraged.) Imperial units may be used as secondary units (in parentheses). For example, write "15 Gbit/cm<sup>2</sup> (100 Gbit/in<sup>2</sup>)." An exception is when English units are used as identifiers in trade, such as "3½ in disk drive." Avoid combining SI and CGS units. This often leads to confusion because equations do not balance dimensionally. If you must use mixed units, clearly state the units for each quantity in an equation. For further information on units and quantity symbols, please refer to Appendix I of [http://www.ieee.org/portal/cms\\_docs/pubs/transactions/auinfo\\_03.pdf](http://www.ieee.org/portal/cms_docs/pubs/transactions/auinfo_03.pdf).

#### VII. HELPFUL HINTS

##### A. Use of English

Please note our official publication language is English and to maintain quality consistent with our formal archival publication, we require that all submissions confirm to style and formal grammar rules of the English language. For this reason, we encourage all authors whose native language is other than English to enlist the services of a native language speaking colleague or associate to review and edit your submission. Improper use of the English language will continue to be a sufficient reason for rejection.

##### B. Figures and Tables

It is preferable to keep figures and tables (illustrations) to one column width, inline with text.

Make the caption bold. Insert the illustration using Edit | Paste Special | As Picture. Resize the illustration as necessary. Use Format | Picture and set Layout to "In Line with Text". Insert a paragraph mark (hit "enter") immediately after the illustration. Select the illustration and apply "Table Title"

style. Start the caption on the next line (no blank line between illustration and caption). The above procedure will prevent the illustration and caption from becoming disassociated across page boundaries while also preventing them from jumping to another part of the document when different printer drivers or versions of Word are used.

Do not use unusual or non-English fonts in the text of any figure or table; they will not reproduce correctly.

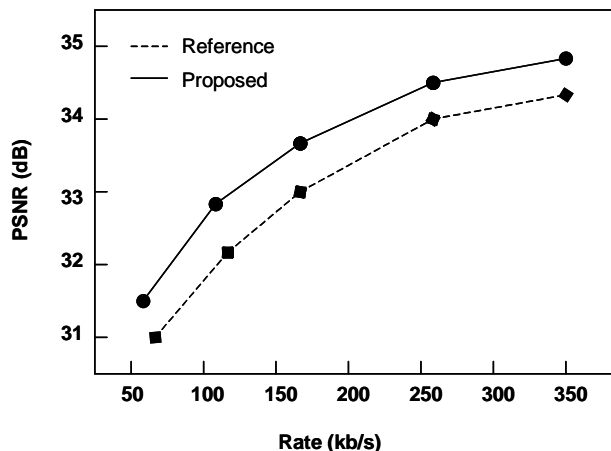


Fig. 1. Rate-Distortion curves comparing Reference and Proposed algorithms. Note that “Fig.” is abbreviated. There is a period after the figure number, followed by two spaces. It is good practice to explain the significance of the figure.

Large figures and tables may span both columns if required for readability. Illustrations spanning both columns should be placed in a separate single-column section of the document (separated by section breaks), and must be placed at the top or bottom of the page so that the text on the page is read as one complete left column followed by one complete right column. Place figure captions below the figures, as indicated in Figure 1. Place table titles above the tables, as illustrated in TABLE I. Select the table title and the entire table, and use Format...Paragraph...Indents and Spacing to set “Keep with Next.” This will prevent the title and the table from breaking across page boundaries. If there are captions, apply “Keep With Next” to all but the last caption. Contents of tables may not be split between two different columns.

If your figure has two parts, for example, include the labels “(a)” and “(b)” as part of the artwork. Please verify that figures and tables that you mention in the text actually exist. Use the abbreviation “Fig.” even at the beginning of a sentence. Do not abbreviate “Table.” Tables are numbered with Roman numerals. See Fig. 1 for an example of a single-column illustration.

TABLE I  
UNITS AND CORRESPONDING SYMBOLS

Unit	Unit Symbol
megabytes per second	MB/s
kilohertz	kHz
nanosecond	ns

Statements that serve as captions for the entire table do not need footnote letters.

Figure axis labels are often a source of confusion. Use words rather than symbols. As an example, write the quantity “Rate,” or “Rate,  $R$ ,” not just “ $R$ .” Put units in parentheses. Do not label axes only with units. As in Fig. 1, for example, write “Rate (kb/s)” or “PSNR (dB).” Do not label axes with a ratio of quantities and units. For example, write “PSNR (dB),” not “PSNR/dB.”

Multipliers can be especially confusing. Write “Rate (kb/s)” or “Rate ( $10^3$  b/s),” not “Rate (b/s)  $\times$  1000.” Figure labels should be legible, approximately 8 to 12 point type.

### C. References

Number citations/references consecutively in square brackets [1]. The sentence punctuation follows the brackets [2]. Multiple references [2], [3] are each numbered with separate brackets [1]-[3]. When citing a section in a book, please give the relevant page numbers [2]. In sentences, refer simply to the reference number, as in [3]. Do not use “Ref. [3]” or “reference [3]” except at the beginning of a sentence: “Reference [3] shows ...”

Number footnotes separately in superscripts (Insert | Footnote).<sup>2</sup> Place the actual footnote at the bottom of the column in which it is cited; do not put footnotes in the reference list.

Note that IEEE referencing style is quite different from that used by many physics journals. Give all authors’ names; do not use “et al.” unless there are six authors or more. Use a space after authors’ initials. Papers that have not been published should be cited as “unpublished” [4]. Papers that have been submitted or accepted for publication should be cited as “submitted for publication” [5]. Please give affiliations and addresses for personal communications [6].

Capitalize only the first word in a paper title, except for proper nouns and element symbols. If you are short of space, you may omit paper titles. However, paper titles are helpful to your readers and are strongly recommended. For papers published in translation journals, please give the English citation first, followed by the original foreign-language citation [7].

### D. Abbreviations and Acronyms

Define abbreviations and acronyms the first time they are used in the text, even after they have already been defined in the abstract. Abbreviations such as IEEE, SI, ac, and dc do not have to be defined. Abbreviations that incorporate periods should not have spaces: write “C.N.R.S.,” not “C. N. R. S.” Do not use abbreviations in the title unless they are unavoidable (for example, “IEEE” in the title of this article). For a more complete listing of common abbreviations and acronyms please refer to Appendix II of [http://www.ieee.org/portal/cms\\_docs/pubs/transactions/auinfo03.pdf](http://www.ieee.org/portal/cms_docs/pubs/transactions/auinfo03.pdf).

<sup>2</sup>It is recommended that footnotes be avoided. Instead, try to integrate the footnote information into the text wherever possible.

### E. Equations

Number equations consecutively with equation numbers in parentheses flush with the right margin, as in (1). First use the equation editor to create the equation. Then select the “Equation” markup style. Press the tab key and write the equation number in parentheses. To make your equations more compact, you may use the solidus (/), the exp function, or appropriate exponents. Use parentheses to avoid ambiguities in denominators. Punctuate equations when they are part of a sentence, as in

$$\int_0^{r_2} F(r, \varphi) dr d\varphi = [\sigma r_2 / (2\mu_0)] \cdot \int_0^\infty \exp(-\lambda |z_j - z_i|) \lambda^{-1} J_1(\lambda r_2) J_0(\lambda r_i) d\lambda. \quad (1)$$

Be sure that the symbols in your equation have been defined before the equation appears or immediately following. Italicize symbols. Refer to “(1),” not “Eq. (1)” or “equation (1),” except at the beginning of a sentence: “Equation (1) is ...”

### F. Other Recommendations

Use one space after periods and colons. Hyphenate complex modifiers: “zero-field-cooled magnetization.” Avoid dangling participles, such as, “Using (1), the potential was calculated.” [It is not clear who or what used (1).] Write instead, “The potential was calculated by using (1),” or “Using (1), we calculated the potential.”

Use a zero before decimal points: “0.25,” not “.25.” Use “cm<sup>3</sup>,” not “cc.” Indicate sample dimensions as “0.1 cm × 0.2 cm,” not “0.1 × 0.2 cm<sup>2</sup>.” The abbreviation for “seconds” is “s,” not “sec.” Do not mix complete spellings and abbreviations of units: use “Mb/s” or “megabits per second,” not “megabits/s.” When expressing a range of values, write “7 to 9” or “7-9,” not “7~9.”

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.) In American English, periods and commas are within quotation marks, like “this period.” Other punctuation is “outside”! Avoid contractions; for example, write “do not” instead of “don’t.” The serial comma is preferred: “A, B, and C” instead of “A, B and C.”

*Remember to check spelling. If your native language is not English, please get a native English-speaking colleague to proofread your paper.* Many papers are rejected for poor use of the English language or simple spelling errors.

Additional guides and suggestions may be found at the ICCE website: [http://www.icce.org/authors\\_page/14steps.pdf](http://www.icce.org/authors_page/14steps.pdf).

## IX. SOME COMMON MISTAKES

The word “data” is plural, not singular. Use the word “micrometer” instead of “micron.” A graph within a graph is an “inset,” not an “insert.” The word “alternatively” is

preferred to the word “alternately” (unless you really mean something that alternates). Use the word “whereas” instead of “while” (unless you are referring to simultaneous events). Do not use the word “essentially” to mean “approximately” or “effectively.” Do not use the word “issue” as a euphemism for “problem.”

Be aware of the different meanings of the homophones “affect” (usually a verb) and “effect” (usually a noun), “complement” and “compliment,” “discreet” and “discrete,” “principal” (e.g., “principal investigator”) and “principle” (e.g., “principle of measurement”). Do not confuse “imply” and “infer.”

Prefixes such as “non,” “sub,” “micro,” and “ultra” are not independent words; they should be joined to the words they modify, 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 and source of information for science writers is [8]. A general IEEE style guide, *Information for Authors*, is available at:

[http://www.ieee.org/portal/cms\\_docs/pubs/transactions/auinfo03.pdf](http://www.ieee.org/portal/cms_docs/pubs/transactions/auinfo03.pdf).

## IX. CONCLUSION

Although a conclusion may review the main points of the paper, do not replicate the abstract as the conclusion. A conclusion might elaborate on the importance of the work or suggest applications and extensions.

## APPENDIX

Appendices, if needed, appear before the Acknowledgment.

## ACKNOWLEDGMENT

The preferred spelling of the word “acknowledgment” in American English is without an “e” after the “g.” Use the singular heading even if you have many acknowledgments. Avoid expressions such as “One of us (S.B.A.) would like to thank ... .” Instead, write “S.B.A. thanks ... .” Put sponsor acknowledgments, if any, in the footnote on the first page.

## REFERENCES

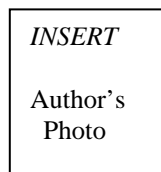
*Note: Internet websites are not permitted as references in archival publications because they are subject to change. (Make sure this sentence is removed from the submitted paper.)*

- [1] A. Vetro, H. Sun, P. DaGraca, and T. Poon, “Minimum drift architectures for three-layer scalable DTV decoding,” *IEEE Trans. Consumer Electron.*, vol. 44, no. 3, pp. 527-536, Aug. 1998.
- [2] A. N. Netravali and B. G. Haskell, *Digital Pictures*, 2nd ed., Plenum Press: New York, 1995, pp. 613-651.
- [3] H. Sun, W. Kwok, and J. Zdepski, “Architectures for MPEG compressed bitstream scaling,” *IEEE Trans. Circuits Syst. Video Technol.*, vol. 6, no. 2, pp. 191-199, Apr. 1996.
- [4] K. Elissa, “Title of paper,” unpublished.
- [5] R. Nicole, “Title of paper with only first word capitalized,” submitted for publication in *IEEE Trans. Broadcast Technology*.

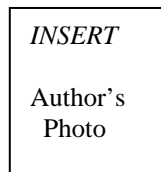
- [6] C. J. Kaufman, Rocky Mountain Research Laboratories, Boulder, CO, personal communication, 1992.
- [7] Y. Yorozu, M. Hirano, K. Oka, and Y. Tagawa, "Electron spectroscopy studies on magneto-optical media and plastic substrate interface," *IEEE Transl. J. Magn. Jpn.*, vol. 2, pp. 740-741, August 1987 [*Dig. 9th Annual Conf. Magn. Jpn.*, p. 301, 1982].
- [8] IEEE Periodicals, Transactions/Journals Department, *Information for Authors*, revised January 2006.

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### BIOGRAPHIES



**First A. Author** and the other authors should include biographies at the end of the paper. Usual biography information includes birth date and place, education, employments, and memberships in other professional societies. It is also appropriate to include research interests, professional activities and awards that have been received. Copy and paste this paragraph, with picture, for additional authors.



**Second A. Author** received the BEE and MSEE degrees in electrical engineering from the Georgia Institute of Technology, Atlanta, in 1991 and 1993, respectively, and is currently working toward the PhD degree. He has developed several all-optical packet-switched network subsystems and node demonstrations and is currently working on new analysis tools and techniques for the optical shared memory architecture class of packet switches. His research interests include all-optical packet-switched networks, high speed opto-electronic interface design, discrete simulation and exact Markov models for buffered packet switches. Mr. Shell is also the author of the most recent versions of the IEEE tran LaTeX class and BibTeX style packages and is the current maintainer of both.