



INFORMATION FOR IEEE MAGAZINE AUTHORS

Information for Magazine Authors

IEEE MAGAZINES DEPARTMENT

445 HOES LANE
PISCATAWAY, NJ 08855

PHONE: (732) 562-3950

FAX: (732) 981-1855

EMAIL: magazines@ieee.org

mag-webkeeper@ieee.org

©1999 THE INSTITUTE OF ELECTRICAL
AND ELECTRONICS ENGINEERS, INC.

Information for IEEE Magazine Authors

Table of Contents

I. IEEE Author Rights and Responsibilities 4	F. References—Electronic Sources
A. Author Responsibilities	Journal Articles
B. Rights	Material Obtained Through Loose-Leaf, Computer, or Information Services
C. IEEE Copyright	Computer Programs and Electronic Documents
Paper Copy Preprints	G. Figures, Tables, and Captions List
Electronic Preprints	H. Section Headings
Collected Works	I. Mathematical Notation
Personal Servers	J. Units and Abbreviations
Classroom Use	
II. General Overview of the IEEE	IV. Final Preparation for Publication 7
Publishing Process 5	A. Electronic Preparation
A. Initial Decisions	B. Transmittal
B. Format	Floppy disk (3½ in), Zip disk, Writable
C. Peer Review	CD Transmittal
D. Final Acceptance	FTP Transmittal
E. Preparation of Electronic and Final Manuscripts	Email Transmittal
F. Author Proofs	C. Proofs
G. Reprint Requests	D. Reprints and Page Charges
H. Printed Issue	
I. No Returns	
III. General Manuscript Preparation 6	Appendix I. Table of Units and Quantity
A. Typing Specifications	Symbols A1
B. Consecutive Numbering of Parts	Appendix II. Some Common Acronyms and
C. Manuscript Formats	Abbreviations A9
D. Abstract	Appendix III. List of Transactions, Journals,
E. References	and Letters A13
Books	
Periodicals	
Articles from published conference proceedings	
Papers presented at conferences (unpublished)	
Technical reports	

Copies of this guide are available upon request from: IEEE Periodicals, Magazines/Newsletters Department, 445 Hoes Lane Piscataway, NJ 08855, ©1999 The Institute of Electrical and Electronics Engineers, Inc.

Scope

This booklet provides useful information for authors and potential authors of articles in IEEE magazines. Current IEEE magazines are listed at <http://www.ieee.org/magazines>. These guidelines reside on the web at <http://www.ieee.org/pubs/magazines>. The web version is always current and is the authoritative version.

Information for IEEE Magazine Authors

I. IEEE Author Rights and Responsibilities

A. Author Responsibilities

Manuscripts submitted for publication to IEEE Magazines should be original work submitted to a single IEEE Magazine. It should not have been previously published, except by special arrangement, and should not be under consideration for publication elsewhere.

The IEEE assumes that material submitted to its publications is properly available for general dissemination for the readership of those publications. It is the responsibility of the authors, not the IEEE, to determine whether disclosure of their material requires the prior consent of other parties and, if so, to obtain it. If an author uses charts, photographs, or other graphics from previously printed material, he or she is responsible to obtain written permission to use the material in his or her manuscript.

Statements and opinions given in work published by the IEEE are the expressions of the authors. Responsibility for the contents of published articles rests upon the authors, not the IEEE.

B. Rights

In the case of refereed articles, occasionally an author may disagree with the referees' recommendations, and with the editorial decision based on those comments. In such a case, the author shall be given the opportunity to prepare a suitably worded rebuttal to the referees' criticism where the author believes it is unfounded and to submit the rebuttal to the Editor. Technical disagreements often occur in such instances because the referee's interpretation of the manuscript is different from the author's intended interpretation. Rebuttals can correct such erroneous interpretations. In any case, the Editor forwards the rebuttals to the referees for their comments, acting as an intermediary to continue to preserve the referees' anonymity. The referees return their recommendations if the argument put forth is persuasive. On the other hand, the referee is free to counter the rebuttal of the author. However the referee chooses to act, he or she furnishes additional information to the Editor which, together with the rebuttal of the author, provides the Editor with additional information on which to base a decision. The Editor may seek advice from additional referees during such an exchange. It is understood that such occasional lengthy exchanges will require an extension to the deadline for the final decision of the submission beyond the 90-day requirement. The author should be so informed.

The editorial policy of an IEEE publication is to be determined by the entity that sponsors or controls the publication, within the framework and policies set by the IEEE Publications Board and the IEEE Board of Directors. Implementation of these policies is the responsibility of the Editor-in-Chief of the publication. The Editor-in-Chief is, in general, the final authority on matters of content and appropriateness of material in the publication. Disputes that arise over review or acceptance of the material submit-

ted for publication are expected to be resolved by the Editorial Board of the publication.

In the event of a challenge to the review or publishing process that cannot be resolved at the sponsoring entity level, the Vice President of Publication Activities shall within 30 days of receipt of written complaint, determine whether the dispute merits a formal arbitration process. For arbitration, the Vice President shall appoint an individual who will, through consultation with parties to the dispute and with the assistance of knowledgeable members of the professional community, assess the merits of the dispute and recommend a resolution. The recommendation will be presented to the Publications Board within 120 days of the receipt of the complaint, unless a time extension is granted by the Vice President of Publication Activities. The decision on the matter will then be made by the Vice President of Publication Activities, and is binding on the IEEE entity that is a party to the dispute.

C. IEEE Copyright

It is the formal policy of the IEEE to own the copyright to the technical contributions it publishes in order to protect the interests of the IEEE, its authors, and their employers, and, at the same time, to facilitate the appropriate reuse of this material by others. To comply with IEEE copyright policy, authors are required to sign an IEEE copyright form before publication in either the print or electronic medium. A copy of the IEEE Copyright Form usually is provided at the time the manuscript has been approved for publication or release.

Questions on IEEE copyright policy should be directed to the Intellectual Property Rights Manager, IEEE Operations Center, 445 Hoes Lane, Piscataway, NJ 08855-1331.

The IEEE Copyrights and Permissions Department will process all permission requests and will monitor and report on electronic reuses of IEEE-copyrighted material relative to the proposed policies described here. The procedures outlined below will enable the department to carry out these responsibilities.

A fully executed IEEE Copyright Form should accompany any original material when it is first submitted to an IEEE technical periodical or conference publication. In any event, an author must transfer copyright to IEEE upon being notified of the acceptance of his or her article if the transfer has not been done prior to acceptance. IEEE will not insist on a transfer of copyright rights (other than a license to print, reprint, and distribute) in any computer programs set out in the text of the material.

The following copyright notice must be displayed on the first page of any paper copy reproduction of IEEE-copyrighted material or on the initial screen displaying IEEE-copyrighted material electronically:

Personal use of this material is permitted. However, permission to reprint/republish this material for advertising or promotional purposes or for creating new collective works for resale or redistribution to servers or lists, or to reuse any copyrighted component of this work in other works must be obtained from the IEEE.

Paper Copy Preprints:

A paper (hard) copy preprint may be an article which an author or an author's employer wishes to distribute, but which either has been only recently submitted for review, has been reviewed and accepted but not yet published. Paper copy preprints must carry the following notice on the first page of the reproduction:

This work has been submitted to the IEEE for possible publication. Copyright may be transferred without notice, after which this version will be superseded.

Electronic Preprints:

Upon submitting an article to the IEEE for review and possible publication, the author must add the following notice to the first screen of any of his or her posted electronic preprint versions of the article:

This work has been submitted to the IEEE for possible publication. Copyright may be transferred without notice, after which this version may no longer be accessible.

When IEEE accepts the work for publication, the author must add the IEEE copyright notice to any previously posted electronic versions of the particular article submitted and provide IEEE with the electronic address (URL, ftp address, etc.) of the primary electronic posting.

When IEEE publishes the work, the author must replace the previous electronic version of the accepted article with either the full citation to

- 1) the IEEE work
- 2) the IEEE-published version, including the IEEE copyright notice and full citation.

Prior or revised versions of the article must not be represented as the published version.

Collected Works:

IEEE-copyrighted collected works, such as conference proceedings (full text and/or abstracts) and collections of published papers (including collections distributed from a single server or created through a collection of pointers or hyperlinks that refer to versions posted by IEEE authors), may not be posted for electronic distribution without prior written permission from IEEE. Such permission will be contingent upon the placement of prominently displayed copyright and reuse notices. Another condition in granting permission will be that the posted collected work include a monitoring mechanism for authorizing access to the material and for the reporting of usage data.

Personal Servers:

Authors and their companies shall have the right to post their IEEE-copyrighted material on their own servers without permission, provided that the server displays a prominent notice alerting readers to their obligations with respect to copyrighted material and that the posted work includes the IEEE copyright notice as shown in Section I-C above. An example of an acceptable notice is:

This material is presented to ensure timely dissemination of scholarly and technical work. Copyright and all rights therein are retained by authors or by other copyright holders. All persons copying this information are expected to adhere to the terms and constraints invoked

by each author's copyright. In most cases, these works may not be reposted without the explicit permission of the copyright holder.

Classroom Use:

Instructors are free to post their own IEEE-copyrighted articles on their institution's servers, provided that appropriate copyright, credit, and reuse notices appear prominently with the posted material. Other electronic distribution of IEEE-copyrighted works on university servers may be done only with prior written permission from IEEE.

After IEEE accepts the work for publication and the copyright has been transferred, IEEE will not allow changes or revisions to the work without further review and approval.

The IEEE and many affiliated societies provide publication and society information via Internet servers. Links to society servers are encouraged and prior consent is not required.

II. A General Overview of the IEEE Publishing Process

A. Initial Decisions

Magazines are published by individual societies within the IEEE representing various fields of engineering interest. Each society/publication has its own requirements and procedures for peer review, the first step towards publication of an article. Details on how the manuscript should be prepared for Peer Review are usually available from the Editor-in-Chief.

Articles submitted for publication in IEEE Magazines should be sent directly to the Editor-in-Chief of the specific publication in which the author wishes to publish. These names and addresses can be found in the publication's masthead.

B. Format

Many authors are accustomed to writing papers for publication in IEEE Transactions and Journals. Magazine articles differ in a number of respects. The most important are:

- Magazine articles are shorter and are of more general interest in nature.
- Magazine articles contain more art.
- Color art is preferred.
- Magazine articles have fewer references and equations.

C. Peer Review

After the Editor-in-Chief of a publication determines that an article is suitable for his or her publication, it is usually forwarded to reviewers selected for their expertise in a given field.

During this process, an author is often asked to expand, rewrite, or explain further the content of his article. It is not uncommon that an author is asked to provide another draft with the suggested changes for further review.

D. Final Acceptance

Once a manuscript has received the final approval of the reviewers and Editor-in-Chief, the author will be notified and sent an IEEE Copyright Form. He or she will be asked to prepare the manuscript

for final electronic publication and to possibly complete an additional information form. (See details in following Sections.)

E. Preparation of Electronic and Final Manuscripts

The author will need to check the electronic guidelines on final preparation for production of manuscripts and graphics. These guidelines are available at <http://www.ieee.org/pubs/magazines/submit.htm> or from the IEEE Magazines Department.

If an author's disk or emailed manuscript cannot be processed due to technical difficulties, he or she will be notified by the IEEE Magazines Department and asked to provide another copy.

If the author's graphics are not reproducible, he or she will be contacted by the IEEE Magazines Department and asked to provide a more clear set of graphics for the manuscript.

If an author cannot provide an electronic version of the manuscript, arrangements can be made to handle a paper copy version.

F. Author Proofs

The author will receive a galley of his or her article prior to publication. The usual format is as an email attachment of a PDF file. Fax or express delivery are alternatives.

The author is requested to provide corrections to the galley within three working days after receipt.

G. Reprint Requests

At the time the author receives the galley of his or her article, he or she should also receive a Reprint Order Form. This should be completed and returned with the proofs or sent directly to the Magazines Reprint Department, 445 Hoes Lane, Piscataway, NJ 08855.

H. Printed Issue

Once the issue of a publication has been printed, a complimentary copy will be sent to the author.

If an author has requested reprints, these will be sent separately after the issue has been mailed.

I. No Returns

The IEEE does not return disks, graphics, photographs or paper copies of the manuscripts used in the production process of its issues except by special arrangement.

III. General Manuscript Preparation

A. Typing Specifications

Manuscripts should be typed double spaced on one side of a sheet only, with margins of about 2.5 cm (6 picas/1 inch) on each side of each page.

B. Consecutive Numbering of Parts

All manuscript pages, footnotes, equations, and references should be labeled in consecutive numerical order. Figures and tables should be cited in text in numerical order. See Section G of this guide. Figures should be numbered (arabic) in a single sequence; likewise for tables. Kindly refrain from using a word processor's automatic numbering feature.

There should be no numbering of section and subsection heads.

C. Manuscript Formats

See copies of the publications for examples of proper article formats and requirements for the types of articles published by each publication.

Feature articles generally consist of the title, byline, author affiliation, footnote (including any financial support acknowledgment), introductory paragraphs, body, conclusions, reference list, list of figures and table captions, and original figures and tables for reproduction. An article may also include appendixes, a nomenclature, a glossary of symbols, and an acknowledgment of nonfinancial support.

D. Abstract

IEEE Magazine articles, unlike papers in Transactions and Journals, do not contain abstracts.

E. References

A numbered list of references may be provided at the end of the article as a separate page or pages of the manuscript. The list should be arranged in the order of citation in text, not in alphabetical order. List only one reference per reference number.

Each reference number should be enclosed by square brackets. In text, citations of references may be given simply as "in [1]," rather than as "in reference [1]." Similarly, it is not necessary to mention the authors of a reference unless the mention is relevant to the text. It is almost never useful to give dates of references in text. These will usually be deleted by staff editors if included. Please do not use a word processor's automatic numbering feature.

Footnotes or other words and phrases that are not part of the reference format do not belong on the reference list. Phrases such as "For example," should not introduce references in the list, but should instead be given in parentheses in text, followed by the reference number, i.e., "For example, see [5]."

Sample correct formats for various types of references are as follows.

Books:

- [1] O.T. Zimmerman and I. Lavine, *Conversion Factors and Tables*, Dover, NH: Industrial Research Service, 1961.
- [2] G.O. Young, "Synthetic structure of industrial plastics," in *Plastics*, vol. 3, *Polymers of Hexadromicon*, J. Peters, ed., 2nd ed., New York: McGraw Hill, 1964, pp. 15-64.

Periodicals:

- [3] M.A. McHenry and D.C. Chang, "Coupled-mode theory of two non-parallel dielectric wavelengths," *IEEE Trans. Microwave Theory Tech.*, vol. 43, pp. 1469-1475, Nov. 1994.

Articles from published conference proceedings:

- [4] D.B. Payne and J.R. Stern, "Wavelength-switched passively coupled single-mode optical network," in *Proc. IOOC-ECOC '85*, 1985, p. 585.

Papers presented at conferences (unpublished):

- [5] D. Ebehard and E. Voges, "Digital single sideband detection for interferometric sensors," presented at 2nd Int. Conf. Optical Fiber Sensors, Stuttgart, F.R.G., 1984.

Technical reports:

- [6] E.E. Reber, R.L. Mitchell, and C.J. Carter, "Oxygen absorption

in the earth's atmosphere," Aerospace Corp., Los Angeles, CA, Tech. Rep. TR-0200 (4230-46)-3, Nov. 1968.

F. References—Electronic Sources

The guidelines for citing electronic information as offered below subscribes to the International Standards Organization (ISO) documentation system.

Journal Articles:

Author, Title, Journal [Type of medium], volume (issue), pagination if given, (year, month). Available: Directory: File:

Example:

- [1] R. Lazarus, "Self-similar solutions for converging shocks and collapsing cavities," IEEE Trans. Plasma Sci., [online], vol. 21, (no. 4), pp. 876-880, (Aug. 1993), Available <http://www.halcyon.com/pub/journals/21ps04-lazarus>.

Material Obtained Through Loose-Leaf, Computer, or Information Services

References to material obtained through computer services or information services are treated like first references to original printed material except that the usual information is followed by the name of the service, the name of the service provider, and the accession or identifying numbers within the service.

Example:

- [2] R. J. Vidmar, "On the use of atmospheric plasmas as electromagnetic reflectors," IEEE Trans. Electromag. Compat., vol. 21, no. 3, pp. 238-244, Aug. 1992. Dialog, ERIC, ED 152318.

Computer Programs and Electronic Documents

The ISO recommends that capitalization follow the accepted practice for the language or script in which the information is given.

Example:

- [3] S. H. Gold, "Study of gain in C-band deflection cavities," in Computer Knowledge [electronic bulletin board], s.l. July 2 1993-; [cited Dec. 12, 1993], Available listserv@NETFIN.BITNET.
- [4] R. Chew, "A comparison of RF electrode models," in MD Net [database online], Bethesda MD; National Library of Medicine, 1994 [cited Nov. 1994]. Identifier no. D000162 [52 lines].
- [5] D. Shamlo, "Electronic marketing and identifying techniques," in Electronic Guide [database online]. New York: Computer Wire, 1989 [updated May 23, 1989; cited March 12, 1992]. Accession no. 004082; NO=RE436. 4 screens. Available from DIALOG Information Services, Inc., Palo Alto, CA.

G. Figures, Tables, and Captions List

All graphics should be submitted as separate items from the body of your article on separate sheets of paper or on disk. IEEE Magazines will make an effort to standardize sizes and fonts, however, the better the quality of the material submitted, the better the published result.

Line art, graphs, charts, tables, drawings, photos, and gray scale diagrams will be scanned electronically for final production, or you may submit them as electronic files. If submitting for scanning, all graphics should be original proofs and not xerox or velox copies.

Whenever possible, photos should be glossy prints with no screening. Laser prints will not reproduce as well as original photos.

Please use consistent typefaces on all your figures. The best typefaces for labels are Helvetica and Universe. IEEE Magazine style calls for labels to be upper and lower case. For best results, all of your figures should be the same size (width length) whenever possible. For scanned graphics the original material should be no larger than (22 x 28 cm) 8 1/2" x 11."

Provide captions on a separate page or file on disk. Do not put them on the graphic itself. But do number each graphic on the bottom front in the margin.

On graphs, show only the coordinate axes, or at most the major grid lines, to avoid a dense result after reduction.

DO NOT put boxes around your figures to enclose them.

H. Section Headings

Section headings should not be enumerated by Roman numerals, nor should there be references to section numbers within the text.

Primary and secondary section headings are sufficient for almost all articles. Tertiary section headings are allowed, but quaternary section headings will be edited out by the staff editors.

I. Mathematical Notation

To avoid errors in editing and typesetting, authors should clearly identify subscripts, superscripts, Greek letters, and other symbols. Add margin notes or other explanations wherever necessary. It is especially important to distinguish clearly between the following terms.

Capital and lowercase letters when used as symbols.

Zero and the letter "o."

The lowercase letter "l," and numeral one, and the prime sign (').

The letters "k" and κ(kappa), "u" and μ(mu), "v" and ν(nu), "n" and η(eta).

A wavy line under a character or letter indicates boldface type. (Bold type should be indicated for certain vectors and matrices.)

A straight line under a character or letter indicates italic type. (Italic type should be indicated for all text variables.)

If an equation is likely to be longer than the magazine's column width, it is helpful to indicate the best places for the equation to be broken into multiple lines.

Avoid ambiguities in equations and fractions in text through careful use of parentheses, brackets, solidi (slants), etc. Note that in text, fractions are usually "broken down" to fit on one line and confusion can result if terms are not properly labeled. The conventional order of brackets is {{()}}.

Use of the multi dot rather than the multiplication sign when multiplying by powers of ten in equations or text is at the author's discretion.

J. Units and Abbreviations

The International System of Units (SI units) is advocated for use in IEEE publications. Refer to the units list provided in Appendix I of this guide for information on preferred usage of units, conversion factors, etc.

Unit symbols should be used with measured quantities, i.e., 1 mm, but not when unit names are used in text without quantities, i.e., "a few millimeters."

If quantities must be expressed in English units, the SI equivalents should be given also in parentheses, i.e., a distance of 4.7 in (12 cm).

Most acronyms and abbreviations should be defined the first time they are used in text. A list of acronyms and abbreviations,

including those that need not be defined, is given in Appendix II of this guide.

IV. Final Preparation for Publication

A. Electronic Preparation

The IEEE electronically processes all its magazine articles. Electronic publication helps speed the production process, ensures greater accuracy, and builds an electronic abstract and index base. To complete the production and final printing of your article, the magazine's managing editor will need to receive your manuscript (and at least one paper copy) in the text and graphics formats described at <http://www.ieee.org/pubs/magazines/submit.htm>.

B. Transmittal

Files may be transmitted by floppy disk (3½ in), Zip disk, writable CD, ftp, or email. A paper copy of the manuscript along with any original figures and photos must still be sent to the magazine's managing editor.

Floppy Disk (3½ inch), Zip Disk, Writable CD Transmittal

It is helpful if you note the operating system, software, and version number used to create your file(s). Write this information on the media label with a felt pen. Graphic files are best transmitted separate from text files. Make sure your files are self-contained, i.e., that there are no pointers to your system setup. Check that your files are complete. Include: text, references, footnotes, biographies, and figure captions. Package diskettes to protect them in mailing. Please include the best way to contact you (telephone number, email address, etc.) in case we have questions about the transmittal.

Things Not To Do:

DO NOT put the files in a page layout software (Ventura, Quark, Pagemaker, Frame, etc.).

DO NOT send output files (PostScript, PDF, DVI, etc.)

DO NOT embed macros, especially in Word files.

DO NOT use automatic numbering.

FTP Transmittal

To send a file using ftp:

1. Connect to [ftp.ieee.org](ftp://ftp.ieee.org)
2. Log in with the user name: anonymous (no password needed)
3. Place file in directory: /uploads/magazine.

It is helpful to package your transmittal into a single file, using zip (pkzip, gzip, etc.), stuffit/binhex, or tar.

Please be sure to:

a) Include the magazine name in the filename(s). Indicate the article by using either the tracking number used in the review process or one of the authors' names. Examples: CSM47-98.ZIP, SP0019.DOC. If you have to re-send an article and cannot overwrite an existing file in the ftp directory, modify the name slightly, e.g., CSM47-98new.ZIP.

b) Alert the magazine's managing editor by phone or email that an ftp transmittal has been made.

Email Transmittal

It is helpful to package your transmittal into a single file, using zip (pkzip, gzip, etc.), stuffit/binhex, or tar. Compression utilities

have the advantage of reducing file size and transmission times.

The transmitted file should reflect the exact content of the final manuscript, including captions, references, and biographies.

The manuscript should be transmitted as a MIME-compliant attachment. The body of the email should indicate:

The name of the magazine

The author's name

The software format of the manuscript

The name of each file being transmitted.

C. Proofs

The author will receive a galley of his or her manuscript prior to publication. The usual format is as an email attachment of a PDF file. Fax or express delivery are alternatives.

The author is requested to provide corrections to the galley within three working days after receipt.

D. Reprints and Page Charges

IEEE Magazines do not carry page charges, overlength paper charges, or color charges.

A Reprint Order Form may be obtained from <http://www.ieee.org/pubs/magazines> or by writing to the Magazines Reprint Department, 445 Hoes Lane, Piscataway, NJ 08855-1331.