

IEEE Engineering in Medicine and Biology Society (EMBS)
**TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION
ENGINEERING (T-NSRE)**
Information for Authors

Updated Dec. 2000

IEEE TRANSACTIONS ON NEURAL SYSTEMS AND REHABILITATION ENGINEERING (T-NSRE)) publishes basic and applied papers dealing with biomedical engineering applications the study or treatment of disabling human illnesses . The journal is particularly interested in publishing research related to disorders of the human nervous system, although studies relating to other disabilities are also welcomed.

Acceptable papers range in content from practical/clinical applications through experimental science and technological development to formalize mathematical theory. Articles must contain original biomedical engineering content, defined as development, theoretical analysis, critical evaluation/validation of a new experimental technique, and/or model pertinent to medicine and/or biological sciences.

Articles describing biological or medical devices-microsystems will be considered, provided that the designs represent innovations impacting the biomedical and clinical practice, and detailed performance characteristics are included. Articles that contain original and significant results but do not meet this criterion would not be suitable for publication in T-NSRE.

Readers are encouraged to submit manuscripts and communications. To qualify for publication, these must be previously unpublished and not be under consideration elsewhere. Starting March 5, 2001, manuscripts will ONLY be accepted in electronic format through a new system called Manuscript Central. Please go to the Manuscript Central website at

<http://embs-ieee.manuscriptcentral.com/>

or to the EMBS website

<http://www.embs.org>

to find instructions to create an account and electronically submit your manuscript. If you are unable to submit your contribution electronically, please mail your submission to:

EMBS Publications
IEEE
445 Hoes Lane
Piscataway, NJ 08855-1331 USA

During a transition period of three months our staff will be scanning the paper contributions that could not be electronically submitted, but thereafter scanning will only

be performed under unusual circumstances that must be approved by the Editor-in-Chief. Do not send original submissions or revisions directly to the Editor-in-Chief or Associate Editors.

MANUSCRIPTS. For purposes of qualifying for peer review and consideration for publication, authors must submit a properly executed copyright form in favor of IEEE, and prepare a manuscript according to the following guidelines:

1. The manuscript, may not exceed 30 double-spaced pages (one full blank line between lines of type) using a font size of 11 points or larger, having a margin of at least 1" on all sides. The manuscripts should be converted to postscript or pdf for upload to Manuscript Central.

2. The abstract must be no more than 200 words for regular papers.

3. Figures should appear at the back of the text, one figure per page. A separate list of figure captions should be included, keyed to figure numbers marked on each illustration.

4. References should appear in a separate reference section at the end of this paper with items referred to by numerals in square brackets. References must be complete in the IEEE style as follows:

Style for papers: Author(s), first initials followed by last name, title, periodical, volume, inclusive page numbers, month, year.

Style for books: Author(s), title, location, publisher, year, chapter, page numbers. You can find an electronic style file for references at

<http://www.ieee.org/pubs/IEEEbib.html>

5. If accepted, authors of regular papers are also requested to send biographies (no more than 100 words) and recent photographs.

6. Once the paper is accepted, one additional copy of the manuscript must be submitted to the Editor-in-Chief in single-spaced, double-column format using 9 point type in font ??, with figures embedded. The front page of the paper version must bear the signature of the corresponding author. The style file can be found at

http://www.ieee.org/pubs/sub_elec.html

This copy will serve as confirmation of the publication length of the manuscript at submission. The signature signifies the author's confirmation that overlength page charges will be paid when billed.

Do not send original artwork until you are notified to do so, if and when your paper is accepted for publication.

7. As noted below, manuscripts that exceed the ten (10) published page standard will incur payment of mandatory overlength page charges. Since changes recommended as a result of peer review may require additions to the manuscript, it is strongly recommended

that authors practice economy in preparing original submissions. Exceptions to the limit may be granted by the Editor-in-Chief only.

8. Beginning 1 January 2001, all manuscripts accepted for publication will REQUIRE the authors to make the final submission employing the style files. Please see the guidelines below.

COMMUNICATIONS. Short communication papers disclosing new ideas and preliminary results and manuscripts commenting critically and substantively on papers published in the TRANSACTIONS are also encouraged. Such items may not exceed seven (7) double-spaced pages using 11 point type, with margins of 1" minimum on all sides, and including: title, names and contact information for authors, abstract, text, references, and an appropriate number of illustrations and/or tables, along with a properly executed copyright form in favor of IEEE. Papers less than five printed pages will be published as Communications, but they will incur page charges above the two page limit (see page charges below).

PEER REVIEW PROCESS. With electronic submission of manuscripts and reviews the EMB society expects to reduce the time from submission to publication, and make the review process more transparent to the author by allowing electronic status checks of the review progress. Please read the Peer Review Process of the EMBS at <http://www.embs.org/aeinstr.pdf>

to find out about the calendar and details of the review.

COPYRIGHT. By policy, IEEE owns the copyright to the technical contributions it publishes on behalf of the interests of the IEEE, its authors, and their employers; and to facilitate the appropriate reuse of this material by others. To comply with United States copyright law, authors are required to sign and submit a completed IEEE Copyright Form with their original submissions and again with the finalized manuscript prior to publication. This form, a copy of which appears in issues of the transactions, returns to authors and their employers full rights to reuse their material for their own purposes. See also

<http://www.ieee.org/about/documentation/copyright/cfrmlink.htm>
to obtain an electronic version of the copyright form.

The IEEE EMB Society will apply sanctions against authors who are discovered to have made duplicate submissions to other journals. These sanctions are: (1) immediate rejection of the manuscript in question; (2) immediate return to the author and co-authors of any and all manuscripts currently under review; (3) prohibition against the authors/co-authors of any new submissions to any of the Society's journals for one calendar year from date of formal notification.

TITLE AND ABSTRACT. During the login of an electronic submission in Manuscript central, the author will be asked to enter: the title, names and contact information for all authors (full mailing address, institutional affiliations, phone, fax, and e-mail), the

abstract, and the TIPS category. The name of the Corresponding Author who will serve as the main point of contact for the manuscript during the review and publication processes is entered separately. For manuscripts, an abstract of not more than 200 words is allowable. For communications, an abstract of not more than 50 words is allowable. The abstract should indicate the scope of the paper or communication, and summarize the author's conclusions. This will make the abstract, by itself, a useful tool for information retrieval. Please be ready with this information when logging in Manuscript Central.

TIPS. All submissions must be classified by the author with the Engineering TIPS (Technical Interest Profiling System) selected from the list of TIPS published in the EMBS website

<http://www.embs.org/tips.html>

The Engineering TIPS category must be entered during login to Manuscript Central. Only one TIPS category will be considered, and it should reflect the paper focus.

ILLUSTRATIONS AND TABLES. Illustrations/tables may be worked into the text of a newly-submitted manuscript, or placed at the end of the manuscript. However, due to production requirements, for the final submission, illustrations/tables must be submitted separately, and not interwoven with the text. In the printing process, illustrations/tables may be reduced to one-column or two-column width--as much as a 4:1 reduction from the original. In illustrations, all words (as distinct from mathematical symbols) should be in capital letters and in a type size that will reduce to a minimum of 9 points or 3/16 in. high in the printed version. Sharp, laser-printed illustrations are acceptable; however, illustrations produced on dot-matrix printers should be redrawn. Only the major grid lines on graphs should be indicated. Each figure and table should have a caption that is intelligible without requiring reference to the text. Table and illustration captions should also be typed in a separate list and appended to the manuscript. See Electronic Guidelines below for further information.

COMPUTER-GENERATED IMAGES. If a manuscript includes computer-generated images, each copy of the submitted manuscript should include originals of these images. These should take the form of gray-scale images or color images. Printing of illustrations in color will be at the expense of the author. Halftones produced by laser printers (300 dpi) generally are not of acceptable quality and are susceptible to moire patterns when re-sized and screened. To conserve space in the publication, most illustrations are reduced to single-column width. However, the quality of the published image is of paramount importance. Author guidance is sought on the image size necessary to discern the level of detail the author believes is required. Thus, for each image, please specify a suggested publication width.

ELECTRONIC GUIDELINES. Authors are requested to submit finalized manuscripts using the style files established by IEEE . The IEEE style files provide the option of using TeX/LaTeX or MS Word. Instructions for preparing an electronic submission of the final manuscript using the IEEE style files are available via

http://www.ieee.org/pubs/sub_elec.html

Guidelines for preparing and submitting graphics are available at

<http://www.ieee.org/pubs/transjour/graphguide>

A TeX/LaTeX style file is available via

<http://www.ieee.org/pubs/IEEEtran2e.html>

<http://www.ieee.org/pubs/IEEEtran209.html>

A bibliographic style file is available at

<http://www.ieee.org/pubs/IEEEbib.html>

Authors who are using TeX/LaTeX: to save time, you can change TeX/LaTeX from single to double spaced (and back) as follows: If the following two lines are at the top of your file, one can be used for the single-spaced, two-column version and one can be used for the double-spaced, single column version:

For one column version:

```
\documentclass[draft]{IEEEtran}
```

```
%\documentclass[10pt,twocolumn,twoside]{IEEEtran}
```

For two column version:

```
%\documentclass[draft]{IEEEtran}
```

```
\documentclass[10pt,twocolumntwoside]{IEEEtran}.
```

An author's template and users guide is available on the web at

<http://www.ieee.org/pubs/authors.html>

Submit your final manuscript on a disk (5 1/4" or 3 1/2"), or on 8 mm or 1/4" tape. Note the operating system, software, and version used to create your disk right on the disk label (use felt tip pen). Do not import graphics files into the text file of your finalized manuscript (although this is acceptable for your initial submission). Files must be self-contained; that is, there can be no pointers to your system setup. Do not create special macros. Do not send PostScript files of the text; although graphics files will be accepted only in PostScript and Encapsulated PostScript (EPS) or Tagged Image File Format (TIFF). Files must be encoded prior to submission. If an EPS graphic calls for fonts directly, please use one of the following Adobe Type 1 fonts: Times Roman, Helvetica, Helvetica Narrow, Courier, Symbol, Palatino, Avant Garde, Bookman, Zapf Chancery, Zapf Dingbats, New Century Schoolbook. Files submitted in EPS format will be converted to TIFF format by the IEEE production staff. If you use TIFF files, then the following TIFF tags must be present in each graphic in order for it to be successfully processed:

ImageWidth--in pixels

ImageLength--in pixels

BitsPerSample--should be either 1 (for XResolution of 600 dpi) or 8 (for XResolution of 220 dpi)

Compression--should be 1=no compression

SamplesPerPixel--should always be 1

XResolution--should be either 600 or 200 dpi

YResolution--should match XResolution

ResolutionUnit--should be 2=inches.

In addition, the following three tags should also be present:

RowsPerStrip
StripOffsets
StripByteCounts.

TIFF files may be stored in either IBM or MacIntosh formats. That is, the byte order may be either Intel or Motorola formats.

At present, only "paletted color TIFF" format is accepted. This format is commonly called a "color map" or "color index" file. If you provide a color PostScript or EPS file, it will be converted to "paletted color TIFF." If you submit a paletted color TIFF file, please ensure that the "PhotometricInterpretation" tag contains a value of 3. The resolution of a paletted color TIFF file should be 400 dpi. If you have any questions regarding these tags, please e-mail graphics@ep.ieee.org.

When submitting your finalized manuscript, it must be accompanied by three complete, unencoded, paper copies of your manuscript that exactly match your electronic files. Send all materials to the Society's Publication Office at the address shown above. These copies will be used for comparison at various stages of production and to resolve questions.

PAGE CHARGES. Upon acceptance of a manuscript for publication, the author(s) or his/her/their company or institution will be asked to pay a charge of \$110 per page to cover part of the cost of publication of the seven pages which comprise the standard length (two pages for communications). Upon payment of page charges for the first seven pages (two for communications), the author will be entitled to 100 free, black-and-white reprints (without covers).

MANDATORY PAGE CHARGES. The author(s) or his/her/their company or institution will be billed \$250 per each page in excess of the first seven published pages (two for communications). These are MANDATORY charges and the author(s) will be held responsible for them. Payment of these charges is not negotiable or voluntary; the author(s) signifies willingness to pay by signing the single spaced copy of the manuscript upon requested by the Editor in Chief. Further, submission by the author of his/her manuscript to these transactions signifies acceptance of the requirement to pay mandatory page charges. The Publisher holds the right to withhold publication of the current submission or any future submissions from the author(s) if this charge is not honored. To avoid incurring mandatory page charges, the author(s) are strongly advised to practice economy in the original manuscript submission and restraint in preparation of the final manuscript following peer review.

COLOR CHARGES. Color reproduction is expensive and all charges for color are the responsibility of the author. In deciding whether to have figures reproduced in color or in black-and white, the following estimates should be considered. There will be a charge of

\$125 for each figure; this charge may be subject to change without notification. In addition, there are printing preparation charges which may be ESTIMATED as follows: color reproductions on four or fewer pages of the manuscript: a total of approximately \$1000; color reproductions on five pages through eight pages: a total of approximately \$2100; color reproductions on nine through 12 pages: a total of approximately \$3200, and so on. Payment of fees on color reproduction is not negotiable or voluntary, and the author's agreement to publish the manuscript in the transactions is considered acceptance of this requirement.