The IEEE has developed this form with great care and with the best interests of its members and contributing authors in mind. Therefore, in order to maintain uniform treatment among all contributors, other forms may not be substituted for this form, nor may any wording of this form be changed. This form is intended for original unpublished material submitted to IEEE. This form, when completed, must accompany any such material in order to be published by IEEE. Please read it carefully and keep a copy of it for your files.

TITLE OF PAPER (hereinafter, "the work"):

AUTHOR(S):

PUBLICATION TITLE:

PART A – COPYRIGHT TRANSFER FORM

U.S. Government employees whose work is not subject to U.S. copyright should so certify by signing Part B overleaf. Authors of works subject to Crown Copyright should sign Part C overleaf)

The undersigned hereby assigns all copyright rights in and to the above work to The Institute of Electrical and Electronics Engineers, Inc. (the "IEEE"). The undersigned hereby represents and warrants that the work is original and that he/she is the author of the work, except possibly for material such as text passages, figures, and data that clearly identify the original source, with permission notices from the copyright owners where required. The undersigned represents that he/she has the power and authority to make and execute this assignment.

In return for these rights, the IEEE recognizes the retained rights noted in Items 1 and 4 below, and grants to the above authors and employers for whom the work may have been performed a royalty-free license to use the material as noted in Items 2 and 3. Item 5 stipulates that authors and employers must seek permission to republish in cases not covered by Items 2, 3, and 4.

1. Employers (or authors) retain all proprietary rights in any process, procedure, or article of manufacture described in the work.

2. Authors/employers may reproduce or authorize others to reproduce the above work, material extracted verbatim from the above work, or derivative works for the author's personal use or for company use provided that the source and the IEEE copyright notice are indicated, that the copies are not used in any way that implies IEEE endorsement of a product or service of an employer, and that the copies themselves are not offered for sale. (See "Author/Company Rights" overleaf.)

3. Authors/employers may make limited distribution of all or portions of the above work prior to publication if they inform the IEEE of the nature and extent of such limited distribution prior thereto.

4. In the case of work performed under a U.S. Government contract or grant, IEEE recognizes that the U.S. Government has royalty-free permission to reproduce all or portions of the above work, and to authorize others to do so, for official U.S. Government purposes only, if the contract/grant so requires. Appropriate documentation may be attached, but IEEE's Copyright Form MUST BE SIGNED.

5. For all circumstances not covered by Items 2, 3, and 4, authors/employers must request permission from the IEEE Copyrights Office to reproduce or authorize the reproduction of the work or material extracted verbatim from the work, including figures and tables.

Please note that, although authors are permitted to reuse all or portions of their IEEE-copyrighted material in other works, this does not include granting third-party requests for reprinting, republishing, or other types of reuse. All third-party requests must be handled by the IEEE Copyrights Office.

In the event the above work is not accepted and published by the IEEE or is withdrawn by the author(s) before acceptance by the IEEE, this agreement becomes null and void.

AUTHORIZED SIGNATURE
(or if joint work, as AGENT for all authors)

TITLE

EMPLOYER FOR WHOM WORK WAS PERFORMED

DATE

JOINT AUTHORSHIP

For jointly authored works, all the joint authors should sign, or one of the authors should sign as an authorized agent for the others. In the case of multiple authorship where one or more authors are Government employees but at least one author is not, the non-Government author should sign Part A of this copyright transfer form.

Rev. 6/97

PART B – U.S. GOVERNMENT EMPLOYEE CERTIFICATION

Authors who are U.S. Government employees are not required to sign Part A of the IEEE Copyright Form, but any coauthors outside the U.S.

ontract but you are not a U.S. Government employee, sign Part A of this form and see Item 4).

This will certify that all authors of the work are employees of the U.S. Government and performed this work as part of their official duties and that he work is therefore not subject to U.S. copyright protection.

IZED SIGNATURE TITLE

NAME

F GOVERNMENT ORGANIZATION DATE

PART C – CROWN COPYRIGHT

Authors who are employees of the British Government (or a British Commonwealth Government) and whose works are subject to Crown Copyright nay sign Part C. IEEE recognizes and will honor Crown Copyright as it does U.S. Copyright. It is understood that, in asserting Crown Copyright, EEE in no way diminishes its rights as publisher. Sign only if ALL authors are subject to Crown Copyright.

This will certify that all authors of the work are subject to Crown Copyright. (Appropriate documentation and instructions regarding wording of Crown Copyright notice may be attached.)

IZED SIGNATURE TITLE

NAME

F GOVERNMENT ORGANIZATION DATE

Notes and Information for Authors and Their Employers

EEE POLICY

n connection with its publishing activities, it is the formal policy of the IEEE to own the copyrights to all copyrightable material in its technical ublications and to the individual contributions contained therein, in order to protect the interests of the IEEE, its authors and their employers, and, t the same time, to facilitate the appropriate reuse of this material by others. The IEEE distributes its technical publications throughout the world nd does so by various means such as hard copy, microfiche, microfilm, and electronic media. It also abstracts and may translate its publications, nd articles contained therein, for inclusion in various compendiums and similar publications, etc. When an article is submitted to the IEEE for ublication, the IEEE understands that its acceptance of the article implies that IEEE has the rights to do all of the things it normally does with such n article.

EEE Policy 6.17 – CLEARANCE OF PAPERS – applies to all material submitted to IEEE: "The IEEE must of necessity assume that material presented t its meetings or submitted to its publications is properly available for general dissemination to the audiences these activities are organized to erve. It is the responsibility of the authors, not the IEEE, to determine whether disclosure of their material requires the prior consent of other arties and, if so, to obtain it."

urthermore, if an author uses within his/her article material that has been previously published and/or is copyrighted by another party, the IEEE nust assume that permission has been obtained for such use and that any required credit lines, copyright notices, etc., are duly noted.

EEE OBLIGATIONS

n exercising its rights under copyright, the IEEE will make all reasonable efforts to act in the interests of the authors and employers as well as in its wn interest. In handling third-party requests for permission to reprint or republish IEEE work, the IEEE requires that 1) the consent of the irst-named author be sought as a condition in granting republication (of a full paper) to others; and 2) the consent of the employer be obtained as a ondition in granting permission to others to reuse all or portions of a paper for promotion or marketing purposes.

AUTHOR/COMPANY RIGHTS

f you are employed and you prepared your paper as a part of your job, the rights to your paper may rest initially with your employer. In that case, when you sign the copyright transfer form, we assume you are authorized to do so by your employer and that your employer has consented to all the erms and conditions of this form. If not, it should be signed by someone so authorized. (See also Policy 6.17 above.)

SPECIAL NOTE TO EMPLOYERS

ust as the IEEE requires a signed copyright transfer form (for copyrightable material) in order to do "business as usual," it is the intent of the transfer portion of the form to return rights to the author and employer so that they, too, may do "business as usual."

PLEASE DIRECT ALL QUESTIONS ABOUT IEEE COPYRIGHT POLICY OR THIS FORM TO:
Manager, IEEE Copyrights Office, 445 Hoes Lane, P.O. Box 1331, Piscataway, NJ 08855-1331. Telephone: (908) 562-3966.