

IMPORTANT

In accordance with the IEEE Bylaws, the following requirements must be met:

Nominator Any person, including non-members, are eligible to serve as a nominator with the following exceptions: members of the IEEE Board of Directors, members of the IEEE Fellow Committee, IEEE Technical Society/Council Fellow Evaluating Committee Chairs, members of IEEE Technical Society/Council Evaluating Committee reviewing the nomination, or IEEE Staff. ***Self-nomination is not permitted.***

Nominee The nominee must hold Senior Member grade at the time the nomination is submitted and must be a member in good standing in any grade of IEEE membership for five years or more preceding January 1 of the year of elevation. **Note: IEEE affiliate membership, does not apply.** The nominee cannot a member of the IEEE Board of Directors, the IEEE Fellow Committee, IEEE Technical Society/Council Fellow Evaluating Committee Chair, or a member of IEEE Technical Society/Council Evaluating Committees reviewing the nomination.

Note: Individuals who are prohibited from publishing in IEEE publications, as identified by the Publication Services and Products Board, may not be considered for Fellow grade.

General Information

Browsers. The electronic process is supported by the following browsers: Mozilla Firefox, Internet Explorer, and Netscape.

Deadline: March 01, 2009 (no exceptions).

Forms. All forms print in a friendly version. Note: previous forms submitted cannot be used.

Nomination Form. A copy of the completed nomination form will automatically be forwarded to references with e-mail addresses.

Starting the Process. Only the Nominator can start the process.

Draft: If you cannot complete the nomination form in your first attempt, you will have the capability to save it as a draft.

Print: You will have the capability to print the nomination form at anytime before hitting the Submit button.

Changes. No changes can be made, once the Fellow Nomination is submitted.

Proper and Accurate Description of Contributions. A concise and accurate description of the technical contributions of the nominee is of paramount importance. Superfluous or exaggerated prose may detract from, rather than enhance, the nomination. Avoid undefined technical jargon. Use an acronym only if the full name has been spelled out previously.

Source of Nomination Data. The nominator is expected to be personally aware of the nominee's contributions. For confidential purposes, the necessary facts should be obtained from the nominee only if the complete and correct background information is not available elsewhere. **IMPORTANT:** The nominator is the sole contact in the nomination process. Nominees should have no contact with IEEE Staff regarding their own nominations.

New Fellows Announcement. The newly elevated IEEE Fellows are announced shortly after the November/December IEEE Board of Directors meeting. IEEE notifies successful nominees and their nominators by e-mail, fax, and/or first class mail. Nominators of unsuccessful nominees are notified by e-mail, fax, and/or first class mail. **IMPORTANT:** It is the responsibility of nominators to ensure that correct contact information is on file with the IEEE Fellow Activities Staff.

Evaluation Process. The process consists of two reviews. The first evaluation is completed by the IEEE Society/Council that the Nominator identifies on the nomination form. The Society/Council evaluation is extremely important, because it is an impartial and even-handed view of the nominee's merit, by persons who are familiar with his or her work. Once the Society/Council review is completed, their comments are given to the Fellow Committee.

All nomination materials are forwarded in confidence to the IEEE Fellow Committee. The IEEE Fellow Committee has 51 members plus a Chair. All committee members are IEEE Fellows and selected to represent the 10 IEEE Regions, and have expertise in the technical areas represented by IEEE societies/councils.

The Fellow Committee recommends nominees to the IEEE Board of Directors, according to the following criteria.

- Significant contributions as Application Engineer/Practitioner, Educator, Research Engineer/Scientist, or Technical Leader
- Evidence of technical accomplishments
- Evaluation by the IEEE Society/Council selected by the nominator
- Confidential opinions of references and endorsers
- Service to other professional engineering societies
- Total years in the profession

Each nominee is rated numerically on the basis of this information.

INSTRUCTIONS FOR COMPLETING THE IEEE FELLOW GRADE NOMINATION FORM

Responsibilities of a Nominator

- *Prepare the IEEE Fellow Grade Nomination Form and submit it to the Fellow Committee by **01 March**.*
- *Identify a minimum of 5 References.*
- *Identify an IEEE Fellow Grade Technical Society/Council that best reflects the nominee's field of technical accomplishments.*
- *Identify Endorsements (optional). Note: Endorsement Forms will be shared with the IEEE Society/Council reviewing the nomination.*

COMPONENTS OF THE IEEE FELLOW GRADE NOMINATION FORM:

1. **Nominee Information.** Please ensure nominee information is accurate.
2. **Education.** Provide complete name and location of educational institutions and year that degrees were earned.
3. **Professional History.** List employers and job positions in descending chronological order organization, it is not necessary to list every position held.
4. **Proposed Citation.**
 - The citation should be no more than 20 words.
 - Avoid superfluous phrases.
 - The citation should be complete, correct, and succinct.
 - The citation may begin with the following words:
 - For contributions to (in)...
 - For developments in...
 - For leadership of (in)...
 - For discovery of...
 - Adding an adjective to the above words, such as “outstanding”, is superfluous since the member’s work must be outstanding to fulfill the requirements for Fellow grade.
 - Use care when incorporating words like “discovery” and “invention”. Evidence of a discovery or invention must be included in the information provided.
 - Citations should be free of reference to gender (“his” and “her”).
 - Only in exceptional cases should the citation include the name of a particular country where the nominee’s work is especially recognized.
 - Avoid references to specific companies or organizations.

Examples of citations may be found on the IEEE Fellow Web Site at www.ieee.org/fellows.

5. **Nominator Information.**

Please ensure nominator information is accurate.

6. **Individual Contributions.**

Since the IEEE Fellow Committee must compare nominees in varied disciplines and situations, objective information on your nominee's excellence is required. Contributions are not always theoretical in nature or new inventions; for instance, engineering efforts that bring a design or theory to fruition through economic, governmental, or other applications can also be important contributions to society. The IEEE Fellow Committee recognizes that it may be more difficult to document the contributions of the practitioner engineer and technical leader because of proprietary constraints on publication. Part of the nominator's job is to request the nominee's organization to provide the information necessary to document the contributions of the nominee. It is important for the nominator to select a category that best defines the nominee's significant contributions, and the IEEE Fellow Committee will review the submission with an emphasis on the defined area. The IEEE Fellow Committee recognizes that contributions may fall under one of the following disciplines within the engineering profession.

- **Application Engineer/Practitioner.** What product development, advancement in systems, application or operation, project management or construction activity, process development, manufacturing innovation, codes or standards development, or other application of technology was the direct result of the nominee's personal effort? Describe the innovation, creativity, and importance of the development, advancement or application of technology. List the most important tangible and verifiable evidence of the nominee's contributions and, if pertinent, relevant significant technical publications, e.g. patents, reports, articles. Where a team effort was involved, identify and document the specific technical contributions of the nominee. Describe and verify the lasting impact of the nominee's contribution on society.
- **Educator.** What impact has the nominee had on education in the field of interest of the IEEE? What unique and innovative curricula or courses has the nominee personally developed? What innovative and unique contributions has the nominee made to engineering education as an administrator? Has the nominee written a pioneering text in his/her field? What impact have these innovations had? What is the range of acceptance, local, regional or worldwide? Describe and verify the lasting impact of these efforts on engineering education.
- **Research Engineer/Scientist.** What inventions, discoveries or advances in the state of the art made by the nominee indicate innovation, creativity, and importance of the nominee's research? List patents, papers published in refereed journals and other tangible and verifiable evidence of the nominee's accomplishments. Where a team effort was involved, identify and document the specific technical contributions of the nominee. Describe and verify the lasting impact of the nominee's contributions to society.
- **Technical Leader.** What outstanding engineering application or scientific accomplishments resulted from a managerial, team, or company-wide effort that was lead by this nominee? Explain the technical innovation, difficulties and risk involved, achieving economic acceptability, and other advantages. The nominee's organizational position, while important, cannot be used as the sole evidence of achievements or technical contribution. Describe and verify the specific technical contributions that the nominee made which made the achievement possible? Describe and verify the lasting impact of the nominee's contribution to society.

7. **Evidence of Technical Accomplishment.**

Tangible evidence is defined as documentation, which a reference or evaluation committee member may review to assess the nominee's technical contributions or engineering achievements. The achievements may be described in internal organization reports that could be made available for evaluation. If the technical achievements have not resulted in any products, papers or reports, the achievement must be described and validated by the references and/or the Technical Society/Council evaluation. Describe the originality, novelty, complexity, usage, distribution and other characteristics of each of the nominee's technical contributions or engineering achievements and indicate the potential for realization of value to society. Please list all documentation in English. **Please do not provide copies of any publications, unpublished speeches, patents, actual documents or resumes for item 7.**

Technical Publications

- Books (authored; edited)
- Refereed papers in archival journals
- Papers in technical conference proceedings
- Technical reports (published; or internal, if available)
- Published standards (specify nominee's role)¹
- Other publications
- Technical Presentations (printed talks, television or video scripts, course outlines)

Internal reports should be identified for verification. Indicate the names of co-authors. Indicate the nature of the nominee's contributions to all co-authored publications and reports (principal author, subsidiary author, contributor to work, leader of group). Nominations must provide names of all co-authors, complete citations and, for each document, in a few concise sentences summarize the significance of this work, its impact, and the role of the nominee in this work.

Example for listing a paper in a journal:

Publication:

1. Author 1, Author 2, Author 3, Author 4, "A theory for multiresolution signal decomposition: the wavelet representation," IEEE Transaction on xxxxx, vol. xx, p. xxx-xxx, July xxxx. Author 1 is one of the pioneers for the development of wavelet technologies and in particular to their application to image processing. This publication first introduced the multiresolution theory that makes the bridge between the first wavelet bases that were discovered in mathematics and the subband filtering algorithms used in signal processing. This publication also introduced the fast wavelet transform which has become the basis for almost all wavelet applications. Wavelets and the fast wavelet transforms are used in a considerable number of signal and image processing applications and products, among which the image compression standard JPEG-2000. The use of techniques described in this publication have directly led to the JPEG-2000 standard which is universally used today in applications much broader than signal processing. This publication has been cited more than 1000 times in referred journal articles. Author 1 personally developed the theory behind the fast wavelet transform and also developed

¹ IEEE Fellow grade is awarded for outstanding original and creative work. Individuals nominated for long and dedicated service in standards activities are frequently rejected because their nominator does not identify the nominee's original and creative contributions.

the multiresolution theory highlighted in the publication. His contributions were enabling to the content of the publication.

Example for listing a book:

(1) Author, The Wireless Mobile Internet -Architectures, Protocols and Services, UK: John Wiley & Sons, 2003.

The nominee is the sole author of this book as the first comprehensive text that covers both core network and access network technological aspects of the wireless Internet. This book bridges the gap between the previous research texts written by cellular and computer experts. In addition to providing comprehensive descriptions of the current technologies for the wireless Internet, it gives a forward look at crucial features of future mobile Internet architectures. The book not only facilitates engineering research and education for this emerging technology but also opens several research topics to researchers and engineers.

Patents

Nomination must provide patent number, subject and date, country of issue, names of co-inventors. Most importantly, state the significance of each patent and identify the extent of its use and the role of the nominee in the work.

Example for listing a Patent:

Patent

1. U. S. Patent #x,xxx,xxx; Author 1, Author 2, Author 3;

Method of Fabricating Composite Superconducting Wire. [8/30/1977]. This is the original patent that described the fabrication of an improved Nb- Ti/Copper composite superconducting strand. The improvements described enhanced the basic strand properties of resistivity, current carrying capability, critical temperature and magnetic field and became the enabling technology for composite superconducting wires fabricated after 1982. The prior fabrication technology has been completely replaced by the techniques disclosed in the patent. The techniques described in the patent are now used by all superconducting wire manufacturers and are the basis for a \$xx million dollar industry. This is a long-lasting impact to the superconducting wire technology. The patent was a team effort but the Fellow nominee provided the technical expertise that enabled the implementation of a conventional form of wire manufacturing while retaining the superior performance properties. The Fellow nominee developed the critical theoretical analysis and provided the engineering expertise to reduce the theory to practice. The ability to deliver superior performance with a conventional manufacturing technique has reduced the product price to the point where high quality superconducting wires are affordable in even small quantities.

Other Documentation

- Internal drawings or reports
- Documentation of a product or system's commercial success
- Document other acceptance of products or systems by society resulting from the nominee's engineering achievements
- Description of Software

Authenticate the development or application of products, systems, facilities or services, including software. Cite whether the accomplishment was a sole effort or team effort. Include a careful description of the degree of the nominee's participation in the project and references to any available documentation thereon.

Examples:

Design of hydroelectric generation station at (location), the largest in country).

Described in the (19__/20__) annual report of X Co.

Designed system architecture and wrote the software for the first digital single loop process controller (type no. and manufacturer) to be competitive in price with analog controllers, described in the review paper by D. Smith and R. Jones, ACM Journal, Vol. 7, pp. 17-45, (1962).

Leader of group developing flight control systems for a succession of aircraft (F300, F501, A495). This work is described in a series of Air Force Avionics Laboratory progress reports, which are available through Defense Documentation Center (Report Nos. ____).

A nominee's contributions may be subdivided by area of contribution (patents on computers, patents on optics), and/or by activity (publications, internal project reports, facilities developed products and their applications, commercial successes, patents, etc.) Indicate at least one of the following: name of conference for keynote or conference digest papers; the inviting organizer for the presentation; the short course developed or taught.

8. **IEEE Activities - Awards, Offices Held, Committee Memberships.**

Separately list IEEE awards and major activities (offices, committee/board memberships, etc.) in descending chronological order by date.

9. **Non-IEEE Activities - Awards, Professional Society Memberships, Committee Memberships, (Major Professional, Government, or International) Professional Engineer's License.**

Separately list awards and memberships/activities in descending chronological order by date. If possible, briefly define the scope of the awards listed. Society memberships: provide membership grade and note major volunteer service participation. Describe technical contributions to government, international and educational committee work, trade associations and those services of a professional or public nature having a technical content. Include college honor societies; please do not use acronyms.

10. IEEE Fellow References.

A Reference must be an eligible IEEE Fellow (Note: waiver is noted below for Region 9) in good standing, as defined in IEEE Bylaw I-104.14(2), "when applied to an IEEE member, the term member in good standing shall mean an IEEE member of any grade who is not under suspension." The following individuals are ineligible to serve as IEEE Fellow References: members of the IEEE Board of Directors, members of the IEEE Fellow Committee, IEEE Technical Society/Council Fellow Evaluating Committee Chairs, member of IEEE Technical Society/Council Fellow Evaluating Committee reviewing the nomination or IEEE Staff. In addition, a nominator may not serve as reference for a nomination he/she is submitting. Note: References will be accepted if a reference is an IEEE Senior or Life Senior Member in good standing and the nominee they are serving as a reference for resides in Region 9.

When completing the Reference section, you will have two options. Both are listed below. It is the nominator's responsibility to follow up with references to confirm that all reference forms are submitted to the Fellow Committee no later than the 01 March deadline. Staff will be unable to supply information on what material, if any, are missing from a particular nominee's nomination package. The Fellow Electronic Process (EFNP) will allow you to track the references relevant to your nominee. To check the status on references, you will need to go to the Fellow Web Site at www.ieee.org/fellows. With your established Fellow Account, you will need to login to the EFNP. After you login, you will be shown the name(s) of the nominee(s) you have submitted. You then must click on the appropriate nominee, under Existing Nominations option.

Option One: If you provide the reference's last name, first name and e-mail address, the system will automatically e-mail a blank reference form plus a copy of the completed nomination form to the reference. It will also allow the references, after they have completed the form, to submit the reference form back electronically to the Fellow Committee.

Option Two: If you do not have the e-mail address of a reference, you will need to provide their last and first name. You will have to print out the reference form plus a copy of the completed nomination form and mail a hard copy to the reference. A reference must mail completed reference form to the following address no later than 01 March: IEEE Fellow Committee, 445 Hoes Lane, Piscataway, New Jersey 08854, Tel: 732.981.0060.

A nomination must be supported by at least five, but no more than eight references from active IEEE Fellows, who are listed on the IEEE Fellow Web Site at www.ieee.org/fellows. (Note: waiver is noted above for Region 9)

The selection of references is very important. References must be qualified to judge the nominee's work. That is, they must have personal knowledge of the nominee's technical accomplishments and have the ability to address the accomplishments in some detail. To ensure that the reference is qualified, it is recommended that you personally ask the individual to serve as a reference. Broad generalities may serve to weaken your nominee's nomination.

The nominator is encouraged to select references from outside the nominee's own organization when possible, or to minimize the number from within. The impartiality of the references may be questioned if most are from the nominee's organization. Also, the perception of the nominee's distinction may be questioned. However, if the nominee's contributions consist primarily of product advancements known only within his own organization, it is acceptable for many of the references to come from that source, so that the appropriate level of detail may be

cited. For instance, the knowledge of an internal source might be especially important in the case of an individual's particular contribution in a group effort.

The following information applies to nominations of nominees who reside in Region 9: If it is not possible to identify the required five IEEE Fellows to serve as references for a nominee who resides in this region, the IEEE Fellow Committee will accept references from Senior Members. However, nominators are strongly encouraged to obtain references from IEEE Fellow Grade Members. This waiver is reviewed annually and may be withdrawn in future years as the number of IEEE Fellows increases globally. Please remember that a person who serves as a reference must be qualified to judge the work of the nominee from a personal knowledge standpoint.

11. **Endorsement of Nomination (Optional).**

Any person, including non-IEEE members, can serve as IEEE Fellow Endorsements. The following individuals are ineligible to serve as IEEE Fellow Endorsements: members of the IEEE Board of Directors, members of the IEEE Fellow Committee, IEEE Technical Society/Council Fellow Evaluating Committee Chairs, IEEE Technical Society/Council Fellow Evaluating Committee reviewing the nomination or IEEE Staff. In addition, a nominator may not serve as an Endorsement for a nomination he/she is submitting.

When completing the Endorsement section, you will have two options. Both are listed below. It is the nominator's responsibility to follow up with endorsers to confirm that all endorsement forms are submitted to the Fellow Committee no later than the 01 March deadline. Staff will be unable to supply information on what material, if any, are missing from a particular nominee's nomination package. The Fellow Electronic Process (EFNP) will allow you to track the endorsements relevant to your nominee. To check the status on endorsements, you will need to go to the Fellow Web Site at www.ieee.org/fellows. With your established Fellow Account, you will need to login to the EFNP. After you login, you will be shown the name(s) of the nominee(s) you have submitted. You then must click on the appropriate nominee.

Option One: If you provide the endorsements last name, first name and e-mail address, the system will automatically e-mail a blank copy of the endorsement form to the endorsement. It will also allow the endorsements, after they have completed the form, to submit the endorsement form back electronically to the Fellow Committee.

Option Two: If you do not have the e-mail address of an endorsement, you will need to provide the name of an IEEE Section, Chapter, Committee, non-IEEE organization or non-IEEE individual. You will have to print out the endorsement form and mail a hard copy to the endorser. The endorser must mail the completed endorsement form to the following address no later than 01 March: IEEE Fellow Committee, 445 Hoes Lane, Piscataway, New Jersey 08854, Tel: 732.981.0060.

A maximum of three endorsements will be accepted. An endorsement of a nominee is optional; the submission of such material will contribute to the evaluation process and should not be overlooked. An endorsement will strengthen a nomination if it contains information on specific contributions that, in the opinion of the endorser, qualify the nominee for IEEE Fellow. An IEEE Section, Chapter, Committee, or Board to which the nominee has contributed time and talents, may endorse the nomination through its executive body. A non-IEEE organization or individual may also provide an endorsement. Endorsements will be shared with the IEEE Technical Society/Council Fellow Evaluating Committee reviewing the nomination.

12. Evaluation by IEEE Technical Society/Council.

For a list of all the IEEE Societies/Councils and Fields of Interest, please visit <http://www.ieee.org/web/societies/home/index.html>.