

## PROPOSAL FOR AN IEEE BEST PAPER PRIZE

**Summary:** The IEEE W. R. G. Baker Prize Paper Award has not been given in several years. The endowment for the Award is depleted and nominations have been insufficient, for some time, to warrant presentation of the Award.

Several IEEE Societies have now come forward to assume responsibility for this Award, and to set forth a new proposal for name, scope, administration, publicity, and presentation of what is currently known as the IEEE W. R. G. Baker Prize Paper Award.

The approval of the IEEE Awards Board for this newly constituted award is hereby requested. The proposing Societies also appreciate any improvements to this proposal that the IEEE Awards Board deems appropriate.

**Proposers:** The IEEE Societies that are signatories to this proposal are:

IEEE Signal Processing Society (SP-01)  
IEEE Information Theory Society (IT-12)  
IEEE Circuits and Systems Society (CAS-04)  
IEEE Communications Society (COM-19)  
IEEE Control Systems Society (CS-23)

Technical co-sponsors, without financial involvement, but with other support are:

IEEE Computer Society (C-16)  
IEEE Computational Intelligence Society (CI-11).  
IEEE Vehicular Technology Society (VT-06)

**Name of Award:** The proposed new name of the award is the **IEEE W. R. G. Baker Prize**. This is a shortened form of the original name. However, the identity of W. R. G. Baker has been maintained for this Prize because of the association with the Institute of Radio Engineers. Those proposing IEEE Societies whose roots are in the history of the I.R.E. were desirous, for historical purposes, of maintaining the link to the original name.

However, the identity of the award has been shortened to the IEEE W. R. G. Baker Prize in keeping with the more modern, worldwide meaning of awards of this type which are invariably, in all spheres, referred to as "prizes". The shortened name also is more easily publicized. Finally, the simplified name has more *cachet*, providing a better profile regarding the importance of the award, as well as for the recipient of the award.

**Description of Award:** The IEEE W. R. G. Baker Prize will recognize the authors of an outstanding paper reporting original work published in any IEEE transactions, journal, or letters periodical publication during a three to five year window prior to nomination, on the fundamentals of electrical engineering,

computing, and related arts and sciences as represented by IEEE. No more than one Prize may be given in any year.

**Justification:** There already is an award in existence within IEEE bearing the name of W. R. G. Baker. This paper award is an artifact of the Institute of Radio Engineers which later combined with the American Institute of Electrical Engineers (A.I.E.E.) to form the IEEE. The historical link to the beginnings of some of the IEEE's Societies, including some of the proposing sponsors, is considered desirable. Because the endowment for the original award has been exhausted, and the award is in need of revamping, several IEEE Societies are proposing to breathe new life into the award while preserving the value of the name of the award to those who have already received it.

**Administration:** It is proposed that the IEEE W. R. G. Baker Prize continue to be an IEEE Award. Therefore, the IEEE Prize Papers/Scholarship Awards Selection Committee, the IEEE Recognitions Council, and the IEEE Awards Board will be responsible for the administration of the award under its new name and auspices. A Selection Committee, established as a subcommittee of the IEEE Prize Papers/Scholarship Awards Selection Committee and comprising a representative from each financial sponsor Society, will provide judging for the award and will make a recommendation to the IEEE Prize Papers/Scholarship Awards Selection Committee. The IEEE W. R. G. Baker Prize Selection Committee will be chaired on a rotating basis by a member of one of the financially co-sponsoring Societies, starting by the Society with the lowest IEEE number identifier. The IEEE Board of Directors will determine the final selection of the recipient of the W. R. G. Baker Prize.

**Eligibility and Selection:** The IEEE W. R. G. Baker Prize will recognize the authors of an outstanding paper reporting original work published in any IEEE transactions, journal, or letters periodical publication during a three to five year window prior to nomination, on the fundamentals of electrical engineering, computing, and related arts and sciences as represented by IEEE. No more than one Prize may be given in any year.

The Prize of \$5,000 (plus travel expenses up to a total of \$2,000) shall be awarded to the author(s) of the paper to be shared equally. The author(s) of the paper need not be members of IEEE or of any IEEE Society, nor are they restricted in any manner, including age or gender. The Prize may be received only once by a single author or the same group of authors for work in the same area.

Nominated papers must have been published by an IEEE transactions, journal, or letters within a window of three to five years prior to nomination of the paper. For example, a paper nominated for the 2008 award will have been published during 2003, 2004, or 2005. This window is deemed appropriate in order to judge the impact of the work disclosed in the paper. Review papers are not eligible for nomination.

Nominations may arise as follows:

- (a) from the Editor-in-Chief on behalf of the Editorial Board of any IEEE transactions, journal, or letters publication;
- (b) from the Awards Board of any IEEE Society or Technical Council;
- (c) from the Board of Governors or Administrative Committee of any IEEE Society or Technical Council;
- (d) from any IEEE Member, with the exception of authors/co-authors who cannot self-nominate;
- (e) Exempt from nomination are members of the IEEE Board of Directors, the IEEE Awards Board, members of the IEEE Prize Papers/Scholarship Selection Committee, the IEEE Recognitions Council, and the IEEE staff.

Criteria for nominated papers is as follows:

- (a) paper must have been published in a transactions, journal, or letters periodical published or co-published by IEEE;
- (b) work disclosed in the paper must be original (thus, review papers are eliminated from consideration) and cannot merely address minor improvements on existing, established science;
- (c) work disclosed in the paper must address fundamentals of electrical engineering and computing arts and sciences;
- (d) the paper must be well written, succinct and unambiguous, accurate in all points, and supported by complete referencing, including referencing to prior work by the author(s);
- (e) the value of the paper must be made apparent with the nomination, for example, by showing its impact on the fundamentals of electrical engineering and computing arts and sciences, or by the nature or depth of the results, impact in technology developments, recognition by peers, citation in various, appropriate, popular citation indexes, or other means;
- (f) If requested, the nominator(s) must be able to provide complete citations or other background documentation to enable judgment of the value of the nominated paper.

**Selection Committee:** The IEEE W. R. G. Baker Prize Selection Committee shall function as a subcommittee of the IEEE Prize Papers/Scholarship Selection Committee. The financially co-sponsoring Societies of the IEEE W. R. G. Baker Prize each commit to nominate one member to the IEEE W. R. G. Baker Prize

Selection Committee every year. The IEEE W. R. G. Baker Prize Selection Committee will be chaired on a rotating basis by a member of one of the financially co-sponsoring Societies, starting with the IEEE Society with the lowest IEEE numerical identifier.

**Basis for Judging:** The IEEE W. R. G. Baker Prize Selection Committee will review all nominations. The Selection Committee will convene in person or by conference call when there are nominations to be reviewed. At most, one Prize may be given in any year; the Committee may choose not to propose any recipient because no nomination meets the evaluation criteria.

Judgment will be based on the submitted nomination/paper, written endorsements for a nomination, and personal knowledge of the subjects of the nominated papers by the members of the IEEE W. R. G. Baker Prize Steering Committee, or by recommendation from an expert or experts selected by the Selection Committee from among the members of the IEEE Society(ies) that best represent(s) the topical area of the paper.

Selection of the nominated paper shall be by a simple majority vote of the IEEE W. R. G. Baker Prize Selection Committee, provided a quorum of the Committee is available for the vote.

The selection of the IEEE W. R. G. Baker Prize Selection Committee for nomination will move forward to the IEEE Awards Board via the IEEE Prize Papers/Scholarship Selection Committee for recommendation to the IEEE Board of Directors.

**Solicitation for Nominations:** Nominations for the IEEE W. R. G. Baker Prize will be solicited in the usual manner employed by the IEEE Awards board including, but not limited to, a call for nominations in the IEEE's global newspaper, *The Institute*. Additionally, the IEEE Societies who are financial sponsors for the Prize agree, at least annually, to provide a free advertisement of up to one page in one of their periodical publications reaching all of that Society's members. E-mail bursting to the members of the Societies acting as financial or technical sponsors shall also be done at least annually to which the Societies listed above hereby agree.

**Prize Items:** The authors of the Prize shall receive:

- (a) \$5,000 (plus travel expenses not to exceed a total of \$2,000) to be shared equally among all authors.
- (b) A certificate for presentation to each author.

**Financing:** The IEEE Societies that are the financial sponsors of the IEEE W. R. G. Baker Prize, as named above, shall each provide an equal share of the funds necessary to present each Prize plus administration, for the period of ten years (through 2018). Each Society providing financial sponsorship shall transfer its

share in no more than two payments that shall be completed no later than April 2009, of an amount to the IEEE Foundation account for the IEEE W. R. Baker Prize defray the cost of the Prize plus administration, as determined by the IEEE Awards Board.

**Schedule:** Nominations submitted to IEEE for the IEEE W. R. G. Baker Prize will follow the same schedule as the other IEEE prize paper awards. The proposed recipient(s) is/are recommended to the IEEE Board of Directors with the presentation made in the following calendar year at the IEEE Awards Ceremonies. During the first year, a different schedule may be operable.

#### **ADDITIONAL INFORMATION:**

**Publicity:** The publicity plan for the IEEE Awards Program comprises three phases: Call for Nominations; Announcement of Award Recipient(s); and Presentation of Awards. With the permission of the sponsor, the IEEE Awards Program publicizes the sponsor in any promotional materials regarding IEEE Institute-level Awards.

**Phase 1: Call for Nominations:** The annual call for nominations for the IEEE W. R. G. Baker Prize will be published in the IEEE's global newspaper, *The Institute*, that is distributed to the more than 375,000 members of the IEEE. In addition, the call for nominations is placed on the IEEE web site at [www.ieee.org/awards](http://www.ieee.org/awards). The financially sponsoring Societies agree to also publish a call for nominations in one or more of their publications that is made available to all of the Society's members and agrees to allow one annual e-mail burst to its membership of the Call for Nominations. Publication of the Call by other IEEE Societies/Councils in their periodical publications, and via e-mail burst is strongly encouraged.

**Phase 2: Announcement of Award Recipient:** Articles describing the IEEE W. R. G. Baker Prize and announcing the recipient will be published in IEEE publications such as *The Institute*. Information will also be provided on the IEEE web site as well as in IEEE newsletters. The financially sponsoring Societies will announce the successful the Prize recipient in a periodical publication reaching all of its members. Publication of the announcement of the Prize recipient also will be done by the home Society/Council of the recipient(s) if he/she/they is/are IEEE/Society member(s). Publication of an announcement of the Prize recipient by all IEEE Societies/Councils is strongly encouraged.

**Phase 3: Presentation of Prize.** The presentation venue for the IEEE W. R. G. Baker Prize shall be the IEEE Awards Ceremonies or a conference venue of a financial sponsor Society requested by the recipient(s). Other venues requested shall be approved at the discretion of the IEEE Awards Board. An IEEE award brochure is prepared and distributed to the Awards Ceremonies presentation attendees. In addition, the IEEE Awards Booklet is distributed digitally to IEEE membership in July. Both the IEEE award brochure and the IEEE Awards Booklet list the name(s) of the recipient(s) and the Prize sponsors. Various news

releases are sent to the local media (local to IEEE's offices; local to the IEEE's Annual Awards Ceremonies or other presentation venue; and local to the "home base" of the recipient(s)) to promote the recipients, sponsors, and venue presentations. All IEEE Societies/Councils, but especially the financially sponsoring Societies, are strongly encouraged to mention the presentation of the Prize in their membership publications, newsletters, etc.