

Information Theory Society Awards Committee Report by Andrea Goldsmith

*IT Society BOG Meeting
Sept. 23, 2008
UIUC, Urbana/Champaign, IL*

Committee Chair: Andrea Goldsmith (First VP, Ex-Officio)

Committee Members: Frank Kschischang (2nd VP, Ex-Officio), Ning Cai, Robert Calderbank, Anne Canteaut, Suhas Diggavi, Tuvi Etzion, Michael Honig, Ioannis Kontoyiannis, Upamanyu Madhow, Andreas Winter

Summary

The focus of the awards committee since the last meeting has been to coordinate with Comsoc on several key changes to the Comsoc/ITSoc paper award including the award window and decision procedure, draft an amendment to the bylaws for both this award as well as the ISIT student paper award, and to work with other societies on re-establishing the Baker prize.

Joint Comsoc/ITSoc Paper Award:

The IEEE awards document describes the joint Comsoc/ITSoc paper award, established in 2000, as follows:

Description: To recognize outstanding papers published in any publication of the IEEE Communications Society or the IEEE Information Theory Society.

Prize: \$500 and Plaque for each author (total cost not to exceed \$1,000 for each paper)

Funding: Funded evenly by the two sponsoring Societies (IEEE Communications Society and IEEE Information Theory Society)

Eligibility: Authors of papers published in any publication of the IEEE Communications Society or the IEEE Information Theory Society. The authors do not have to be a member of IEEE. Each year the papers published in the previous three years are considered.

Basis for Judging: Quality, originality, utility, timeliness, and presentation. The paper should cover the interests and achieve the values of both the IEEE Communications Society and the IEEE Information Theory Society.

Presentation: Annually, at any event sponsored by either of the two sponsoring Societies selected by the recipient.

While this description indicates that papers over a three year window should be considered, the Comsoc's paper award's website states that papers over a one year window should be considered, and that is the window that has been followed in practice in the call for nominations of both societies. The procedure to determine the winner of the award, which is also described on Comsoc's website, is as follows. Both societies to submit 1-2 finalists and appoint a subcommittee of two members from each society to select the final 1-2 winners.

As discussed in the ISIT BOG meeting, several issues arose in this procedure in terms of cross-nomination of papers and the potential for dual awards; the decision timing; the size of the subcommittee; and the window of consideration for nominated papers. Extending the window from 1 year to the IEEE-approved three year window will alleviate several of these issues, including the window size, the decision timing, and some of the cross-nomination issues since both the IT and joint Comsoc/IT awards have multi-year windows. It was also decided at the July BOG meeting that no paper should win both the joint and IT paper awards, and this will be added to the bylaws.

The two-tier process of picking finalist papers within each society and choosing a winner from these finalists with a small subcommittee also raised some questions as to the ability to meet the deadline of an ICC announcement, the efficiency of a two-tier process over a one-tier process, and whether a subcommittee of four was large enough to provide balance and diversity of opinion. After discussion within the awards committee, we proposed to Comsoc the following modifications to the procedure for selecting the winner of the joint Comsoc/IT paper award:

A joint Comsoc/ITSoc awards committee will be formed consisting of four members appointed by Comsoc and four members appointed by IT (Comsoc prefers three members from each, so we need to finalize the final number with Comsoc). Members will have a two year term with the term of half the members of each Society expiring in odd years and the term of the other half expiring in even years (the staggering must also be finalized with Comsoc). An adjustment will be required for the first two years of the committee. The chairmanship of the committee will alternate yearly between the Societies. All committee meetings and voting may be handled electronically.

In terms of timing, an open call for nominations for the joint award will be published in the Newsletter with a deadline of March 1. The ITSoc members of the joint Comsoc/ITSoc awards committee will also be identified by March 1. We suggest active solicitation of nominations on the IT newsletter and the BOG mailing list, as well as internally within the ITSoc awards committee. We are recommending in the bylaws that a list of at least five nominations be forwarded to the chair of the joint committee. We are also recommending that no paper selected for the ITSoc paper award be eligible for the joint award, and no paper selected for the joint award be eligible for the ITSoc award. The bylaws will also state that normally one paper will be selected but a maximum of two may be chosen in a given year. The committee also has the option of not selecting any award winning paper in a given year if they deem that no suitable papers have been nominated. Notice of the winner should be given to IEEE for preparation of plaques and checks on June 1. Winners are then notified and given the option to select the ComSoc or ITSoc Symposium at which the award will be presented.

An amendment to the IT Society bylaws is being proposed for this award that describes the subcommittee makeup, one-tier process, and three-year award window. This can be found in a separate document on Award Bylaw Amendments.

ISIT Student Paper Award

The ISIT Student Paper Award is given to one or more outstanding papers appearing in each ISIT for which one or more students are the dominant authors. ISIT Papers are eligible for this award if (a) The first author is a registered student at the time of paper submission (or, in the case of alphabetical author order, a registered student is the dominant contributor) and (b) This student presents the paper at ISIT. Alternative arrangements to judge the presentation can be made at the discretion of the awards committee chair if the student is unable to attend ISIT due to visa restrictions. The Award consists of \$500 (to be divided among the student authors) and a Plaque for each student author.

In July it was decided that the ISIT TPC chairs should handle the first stage of identifying top-ranked eligible papers from the reviewer scores, comments, and specific recommendations for this award. This should consist of a list of 10-25 eligible papers. The ISIT TPC will forward this list to the awards committee chair by April 1. The awards committee selects the finalist papers (no more than 10) for the award by May 1 and notifies the finalists and the TPC chairs. The TPC chairs should schedule these finalist papers to be presented during the first three days of ISIT, so that the presentations can be judged by the awards committee and a final winner or winners identified in advance of the ISIT banquet Thursday night.. Multiple awards can be given and are encouraged if there are multiple papers meriting the award. The award winning paper(s) shall be decided based on both the paper content and its presentation at the symposium, and the winner(s) announced at the banquet. The awards committee also has the option of not selecting any award winning paper in a given year if they deem that no papers merit the award.

An amendment to the IT Society bylaws is being proposed for this award that describes eligibility and the process for deciding on the award winner(s). This can be found in a separate document on Award Bylaw Amendments.

Status of Baker Prize Reinstatement

In July our society approved the following motion for working to reinstate the Baker Prize Paper award:

The IEEE Information Theory Society, in partnership with other societies, strongly supports the continuation of the historic W. R. G. Baker Prize Paper Award. We are prepared to support modifications in its terms to adapt the award to current conditions and to make it easier to administer, such as restricting the award to fundamental theoretical papers and broadening the time window to five years so as better to assess impact. The IT Society will commit to providing one member to the selection committee every year, and will provide a proportionate amount of the cost of administering the award (now estimated at \$5000 per year, or the equivalent in endowment).

Since July, our society has been working closely with the SP society to solicit co-sponsors for the award and to draft a proposal for the revised award to be submitted to the IEEE Awards Board. The following financial co-sponsoring societies were approached: 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). All of these societies have agreed to be financial co-sponsors except Comsoc, which will discuss it at their BOG meeting in December and hopefully approve co-sponsorship at that time. In addition, the following societies were approached as technical co-sponsors without financial involvement but with other support, to ensure wide societal participation, as request by the Awards Board for an IEEE-wide award: IEEE Computer Society (C-16), IEEE Computational Intelligence Society (CI-11), IEEE Vehicular Technology Society (VT-06). These societies all agreed to participate in this manner.

The proposal currently states that the 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 consists of \$5,000 (plus travel expenses up to a total of \$2,000) for the author(s) of the paper, to be shared equally. The Prize may be received only once by a single author or the same group of authors for work in the same area.

For administration, 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. A Baker Prize 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 for a winner. The 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.

The detailed proposal submitted to the IEEE, which contains these and other details, can be found in a separate document