Signal Processing for Communications and Networking Technical Committee (SPCOM-TC) Policies and Procedures

Approved by the TC at the ICASSP 2016 Meeting

This document describes a set of best practices adopted by SPCOM TC for dealing with important TC matters.

1 Major award nominations

The TC uses a rigorous and open (but also demanding) process to select candidates for nomination for the Signal Processing Society's Major Awards (including the paper awards, Education, Meritorious Service, Technical Achievement and Society Awards), IEEE-level awards, and Distinguished Lecturer nominations. The process may also be invoked 1) when nominations are solicited from the TC, for example to the Awards Board and other certain higher office positions within the Society, and, 2) for Associate Editor recommendations, if nominations from the TC are requested by the Editor-in-Chief.

For awards to individuals, the process consists of the construction of a slate of candidates, multiple (typically two) 'down-selection' rounds of voting, and a consensus round of voting. For the paper awards, an award-level review step is performed after the construction of the slate of candidates. The details of the processes for the individual awards are outlined in Section 1.1, and those for the paper awards are outlined in Section 1.2.

Consistent with the SPS policies and procedures, the TC cannot nominate one of its own members for any award. However, anyone wishing to nominate a member of the TC for any award can do so directly to the Awards Board. With the exception of the paper awards, the TC will only consider "nominatable" candidates (i.e., candidates who are not members of the TC) in its processes. When a TC member becomes aware that he/she will be nominated on the "public" track for a particular award, that TC member is asked to recuse him/herself from voting for that particular award. In the discussion below, those TC members will be classified as being ineligible to vote.

1.1 Nominations for individual awards and Board positions

The TC's processes for the individual awards is coordinated by the TC Chair, who compiles the slate, and distributes the results to TC members. The TC's Awards Subcommittee audits the vote count, and selects a member to stand in for the Chair in any case where a conflict of interest may arise.

Selection of candidates for the slate: The TC aims to consider more than one "nominatable" candidate for each award. Candidates can be nominated by members of the TC and also by members of the community, using the Society's nomination form for the relevant award. We do not accept self-nominations. The name(s) of the nominator(s) and their nomination statement will appear on the slate.

Voting: In the case that the slate is of significant size (typically more than three candidates), an initial round of voting is used to determine the top cluster of candidates. In this round, each eligible TC member is allowed to vote for up to three candidates. (Votes are equally weighted.) Using these votes, the Awards Subcommittee selects the top cluster of candidates (typically three), and the results are reported to the TC.

In the second round of voting, or if the initial down-selection round was not needed, each eligible TC member votes for at most one candidate. The candidate with the most votes is selected as the potential nominee. In the case of a tie, those who voted for the other candidates will be polled for their preference in an attempt to break the tie. If the top candidates remain tied, all the tied candidates become potential nominees from the TC.

Consensus round of voting: The winner (or unresolved tied winners) of the voting round, or, if there was only one person on the slate, the sole candidate, is (are) brought to a consensus round of voting on whether or not the candidate should become the TC's nominee. There is a quorum requirement: in order to win the TC's endorsement, a "nominatable" candidate must win more than 0.5*(TC members eligible to vote) votes.

1.2 Paper awards

The TC's paper award process is coordinated in alternating years by the TC's Vice-Chair or Past-Chair, who makes the review assignments, collects the reviews, and distributes the results to the TC members. The TC's Awards Subcommittee audits the vote count, and selects a member to stand in for the Vice-Chair/Past-Chair in any aspect of the process where a paper authored/co-authored by the Vice-Chair/Past-Chair is being considered.

For each award process, there will be several common steps:

- Selection of papers for the slate.

- Anonymous award-level reviews (two per paper) of the papers on the slate by members of the TC.

- Multiple rounds of voting for papers on the slate.

- Consensus round of voting.

1.2.1 Best Paper and Young Author Best Paper Awards (BPA and YABPA)

Selection of papers for the slate
Papers are placed on the slate in one of the following ways:

- Papers nominated by members of the community or by members of the TC go straight onto the slate. We do not accept self-nominations. The slate includes both the nomination statement, which is attributed, and the anonymous award-level reviews.

- Those papers that received significant support in the previous year and remain eligible for the award are renominated by the Awards Subcommittee. The subcommittee does what it can to define a fair notion of "significant" in the context of the way in which votes were cast in the previous year. Often, this would be all those papers that made it to the second round of voting in the previous year, but did not receive an award.

- Each paper on an SPCOM topic that was published in *IEEE Transactions on Signal Processing* or *IEEE Journal of Selected Topics in Signal Processing* in the previous calendar year is "scan reviewed" by a single member of the TC. A binary decision is made as to whether or not the paper should be put on the slate. If the paper does go onto the slate, the scan reviewer should not be one of the award reviewers.

- Finally, as a "back stop" to our procedures that is designed to try to reduce the risk of us overlooking some good papers, the Awards Subcommittee identifies those eligible papers that have received a large number of citations. If such a paper has been considered for an award in a previous year, so that we already have award level reviews, it is placed on the slate. If such a paper has not been considered in a previous year, it is added to the list of papers to be scan reviewed. Again, the Awards Subcommittee comes to an agreement on how many citations is large enough for a paper to have distinguished itself from its peers.

Anonymous award-level reviews

Each paper that makes it on to the slate is anonymously reviewed by two members of the TC. These reviews comment on the strengths and weaknesses of the paper, its potential impact, and conclude with the reviewers opinion of whether or not the paper should be considered as the TC's nominee for the BPA or the YABPA. (The reviewers are not expected to confirm eligibility for the YABPA.)

Only those TC members who are not authors or co-authors of papers on the slate, and are not aware of any nomination of one of their papers on the "public" track for a BPA or YABPA award, are asked to perform award level reviews. So long as the Vice-Chair/Past-Chair does not have a paper on the slate, he/she makes the award level review assignments, and selects a similarly unconflicted member of the Awards Subcommittee to act as auditor of the review process and the voting process. If the Vice-Chair/Past-Chair does have a paper on the slate, then the Awards Subcommittee appoints a pair of unconflicted TC members to run the process.

While the award review process is on-going, the Vice-Chair/Past-Chair, or delegate, seeks to confirm eligibility for the YABPA by making discreet enquiries with the senior authors on the papers.

Two rounds of voting for papers on the slate

The Vice-Chair/Past-Chair (or delegate) prepares the slate that consists of a list of all the papers that are being considered, the two anonymous reviews associate with each paper, and the nomination statement (if there is one). The slate is sent to all members of the TC, but at each stage of the voting process, and for each award, only those members who do not have a paper that is in contention, and are not aware of any nomination of one of their papers on the "public" track for that award, can vote. For simplicity, those members are referred to as "eligible voters" in the text below.

For each award, the voting is organized as follows:

First round of voting: In this round, each eligible TC member is allowed to vote for up to three candidates, of which one must be a "nominatable" paper. (Votes are equally weighted.) Using these votes, the Awards Subcommittee selects the top cluster of candidates, which would often contain three papers. The results are then reported to the TC.

Second round of voting: In the second round of voting the pool of eligible voters may be larger than in the first round. In the second round, each eligible TC member votes for at most one paper. The Awards Subcommittee reports the raw results to the TC, but it is the "nominatable" paper with the most votes that is selected as the potential nominee. In the case of a tie, those who voted for the other papers will be polled for their preference in an attempt to break the tie. If the top "nominatable" papers remain tied, all the tied papers become potential nominees from the TC.

Consensus round of voting
The winner (or unresolved tied winners) of the voting round is (are) brought to a consensus round of voting on whether or not the paper should become the TC's nominee. There is a quorum requirement: in order to win the TC's endorsement, a "nominatable" paper must win more than 0.5*(TC members eligible to vote) votes.

Time line for best paper and young author best paper awards
A suggested time line for the paper awards process is as follows. (The current dates are in parentheses.)

- Three and a half months before deadline: collate the list of highly cited papers and papers published in the previous year to prepare for the scan review process (mid May)

- Three months before deadline: assign scan reviews (1 June)

- Two months before deadline: assign award level reviews and confirm eligibility for YABPA through senior contacts (1 July)

- One month before deadline: distribute slate and begin voting process (1 August)

- Deadline to submit nominations (1 September)

1.2.2 Signal Processing Letters Best Paper Award (LBPA)

The TC's procedures for the Signal Processing Letters Best Paper Award will be the same as those for the BPA, except that in the construction of the slate, the scan review step will not be performed. Furthermore, if there is a small number of candidate papers on the slate (often up to three), the Awards Subcommittee may choose not to perform the award review step and instead attach the papers themselves as part of the slate.

1.2.3 IEEE Signal Processing Magazine Best Paper Award (MBPA)

The TC's procedures for the Magazine Best Paper Award will be the same as those for the BPA , except that in the construction of the slate, the scan review step will not be performed. Furthermore, if there is a small number of candidate papers on the slate (often up to three), the Awards Subcommittee may choose not to perform the award review step.

1.3 IEEE Signal Processing Magazine Best Column Award (MBCA)

The TC's procedures for the Magazine Best Column Award will be the same as those for the BPA, except that in the construction of the slate, the scan review step will not be performed. Furthermore, if there is a small number of candidate columns on the slate (often up to three), the Awards Subcommittee may choose not to perform the award review step and instead attach the columns themselves as part of the slate.

1.3.1 IEEE Marconi Prize Paper Award in Wireless Communications (*IEEE Transactions on Wireless Communications*)

The TC's procedures for the Marconi Award are derived from those for the BPA. However, there is no constraint on the TC regarding nominating papers co-authored by members of the TC. (The other controls for conflict of interest remain in place.)

The nomination process for the Marconi Award is handled by the Marconi subcommittee. This subcommittee is appointed by the TC chair each year, and typically includes those TC members who have significant involvement (e.g. as associate editors) in the *IEEE Transactions on Wireless Communications*. The subcommittee produces a slate of candidate papers with a target size of 5–10. Once that slate has been established, the award level reviews, voting and consensus voting procedures will be the same as those for the BPA, with the simplification of not having to concern ourselves with the issue of "nominatablility".

2 Elections

An election is held every year to appoint new TC members. The number of slots is equal to the number of members whose term expires at the end of the year. Each member serves a single 3-year term, which is renewable once in a row. Present members eligible for re-election are put in the same ballot as new candidates. After serving two consecutive 3-year terms, a member must step down for at least three years before being eligible for re-appointment to the TC. Exception is made for the TC chair and vice-chair, whose membership is automatically extended till the end of their (vice-) chair appointment. Chair and vice-chair appointments are for two years; every two years, there is a separate election process to appoint a new TC vice-chair. The vice-chair automatically assumes the chair position at the end of two year term, and the chair becomes the past chair after completing the two year appointment. Consecutive terms as TC chair or vice-chair are not permitted.

Nominations are submitted to the Nominations and Elections subcommittee. Nominations are in the following format:

1) Name, address, contact data

2) IEEE Trans. - style bio. Include awards / honors etc.

3) Summary publication record: # journal papers, conf. papers, book chapters, etc

4) Current research interests

5) List of 5 most important journal papers in the SPCOM area. Of these, at least 2-3 should be recent (last 2-3 years).

6) Record of participation and paper review for SPAWC and ICASSP (last 5 years)

2.1 Voting procedure

Let M be the number of available positions, $N = M/3$ (rounded up). Let P denote the number of TC members eligible to vote and let Q denote the number of candidates. Assume that $Q > M$.

Each eligible TC member votes in two ways.

- First, for each of the Q candidates, the TC member votes "yes" or "no" as to whether they approve of the nominee being a member of the TC should the nominee be elected.

- Second, each TC member casts a maximum of M selection votes for his/her preferred nominees. (All selection votes are considered of equal weight.)

Processing of votes

The votes are processed as follows:

1. Only nominees receiving at least $P/2$ approval votes will be considered electable. The remaining nominees will be eliminated.

2. The list of electable candidates is sorted according to the number of selection votes.

3. The top N existing TC members remain on this list; the other existing TC members are removed. In the case of ties, the approval votes will be consulted. If they are also tied, a separate run-off will be conducted to select between the tied candidates who are existing TC members (see below).

4. Let K denote the size of the shortened candidate list.

   - If $K \geq M$ then the top M candidates on this list are elected. Ties are resolved by 1) using the approval votes, and 2) if ties still remain, by using a runoff.

   - If $K < M$ then the K candidates are elected. The remaining $M - K$ slots are filled by the existing TC members who were previously removed in step 3, in the following order: 1) using selection votes, 2) in case of ties, using approval votes, and 3) in case of remaining ties, by conducting a runoff.

Run off procedure

Let T denote the number of candidates in the run off and let S denote the remaining number of slots.

i. Each eligible TC member votes for S of the T candidates.

ii. The list is sorted and the top S candidates are elected. Any ties will be resolved by the number of approval votes. Any further ties will be resolved by the TC chair.

Timeline

- Call for nominations broadcast to the TC and the affiliate members by mid-September

- Broadcast of candidate list and bios by mid-October

- Poll (including possible runoff) completed by end of October

Members may not vote for themselves.

2.2 Election of vice-chair

There is a formal election of vice-chair every second year, around the time of new member election. The process is open for nominations from any TC member. Existing and past TC members may be nominated. The Nomination and Elections subcommittee conducts an anonymous vote to endorse the vice-chair nominations, or select from multiple nominations, via e-mail ballot. The nominees abstain from voting on their own candidacy. In order to be appointed, a candidate must gather support from more than 0.5*(TC members eligible to vote) members.

3 ICASSP/SPAWC reviewing

Each member is responsible for about 35 ICASSP/SPAWC reviews per year. In addition to TC members, the TC chair solicits about 50 external reviewers, who review about 10 papers each. The selection of external reviewers is upon recommendation by existing TC members. Reviewers who have done good work in the past are automatically invited again. The TC uses the external review process to assess potential candidates for future membership. External reviewers are typically at the mid-assistant to early associate professor level, or the industry equivalent; or they have served as TC members in the past.

ICASSP student paper award nominations

The Chair will appoint an ad-hoc subcommittee to include the Vice-Chair and two TC members, plus any additional TC member volunteers, to look at the top-rated student papers and make nomination(s) on the basis of technical merit.

4 Workshop proposal selection

Every year around late fall, the TC opens the floor for proposals for the Workshop on Signal Processing Advances in Wireless Communications (SPAWC). The TC aims for a 2-year lead; i.e., proposals for SPAWC 2010 will be considered starting in late 2007; after expression of initial interest, full proposals are typically distributed prior to ICASSP, and voted upon at the face-to-face meeting at ICASSP, except when a quorum is not present, in which case the voting shall take place by email.

- If there is a single proposal, it must gather support from more than 0.5*(TC members eligible to vote) [excluding TC members who are General or Technical (co-)Chair(s) of the proposal] in a single voting round.

- If there are multiple proposals for the same year, each eligible TC member 1) for each proposal, casts an endorsement (yes/no) vote, and 2) ranks all proposals in the form $A > B = C > D$. The ranking must be complete and linear but may comprise strict inequalities ($>$) or equalities ($=$).

  A proposal must gather support from at least 0.5*(TC members eligible to vote) in order to win. If there is exactly one proposal that wins every pairwise comparison against all others, it wins. If not (unlikely but can occur) then it is up to the TC chair together with the TC vice/past-chair to define the procedure to be followed.

The voting is conducted by the TC chair and TC vice/past-chair. If any of them has a conflict of interest, the TC chair appoints an unconflicted TC member.

TC members involved in the organization team of any proposal may not vote.