

IEEE Communications Society (ComSoc) Technical Committee (TC) on

Molecular, Biological, and Multi-Scale Communications (MBMC-TC)

Policies and Procedures

Text highlighted in light orange is part of the minimal/mandatory P&Ps

1. Generalities

a. Charter

This committee focuses on nanoscale communication in the range from nanometers to micrometers. Nanoscale communication may be based on biological materials and mechanisms (molecular communication), electromagnetic waves and principles (electromagnetic communication), or quantum states and quantum physics (quantum communication). Nanoscale communication is a paradigm-shifting communication and networking technology that enables nano-to-micro meter scale devices to coordinate and perform a wide range of applications from targeted drug delivery, in-body nanosensor wireless networks and computing in a new paradigm.

The MBMC-TC provides its members with

- a forum that facilitates and promotes technical discussions, interactions, and collaborations; and
- a forum that facilitates and broadens its members' professional opportunities.

The MBMC-TC serves engineers, researchers, scientists and educators who work in the interdisciplinary and dynamic area of molecular, biological and multi-scale communications.

b. Objectives

The objectives of the MBMC-TC are to:

- Help position ComSoc as the leading technical organization for communication professionals, as per the Bylaws;
- Promote knowledge and dissemination of knowledge related to the scope of the technical committee;
- Foster the development of new emerging topical areas related to the scope of the technical committee;
- Provide technical support to the development of ComSoc conferences, publications, standards, and educational activities;
- Organize journal special issues as well as special sessions, symposia, tutorials and workshops in leading conferences, particularly ICC and Globecom;
- Coordinate with and support the IEEE Transactions on Molecular, Biological, and Multi-Scale Communications to ensure the continued quality and success of the journal; and
- Coordinate with the IEEE Standards Association Working Group on Nanoscale and Molecular Communications.

c. Statement of Equity, Diversity, and Inclusion

ComSoc's vision is to bring harmony through communications, ultimately creating a connected world enabled to create bonds among people with various backgrounds and from all corners of the world. To this end, the MBMC-TC advocates equity, diversity, inclusion, non-discrimination, global cooperation, and compassion; condemns discrimination, harassment, and violence; and affirms an unequivocal commitment to treat everyone fairly. Our officers and members will uphold these principles in all our actions.

(Adapted from [1])

2. Organizational Structure and Membership

a. Organizational structure

The MBMC-TC reports to the Technical Committees Board.

The MBMC-TC shall have a Chair, Vice-Chair, and a Secretary and all shall be elected by the TC voting members. Elections for Technical Committee Chairs shall be held every two years, which is the duration of a term. An officer may serve for a maximum of three consecutive terms, but an officer may not serve the same elected office for consecutive terms. After three consecutive terms, an officer must wait for at least one term before they become eligible to serve as an elected officer.

If an elected officer resigns, or is otherwise unable to serve, and more than nine months remain in their term, then a special election will be organized to choose a successor to fill the remainder of the term.

Technical Committees may form Subcommittees and Special Interest Groups (SIGs). Chairs of Subcommittees and SIGs shall be appointed by the Technical Committee Chair.

Technical Committees membership shall be defined in the Technical Committee P&Ps.

b. Membership

Membership in the TC includes members, voting members, and collaborators.

Member. The requirements for membership in MBMC-TC are:

- Be a ComSoc member in good standing;
- Have been active in the Technical Committee for the past three years;
- Participate in Technical Committee meetings;
- Assist in the conduct of Technical Committee business; and
- Be included in the TC mailing list.

Voting member. Voting members may cast votes in officer elections and on motions at MBMC-TC meetings. The requirements for being a voting member in MBMC-TC are:

- Be an MBMC-TC member or an MBMC-TC officer; and
- Take part in one or more of the following activities within the last three calendar years, including the current year:
 - Attend the MBMC-TC mid-year meeting (normally held at IEEE ICC) and/or the end-of-year meeting (normally held at IEEE Globecom) (if these conferences are virtual, or if it is otherwise not possible to have a face-to-face meeting, virtual participation is acceptable for this requirement);
 - Author and/or present a paper at a conference, track, or session organized by the MBMC-TC;
 - Chair, serve on the organizing committee, or serve on the technical program committee of a conference, track, or session organized by the MBMC-TC; or
 - Serve as a member of the editorial board of the IEEE Transactions on Molecular, Biological, and Multi-Scale Communications.

Example to clarify “within the last three years, including the current year”: At any date in 2020, those activities, and only those activities, in 2018, 2019, or 2020 shall be counted.

Collaborator. Collaborators are individuals who are not ComSoc members. Collaborators may participate in TC activities but are not entitled to vote, run for election, or serve in appointed positions.

3. Elected and Appointed Officers

The MBMC-TC shall have elected Officers and may have appointed officers. All elected Officers shall be elected by the MBMC-TC voting members. Appointed Officers shall be appointed by the MBMC-TC Chair or other Officer, as specified in the Technical Committee P&Ps.

All Officers shall be Technical Committees members and shall serve two-year terms concurrent with the nominal term of the Technical Committee Chair.

Technical Committees shall have at least the following three elected Officers, each with the minimum duties and responsibilities listed below.

a. Chair

- Sets the overall direction and policy of the MBMC-TC, in consultation with the other elected and appointed officers and MBMC-TC members;
- Represents the Technical Committee on the Technical Committees Board;
- Provides guidance and direction to Technical Committee members in the conduct of their responsibilities;
- Appoints Chairs of Subcommittees and Special Interest Groups, as necessary;
- Coordinates with ComSoc Staff in the conduct of their responsibilities; and
- May assume leadership for specific projects, as delegated by the Technical Committee.

b. Vice Chair

- Prepares reports for the TC and Technical Committees Board meetings;
- Provides an annual written report, which shall be distributed to the VP-TEA-C, the Director-Technical Committees, and TC members prior to each meeting held at ICC;
- Chairs the awards subcommittee and manages the MBMC-TC awards process;
- Chairs meetings of the MBMC-TC in the absence of the Chair; and
- Assists the Chair and shall act on behalf of the Chair in the event of his/her incapacity.

c. Secretary

- Coordinates the TC meetings, arranging the meeting time schedule, reserving the meeting room and food (if needed), and informing the members via the e-mail list;
- Arranges for remote participation in TC meetings;
- Records the minutes of the TC meetings and posts them on the TC website;
- Maintains contact with the TC members and Chair;
- Sends announcements to the TC e-mail list;
- Maintains and updates the TC website; and
- Maintains the list of Technical Committee members that have voting rights.

Appointed Officers may also be specified and shall be listed in the MBMC-TC P&Ps. Presently the MBMC-TC has no appointed officer positions.

4. Nominations and Elections

a. Preamble

As per the Bylaws, the MBMC-TC P&Ps shall specify the procedure to be followed for the election of Officers. A Nomination and Election Subcommittee shall be formed to identify suitable candidates and oversee the election procedure. The Technical Committee P&Ps shall specify how the members of the Nomination and Election Subcommittee are appointed. All members of the Nomination and Election Subcommittee shall be Technical Committee members.

b. Nomination and Election Subcommittee (NES)

An NES shall be appointed for regular elections at the end of terms, and for special elections to fill a vacant elected officer position. In either case, the NES shall be appointed at least four weeks before voting opens, and shall be disbanded once the election report is accepted by the MBMC-TC chair.

The NES shall have at least three members, one of whom will serve as NES chair. The Chair shall appoint the members of the NES and designate one of the members to be the chair of the NES. Sitting officers of the MBMC-TC may not be members of the NES, however, it is desirable for some of the the members of the NES to be past officers of the MBMC-TC.

Members of the NES may not be candidates in the election. If a member of the NES has a perceived or actual conflict of interest with any candidate for election, this conflict will

be brought to the attention of the MBMC-TC chair. If the MBMC-TC chair decides that a conflict exists, the member will withdraw and the MBMC-TC chair will appoint a new member to the NES.

c. Nominations

The NES manages the nomination process. Nominations will be solicited for a period of at least two weeks. The nomination period will be announced on the MBMC-TC mailing list.

Any MBMC-TC member may nominate any MBMC-TC member or members as a candidate to an elected office. Self-nominations are acceptable. Nominations will be communicated to the NES chair. The NES may nominate candidates.

In addition to any nominations from the membership, the Vice-Chair will be automatically nominated as a candidate for the position of Chair, and the Secretary will be automatically nominated as a candidate for the position of Vice-Chair. An automatic nomination may be declined by the candidate. An automatic nomination is not valid if the candidate would be ineligible.

It is desirable to have at least two candidates for each elected office, unless the candidate is the sitting Vice-Chair and has been automatically nominated for Chair, or unless the candidate is the sitting Secretary and has been automatically nominated for Vice-Chair. (For clarity, while a single candidate is acceptable in these cases, additional candidates are welcome.)

Before the election, the NES confirms the eligibility of nominees, and contacts the nominees to confirm their willingness to serve in the role for which they have been nominated. Candidates must be both eligible and willing to serve in order for their nomination to be valid.

d. Election procedure

Elections shall take place at a general meeting of the MBMC-TC. For end-of-term elections, the election will take place at the last end-of-year meeting before the end of the term, normally at Globecom. For special elections, the election will take place at the next available meeting.

Prior to the election, the NES and MBMC-TC secretary will ensure that the list of voting members is up to date. At the election, the NES issues ballots to voting members, collects completed ballots, and counts the votes.

Each MBMC-TC voting member has one vote. MBMC-TC members (other than voting members) may not cast a vote. The candidate who receives the most number of votes is elected. Ties will be resolved by selecting a candidate randomly using a randomization algorithm.

e. Approval of Results

After each election, the Nomination and Election Subcommittee Chair shall prepare an Election Report that shall include:

- A verbatim excerpt of the election process specified in the P&Ps, including how the Nomination and Appointment Subcommittee members are selected.
- When and where the election took place.
- The roster of the Nominations and Elections Committee.
- The candidates for each office and how the candidates were selected for the ballot.
- The IEEE member number for each candidate, with a confirmation that they satisfy the criteria for being a Technical Committee member.
- The method chosen for voting (in person, electronically, by teleconference, etc.).
- The list of members who voted in the election with a confirmation that they all satisfy the criteria for being a Technical Committee voting member.
- Name of the person preparing the ballot.
- The actual vote tally by candidate.

The Technical Committee Chair shall send the election report to the Director-Technical Committees and the VP-TEA within two weeks from when the election was held. Election results shall be ratified when approved by the Director - Technical Committees and the VP-TEA. The Director of Technical Committees shall notify the Technical Committee Chair the approval decision within two weeks after receipt of the Election Report. If the Director – Technical Committees and the TEA Vice President do not approve the election results, the Director shall organize a new election on behalf of the Technical Committee.

5. Awards

The MBMC-TC will offer two annual awards: The IEEE Transactions on Molecular, Biological, and Multi-Scale Communications Best Paper Award, and the Molecular, Biological, and Multi-Scale Communications Best Conference Paper Award.

Procedures related to these awards will be carried out by the MBMC-TC awards subcommittee, which reports to the MBMC-TC Chair.

Full policies and procedures related to these awards are contained in Appendix A to these Policies and Procedures.

6. Activities

a. Selected Areas in Communications (SAC) Track Chair for MBMC at ICC and Globecom

The MBMC-TC supports the SAC track focusing on molecular, biological and multiscale communications at each ICC and Globecom. For each ICC and Globecom, the elected officers of the MBMC-TC identify a SAC Track Chair at their discretion and nominate him/her to the ICC/Globecom organizing committee. The ICC/Globecom organizing committee considers the nomination from the MBMC-TC and makes the final decision.

The Chair solicits nominations from the MBMC-TC members for a period of at least two weeks on the MBMC-TC mailing list. Any MBMC-TC member may nominate any MBMC-TC member or members as a candidate for the SAC Track Chair, including himself/herself. The Chair, as a member of the MBMC-TC, may also nominate a

candidate or candidates in consultation with the other elected and appointed officers. Within two weeks after the candidate nomination is closed, the elected officers of the MBMC-TC identify the most suitable SAC Track Chair candidate at their discretion after considering all nominations and nominate him/her to the ICC/Globecom organizing committee.

A candidate must be a member of the MBMC-TC and IEEE ComSoc, when he/she is nominated. A candidate who served or has been selected to serve as a symposium chair or a SAC track chair in 3 of the 6 ICC/Globecom conferences prior to the conference in question is not eligible to serve as the MBMC SAC Track Chair for that conference. Additional requirements from the ICC/Globecom organizing committee may apply.

The SAC Track Chair performs the following tasks. He/she:

- attends all TPC meetings of the ICC or Globecom for which he/she is appointed and coordinates with the TPC for the organization of the SAC track;
- appoints TPC members for the SAC track in consultation with the elected officers of the MBMC- TC;
- organizes the SAC track at the ICC or Globecom for which he/she is appointed; and
- reports the SAC track activities to the MBMC-TC.

b. IEEE Transactions on Molecular, Biological and Multi-Scale Communications

The MBMC-TC will coordinate and communicate with the Editor-in-Chief of the IEEE Transactions on Molecular, Biological, and Multi-Scale Communications to ensure the quality and success of the Transactions.

The MBMC-TC will support the Transactions through advertising and by encouraging its members to submit high-quality manuscripts.

Recognizing that the Transactions are vital to the MBMC-TC community, and that the Transactions are overseen by the ComSoc Publications Board, the MBMC-TC officers will support the Editor-in-Chief of the Transactions by advocating for the journal to ComSoc administrators, as needed.

c. Distinguished Lecturer and IEEE Fellow endorsements

The MBMC-TC may propose its members for distinguished lecturer positions, and may endorse nominations of its members for the grade of IEEE Fellow. Proposals and requests for endorsement may be made at any time by MBMC-TC members. Proposals and endorsements will be evaluated by the awards subcommittee, considering: the charter and objectives of MBMC-TC; the MBMC-TC statement of equity, diversity, and inclusion; and the excellence of the lecturer/nominee. Once the evaluation is complete, the awards subcommittee will either recommend to the MBMC-TC chair that the proposal/nomination be supported, or that it be declined. For distinguished lecturer proposals, if the awards subcommittee supports the proposal, then the awards subcommittee is responsible to ensure that the proposal is complete and ready to be submitted; the MBMC-TC Chair will then submit the proposal on behalf of the MBMC-TC.

d. Other activities

The MBMC-TC may conduct other activities to further the objectives of the TC.

7. Website and Mailing List

The MBMC-TC shall maintain an official web page and a mailing list hosted by the ComSoc IT Department.

The web page shall contain information about officers and their contact information, the scope of the TC, TC P&Ps, subscription to membership, and minutes of meetings held.

Policies for posting to the mailing list will be described on the web page.

8. Transaction of Business

All TC meetings shall be conducted in compliance with Clause A.2 of ComSoc's Policies and Procedures.

The MBMC-TC shall normally hold at least two in-person meetings per year, one at ICC (the mid-year meeting) and one at Globecom (the end-of-year meeting), with the possibility of remote participation by dial-in. The TC may conduct additional meetings concurrent with flagship conferences for the TC. Conference calls, discussions via email, and voting via email shall be conducted on an as needed basis.

9. Changes and Approval of Policies and Procedures

Technical Committee P&Ps require the approval of the Technical Committee Board before taking effect. The process for submitting TC P&Ps amendments for approval shall be as follows:

1. The TC shall first approve the amendment.
2. The TC Chair shall forward the approved P&Ps to the Governance Committee for feedback, copying the Chair of the Technical Committee Board.
3. The TC P&Ps shall be revised as needed based on the feedback of the Governance Committee.
4. The finalized P&Ps shall be sent to the Technical Committee Board Chair who shall schedule them for approval at the next Technical Committee Board meeting.

[1] A Statement from the IEEE ComSoc Board of Governors, <https://www.comsoc.org/about/board-governors/statement-ieee-comsoc-board-governors>

Version history

- This version APPROVED by the TC, June 24, 2020

Appendix A - MBMC Award Procedures

1. **Scope.** These procedures concern the following awards presented by the IEEE Communications Society (ComSoc) Technical Committee on Molecular, Biological, and Multi-Scale Communications (the “TC”):
 - a. The *IEEE Transactions on Molecular, Biological, and Multi-Scale Communications Best Paper Award* (the “journal award”), awarded annually to the best paper published in the IEEE Transactions on Molecular, Biological, and Multi-Scale Communications (the “Transactions”) in the previous **five** calendar years; and
 - b. The *Molecular, Biological, and Multi-Scale Communications Best Conference Paper Award* (the “conference award”), awarded annually to the best paper published in a conference or track organized or sponsored by the TC in the previous calendar year, normally to include the TC’s tracks at the IEEE International Conference on Communications (“ICC”) and at the IEEE Global Communications Conference (“Globecom”).
2. **Definition of Conflict of Interest.** A real or perceived conflict of interest exists for anyone who has a personal or professional interest in the outcome of the award competition; has a personal or professional relationship with one of the award candidates; or has a direct or indirect financial interest in the award. For clarity in interpreting a “relationship”:
 - a. Individuals who have been in a supervisor-trainee relationship are in conflict of interest for life.
 - b. Research collaborators are in conflict of interest if the collaboration is ongoing, or occurred within the last six years.
 - c. A relationship may include, for example, a serious dispute or a notable history of animosity.
3. **Award Criteria.**
 - a. Eligibility.
 - i. Awards are an expression of the values of the IEEE, ComSoc, and the TC. Eligibility for the award shall reflect the TC’s Charter, Objectives, and Statement of Equity, Diversity, and Inclusion.
 - ii. Journal award: Subject to the conditions below, all original research papers, both regular length and letters, published in the previous four calendar years, are eligible for the award. Date of publication is determined by the date of the journal issue in which the paper is published; for example, for the award given in 2021, papers published in the 2020, 2019, 2018, and 2017 issues would be eligible. Invited papers, editorials, corrections, comments, and reviews are not eligible for the journal award.
 - iii. Conference award: Subject to the conditions below, all original research papers, published within the previous calendar year, are eligible for the award. Date of

publication is determined by the date of the conference, for example, for the award given in 2021, papers published in ICC 2020 and Globecom 2020 would be eligible. The form of presentation at the conference, whether oral or poster, has no bearing on eligibility. Invited papers are not eligible for the conference award.

- iv. If a paper receives the conference award, and that paper is subsequently extended and published in the Transactions, then the Transactions paper is eligible for the journal award, but will be evaluated primarily on the new material in the journal paper that was not present in the conference paper.
 - v. Papers with authors or co-authors who are: members of the awards subcommittee during the year of the award, officers of the TC or of ComSoc during the year of the award, track/TPC chairs or general chairs of a conference or track in which eligible papers are published, or the Editor-in-Chief of the Transactions for journal issues in which eligible papers are published, are not eligible for the award.
- b. Evaluation criteria. Papers are judged based on readability, impact, and novelty, with equal weight to each.
- i. Readability: The paper is well organized, the writing is clear, and the mathematical reasoning is well constructed.
 - ii. Impact: The paper addresses a problem of notable importance, and/or is likely to have (or has already had) a major impact on the field.
 - iii. Novelty: The problem, methodology, results, and/or solution are significantly novel and/or open up new avenues of research.

4. Awards Subcommittee.

- a. The voting members of the awards subcommittee shall be composed of a Chair and four members. The Vice-Chair of the TC chairs the awards subcommittee. All members shall be members of the Technical Committee and shall be appointed by the Technical Committee Chair subject to approval of the Technical Committee.
- b. The awards subcommittee shall include, without limitation: the current Editor-in-Chief of the Transactions, or their delegate; and at least one TPC or general chair of recent conferences or tracks organized or sponsored by the TC.
- c. The term of service on the awards subcommittee is 1 year. Awards Subcommittee members may serve at most two consecutive terms, with an exception for the sitting Vice-Chair of the TC if the term limit would prevent him/her from serving on the awards subcommittee.
- d. The roster of the Awards Subcommittee, including members' affiliations, shall be posted on the Technical Committee web page.
- e. The awards subcommittee shall carry out all the tasks involved in selecting the winner of the journal award and conference award. The chair of the awards subcommittee is

responsible to manage the awards process. The awards subcommittee reports to the TC Chair.

- f. The awards subcommittee also handles Distinguished Lecturer proposals and Fellow endorsements, as noted in Article 6c of the Policies and Procedures.

5. Award procedure.

- a. The awards subcommittee shall always meet in Executive Session and its deliberations, as well as all documents submitted to or created by the Subcommittee, shall be strictly confidential. Only the final award recipients shall be openly announced.
- b. In March of the year of the award, the chair of the TC will nominate the awards subcommittee. The awards subcommittee members will be announced to the members of the TC.
- c. In June of the year of the award, the Editor-in-Chief of the Transactions and the Chairs of any tracks/conferences with eligible papers will compile a list of all eligible papers for the award (in accordance with section 3a of these procedures).
- d. The committee will assemble a short list of 5 papers for each award.
- e. Real or perceived conflicts of interest between awards subcommittee members and awards candidates shall be disclosed. In case of a real or perceived conflict of interest, the awards subcommittee member shall not participate in the selection of the Award to which the candidate the member is conflicted with has been nominated. In particular:
 - i. No awards subcommittee member will be removed prior to the creation of the short list.
 - ii. Once the short list is created, the awards subcommittee will consider whether the creation of the short list was affected by any conflict of interest, and whether actions should be taken in response; this may mean removing papers from the short list or adding additional papers to the short list
 - iii. After creation of the short list, the awards subcommittee will decide whether any real or perceived conflicts of interest exist, and actions to be taken in response; this will normally mean withdrawal of any member with a conflict of interest.
 - iv. All actions taken concerning conflict of interest will be included in the Awards Selection Report.
- f. The awards subcommittee will review all short-listed papers in detail. The awards subcommittee may solicit additional information considering any short-listed paper.
- g. In September of the year of the award, the awards subcommittee will decide on a recipient of each award. At most one paper may win each award; ties are not permitted. If no suitable candidates are found for either or both awards, the awards subcommittee may decide that no award be made.
- h. Once the selection of the awardees is completed, the Awards Subcommittee Chair shall prepare an Awards Selection Report containing the following information:

- a verbatim excerpt of the award selection process specified in the P&Ps, including how the Awards Subcommittee members are selected.
 - the names of all candidates for each award;
 - the name of the recipient of each award and associated justification.
- i. The Technical Committee Chair shall send the Awards Selection Report to the Technical Committees Director for approval. The Technical Committees Director shall approve the Awards Selection Report within two weeks of receipt. If the Director does not approve the report, the TC Chair shall be contacted to discuss the issues raised. A revised report may be submitted to the Director for approval. If the outstanding issues are not resolved between the Director and the TC Chair, the VP-TEA shall bring the matter to the TEA-C for a final decision.
 - j. Once the Awards Selection Report has been approved, and only then, the final award recipients may be notified and the selection outcome publicly announced.
 - k. The TC chair will endeavour to ensure that the award recipients can receive their awards in person at the annual meeting of the TC, at IEEE Globecom in December of the year of the award. The award will be accompanied by a suitable memento, normally a certificate.