

List of Proposed Revisions:**1. Definition of NMISC as “Nuclear Medical and Imaging Sciences Committee” and renaming of the managing council to be an Executive Committee (ExCom).***Background and Rationale for Change:*

The name “Nuclear Medical and Imaging Sciences Committee” is defined in the NPSS bylaws as a Standing Technical Committee of NPSS. Within the current NMISC Constitution and Bylaws, the “Nuclear Medical and Imaging Sciences Committee” is referred to as the “Committee”, while the term NMISC is defined as the “Nuclear Medical and Imaging Sciences Council”, which is responsible for managing the Committee. In practice, the term NMISC is commonly used to reference the Committee, rather than the managing council. This situation results in confusion as to whether the term NMISC refers to the broader Committee or to the managing council of the Committee.

Several of the NPSS Technical Committees have adopted the practice of defining their managing council as an “Executive Committee”, or ExCom, thereby avoiding the ambiguity associated with the committee and managing council names.

This change requires updating of many locations in the Constitution and Bylaws where either the Committee or NMISC were previously referenced.

2. Replace Transactions on Nuclear Science (TNS) with Transactions on Radiation and Plasma Medical Sciences (TRPMS) as journal supported by NMISC.

This change will include the following revisions:

- i. Replacing TNS with TRPMS in Article I, Section 3 of the Constitution. This section names publications supported by NMISC.
- ii. Replacing TNS with TRPMS in Article VII, Sections 1 and 3 of the Constitution. This section details where notifications about proposed amendments to the Constitution and Bylaws are published.
- iii. Replacing “Editors and Associate Editors of the IEEE TNS” with “Editor-in-Chief of the IEEE TRPMS” in Section 1 of the Bylaws.

Background and Rationale for Change:

IEEE Transactions on Radiation and Plasma Medical Sciences (TRPMS) was launched in 2017 became the IEEE journal that published most NMISC related publications that were previously published in IEEE Transactions on Nuclear Science (TNS). There is now little overlap in the scope of TNS with the interests of NMISC. For these reasons, TNS will be removed as a journal supported by NMISC and TRPMS will be added.

3. Revision to Constitution Article II (Field of Interest), Section 2.

This change will include the following revisions:

- i. Revising item 4 to read “Theory, physics and instrumentation of medical imaging modalities, with a focus on nuclear imaging methods” and removing the itemized list a-k from item 4.
- ii. Add item 9) Kinetic modeling and radiation dosimetry of radiopharmaceuticals.
- iii. Add item 10) Data science, standardization and application of artificial intelligence to nuclear imaging techniques.

Background and Rationale for Change:

The supported Fields of Interest are being updated to reflect the evolving areas of interest of NMISC by adding two new areas. Item 4 is revised to be a more broad and inclusive statement of modalities of interest rather than an itemized and non-exhaustive list of imaging modalities.

4. Revision to Constitution Article IV (Administration) to allow Most Recent Past-Chairperson to perform Chairperson's duties if required.

This change will include the following revisions:

- i. Revise Section 3(a) to allow Most Recent Past-Chairperson to perform Chairperson's duties if Vice-Chairperson is unable to.
- ii. Revised Section 4(c) to require electing an Acting Chairperson if the Chairperson, Vice-Chairperson and Most Recent Past Chairperson are unable to perform the Chairperson's duties.

Background and Rationale for Change:

Currently the NMISC Constitution only allows for the Vice-Chairperson to step in to perform the Chairperson's duties in the event of the Chairperson's absence or incapacity. If the Vice-Chairperson is unavailable, then an Acting Chairperson must be elected. This change will allow the Most Recent Past-Chairperson to step in to perform the Chairperson's duties in the event that both the Chairperson and Vice-Chairperson are unable to perform these duties. This reduces the likelihood of needing to elect an Acting Chairperson and reduces the likelihood of disruptions to NMISC and ExCom activities.

5. Revision of Constitution Article IV, Section 4(b) to allow all elected members-at-large to be candidates in Vice-Chairperson election.

Background and Rationale for Change:

Currently only those members-at-large having one year or more of their term as elected member-at-large remaining may be nominated in the election for Vice-Chairperson. This limits the pool of applicants to 10 elected members-at-large by excluding the 5 members-at-large in the final year of their three year term. The members-at-large in their third year are more likely to be familiar with the activities of NMISC, so there is a lack of rationale for excluding them from being candidates for the Vice-Chairperson role.

6. Revision of Constitution Article VI, Section 5 to state that meetings of the ExCom shall generally follow Robert's Rules of Order.

Background and Rationale for Change:

At present there is nothing in the Constitution and Bylaws to indicate the format to follow for meetings, including moving and voting on motions. Robert's Rules of Order provides this framework. This also aligns the NMISC Constitution with the NPSS Constitution, where it is stated that meetings of the AdCom shall generally follow Robert's Rules of Order.

7. Revision of Constitution Article VIII, Section 1 to remove mention of January 1, 2007 date.

Background and Rationale for Change:

This section describes the requirement that a sub-committee be formed every five years to review and revise the NMISC Constitution and Bylaws, giving a date that this is to occur no later than January 1 2007 and every five years hence. This section is being modified to simply read that this activity shall occur every five years.

8. Revision of NMISC Bylaws Section 1 to specify ex-officio membership of ExCom

The ex-officio membership currently is listed as:

- Chairpersons of the Functional Sub-Committees
- Chairperson of the Radiation Instrumentation Technical Committee
- Secretary
- Editors and Associate Editors of the IEEE TNS and other publications as deemed appropriate by the NMISC
- Such other ex-officio members as are provided for in the Constitution and Bylaws of the NPSS

This list will be modified to be:

- Chairpersons of the Functional Sub-Committees
- Chairperson of the Radiation Instrumentation Technical Committee
- ExCom Secretary
- Elected NMISC representatives to the NPSS AdCom
- NPSS President
- Editor-in-Chief of the IEEE TRPMS and other publications as deemed appropriate by the ExCom (note that this change is also discussed under change #2)
- Liason(s) from NMISC or IEEE NSS/MIC/RTSD to the IEEE TMI
- MIC Program Chairs for the most recent, current and future IEEE NSS/MIC/RTSD meetings
- Such other ex-officio members as are provided for in the Constitution and Bylaws of the NPSS

Background and Rationale for Change:

The list is being updated to reflect the normal list of attendees invited to meetings of the NMISC.

9. Revision of NMISC Bylaws Section 2.3 to create process for handling case of tied in voting for election of NMISC ExCom member-at-large.

Bylaws Section 2.3 will be revised to read:

2.3 Nominees receiving the highest number of votes will be elected to the vacant posts. In the event that a tie needs to be resolved, the voting members of the ExCom shall vote.

Background and Rationale for Change:

At present there is no defined process for handling the situation of a tied vote in electing members-at-large. This situation has been encountered by other NPSS Technical Committees in the past and a typical solution employed is to ask the voting ExCom members to vote to settle the tie. This bylaws change will institute this practice for NMISC.

10. Revision to NMISC Bylaws Section 4 (Ballots) to update voting procedures.

Bylaws Section 4 currently reads:

4. Ballots

All ballots, whether for purposes of election or changes in the Constitution, shall be issued to the voting members by the Secretary pursuant to action by the NMISC. No ballot shall be counted unless unambiguously marked by a qualified voter to indicate their choice, and sent in a sealed envelope bearing the voter's name on or before the specified deadline date. This specified deadline date shall be at least thirty days subsequent to the date of the mailing of the ballots. The distribution and counting of the ballots shall be entrusted to IEEE Headquarters. The IEEE Headquarters will report the results of the election to the Secretary of NMISC, in turn, shall report the results to the NMISC.

This section will be revised to read:

4. Voting

4.1 All calls for vote, pursuant to action by the ExCom, shall be issued to the voting ExCom members by the Secretary. The Secretary shall report the result to the ExCom.

4.2 Voting may be conducted by paper ballot, electronic means such as email, or other means deemed acceptable by the ExCom.

4.3 In all votes of the ExCom involving an election for a position the Chairperson's vote shall be held in reserve and only counted in the event of a tied result to determine the outcome.

4.4. Proxy voting is not allowed.

Background and Rationale for Change:

The existing language of Section 4 requires involvement of IEEE Headquarters. In practice IEEE Headquarters is involved in voting for election of members-at-large to the ExCom. This is discussed in Section 2 of the bylaws. Involving IEEE Headquarters for ExCom votes is not practical for the routine functioning of the NMISC ExCom and thus mention of IEEE Headquarters is removed from this section. The rationale for the changes adding Sections 4.2 – 4.4 are:

Section 4.2: This section specifically allows for conducting voting by electronic means.

Section 4.3: At present there is no defined procedure for breaking a tie in an election vote held by the ExCom. This stalemate type situation is avoided by holding the Chairperson's vote in reserve and only using it to break a tie.

Section 4.4: This adds a statement regarding proxy voting not being allowed. In the existing version of the NMISC Constitution and Bylaws proxy voting is not mentioned.

11. Revision of NMISC Bylaws Section 6, Selection of Vice-Chairperson

Two changes are proposed for the process of electing the Vice-Chairperson:

- i. Use of an instant runoff voting procedure using ranked ballots.
- ii. Removing requirement to hold election at the annual meeting and replacing with requirement to hold election within 4 weeks of the AGM.

Background and Rationale for Change:

Change i, use of ranked ballots:

The current bylaws specify that in the event that no candidate receives a majority of votes cast, runoff elections shall be conducted by secret ballot of the annual meeting. In practice this means that only those voting members attending the meeting are able to vote in the runoff election. By using a ranked ballot voting procedure the voting preference of voting members not able to attend the meeting are accounted for. In addition, this voting procedure is a more efficient process in that only one set of ballots need to be collected. The format of the voting process is similar to that specified in the NPSS AdCom bylaws.

Change ii, removing requirement to hold Vice-Chairperson election at the annual meeting:

While the preference is to hold the Vice-Chairperson election at the annual meeting, there may be occasions where this is not feasible to do in practice. This revision allows the election to be held within four weeks of the annual meeting.

12. Revision to NMISC Bylaws Section 1.1, to include elected AdCom representatives as voting members

The list of voting members of the ExCom is currently the elected members-at-large, the Chairperson, Vice-Chairperson and Most Recent Past Chairperson. This list will be expanded to include the elected AdCom representatives from NMISC.

Background and Rationale for Change:

There are currently two voting members of the NPSS AdCom elected by NMISC. The election to select these AdCom members involve an election in which all NMISC members are eligible to vote. These AdCom members are expected to be familiar with NMISC business and attend ExCom meetings. For these reasons it makes sense to have these NMISC AdCom members be voting members of the NMISC ExCom. This is also the practice for the Radiation Instrumentation Technical Committee. This will increase the maximum number of ExCom voting members from 18 to 20.

13. Revision to NMISC Bylaws section 3.5.5.2, changing selection of JOS members to be by appointment of ExCom Chairperson

Bylaws section 3.5.5.2, regarding selection of JOS members, will be revised to read:

Two of the four committee members-at-large shall be selected annually, one each by RISC and the NMISC ExCom, such that the terms of the committee members-at-large overlap by one year. The member-at-large from NMISC shall be appointed by the ExCom Chairperson.

Background and Rationale for Change:

The current wording in the NMISC bylaws is that JOS members-at-large shall be elected. Moving to instead appointing the JOS members-at-large will ensure that JOS members have suitable experience with the IEEE NSS/MIC/RTSD meeting and will allow for reappointments of a member to a second two-year term as allowed in the Bylaws.

14. Addition of new section 9 to NMISC Bylaws describing process from removing a member from the ExCom

The NMISC Bylaws will be revised to add:

9. Removal from ExCom:

- 9.1 In order to remove an elected ExCom member or an individual serving in a position for which the ExCom has oversight responsibility, a petition signed by a minimum of five voting ExCom members is necessary to initiate the removal process. The petition must include the name of the member to be removed, the position in question, and a description of the grounds for removal. Upon receipt of the petition, the Secretary will notify all voting ExCom members that such a petition has been received, notify the member in question, and give that member 30 days to provide a written response. After this period, the Secretary will send a ballot to each voting ExCom member that includes the statement of the petition for removal and its rebuttal. The ballots will be returned to the Secretary who will tally the votes within 30 days after the ballots were sent. A minimum of two-thirds vote is required to remove the member from ExCom. In the event that the Secretary is the member in question, the Chairperson will designate an alternate ExCom member to perform these duties. If the Chairperson is removed from office the Vice-Chairperson shall become the Chairperson and continue in this position for the remainder of the term plus the normal next two year term. The Vice-Chairperson position shall then remain vacant until a new Vice-Chairperson is elected in the next normally scheduled two year cycle for elections. If the Vice-Chairperson is removed from office, an election will be held within 30 days to select a new Vice-Chairperson according to the rules listed in the Bylaws for the election of the Vice-Chairperson. The newly

elected Vice-Chairperson shall subsequently assume the Chairperson position at the end of the current Chairperson's two year term.

Background and Rationale for Change:

At present there is no method within the NMISC Bylaws for handling the unfortunate situation of an ExCom member failing to carry out expected functions or routinely failing to attend ExCom meetings or engaging in activities detrimental to the functioning and standing of NMISC. The wording of section 9.1. is adapted from the comparable section in the NPSS Bylaws.

15. Revision to NMISC Bylaws section 3.3 regarding selection of subcommittee members

The first sentence of Bylaws Section 3.3 currently reads:

The membership of the Functional Sub-Committees shall be appointed by the Chairperson of that Functional Sub-Committee.

This sentence will be revised to read:

Unless otherwise specified in these bylaws, the membership of the Functional Sub-Committees shall be appointed by the Chairperson of that Functional Sub-Committee.

Background and Rationale for Change:

This wording change is required to reflect the fact that JOS members are not selected by the Chairperson of JOS, but rather are selected through the process described in Section 3.5.

16. Revision to NMISC Bylaws section 3.2 regarding selection of Functional Subcommittee Chairs.

The first sentence of Bylaws Section 3.2 currently reads:

The Chairpersons of Functional Sub-Committees must be members of the NMISC.

This sentence will be revised to read:

Unless otherwise specified in these bylaws, the Chairpersons of Functional Sub-Committees must be voting members of the ExCom.

Background and Rationale for Change:

This wording change is required to reflect the fact that JOS is a functional sub-committee and has a defined process for Chairperson selection described in Section 3.5. The wording also is revised to specify "voting members of the ExCom" to specify that Functional Subcommittee of the ExCom can not have non-elected members as Chairpersons.