

# **Nuclear Medical and Imaging Sciences Committee (NMISC)**

## **Constitution and Bylaws**

### **NMISC Constitution**

#### **Article I – Name and Object**

##### *Section 1.*

The organization shall be known as the Nuclear Medical and Imaging Sciences Technical Committee of the IEEE Nuclear and Plasma Sciences Society (NPSS), hereafter referred to as NMISC.

##### *Section 2.*

NMISC shall strive for the advancement of theories and applications of Nuclear Medical and Imaging Sciences and of its allied arts and sciences and maintenance of high scientific and technical standards among its members.

##### *Section 3.*

NMISC shall aid in promoting close cooperation and exchange of technical information among its members and to this end shall hold meetings for the presentation and discussion of original contributions, shall assist in the publication of the Transactions on Radiation and Plasma Medical Sciences (TRPMS), of the Transactions on Medical Imaging (TMI) and other IEEE publications that NMISC shall deem appropriate, and shall otherwise provide for the needs of its members.

#### **Article II – Field of Interest**

##### *Section 1.*

The field of interest of NMISC is Nuclear Medical and Imaging Sciences, and their related technologies and applications. It shall foster publication or other dissemination of original contributions to the theories, experiments, educational methods and applications of Nuclear Medical and Imaging Sciences. Areas of technical activity will include, but not be limited to the following:

##### *Section 2.*

- 1) Radiation sources (including synchrotron radiation)
- 2) Detectors used for imaging and radiotherapy
- 3) Radiation standards and radiation monitoring for biomedical instrumentation and personnel
- 4) Theory, physics and instrumentation of medical imaging modalities, with a focus on nuclear imaging methods.
- 5) Modeling and simulation of imaging detectors, devices, systems, and processes
- 6) Image analysis techniques
- 7) Image reconstruction algorithms
- 8) Quantitative imaging methods
- 9) Kinetic modeling and radiation dosimetry of radiopharmaceuticals

- 10) Data science, standardization and application of artificial intelligence to nuclear imaging techniques

### **Article III – Membership**

#### *Section 1.*

Members of NMISC are members of the IEEE NPSS having an interest in Nuclear Medical Imaging.

#### *Section 2.*

Affiliates may participate in the activities of the Society as provided by the IEEE Bylaws and subject to the applicable IEEE rules and regulations and to any additional limitations imposed by the Society Bylaws.

### **Article IV – Administration**

#### *Section 1.*

NMISC shall be managed by an Executive Committee (ExCom) consisting of elected members-at-large, plus certain ex-officio members as specified herein and in the Bylaws. The number of elected members-at-large shall be 15 members.

#### *Section 2.*

The terms of office of the elected members-at-large shall be three years. Members-at-large elected to a full term may not succeed themselves, and at least one year must elapse before an individual may be re-elected to the ExCom. Election of members-at-large shall be held annually to fill vacancies for the coming year. The terms of office of the ex-officio members shall be specified in the Bylaws.

#### *Section 3.*

- (a) The affairs of NMISC shall be managed by a Chairperson, as directed by the ExCom and in accordance with the powers and duties as defined thereunder and in the Bylaws. In the event of the Chairperson's absence or incapacity, the Chairperson's duties shall be performed by a Vice-Chairperson, or if the Vice-Chairperson is unavailable, then the Most Recent Past-Chairperson shall perform the Chairperson's duties.
- (b) The Chairperson shall appoint a Secretary for the ExCom. The Secretary need not be chosen from among the elected members at large.

#### *Section 4.*

- (a) On alternate years a Vice-Chairperson (who shall be the Chairperson elect) is elected by the voting members of the ExCom from the eligible members-at-large of the ExCom. The term of office for the Vice-Chairperson shall be two years as Vice-Chairperson, followed by two years as Chairperson, and two years as the Most Recent Past Chairperson.
- (b) All currently elected members-at-large shall be eligible for election as Vice-Chairperson. In the event that a Vice-Chairperson is elected to take office at the beginning of the second or third year of their term as member-at-large, said term shall automatically extend until he vacates the office of Most Recent Past Chairperson. During this extension, that individual shall be considered an ex officio member with voting rights. No individual may serve two successive terms as Vice-Chairperson or two successive terms as Chairperson.
- (c) In the event that neither the Chairperson, the Vice-Chairperson, or the Most Recent Past-Chairperson is able to take office as prescribed in the Bylaws, or if all officers are incapacitated or

if all offices become vacant, the ExCom shall promptly elect an Acting Chairperson from among the members-at-large to assume the duties of Chairperson until either a Chairperson, Vice-Chairperson, or Most Recent Past-Chairperson takes office or resumes duties.

- (d) The Vice-Chairperson will, except under circumstances deemed unusual by a majority of the voting members of ExCom, become the sole nominee for the succeeding Chairperson election.

*Section 5.*

The Chairperson shall be an ex-officio member of all sub-committees of the ExCom.

*Section 6.*

The Chairperson, as soon as expedient after their election, shall appoint the Chairpersons of the sub-committees provided for in the Bylaws.

**Article V – Nominations and Election of ExCom Members-at-Large**

*Section 1.*

Nominating procedures shall be as prescribed in the Bylaws and shall include provision for nomination by NMISC members.

*Section 2.*

Election of the members-at-large of the ExCom shall be as prescribed in the Bylaws.

*Section 3.*

If a member of the ExCom does not complete their term, the ExCom Chairperson shall appoint a replacement to fill the unexpired portion of the term. When an ExCom member is appointed for a partial term, that person is eligible to run for the next full-term election to the same position.

**Article VI – Meetings**

*Section 1.*

NMISC may hold meetings, conferences, symposia or conventions either alone or in cooperation with other organizations subject to applicable IEEE and NPSS rules and regulations.

*Section 2.*

Eight voting members of the ExCom shall constitute a quorum. No member shall have more than one vote by reason of multiple offices or Committee responsibilities.

*Section 3.*

A majority of the legal votes cast by those members of the ExCom attending a meeting shall be necessary for the conduct of its business except as otherwise provided in this constitution.

*Section 4.*

Business of the ExCom may be handled by any written means which includes (but is not limited to) correspondence, fax or e-mail if, in the opinion of the Chairperson, matters requiring prompt action can be adequately handled in that manner. A majority of the voting members of ExCom is required to take action in such a case. Such actions are to be promptly confirmed in writing by the Chairperson to the ExCom.

*Section 5.*

The ExCom shall meet as required to conduct business and in accordance with the Bylaws. Meetings of the ExCom shall generally follow Robert's Rules of Order.

## **Article VII – Amendments**

### *Section 1.*

Amendments to this Constitution may be initiated by petition submitted by a two-thirds vote of the ExCom, such petition being submitted to the Ad Com of the NPSS for approval. After such approval, the proposed amendment shall be publicized in the IEEE TRPMS or TMI, and/or the NPSS Newsletter, with notice that it goes into effect unless 20 NMISC members object within 90 days of the date of mailing of the notice. If such objections are received, a copy of the proposed amendment shall be mailed with a ballot to all members of the NMISC at least 30 days before the date set for the return of the ballots; the ballots shall carry a statement of the deadline for their return to the IEEE office. When a mail vote of the entire NMISC membership is made necessary, approval of the amendment by at least two-thirds of the ballots returned shall be necessary for its enactment.

### *Section 2.*

As an alternative to the procedure outlined in Section 1 above, 10 members of the NMISC may submit a petition to the Ad Com of the NPSS. If approved by the NPSS Ad Com and after notification of the ExCom, the proposed amendment shall be submitted to the membership by mail ballot as described above.

### *Section 3.*

Committee Bylaws, and amendments thereto, may be adopted by two-thirds vote of the ExCom, provided that notice of the proposed Bylaw or amendment has been sent to each member of the ExCom at least a week prior to such meeting. Alternatively, a Committee Bylaw or amendment may be adopted by a two-thirds mail vote of the members of the ExCom, provided a 30-day period is provided for such responses. In either event, the proposed Bylaw or amendment shall be publicized in the NPSS TRPMS or TMI, and/or the NPSS Newsletter. No Bylaw or amendment shall take effect until it has been approved by the Ad Com of the NPSS.

## **Article VIII – Revision**

### *Section 1.*

The Chairperson of the ExCom shall appoint a five-person sub-committee every five years to evaluate the effectiveness of this Constitution and Bylaws, to study the rules of governance required by the activities of the NMISC at that time, and to consider writing a new Constitution and Bylaws appropriate to the existing and anticipated needs of the ExCom.

# NMISC Bylaws

## 1. *Executive Committee (ExCom)*

Article IV of the Constitution provides that the ExCom shall consist of a number of elected members-at-large plus certain ex-officio members. The ex-officio members of the ExCom shall be (unless they are already elected members-at-large), the Chairpersons of the Functional Sub-Committees, the Chairperson of the Radiation Instrumentation Technical Committee, the ExCom Secretary, the elected NMISC representatives to the NPSS AdCom, the NPSS President, the Editor-in-Chief of the IEEE TRPMS and other publications as deemed appropriate by the ExCom, Liason(s) from NMISC or the IEEE NSS/MIC/RTSD to the IEEE TMI, MIC Program Chairs for the most recent, current and future IEEE NSS/MIC/RTSD meetings and such other ex-officio members as are provided for in the Constitution and Bylaws of the NPSS.

- 1.1 The voting members of the ExCom shall be the elected members-at-large, the Chairperson, Vice-Chairperson, Most Recent Past Chairperson, and the elected NMISC representatives to the NPSS AdCom.
- 1.2 The ExCom shall meet at least once per year, upon dates determined by the Chairperson at least three weeks in advance of the meeting. Additional meetings may be called at the discretion of the Chairperson or upon request of at least eight voting members of the ExCom with at least three weeks notice.
- 1.3 The last regularly scheduled meeting in the calendar year shall be considered the Annual Meeting of the ExCom.
- 1.4 The Annual Meeting of the ExCom will be open to all NMISC members.

## 2. *Nomination and Election of ExCom Members*

Articles IV & V of the Constitution specify the number of ExCom members-at-large, as well as the term length and restrictions. One third of the ExCom members-at-large posts are to be filled each year by election of the general membership of the NMISC.

- 2.1 The Chairperson of the ExCom is responsible for ensuring that the number of nominations is no less than one and a half times the number of vacant posts (e.g., a minimum of eight nominations are required for five open committee positions). Nominations may be made by any member of the ExCom or any member in good standing of the NMISC. Self-nominations are allowed.
- 2.2 The Individual making a nomination must determine in advance that the nominee is willing to serve if elected.
- 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.
- 2.4 The Chairperson of the ExCom shall assure, before April 1, that a call for nominations is conveyed to the whole membership. Additional nominations may be submitted to the nominating committee by July 1 by members of the NMISC or by members of the ExCom. Such nominations must include an expression by the nominee of willingness to serve if elected.
- 2.5 All nominees must be either members in any grade of IEEE and of the NMISC or must have submitted applications for membership at the time the nominations are forwarded to IEEE Headquarters.

- 2.6 The Secretary shall annually arrange for the distribution to the members of the NMISC on or about July 31, a ballot to elect the candidates to fill vacancies on the ExCom. The ballot shall be accompanied by a short biographical sketch of each nominee with an indication of their Nuclear Medical and Imaging Science activities and former or present IEEE activities.
- 2.7 Forty-five days after distribution of the ballots, the IEEE Headquarters shall count and tabulate the votes received and report the results to the ExCom.
- 2.8 The ExCom shall submit to the Secretary of the NPSS Ad Com the names of the candidates with the largest number of votes to fill the designated vacancies.

### 3. *Functional Committees*

The ExCom Chairperson, in concurrence with the ExCom, shall appoint the Chairpersons of the following Functional Sub-Committees:

- A Fellows and Awards Sub-Committee.
- Other Sub-Committees as shall be required for the operation of the Committee.

- 3.1 The term of office of a Chairperson of a Functional Sub-Committee shall be one year, but a Functional Sub-Committee Chairperson may be re-appointed to the same position. After two years he/she is automatically relieved from the Chairperson position.
- 3.2 Unless otherwise specified in these bylaws, the Chairpersons of Functional Sub-Committees must be voting members of the ExCom.
- 3.3 Unless otherwise specified in these bylaws, the membership of the Functional Sub-Committees shall be appointed by the Chairperson of that Functional Sub-Committee. The membership and activities of the Functional Sub-Committees should be publicized to the membership of the NMISC via the NPSS Newsletter, and suggestions for Sub-Committee membership should be invited from NMISC members.
- 3.4 Each of the Functional Sub-Committees shall submit a written report of its activities to the ExCom prior to or at the Annual Meeting.
- 3.5 The Nuclear Science Symposium and Medical Imaging Conference (NSS/MIC) Joint Oversight Subcommittee (JOS) shall be a joint subcommittee of the RISC and NMISC ExCom charged with the primary responsibility of researching future NSS/MIC conference locations and assisting the selection of the respective General Chairs. The JOS shall be managed by the Joint Executive Subcommittee (JES) of the RISC and NMISC ExCom. The detailed responsibilities and operating procedures for the JOS are specified in a separate Terms of Reference document that is managed by the JES.

#### 3.5.1 *JOS Membership*

The JOS members-at-large include the JOS Chair, Vice Chair, Most Recent Past Chair, and four elected committee members. Ex-Officio members of the JOS include the RISC Chair, the NMISC ExCom Chair, and the NPSS AdCom President. Ex-Officio members are voting members. The JOS Chair must be a member of RITC or NMISC. The terms of office for JOS members-at-large shall be two years, with a regular member limit of two consecutive terms, and an executive member (Vice Chair and then Chair and then Most Recent Past Chair) limit of one combined term of six years. JES members are not eligible to be JOS members, with the exception of the ex-officio positions held by the RISC and NMISC ExCom Chairs.

### 3.5.2 *Joint Executive Subcommittee*

The Joint Executive Subcommittee (JES) is comprised of the current Chairpersons, the Most Recent Past Chairpersons, and the Vice Chairpersons of the RISC and NMISC ExCom. The JES is a sub-committee of, and reports to, the RISC and NMISC ExCom. All actions of the JES are communicated to the committees through the respective RISC and NMISC ExCom Chairs. The primary responsibilities of the JES are to provide direction and guidance to the JOS Chair and committee in the execution of their duties, facilitate the communication between the JOS and the RISC and NMISC ExCom, and maintain revision control authority for the JOS Terms of Reference.

### 3.5.3 *Voting*

Voting within the committee concerning site selection can be executed in any form convenient for the committee (electronic or otherwise) and shall be by simple majority. A minimum fifteen day notification of a vote is required prior to executing a vote. All members-at-large must participate in voting activities and in the event a member-at-large does not register a vote, that member's vote shall be counted as an abstention. In the event of a tie vote, a second vote will be performed with only the tied sites. If the vote remains tied, a vote is executed by the JES members and the JOS Chair. Voting members have only one vote, regardless of the number of voting member positions held. Administration of these voting activities shall be the responsibility of the JOS Chair.

### 3.5.4 *Communication*

JOS communication can take any form (e.g., email, teleconference, mail, telephone, fax, meetings). Records of all communications shall be retained in the JOS archive, the maintenance of which is the responsibility of the JOS Chair.

### 3.5.5 *Election of JOS Members*

3.5.5.1 The Vice Chair of the JOS shall be elected biennially, alternating between the RISC and NMISC. The Vice Chair shall become the Chair at the end of the term, the Chair becoming the Most Recent Past Chair.

3.5.5.2 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 members-at-large from NMISC shall be appointed by the NMISC ExCom Chairperson.

3.5.5.3 If any member does not complete their term, a new member will be selected as soon as possible to complete the unexpired portion of the term from the committee originally responsible for selecting the departing member (RISC or NMISC).

3.5.5.4 In the event that the JOS Chair is vacated for any reason, the JOS Most Recent Past Chair shall immediately assume the position of JOS Chair for the duration of the term. The replacement JOS Chair may then once again become the JOS Most Recent Past Chair as an exception to the term limit rules (paragraph 3.5.1) if agreed by the JES. If the JOS Most Recent Past Chair is unavailable, the JOS Vice Chair assumes the duties of JOS Chair for the remainder of the term, and then begin his/her elected term. In this case, election of a new JOS Vice Chair shall immediately commence.

- 3.5.5.5 In the event that the JOS Chair is removed from office, he/she is not eligible to assume the duties of the Most Recent Past Chair. The term of the current Most Recent Past Chair can be extended by the JES, or will remain vacant until the replacement JOS Chair completes his/her term, who then becomes the Most Recent Past Chair.

### 3.5.6 *Conflict of Interest*

- 3.5.6.1 Any JOS or JES member who has a conflict of interest (COI) in the site selection decision for a particular year shall be recused from the vote for that year. The COI can be in the form of either financial or personal gain as a result of the site selection. COI determinations shall be consistent with current IEEE policy. The COI may be self-declared, or arise from a suggestion of potential COI from any member of the NMISC or RITC. In the latter case, the decision on whether an actual COI exists will be made by the JOS Chair, unless he or she is the member in question, in which case the decision will be made by the JES.
- 3.5.6.2 A COI with respect to voting exists for any JOS or JES member who is also a member of the local organizing committee for a site under consideration prior to the vote. There is otherwise no restriction on a JOS or JES member belonging to the organizing committee for a site either before or after its selection.

## 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 for the matter being voted on.
- 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.

## 5. *Beginning of Terms of Office*

All terms of office of elected Members-at-Large of the ExCom shall begin January 1 of the year immediately following their election.

## 6. *Election of the Vice-Chairperson of ExCom*

The Vice-Chairperson of the ExCom shall be nominated and elected from among the eligible members-at-large of the ExCom. The election shall normally be held at the annual meeting of the ExCom but may also be held within the four weeks following the annual meeting if deemed necessary by the Chairperson. A minimum of one month before the election, the ExCom Secretary will notify all current ExCom members of the upcoming election and solicit nominations (self-nominations are allowed). The nominations will be closed two weeks before the election, and the Chairperson of the ExCom is responsible for ensuring that at least two nominations for Vice-Chairperson are received by this time. The ExCom Secretary shall announce to all voting ExCom members the identities of the candidates at least one week before the election, and also inform them of the procedure for casting their ballot. The election shall be carried out using an instant runoff voting procedure, in which each voter shall rank the candidates numerically on the ballot, beginning with the number one for the first choice, and runoff count of the candidates shall be conducted in rounds. If, in any round, no candidate



receives a majority of the votes cast, the candidate with the fewest votes shall be eliminated and the remaining candidates shall advance to the next round. This procedure continues until a round in which a candidate receives a majority of votes cast. The ballots shall be secret and the Chairperson shall designate tellers to count the ballots. The results of the vote shall be announced by the ExCom Secretary and the nominee receiving a majority of votes cast shall be declared elected.

#### *7. Records*

The secretary shall maintain a permanent record of all non-routine motions passed by the ExCom, written minutes of the Annual Meeting of the ExCom, a roster of all ExCom members, and a membership roster of all ExCom sub-committees. The secretary must provide a tabulation of the most recent five years of motions and a copy of the NMISC constitution and bylaws to each newly elected member-at-large to the ExCom.

#### *8. Alternates:*

8.1 Members-at-Large: An elected Member-at-Large may designate any member in good standing of the NMISC to represent the Member-at-Large at the ExCom meeting. The representative shall have the privilege of the floor, but may not vote on any matters coming before the ExCom.

8.2 AdCom Representation: If the ExCom Chairperson is unable to represent the NMISC ExCom at the NPSS AdCom, the Chairperson may designate the Vice-Chairperson or the Most Recent Past Chairperson as his/her alternate. This alternate has the privilege of the floor and may vote on all matters coming before AdCom.

#### *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.