

Bylaws

SEM Technical Division on Modal Analysis/Dynamic Measurements **Updated November 2004**

1.0 Name

The name of this group shall be the Technical Division on Modal Analysis/Dynamic Measurements.

2.0 Purpose

The specific purpose of the Division shall be:

- (a) To further develop and to advance the art of dynamic analysis and measurements through the exchange of information on modal analysis, other dynamic analysis methods, measurements of dynamic phenomenon and instrumentation for dynamic measurements.
- (b) To provide improved and efficient technical coordination between both experimental and analytical users of dynamic analysis in the engineering community and manufacturers of these systems hardware and software).
- (c) To promote technical discussions with instrumentation manufacturers on an industry wide base, to coordinate users requirements for dynamic instrumentation and focus attention on users needs.
- (d) To identify and sponsor projects involving dynamic analysis and dynamic measurements as spelled out in the "Scope of Activity" for this committee.

3.0 Scope of Activity

The following outline presents the scope of the division activity and/or areas of discussion at committee meetings. The outline should be only a guide and is not meant to limit the activity. The fundamental criterion for judging the appropriateness of a topic is that it satisfies the purpose (Item 1.0 of the Bylaws) of this committee. Particular emphasis should be placed on modal analysis testing and on education of users so that state-of-the-art testing may be carried out.

Outline of the Scope of Activities for the Division

3.1 Techniques

- A. Measurement
- B. Analysis
- C. Recording

3.2 Measuring Instrumentation

- A. Transducers
 - 1) Calibration
 - 2) Limitations/problem areas
 - 3) New type/new applications
- B. Conditioners/Filters
 - 1) Proper use
 - 2) Limitations
 - 3) New type/new applications
- C. Excitation Devices
 - 1) Proper Use
 - 2) New types

3.3 Analysis Equipment

- A. Modal Analysis Systems
- B. Spectrum Analyzers
- C. Shock Analyzers
- D. Micro Computers
 - 1) Analysis software
 - 2) Correlation and other software

3.4 Recording Equipment

- A. Recorders
 - 1) Analog type
 - a) strip chart
 - b) tape
 - 2) Digital type
 - a) A-D conversion
 - b) Micro computers
 - c) Digital tape
- B. Automated Data Acquisition Systems

3.5 National Standards (ANSI/ISO)

- A. Existing or Planned Standards
- B. Needed Standard
 - 1) Qualification standard
 - 2) Standardization of Modal Testing

3.6 Sponsored Projects

- A. Technical Sessions at National Meetings
- B. Workshops and/or Seminars
- C. Monographs

4.0 Membership

4.1 Qualification:

To qualify for membership considerations, the individual member shall satisfy all of the following requirements:

- (a) A member shall be actively involved in the analysis of dynamic systems, or in the use or manufacture of dynamic instrumentation.
- (b) A member shall be willing and able to support the aims of the Division by sharing technical information relating to dynamic analysis.
- (c) A member shall be a member of SEM.

4.2 Election to Membership:

- (a) Members will be selected to the Division by a membership sub-committee selected by the Division.
- (b) The membership sub-committee will consist of approximately ten percent of the total membership of the Division at the time of election, with a minimum of five members.

4.3 Termination of Membership:

- (a) Status of all members will be reviewed periodically by the membership sub-division to assure maximum effectiveness of the Division.
- (b) A member may be solicited to resign when they fail to satisfy the requirements of membership in the opinion of the membership sub-division.

4.4 Limitations of Membership:

- (a) The total number of Division members shall be limited to the extent that permits effective and efficient operation in furthering the purposes of the Division.

5.0 Publications

5.1 Proceedings and minutes:

- (a) The Division shall prepare proceedings and other publications as desired. Each member will be supplied one copy free of charge.

5.2 Preparation and distribution:

- (a) The SEM Headquarters staff will assist in the duplication and distribution of such proceedings and publications.
- (b) It is expected that whenever possible, proceedings and other publications will be made available to the Society for sale or distribution as it sees fit.

6.0 Duties of Officers

- 6.1 **Chair** - The Chair of the Division shall preside over all Division meetings and be responsible for liaison with the national SEM Society.
- 6.2 **Vice-Chair** - The Vice-Chair will assist the Chair and act in their place when they are absent. The Vice-Chair will act as chair of the Membership sub-committee. He will also succeed the Chair to office of the Division the following year.
- 6.3 **Secretary** - The Secretary of the Division shall be appointed by the Chair and will be responsible for all correspondence necessary for proper operation of the Division. The Secretary will also serve concurrently on the TD Executive Board.
- 6.4 **Executive Board Members** - The Executive Board will be composed of the past Chair, the present Chair and Vice-Chair, four delegates-at-large, and the Division Secretary. They shall be expected to attend TD Executive Board meetings, voice opinions and vote on all matters brought to the attention of the Board. The past Chair of the Division shall chair the TD Executive Board. The delegates-at-large shall serve two years; two being replaced each year.

7.0 Sub-Divisions

7.1 Establishment and Duties

- (a) The Membership Sub-committee shall be a permanent standing committee responsible for the election of members to the Division.
- (b) The TD Executive Board may, at its option, recommend or establish other sub-committees, which shall report at each Division meeting until dissolved.
- (c) The Chairs of the sub-committees established by the Division or TD Executive Board shall be appointed by the Division Chair.

8.0 Election Procedures

8.1 Nominations for Executive Board and Vice-Chair

- (a) Nominations for Vice-Chair and two delegates-at-large shall be commenced during the Spring Meeting of SEM.
- (b) Additional nominations will be accepted by the TD Executive Board up to August 1 of each year.

- (c) If more than five (5) members are nominated for the TD Executive Board, the initial ballot will be considered a primary to select five candidates for a second ballot.

8.2 Elections for Executive Board and Vice-Chair

- (a) The election shall take place during the IMAC Meeting of SEM.
 - (1) Ballots will list the nominees in alphabetical order for the Vice-Chair and for the TD Executive Board.
 - (2) The nominee for Vice-Chair receiving the largest number of votes shall be declared the elected Vice-Chair.
 - (3) The two (2) nominees for all the TD Executive Board receiving the largest number of votes shall be declared elected to the TD Executive Board.
 - (4) In the event two or more names receive a like number of votes, the tie shall be resolved by lot.

8.1 Voting

Only bona fide Division members present shall vote.

8.2 Vacancies

- (a) Should a vacancy develop on the TD Executive Board, the Chair shall appoint a replacement to fill the vacancy, subject to the approval of the remaining board members.
- (b) Should the immediate past Chair be unable to serve on the TD Executive Board for any reason, The position shall remain vacant, and the Division Chair shall assume the duties.
- (c) Should the immediate past Vice-Chair be unable to serve as Chair for any reason, an election for the Chair will be conducted in the same manner as for the Vice-Chair.

9.0 Finance

9.1 Financial Operation

The Division shall not incur any financial obligations in the name of the Society without appropriate approval of the Executive Board of SEM. However, with the concurrence of the SEM Executive Board, the Division may raise funds for specific projects sponsored by that Division and shall be responsible for the administration of these funds. If requested, the Society Headquarters office will serve as a custodian of such funds.

10.0 Meetings

10.1 Division Meetings

The Division shall meet semi-annually in conjunction with the scheduled meetings of the national Society. Additional meetings can be called by the TD Executive Board.

10.2 TD Executive Board Meetings

The TD Executive Board meetings shall be held quarterly, or as required by Division activity and business. The TD Executive Board will set the dates of these meetings.

10.3 Notices

Notice of meetings shall be sent to all members at least six (6) weeks prior to the meeting date.

11.0 Amendment Procedures

11.1 Proposals

Amendments to the Bylaws may be proposed by any member of the Division, directed in writing to the TD Executive Board. Notice will be sent to all Division members by letter, not less than three weeks prior to the Division meeting date.

11.2 Voting

- (a) Consideration of the proposed changes shall be at a Division meeting wherein a quorum is present.
- (b) A quorum shall be defined as a simple majority of the voting Division members of record immediately preceding a Division meeting.
- (c) For Division approval, all balloting shall require a simple majority of the Division delegates of record immediately preceding the Division meeting, except as otherwise noted herein.

11.3 Notification

Accepted amendments shall be written into the record by the Secretary and distributed to all members of the Division.

11.4 Temporary Change

Temporary amendments or the suspension of a single article of the Bylaws for a period not exceeding the time between successive general meetings may be made for a specific purpose at any general meeting by a two-thirds majority of the vote of the voting members present. The purpose, the new wording of the suspension, and the time period covered shall be noted in official records.