Approved by the IEEE-SA Board of Governors: November 2019

IEEE-SA Standards Board Bylaws

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IEEE-SA Standards Board Bylaws

1. IEEE-SA Standards Board

The IEEE-SA Standards Board is established by the IEEE-SA Board of Governors according to clause 5.1 of the *IEEE Standards Association Operations Manual*. The details of its responsibilities beyond that specified in the *IEEE Standards Association Operations Manual* are stipulated by these bylaws, as supplemented by the *IEEE-SA Standards Board Operations Manual*.

The IEEE-SA Standards Board is responsible on an Institute-wide basis for

a) Encouraging and coordinating the development of IEEE standards

b) Reviewing all proposed IEEE standards to determine whether the proposed standards conform to the requirements established by the IEEE-SA Standards Board and whether consensus has been achieved for approval of the proposed standards

c) Overseeing the initiation, review, and termination of Industry Connections activities

Matters of standards policy, financial oversight, new directions in standardization, and other standards-related activities in fields of interest to the Institute as stated in the *IEEE Constitution* are the responsibility of the IEEE-SA Board of Governors (BOG).

2. IEEE standards

2.1 Role of IEEE Standards

IEEE-SA develops and publishes standards that include but are not limited to definitions and terminology; methods of measurement and test; systems; products; technology; ratings structures; temperature limits and application guides; recommended practices; and safety. Rating and dimensional information included in an IEEE standard result from technical considerations. Rating information developed by other competent organizations may be included provided it is consistent with good engineering practice.

The approval and publication of an IEEE standard implies that the document represents a consensus of the parties who have participated in its development and review. Since every attempt is made to involve all interests in the activity, it can be presumed that the document represents a consensus of interests concerned with the scope of the standard. Consensus is established when, in the judgment of the IEEE-SA Standards Board, substantial agreement has been reached by directly and materially affected interest categories. Substantial agreement means much more than a simple majority, but not necessarily unanimity. Consensus requires that all views and objections be considered, and that a concerted effort be made toward their resolution.

2.2 Purpose of IEEE standardization

IEEE standards provide a common ground for communication in some specific area of electrotechnology. They also provide criteria for measuring the acceptable performance of equipment or materials pertinent to the field of electrotechnology.

The purpose of the review by the IEEE-SA Standards Board is to ensure that IEEE standards represent a consensus of interests from those that are materially affected by these standards and that proper procedures have been followed during the development of these standards.

An active IEEE standard gives an authoritative reference that is kept up to date through revision at least every ten years by the Standards Committee responsible for its preparation.

3. Governance

The policies, procedures, rules, and regulations by which the IEEE and IEEE-SA Standards Board activities are governed are embodied in six documents. The *IEEE Certificate of Incorporation* legally establishes the IEEE. The *IEEE Constitution*, which can be approved and amended only by the voting members of the IEEE, contains IEEE's fundamental objectives and organization. Implementation of the constitutional provisions, in specific organizational units and their policies, is contained in the *IEEE Bylaws*, which are approved and amended by the IEEE Board of Directors. The *IEEE Policies* contain more detailed statements of specific policies, objectives, and procedures that may be approved only by the IEEE Board of Directors. The *IEEE Standards Association Operations Manual* provides specific objectives and policies that relate to standards activities in the IEEE. The *IEEE Standards Association Operations Manual* is created and amended by the IEEE-SA BOG. The sixth document, the *IEEE-SA Standards Board Bylaws*, is published herewith. Its purpose is to provide specific policies that relate to the management and creation of approved IEEE standards. The *IEEE-SA Standards Board Bylaws* are created and amended by the IEEE-SA Standards Board, with final approval by the IEEE-SA BOG.

The precedence of these documents should be remembered by all those engaged in IEEE management duties. The *IEEE Bylaws* shall not be in conflict with the New York Not-For-Profit Corporation Law, the *IEEE Certificate of Incorporation*, or the *IEEE Constitution*. The *IEEE Policies* must conform to the provisions of all of these documents. Accordingly, the *IEEE Standards Association Operations Manual* shall conform to and not conflict with the provisions of the IEEE governing documents cited above. The *IEEE-SA Standards Board Bylaws* shall conform to the policies of the *IEEE Standards Association Operations Manual*. Questions of procedure or interpretation shall be addressed to the Managing Director, Standards.

4. IEEE-SA Standards Board organization

4.1 Membership

As stated in the *IEEE Standards Association Operations Manual*, the IEEE-SA Standards Board shall consist of no fewer than 18 nor more than 26 voting members, who shall be of Member or higher grade of the IEEE and members of the IEEE Standards Association, including a chair, vice chair, and the most recent past chair available to serve. Voting members of the IEEE-SA Standards Board shall be appointed by the IEEE-SA BOG. In addition, a representative appointed by the IEEE Technical Activities Board (TAB) shall be a voting member. In addition, the IEEE-SA Standards Board may include nonvoting participants as described below:

— Liaison representatives to provide coordination and communication between the IEEE-SA Standards Board and other IEEE entities, as well as other organizations involved in standards activities.

— Members emeriti appointed for life by the IEEE-SA Standards Board and ratified by the IEEE-SA BOG based on long years of prior distinguished service on the IEEE Standards Board and its committees. Only those members emeriti currently named to this position as of 31 December 1997 shall serve on the IEEE-SA Standards Board.

4.1.1 Officers

a) *Chair:* The Chair of the IEEE-SA Standards Board shall be appointed for a term of one year by the IEEE-SA BOG.

b) *Vice Chair:* The Vice Chair of the IEEE-SA Standards Board shall be appointed by the IEEE-SA Standards Board from among the voting members for a term of one year.

c) *Past Chair:* The most recent Past Chair of the IEEE-SA Standards Board available to serve shall be an officer of the IEEE-SA Standards Board.

d) *Secretary:* The Managing Director of Standards, a member of the IEEE staff as designated by the IEEE Executive Director, is the Secretary of the IEEE-SA Standards Board. The Secretary shall serve *ex officio* without vote.

4.1.2 Liaison representatives

The following persons serve as nonvoting (unless already voting members) liaison representatives to the IEEE-SA Standards Board and its standing committees to assist in coordinating standardization work with their respective organizations:

a) The chair of each IEEE Standards Coordinating Committee (SCC) appointed by the IEEE-SA Standards Board.

b) Representatives of IEEE Societies and Councils (and their Technical Committees), appointed by the Presidents or Chairs of these bodies. Standards Committees may also designate liaison representatives where committee standards activity indicates the need for representation.

c) Liaison representatives designated by other major IEEE Boards.

d) Such other liaison representatives as the IEEE-SA Standards Board may authorize.

The responsibilities of the liaison representatives are given in the *IEEE-SA Standards Board Operations Manual*.

4.1.3 SCC Coordinator

The SCC Coordinator shall ensure oversight of the SCCs and shall facilitate the work of the SCCs. The SCC Coordinator shall be appointed by the Chair of the Standards Board for a term of one year.

4.1.4 Tenure

Members of the IEEE-SA Standards Board may serve up to three consecutive one-year terms, except that chairs of standing committees or members of the Administrative Committee may be appointed to additional terms to provide experience and continuity.

4.2 Standing committees of the IEEE-SA Standards Board

All members of the standing committees of the IEEE-SA Standards Board shall be members of the IEEE Standards Association, and shall act in accordance with IEEE Standards policies and procedures, *IEEE Policies* including, but not limited to, Section 9.8 on Conflict of Interest, and the IEEE Code of Ethics.

4.2.1 Procedures Committee (ProCom)

4.2.1.1 Scope

This committee shall be responsible for recommending to the IEEE-SA Standards Board improvements and changes in its bylaws, procedures, and manuals to promote efficient discharge of responsibilities by the IEEE-SA Standards Board and its committees.

4.2.1.2 Organization

This committee shall be comprised of at least six members. The chair and other members of the committee shall be members of the IEEE-SA Standards Board and shall be appointed by the Chair of the IEEE-SA Standards Board for a term of one year.

4.2.2 New Standards Committee (NesCom)

4.2.2.1 Scope

This committee shall be responsible for ensuring that proposed standards projects are within the scope and purpose of the IEEE, that standards projects are assigned to the proper Society or other organizational body, and that interested parties are appropriately represented in the development of IEEE standards. The committee shall examine Project Authorization Requests (PARs) and make recommendations to the IEEE-SA Standards Board regarding their approval.

4.2.2.2 Organization

This committee shall be comprised of at least 10 but not more than 15 members, at least four of whom, including the chair, shall be voting members of the IEEE-SA Standards Board. The chair and other members of the committee shall be appointed by the Chair of the IEEE-SA Standards Board for a term of one year. In making nominations, the nominations committee shall give consideration to attaining membership from various IEEE Technical Divisions.

IEEE-SA Standards Board members not appointed to NesCom may serve as *ex officio* members without voting privileges.

4.2.3 Standards Review Committee (RevCom)

4.2.3.1 Scope

This committee shall be responsible for reviewing proposals for the approval of new and revised standards and for withdrawal from active status (see *IEEE-SA Standards Board Operations Manual* 9.2) of existing standards to ensure that the proposals represent a consensus of the members of the Standards Association balloting group. The committee shall routinely examine submittals to ensure that all applicable requirements of the *IEEE-SA Standards Board Operations Manual* have been met and make recommendations to the IEEE-SA Standards Board regarding their approval.

4.2.3.2 Organization

This committee shall be comprised of at least 12 but not more than 15 members, at least three of whom, including the chair, shall be voting members of the IEEE-SA Standards Board. The chair and other members of the committee shall be appointed by the Chair of the IEEE-SA Standards Board for a term of one year. In making nominations, the nominations committee shall give consideration to attaining membership from various IEEE Technical Divisions.

IEEE-SA Standards Board members not appointed to RevCom may serve as *ex officio* members without voting privileges.

4.2.4 Audit Committee (AudCom)

4.2.4.1 Scope

This committee shall provide oversight of the procedures used in the standards-development activities of Standards Committees as defined by 5.2.2.

4.2.4.2 Organization

This committee shall be comprised of at least five members. Five of the committee members, including the chair, shall be current or former members of the IEEE-SA Standards Board. The chair and other members of the committee shall be appointed by the Chair of the IEEE-SA Standards Board for a term of one year.

4.2.5 Patent Committee (PatCom)

4.2.5.1 Scope

This committee shall provide oversight for the use of any patents and patent information in IEEE standards. This committee shall review any patent information submitted to the IEEE Standards Department to determine conformity with patent procedures and guidelines.

4.2.5.2 Organization

This committee shall be comprised of at least four but not more than six voting members. A member of the IEEE Standards staff, as designated by the Managing Director of Standards Activities, shall be an *ex officio*, nonvoting member. The chair and additional voting members of the committee shall be voting members of the IEEE-SA Standards Board or the IEEE-SA Board of Governors and shall be appointed by the Chair of the IEEE-SA Standards Board for a term of one year.

4.2.6 Administrative Committee (AdCom)

The Administrative Committee shall act for the IEEE-SA Standards Board between meetings and make recommendations to the IEEE-SA Standards Board for its disposition at regular meetings. AdCom shall comprise the officers of the IEEE-SA Standards Board, the chairs of each standing committee of the IEEE-SA Standards Board, and the SCC Coordinator. The Chair of the IEEE-SA Standards Board shall be the chair of AdCom.

4.2.7 Industry Connections Committee (ICCom)

4.2.7.1 Scope

This committee shall be responsible for ensuring that proposed Industry Connections activities are within the scope and purpose of the IEEE, and for reviewing the progress and deliverables of Industry Connections activities. The committee shall examine Industry Connections Activity Initiation Documents (ICAIDs) and make recommendations to the IEEE-SA Standards Board regarding their approval. The committee shall also make recommendations to the IEEE-SA Standards Board regarding the termination of Industry Connections activities. The committee's procedures and responsibilities are specified in the *IEEE-SA Industry Connections Committee Operations Manual*.

4.2.7.2 Organization

This committee shall be comprised of at least five members, at least two of whom, including the chair, shall be voting members of the IEEE-SA Standards Board. The chair and other members of the committee shall be appointed by the Chair of the IEEE-SA Standards Board for a term of one year.

4.3 Other committees and bodies

4.3.1 Standards Coordinating Committees (SCCs)

Proposed standards are normally developed in the technical committees of the IEEE Societies. There are occasions when the scope of a standards activity is too broad to be encompassed in a single Society, or a Society may find itself in a position where it is unable to carry out the work needed to meet an identified need. In such instances, the IEEE-SA Standards Board shall establish its own committees to perform the required functions. These committees shall be known as Standards Coordinating Committees (SCCs) and shall report to the IEEE-SA Standards Board.

There shall be two types of SCCs. The first (type 1) shall serve as a forum for the exchange of information between and among standards-developing activities of the IEEE. (Opportunities for sharing information about standards projects, trends, and Society directions will serve to minimize duplication among programs and will enhance the content of standards of interest to more than one Society.)

This type of SCC shall not develop standards. If this type of SCC is to take on a standards-development role, it shall apply for SCC type 2 status (see subclause 4.3.2 of the *IEEE-SA Standards Board Operations Manual*).

The second type of SCC (type 2) shall act as Standards Committee for standards projects, in addition to having the coordination responsibilities of a type 1 SCC. It shall meet all the requirements of a Standards Committee (including clause 5 of the *IEEE-SA Standards Board Operations Manual*).

For information on the formation of SCCs, see 4.3 in the *IEEE-SA Standards Board Operations Manual*. For information on the organization of SCCs, see 4.4 in the *IEEE-SA Standards Board Operations Manual*.

5. IEEE-SA Standards Board procedures and responsibilities

5.1 Transaction of business

Regular meetings of the IEEE-SA Standards Board shall be held quarterly, in accordance with a schedule approved at, or prior to, the last regular meeting of the previous calendar year. Special meetings may be called with at least five days notice for an electronic meeting or 30 days for an in-person meeting, when deemed necessary, by the Chair or at the request of five members.

Unless otherwise provided in the *IEEE Certificate of Incorporation*, the *IEEE Constitution*, the *IEEE Bylaws*, or the New York Not-For-Profit Corporation Law, the vote of a majority of the voting members of the IEEE-SA Standards Board present at the time of the vote, if a quorum is present at such a time, shall be the act of the IEEE-SA Standards Board.

Approval of proposed IEEE standards, or transfer to inactive status of such standards, shall require affirmative votes by at least 75% of the voting members present at the time of the vote, if a quorum is present. Except as otherwise specified in these bylaws, meetings of the IEEE-SA Standards Board shall be run in accordance with the parliamentary procedures of *Robert's Rules of Order* (latest edition).

5.2 Standards-development process

5.2.1 Participation in IEEE standards development

A participant is an individual or entity that engages in Standards Committee/Working Group standards development activities, e.g., attending meetings, joining one of the Standards Committee/Working Group email reflectors, or voting in the Working Group, Public Review, or Standards Association balloting process.

Participants in the IEEE standards development individual process shall act based on their qualifications and experience. Entity representative participants in the IEEE standards development entity process are appointed by an entity to represent that entity and act on its behalf. Such representatives may participate in IEEE standards development activities and take action based upon instruction from the entity for which they have been appointed as an entity representative.

While participating in IEEE standards development activities, all participants, including but not limited to, individuals, entity representatives, entity members, entities participating directly in the entity process, and entities participating indirectly in the individual process shall act in accordance with all applicable laws (nation-based and international), the IEEE Code of Ethics, and with IEEE Standards policies and procedures. Participants in IEEE standards development who are authenticated into any IEEE-SA database shall acknowledge the Obligations for Participation and Code of Ethics.

Participants on standards committees or working groups with governance authority or the authority to enter into a financial transaction with another party shall also act in accordance with *IEEE Policies* Section 9.8 on Conflict of Interest.

All officers of IEEE standards working groups shall indicate acceptance of their roles in an IEEE-SA database.

Standards Committee Chairs, Vice Chairs, Secretaries, Treasurers, and liaison representatives shall be members of IEEE-SA and shall also be either IEEE members of any grade, except Student grade, or IEEE affiliates. All officers of IEEE-SA Standards Board Standards Coordinating Committees shall be members of IEEE-SA and shall also be either IEEE members of any grade, except Student grade, or IEEE affiliates.

The IEEE-SA shall maintain the authoritative database of participants in the development of standards. Such database shall be maintained by the Secretary of the IEEE-SA Standards Board.

5.2.1.1 Membership requirements for standards developed under the individual method

Officers of IEEE standards working groups developing standards under the individual method shall be members of IEEE-SA and shall also be either IEEE members of any grade, except Student grade, or IEEE affiliates. Designees (those designated to manage the Standards Association ballot) in the IEEE Standards Association individual ballot process shall be members of IEEE-SA and shall also be either IEEE members of any grade, except Student grade, or IEEE affiliates.

5.2.1.2 Membership requirements for standards developed under the entity method

Officers of IEEE standards working groups developing standards under the entity method shall be representatives of Advanced Entity Members of the IEEE-SA. Designees (those designated to manage the Standards Association ballot) in the IEEE Standards Association entity ballot process shall be representatives of Advanced Entity Members.

Every entity observing a project within an IEEE-SA entity standards working group is required to be at least a Basic Entity Member of IEEE-SA, and only Advanced Entity Members can contribute and hold voting privileges. Entity nonmembers may observe at one IEEE-SA entity standards working group meeting per project.

An entity can represent either itself or another entity's interest in an entity working group. In order to be a voting member in a particular entity working group, each entity's representative shall declare that the interests of that entity are not knowingly represented by another member of the working group and that the entity is not knowingly funding directly or indirectly the participation of another person in that working group for the purposes of influencing the outcome of the vote.

Each entity project shall have at least three voting members in good standing to maintain its validity. Each entity project is required to host its working group email reflector(s) through the IEEE, with designated IEEE staff serving as administrators. Each Standards Committee responsible for the entity project is permitted to send a designated Standards Committee Representative (SCR) to meetings of that entity-based working group in a non-voting role.

The following qualify as entities for standards-development purposes:

Corporation: A for-profit or not-for-profit entity that is not under the control, as defined in 5.2.1.2.1, of another entity and that is organized under articles of incorporation or similar legal structures. Limited Liability Companies are considered to be Corporations.

Partnership: An unincorporated association of two or more individuals who are co-owners of a business.

Sole proprietorship: An unincorporated business owned by a single individual.

Government agency: An entity that is part of an executive, legislative, or judicial branch of a government and that has sufficient discretion in the management of its own affairs to distinguish it as separate from the administrative structure of any other governmental entity.

Academic institution: An educational entity that, in addition to having a controlling body such as a Board of Regents or a Board of Governors, has sufficient discretion in the management of its own affairs to distinguish it as separate from the administrative structure of any other educational entity.

IEEE-SA entity standards working groups may employ up to two individuals in non-voting positions for the purposes of technical editing and other administrative functions that shall not involve technical contributions. Such individuals will be allowed to participate in working group activities as deemed appropriate and need not represent Entity Members of IEEE-SA.

IEEE-SA entity standards working groups may vote to allow individuals to offer specific technical expertise in non-voting positions at up to three entity standards working group meetings during the standards development process for a particular project. Such individuals need not represent Entity Members of IEEE-SA. However, if an individual's expenses to attend entity standards development meetings are sponsored by his or her company, that company must be at least a Basic Entity Member of IEEE-SA.

When entity standards working group meetings are co-located with IEEE individual standards working group meetings, the participants in the individual standards working group may observe such co-located entity working group meetings at up to two meetings per calendar year without having to fulfill any specific membership requirements.

5.2.1.2.1 Control

For the purposes of IEEE entity standards development, the term "control" (and its linguistic derivatives, e.g., "controlling," "controlled") means:

— With respect to for-profit entities: the legal, beneficial, or equitable ownership, directly or indirectly, of more than fifty percent of the capital stock (or other ownership interest, if the entity does not own capital stock) of the entity; or the power to elect or appoint more than fifty percent of the governing body (e.g., the Board of Directors) of the entity.

— With respect to not-for-profit entities: the power to elect or appoint more than fifty percent of the governing body (e.g., the Board of Directors) of the entity.

5.2.1.3 Dominance

The standards development process shall not be dominated by any single interest category, individual(s), or organization(s).

Dominance is normally defined as the exercise of authority, leadership, or influence by reason of superior leverage, strength, or representation to the exclusion of fair and equitable consideration of other viewpoints. Dominance can also be defined as the exercise of authority, leadership, or influence by reason of sufficient leverage, strength, or representation to hinder the progress of any IEEE-SA activities, including but not limited to standards development activities. Such dominance is contrary to open and fair participation by all interested parties and is unacceptable.

Standards Committees shall monitor standards developing committees and duly authorized IEEE-SA activities for signs of dominance. If dominance is suspected by the Standards Committee, the Standards Committee shall immediately notify the Secretary of the IEEE-SA Standards Board and should recommend corrective action(s), which may include corrective action(s) listed in the Standards Committee's official P&P.

The IEEE-SA Standards Board shall determine whether dominance exists or may exist such that corrective action is needed and, if so, shall specify any approved corrective action(s). The Standards Committee shall only implement the specific corrective action(s) that have been approved by the IEEE-SA Standards Board.

The IEEE-SA Standards Board shall continually monitor the efficacy of corrective action(s) taken and may impose further corrective action(s) if previous corrective action(s) prove to be insufficient. The IEEE-SA

Standards Board may, at its discretion, instruct the Standards Committee to cease specific corrective action(s) or to implement other corrective action(s).

5.2.1.4 Openness

Openness is defined as the quality of being not restricted to a particular type or category of participants. All meetings involving standards development shall be open to all interested parties.

5.2.1.5 Disclosure of affiliation

Every participant in a working group, Standards Association ballot, or other standards development activity shall disclose his or her affiliation(s), which includes employer(s) and any other affiliation(s). An individual is deemed "affiliated" with any individual or entity that has been, or will be, financially or materially supporting that individual's participation in a particular IEEE standards activity. This includes, but is not limited to, his or her employer(s) and any individual or entity that has or will have, either directly or indirectly, requested, paid for, or otherwise sponsored his or her participation. Failure to disclose every such affiliation(s) may result in complete or partial loss of rights to participate in IEEE-SA activities. An individual is not excused from compliance with this policy by reason of any claim of a conflicting obligation (whether contractual or otherwise) that prohibits disclosure of affiliation(s).

A person who believes that a participant's disclosure is materially incomplete or incorrect should report that fact to the appropriate Standards Committee(s).

5.2.1.6 Official statements

A statement, written or oral, that is not processed in accordance with subclause 5.1.3 of the *IEEE-SA Standards Board Operations Manual* shall not be considered the official position of the IEEE Standards Association or any of its committees and shall not be considered to be, nor be relied upon as, a formal position of IEEE. At lectures, symposia, seminars, or educational courses, an individual presenting information on IEEE standards shall make it clear that his or her views should be considered the personal views of that individual rather than the formal position of IEEE.

5.2.2 Standards Committee

A Standards Committee shall be made up of any of the categories of membership described in IEEE Bylaw I-403. This Standards Committee shall have a professed interest in the development of standards (either by direct participation or by the process of review) in technological areas that fall under the general scope of interest to the IEEE.

All IEEE standards development shall be based on projects that have been approved by the IEEE-SA Standards Board, and each project shall be the responsibility of a Standards Committee. Standards Committees are responsible for the development and coordination of the standards project and the maintenance of the standard after approval of the standard by the IEEE-SA Standards Board.

The Standards Committee shall be one of the following:

a) A Technical Committee within an IEEE Society/Council

b) A Standards Committee or Standards Coordinating Committee of an IEEE Society/Council

c) A Standards Coordinating Committee established by the IEEE-SA Standards Board

d) A Standards Subcommittee organized by or reporting to one of the above

e) Other organizations as recommended by the IEEE-SA Standards Board and approved by the IEEE-SA BOG

The IEEE-SA Standards Board is not a Standards Committee, but provides oversight and guidance to assist Standards Committees when necessary.

5.2.2.1 Creation of Standards Committees

Standards Committees formed under rule d) in 5.2.2 shall be officially recognized by the IEEE-SA Standards Board only after a 75% approval by the creating committee. Once formed, Standards Committees automatically assume duties according to 5.1 of the *IEEE-SA Standards Board Operations Manual*.

5.2.2.2 Standards Committee responsibility/accountability

The Standards Committee accepts responsibility for oversight of any of its assigned standards, including overseeing coordination and balloting.

When the breadth of interest in a standard is great enough so that more than one technical committee wishes to have a role in its development and oversight, a joint committee of the two or more interested committees may be formed. That joint committee, whose membership shall be determined by mutual agreement, shall assume all of the duties of a Standards Committee (see 5.1.2 of the *IEEE-SA Standards Board Operations Manual*).

Changes in responsibility for projects shall be approved by the IEEE-SA Standards Board.

5.2.2.3 Standards Association balloting group

Potential dominance in Standards Association ballots as evidenced by an unduly high proportion of individuals employed by or affiliated with a single entity or from a particular balloting classification is unacceptable, counter to open and fair participation by all interested parties, and deprecated by the IEEE-SA Standards Board. All individuals joining a Standards Association ballot group shall declare their employer and affiliation (see subclause 5.1.2.3 of the *IEEE-SA Standards Board Operations Manual*). The Standards Committee shall review the Standards Association ballot group for balance and possible dominance. If it is suspected that the Standards Association ballot group may be dominated (see 5.2.1.3), the Standards Committee shall immediately notify the Secretary of the IEEE-SA Standards Board and should recommend corrective action(s). The IEEE-SA Standards Board shall determine whether dominance exists or may exist such that corrective action is needed and, if so, shall specify any approved corrective action(s). The Standards Committee shall only implement the specific corrective action(s) that have been approved by the IEEE-SA Standards Board to ensure a fair and open ballot.

The Standards Association balloting group shall consist of persons who are members of the IEEE-SA. Membership status shall be determined at the time a person completes the process of joining the balloting group. [Note: A Standards Association balloting group comprised of individuals may also include non-IEEE-SA members that pay the appropriate per-ballot fee (see subclause 5.4.1 of the *IEEE-SA Standards Board Operations Manual*)]. A person is an individual or an entity representative. An entity can be any for-profit or not-for-profit enterprise, as defined in IEEE Bylaw I-403.

A single type of Standards Association balloting group for a standard shall be established at the time of PAR approval and officially approved prior to the formation of a Standards Association balloting group. A statement of the type of balloting membership to be used shall be included in all versions of the draft standard and the final approved standard.

5.2.3 Project authorization

In order to avoid duplication, provide for effective management of overall efforts, and expedite approval of final documents, all requests for an initiation of a standards project, in the form of a PAR, shall be approved by the IEEE-SA Standards Board. The IEEE-SA Standards Board has assigned to NesCom the preliminary review of PARs and the responsibility for recommending final approval to the Board.

Standards Committees are required to submit a PAR at the earliest opportunity when a standards project is contemplated or work is started. The Secretary of the IEEE-SA Standards Board shall submit PARs to NesCom for approval in accordance with its procedures. Unless specifically authorized by the IEEE-SA Standards Board, no proposed standard or revision shall be considered by RevCom without prior approval of the project by the IEEE-SA Standards Board. The lifetime of a PAR shall be four years.

5.2.4 Final review and approval to publish

All IEEE standards shall be approved by the IEEE-SA Standards Board prior to publication. The IEEE-SA Standards Board has assigned to RevCom the review of standards submittals and the responsibility for recommending final approval to the IEEE-SA Standards Board. Approval by the IEEE-SA Standards Board indicates that the requirements of the *IEEE-SA Standards Board Operations Manual* and these bylaws have been satisfied and, specifically, that the final results of the Standards Association ballot and statements submitted by other coordinating bodies who participated in the development of the standard indicate that consensus has been achieved and unresolved negative ballots have been considered together with reasons why the comments could not be resolved.

5.2.5 Notification of action on standards

Following each meeting of the IEEE-SA Standards Board, the IEEE Standards Department shall issue a statement, available to all interested parties, which shall detail the actions taken at the last meeting of the IEEE-SA Standards Board on approval of, or transfer to inactive status of, standards documents; and authorization of new standards projects. This may be in the form of the minutes of the IEEE-SA Standards Board meeting.

5.3 Review cycles

All IEEE standards should be reviewed as often as new information is available. Every year, the Secretary of the IEEE-SA Standards Board shall notify the standards liaison representative of each Standards Committee of all active standards assigned to the Standards Committee, the dates that such standards are scheduled to expire, and a reminder to consider such standards for revision.

5.4 Appeals

Persons who have directly and materially affected interests and who have been, or could reasonably be expected to be, adversely affected by a standard within the IEEE's jurisdiction, or by the lack of action in any part of the IEEE standardization process, shall have the right to appeal procedural actions or inactions, provided that the appellant shall have first exhausted the appeals procedures of any relevant subordinate committee or body before filing the procedural appeal with the IEEE-SA Standards Board.

The IEEE Standards Association shall not provide an appeals process to resolve a disagreement about a technical decision. All technical decisions shall be made at or below the Standards Committee level. Any person dissatisfied with a technical decision shall follow the procedures of the body that has made the decision and that body's Standards Committee to provide input on the technical decision, including, but not limited to, making a technical comment during the applicable comment submission and/or balloting period.

The IEEE-SA Standards Board shall not consider any claim that (i) is based solely on ethical considerations; (ii) does not seek to amend or reverse a decision of a lower body relating to the development or approval of a standard; or (iii) does not recommend remedial action or recommends remedial action not allowed by current IEEE-SA policies and procedures.

The appellant shall be advised to bring ethical claims to the attention of the IEEE Ethics and Member Conduct Committee or the IEEE-SA Standards Conduct Committee, as appropriate.

Further instructions concerning appeals procedure can be found in subclause 5.8 of the *IEEE-SA Standards Board Operations Manual*.

5.5 Interpretations

The IEEE does not offer interpretations of its standards.

5.6 Open source software development

IEEE standards development and Industry Connections activities shall comply with all IEEE and IEEE-SA requirements for development of open source software, including acceptance of the Terms of Use for the IEEE Open Source Platform. Any IEEE Standards project or Industry Connections activity that intends to develop or incorporate open source software (either normatively or informatively) in the standard or Industry Connections deliverable shall indicate this intent on the PAR or ICAID. Approval by the IEEE-SA Standards Board of the PAR or ICAID that indicates possible incorporation of open source software, as well as approval by the IEEE-SA Board of Governors of the use of the IEEE Open Source Platform for these open source activities, constitutes approval for contribution, development, and maintenance of open source software for the IEEE standard or Industry Connections deliverables. An IEEE Standards project or Industry Connections activity shall not develop open source software without prior approval of the IEEE-SA Standards Board.

All Contributions of open source software for use in IEEE standards development and Industry Connections activities shall be accompanied by an approved IEEE Contributor License Agreement (CLA) appropriate for the open source license under which the Work Product will be made available. CLAs, once accepted, are irrevocable.

6. Patents

6.1 Definitions

The following terms, when capitalized, have the following meanings:

"Accepted Letter of Assurance" and *"Accepted LOA"* shall mean a Letter of Assurance that the IEEE-SA has determined is complete in all material respects and has been posted to the IEEE-SA web site.

"*Affiliate*" shall mean an entity that directly or indirectly, through one or more intermediaries, controls the Submitter or Applicant, is controlled by the Submitter or Applicant, or is under common control with the Submitter or Applicant. For the purposes of this definition, the term "control" and its derivatives, with respect to for-profit entities, means the legal, beneficial or equitable ownership, directly or indirectly, of more than fifty percent (50%) of the capital stock (or other ownership interest, if not a corporation) of an entity ordinarily having voting rights. "Control" and its derivatives, with respect to nonprofit entities, means the power to elect or appoint more than fifty percent (50%) of the Board of Directors of an entity.

"Applicant" shall mean any prospective licensee for Essential Patent Claims. *"Applicant"* shall include all of its Affiliates.

"*Blanket Letter of Assurance*" shall mean a Letter of Assurance that applies to all Essential Patent Claims for which a Submitter may currently or in the future (except as otherwise provided for in these Bylaws and in the *IEEE-SA Standards Board Operations Manual)* have the ability to license.

"Compliant Implementation" shall mean any product (e.g., component, sub-assembly, or end-product) or service that conforms to any mandatory or optional portion of a normative clause of an IEEE Standard.

"Enabling Technology" shall mean any technology that may be necessary to make or use any product or portion thereof that complies with the IEEE Standard but is neither explicitly required by nor expressly set forth in the IEEE Standard (e.g., semiconductor manufacturing technology, compiler technology, object-oriented technology, basic operating system technology, and the like).

"*Essential Patent Claim*" shall mean any Patent Claim the practice of which was necessary to implement either a mandatory or optional portion of a normative clause of the IEEE Standard when, at the time of the IEEE Standard's approval, there was no commercially and technically feasible non-infringing alternative implementation method for such mandatory or optional portion of the normative clause. An Essential Patent Claim does not include any Patent Claim that was essential only for Enabling Technology or any claim other than that set forth above even if contained in the same patent as the Essential Patent Claim.

"*Letter of Assurance*" and *"LOA"* shall mean a document, including any attachments, stating the Submitter's position regarding ownership, enforcement, or licensing of Essential Patent Claims for a specifically referenced IEEE Standard, submitted in a form acceptable to the IEEE-SA.

"*Patent Claim(s)"* shall mean one or more claims in issued patent(s) or pending patent application(s).

"Prohibitive Order" shall mean an interim or permanent injunction, exclusion order, or similar adjudicative directive that limits or prevents making, having made, using, selling, offering to sell, or importing a Compliant Implementation.

"*Reasonable and Good Faith Inquiry*" includes, but is not limited to, a Submitter using reasonable efforts to identify and contact those individuals who are from, employed by, or otherwise represent the Submitter and who are known to the Submitter to be current or past participants in the development process of the

[Proposed] IEEE Standard identified in a Letter of Assurance, including, but not limited to, participation in a Standards Association Ballot or Working Group. If the Submitter did not or does not have any participants, then a Reasonable and Good Faith Inquiry may include, but is not limited to, the Submitter using reasonable efforts to contact individuals who are from, employed by, or represent the Submitter and who the Submitter believes are most likely to have knowledge about the technology covered by the [Proposed] IEEE Standard.

"Reasonable Rate" shall mean appropriate compensation to the patent holder for the practice of an Essential Patent Claim excluding the value, if any, resulting from the inclusion of that Essential Patent Claim's technology in the IEEE Standard. In addition, determination of such Reasonable Rates should include, but need not be limited to, the consideration of:

- The value that the functionality of the claimed invention or inventive feature within the Essential Patent Claim contributes to the value of the relevant functionality of the smallest saleable Compliant Implementation that practices the Essential Patent Claim.

- The value that the Essential Patent Claim contributes to the smallest saleable Compliant Implementation that practices that claim, in light of the value contributed by all Essential Patent Claims for the same IEEE Standard practiced in that Compliant Implementation.

- Existing licenses covering use of the Essential Patent Claim, where such licenses were not obtained under the explicit or implicit threat of a Prohibitive Order, and where the circumstances and resulting licenses are otherwise sufficiently comparable to the circumstances of the contemplated license.

"Reciprocal Licensing" shall mean that the Submitter of an LOA has conditioned its granting of a license for its Essential Patent Claims upon the Applicant's agreement to grant a license to the Submitter with Reasonable Rates and other reasonable licensing terms and conditions to the Applicant's Essential Patent Claims, if any, for the referenced IEEE Standard, including any amendments, corrigenda, editions, and revisions. If an LOA references an amendment or corrigendum, the scope of reciprocity includes the base IEEE Standard and its amendments, corrigenda, editions, and revisions.

"Statement of Encumbrance" shall mean a specific reference to an Accepted LOA or a general statement in the transfer or assignment agreement that the Patent Claim(s) being transferred or assigned are subject to any encumbrances that may exist as of the effective date of such agreement. An Accepted LOA is an encumbrance.

"*Submitter*" shall mean an individual or an organization that provides a completed Letter of Assurance. A Submitter may or may not hold Essential Patent Claims. *"Submitter"* shall include all of its Affiliates unless specifically and permissibly excluded.

6.2 Policy

IEEE standards may be drafted in terms that include the use of Essential Patent Claims. If the IEEE receives notice that a [Proposed] IEEE Standard may require the use of a potential Essential Patent Claim, the IEEE shall request licensing assurance, on the IEEE-SA Standards Board approved Letter of Assurance form, from the patent holder or patent applicant. The IEEE shall request this assurance without coercion.

The Submitter of a Letter of Assurance may, after Reasonable and Good Faith Inquiry, indicate it is not aware of any Patent Claims that the Submitter may own, control, or have the ability to license that might be or become Essential Patent Claims. If the patent holder or patent applicant provides an LOA, it should do so as soon as reasonably feasible in the standards development process once the PAR is approved by the IEEE-SA Standards Board. This LOA should be provided prior to the Standards Board's approval of the

standard. An asserted potential Essential Patent Claim for which licensing assurance cannot be obtained (e.g., an LOA is not provided or the LOA indicates that licensing assurance is not being provided) shall be referred to the Patent Committee.

The licensing assurance shall be either:

a) A general disclaimer to the effect that the Submitter without conditions will not enforce any present or future Essential Patent Claims against any person or entity making, having made, using, selling, offering to sell, or importing any Compliant Implementation that practices the Essential Patent Claims for use in conforming with the IEEE Standard; or,

b) A statement that the Submitter will make available a license for Essential Patent Claims to an unrestricted number of Applicants on a worldwide basis without compensation or under Reasonable Rates, with other reasonable terms and conditions that are demonstrably free of any unfair discrimination to make, have made, use, sell, offer to sell, or import any Compliant Implementation that practices the Essential Patent Claims for use in conforming with the IEEE Standard. An Accepted LOA that contains such a statement signifies that reasonable terms and conditions, including without compensation or under Reasonable Rates, are sufficient compensation for a license to use those Essential Patent Claims and precludes seeking, or seeking to enforce, a Prohibitive Order except as provided in this policy.

At its sole option, the Submitter may provide with its Letter of Assurance any of the following: (i) a not-to-exceed license fee or rate commitment, (ii) a sample license agreement, or (iii) one or more material licensing terms.

An Accepted Letter of Assurance shall apply to the Submitter, including its Affiliates. The Submitter, however, may specifically exclude certain Affiliates identified in the Letter of Assurance, except that a Submitter shall have no ability to exclude Affiliates if the Submitter has indicated Reciprocal Licensing on an Accepted Letter of Assurance.

The Submitter shall not condition a license on the Applicant's agreeing (a) to grant a license to any of the Applicant's Patent Claims that are not Essential Patent Claims for the referenced IEEE standard, or (b) to take a license for any of the Submitter's Patent Claims that are not Essential Patent Claims for the referenced IEEE standard.

On a Letter of Assurance, the Submitter may indicate a condition of Reciprocal Licensing. If an Applicant requires compensation under Reciprocal Licensing to its Essential Patent Claims, then a Submitter may require compensation for its Essential Patent Claims from that Applicant even if the Submitter has otherwise indicated that it would make licenses available without compensation.

The Submitter and all Affiliates (other than those Affiliates excluded in a Letter of Assurance) shall not, with the intent of circumventing or negating any of the representations and commitments made in the Accepted Letter of Assurance, assign or otherwise transfer any rights in any Essential Patent Claims that they hold, control, or have the ability to license and for which licensing assurance was provided on the Accepted Letter of Assurance.

An Accepted Letter of Assurance is intended to be binding upon any and all assignees and transferees of any Essential Patent Claim covered by such LOA. The Submitter agrees (a) to provide notice of an Accepted Letter of Assurance either through a Statement of Encumbrance or by binding its assignee or transferee to the terms of such Letter of Assurance; and (b) to require its assignee or transferee to (i) agree to similarly provide such notice and (ii) to bind its assignees or transferees to agree to provide such notice as described in (a) and (b).

The Submitter and the Applicant should engage in good faith negotiations (if sought by either party)

without unreasonable delay or may litigate or, with the parties' mutual agreement, arbitrate: over patent validity, enforceability, essentiality, or infringement; Reasonable Rates or other reasonable licensing terms and conditions; compensation for unpaid past royalties or a future royalty rate; any defenses or counterclaims; or any other related issues.

The Submitter of an Accepted LOA who has committed to make available a license for one or more Essential Patent Claims agrees that it shall neither seek nor seek to enforce a Prohibitive Order based on such Essential Patent Claim(s) in a jurisdiction unless the implementer fails to participate in, or to comply with the outcome of, an adjudication, including an affirming first-level appellate review, if sought by any party within applicable deadlines, in that jurisdiction by one or more courts that have the authority to: determine Reasonable Rates and other reasonable terms and conditions; adjudicate patent validity, enforceability, essentiality, and infringement; award monetary damages; and resolve any defenses and counterclaims. In jurisdictions where the failure to request a Prohibitive Order in a pleading waives the right to seek a Prohibitive Order at a later time, a Submitter may conditionally plead the right to seek a Prohibitive Order to preserve its right to do so later, if and when this policy's conditions for seeking, or seeking to enforce, a Prohibitive Order are met.

Nothing in this policy shall preclude a Submitter and an implementer from agreeing to arbitrate over patent validity, enforceability, essentiality, or infringement; Reasonable Rates or other reasonable licensing terms and conditions; compensation for unpaid past royalties or a future royalty rate; any defenses or counterclaims; reciprocal obligations; or any other issues that the parties choose to arbitrate.

Nothing in this policy shall preclude a licensor and licensee from voluntarily negotiating any license under terms mutually agreeable to both parties.

If a Submitter becomes aware of additional Patent Claim(s) that are not already covered by an Accepted Letter of Assurance, that are owned, controlled, or licensable by the Submitter, and that may be or become Essential Patent Claim(s) for the same IEEE Standard, then such Submitter shall submit a Letter of Assurance stating its position regarding enforcement or licensing of such Patent Claims. For the purposes of this commitment, the Submitter is deemed to be aware if any of the following individuals who are from, employed by, or otherwise represent the Submitter have personal knowledge of additional potential Essential Patent Claims, owned or controlled by the Submitter, related to a [Proposed] IEEE Standard and not already the subject of a previously Accepted Letter of Assurance: (a) past or present participants in the development of the [Proposed] IEEE Standard, or (b) the individual executing the previously Accepted Letter of Assurance.

A Letter of Assurance is irrevocable once submitted and accepted and shall apply, at a minimum, from the date of the standard's approval to the date of the standard's transfer to inactive status.

Copies of an Accepted Letter of Assurance may be provided to participants in a standards development meeting. Discussion of essentiality, interpretation, or validity of Patent Claims is prohibited during IEEE-SA standards-development meetings or other duly authorized IEEE-SA standards-development technical activities. IEEE-SA shall provide procedures stating when and the extent to which patent licensing terms may be discussed (see subclause 5.3.10 of the *IEEE-SA Standards Board Operations Manual*).

The IEEE is not responsible for

1. Identifying Essential Patent Claims for which a license may be required;
2. Determining the validity, essentiality, or interpretation of Patent Claims;
3. Determining whether any licensing terms or conditions provided in connection with submission of a Letter of Assurance, if any, or in any licensing agreements are reasonable or non-discriminatory; or,
4. Determining whether an implementation is a Compliant Implementation.

Nothing in this policy shall be interpreted as giving rise to a duty to conduct a patent search. No license is

implied by the submission of a Letter of Assurance.

In order for IEEE's patent policy to function efficiently, individuals participating in the standards development process: (a) shall inform the IEEE (or cause the IEEE to be informed) of the holder of any potential Essential Patent Claims of which they are personally aware and that are not already the subject of an Accepted Letter of Assurance, that are owned or controlled by the participant or the entity the participant is from, employed by, or otherwise represents; and (b) should inform the IEEE (or cause the IEEE to be informed) of any other holders of potential Essential Patent Claims that are not already the subject of an Accepted Letter of Assurance.

7. Copyright

All Contributions to IEEE standards development or Industry Connections activities (whether for an individual or entity group) shall meet the requirements outlined in this clause.

7.1 Definitions

The following terms, when capitalized, have the following meanings:

"*Contribution*" shall mean material that is presented verbally or in recorded or written form (e.g., text, drawings, flowcharts, slide presentations, videos) in any IEEE standards development activity or Industry Connections activity.

"Public Domain" shall mean material that is no longer under copyright protection or did not meet the requirements for copyright protection.

"Published" shall mean material for which a claim of copyright is apparent (e.g., the presence of the copyright symbol ©; an explicit statement of copyright ownership or intellectual property rights; stated permission to use text; a text reference that indicates the insertion of text excerpted from a copyrighted work; or a visual indication of an excerpt from another work, such as indented text).

"*Work Product*" shall mean the compilation of or collective work of all participants (e.g., a draft standard; the final approved standard; draft Industry Connections white paper; Industry Connections web site).

7.2 Policy

IEEE owns the copyright in all Work Products. All IEEE Work Products shall be created in an approved IEEE template.

Participants are solely responsible for determining whether disclosure of any Contributions that they submit to IEEE requires the prior consent of other parties and, if so, to obtain it.

7.2.1 Contributions from previously Published sources

At the time of submission, all Contributions from previously Published sources that are not Public Domain shall be accompanied by a Copyright Permission Form that is completed by the copyright owner, or by a person with the authority or right to grant copyright permission. The Copyright Permission Form request shall outline the specific material being used and, where possible, the planned context for its usage in the Work Product. Contributions that are previously Published shall not be submitted for consideration or incorporated in a Work Product until copyright permission acceptable to IEEE has been granted.

7.2.2 Contributions not previously Published

For any Contribution that has not been previously Published, and that is not Public Domain:

a) IEEE has the non-exclusive, irrevocable, royalty-free, worldwide rights (i.e., a license) to use the Contribution in connection with the development of the Work Product for which the Contribution was made.

b) Upon (i) approval of the standard; or (ii) final release or publication of a Work Product by an Industry Connections activity, IEEE has the right to exploit and grant permission to use the Work Product's content derived from the Contribution in any format or media without restriction.

Copyright ownership of the original Contribution is not transferred or assigned to the IEEE.

8. Modifications to the *IEEE-SA Standards Board Bylaws*

Proposed modifications to these bylaws may be submitted to the IEEE-SA Standards Board Procedures Committee (ProCom) for its consideration. Proposed modifications that have been agreed to by ProCom shall be submitted to the IEEE-SA Standards Board for recommendation to forward to the IEEE-SA BOG for approval (see clause 5.1 of the *IEEE Standards Association Operations Manual*).

Modifications to these bylaws and the reasons therefor shall be mailed to all members of the IEEE-SA Standards Board at least 30 days before the IEEE-SA Standards Board meeting where the vote on these modifications shall be taken. Two-thirds of the voting Board members present at the meeting shall be required to approve any modifications.

These bylaws shall be reviewed by legal counsel.

8.1 Interpretations of the *IEEE-SA Standards Board Bylaws*

Requests for interpretations of this document shall be directed to the Secretary of the IEEE-SA Standards Board. The Secretary of the Board shall respond to the request within 30 days of receipt. Such response shall indicate a specified time limit when such an interpretation will be forthcoming. The time limit shall be no longer than is reasonable to allow consideration of and recommendations on the issue by, for example, the Procedures Committee of the IEEE-SA Standards Board. The interpretation shall be delivered by the Chair of the Procedures Committee after committee discussion provided that at least 75% of the committee agrees. The IEEE-SA Standards Board shall be notified of these results. If less than 75% of the committee agrees, or if any single committee member requests, the issue shall be deferred to the next regularly scheduled IEEE-SA Standards Board meeting for the full Board to decide.