IEEE Standards Development Principles

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Technical standards provide people and organizations with a basis for mutual understanding and are instruments to facilitate communication, measurement, commerce, and manufacturing. They help ensure safety and reliability; enable innovation, and open new market opportunities to their users by allowing interoperability of products, services, and processes; they create ecosystems that promote economies of scale and healthy competition; and help developers and users provide leadership in socio-technical areas, such as environmental sustainability and ethical values-based design. These attributes are essential to help ensure that markets remain open, allowing consumers to have choice and allowing new entrants to successfully enter markets.

As a global standards developing organization, IEEE supports and advocates for a set of standards development principles, executed by its IEEE Standards Association.
These principles provide a community for voluntary cooperation among interested parties and stakeholders, and enable technical excellence, global interoperability, and innovation to foster economic growth and societal prosperity.

These principles are:

Direct participation: where there are no intermediaries between the originators of a promising idea and the group of peers deciding the beginning of a best practice or standard, and where any individual or organization from any location worldwide has the ability to submit a proposal.

Due process: where decisions are made with equity and fairness among all participants in a transparent manner and no party dominates the process.

Broad consensus: where all viewpoints are considered and addressed with decisions made by either a majority or supermajority of participants and where no individual or organization wields undue power in the creation of a standard.

Balance: where steps are taken to provide an opportunity for a multitude of stakeholders to participate, ensuring that the process is not dominated by a particular individual, organization, or interest group.

Transparency: where the processes and procedures under which the standards are developed are broadly available so that participants understand the rules guiding engagement and decisions. Records of decisions and the supporting materials used in reaching those decisions are accessible.

Broad openness: where from the beginning of the process appropriate notification is given to a global audience and to potential stakeholders regarding the opportunity to engage. Public comment periods are provided prior to final approval and adoption of all standards.

Coherence: where IEEE coordinates with industry, governments, associations, and numerous other organizations in the development of standards.

Development dimension: where participants in developing countries are encouraged to engage electronically in the development of IEEE standards by, for example, submitting comments during a formal consensus ballot without extensive or long- distance travel. Anyone in the world can participate in developing IEEE standards, and IEEE makes an effort to reach out to both individuals and entities in developing countries.

IEEE Standards Development Process Background

The IEEE standards development process is governed by a proven set of policies and procedures ensuring that the guiding principles are followed at every step of the standards development process. These policies and procedures provide guidance and oversight to those individuals and organizations participating in the development process.

To initiate an IEEE standard, the interested parties create a Project Authorization Request that is supported and approved by an IEEE Standards Committee that will provide guidance, direction, and mentorship throughout the standard development process, as well as the life of the standard.

After adopting an approved set of policies and procedures, the IEEE standards working group forms and begins developing the technical standard where all materially interested parties are afforded the opportunity to participate. Working groups strive to obtain a broad representation of these parties and encourage global participation.

After the working group reaches agreement on the draft standard, the consensus balloting process begins that includes a ballot pool of all those who expressed interest in the standard even though those individuals or entities may not have participated in the development process. Importantly, all negative votes with comments must be considered even if the standard has reached the approval rate of at least 75%.

Prior to final approval and adoption, the standard undergoes a multi-level review to ensure compliance with all policies and procedures at the IEEE Standards Association Standards Board.

About IEEE

IEEE is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity. IEEE and its members inspire a global community to innovate for a better tomorrow through its highly cited publications, conferences, technology standards, and professional and educational activities. IEEE is the trusted "voice" for engineering, computing, and technology information around the globe.