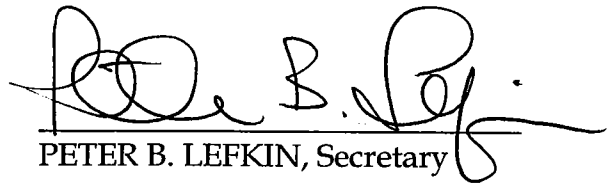


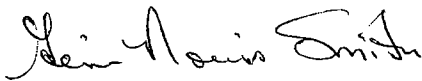
CERTIFICATION OF ARTICLES OF INCORPORATION

I, Peter B. Lefkin, Secretary, of IEEE Industry Standards and Technology Organization ("IEEE-ISTO"), hereby certify that the following is a true, correct and complete copy of the Amended and Restated Articles of Incorporation of the IEEE-ISTO duly adopted by the Board of Directors at its meeting on October 26, 2001, upon motion duly made by Director Wright and seconded by Director Arnold, which Articles of Incorporation have been filed with the Secretary of State of the State of Delaware.

(SEAL)


PETER B. LEFKIN, Secretary

Dated: 12/11/01



GENI NORRIS SMITH
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires May 24, 2004

**AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION**

**OF
IEEE INDUSTRY STANDARDS AND TECHNOLOGY ORGANIZATION**

**ARTICLE 1
NAME**

The name of this corporation is "IEEE Industry Standards and Technology Organization."

**ARTICLE 2
REGISTERED OFFICE**

The address of the registered office of this corporation in the State of Delaware is 1013 Centre Road, in the City of Wilmington, County of New Castle, Delaware 19805, and the name of its registered agent at such address is the Corporation Service Company.

**ARTICLE 3
PURPOSES**

This corporation is organized and shall be operated for the development of industry standards, requirements documents and guidelines, and for research and development, technology development, including the creation of intellectual property, development of programs for education, accreditation, certification, and conformance with standards. The corporation shall also undertake additional purposes and activities which may be undertaken by an organization described in Section 501(c)(6) of the Internal Revenue Code of 1986, as the same may be amended or modified or replaced by any future United States internal revenue law (the "Code").

For such purposes, and not otherwise, the corporation shall have and may exercise all powers that are afforded to the corporation by the General Corporation Law of the State of Delaware and by any future laws amendatory thereof and supplementary thereto.

The corporation is not organized for profit, and no part of its net income or earnings shall, directly or indirectly, inure to the benefit of its directors, member(s) or other person having a personal and private interest in the activities of the corporation, but the corporation may pay

reasonable compensation for services rendered to or for the corporation in furtherance of its purposes.

No substantial part of the activities of the corporation shall be the carrying on of propaganda, or otherwise attempting, to influence legislation (except to the extent authorized by Section 501(h) of the Code, if the corporation makes an election thereunder), and the corporation shall not participate in, or intervene in (including the publishing or distributing of statements), any political campaign on behalf of, or in opposition to, any candidate for public office.

All references in this Certificate of Incorporation to a particular section of the Code shall include the corresponding provisions of any future federal tax law.

ARTICLE 4 MEMBERSHIP

This corporation shall be a membership corporation and shall have no authority to issue capital stock. The members of the corporation may from time to time be classified among classes as provided for in the Bylaws of the corporation..

ARTICLE 5 INCORPORATOR

The name and mailing address of the incorporator is:

The Institute of Electrical and Electronic Engineers, Incorporated

Andrew Salem

445 Hoes Lane, Piscataway, NJ 08855

ARTICLE 6 DIRECTORS

The management and direction of the business and affairs of this corporation shall be vested in a Board of Directors. The number, qualifications, terms of office, method of selection or election, powers, authority, and duties of the directors of this corporation, the time and place of their meetings, and such other provisions with respect to them as are not inconsistent with the express provisions of this Certificate of Incorporation shall be as specified in or prescribed pursuant to the Bylaws of this corporation.

Directors shall not have personal liability to the corporation or its member for monetary damages for breach of fiduciary duty as a director, except in the case of (a) any breach of a duty of loyalty to the corporation, (b) acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (c) any transaction from which a director derives an improper personal benefit, or (d) any act or omission for which limitation or elimination of personal liability is not permitted by applicable law. The Bylaws of the corporation may authorize the Board of Directors to establish committees with members who are not directors.

ARTICLE 7 MERGER OR CONSOLIDATION

The corporation shall not merge or consolidate with any corporation unless its successor corporation is an exempt organization described in Sections 501(c)(3) or 501(c)(6) of the Code.

ARTICLE 8 DURATION

The corporation shall have perpetual existence.

ARTICLE 9 DISSOLUTION

The corporation may be dissolved in accordance with the laws of the State of Delaware. Upon dissolution of this corporation, and after the payment of all liabilities and obligations of this corporation and all costs and expenses incurred by this corporation in connection with such dissolution, any remaining assets shall be distributed to The Institute of Electrical and Electronics Engineers, Incorporated, a New York not-for-profit corporation ("IEEE") for charitable or educational purposes if the IEEE is then exempt under Section 501(a) of the Code as an organization described in Section 501(c)(3) of the Code. If the IEEE is not then exempt under Section 501(a) of the Code as an organization described in Section 501(c)(3) of the Code, such remaining assets shall be distributed to IEEE Foundation, Inc. if IEEE Foundation, Inc. is then exempt under Section 501(a) of the Code as an organization described in Section 501(c)(3) of the Code. Otherwise, such remaining assets shall be distributed (i) for charitable or educational purposes to one or more corporations, associations, trusts, foundations, or institutions as then are in existence and are described in Section 501(c)(3) of the Code; or (ii) for

the purposes described in Article 3, to one or more corporations, associations, trusts, foundations, or institutions as then are in existence and are described in Section 501(c)(6) of the Code; or (iii) shall be distributed to the federal government or to a state or local government for public purposes. Notwithstanding anything apparently or expressly to the contrary contained in this Article 9, if any assets are then held by this corporation in trust or upon condition or subject to any executory or special limitation, and if the condition or limitation occurs by reason of the dissolution of this corporation, such assets shall revert or be returned, transferred, or conveyed in accordance with the terms and provisions of such trust, condition, or limitation. The Certificate of Incorporation may not be amended to permit any distribution that is not permitted to be made by an organization described in Section 501(c)(6) of the Code.

ARTICLE 10. INDEMNIFICATION OF DIRECTORS AND OFFICERS

a. **RIGHT TO INDEMNIFICATION.** Except as prohibited by law, every director and officer of the corporation shall be entitled as of right to be indemnified by the corporation against expenses and any liabilities paid or incurred by such person in connection with any actual or threatened claim, action, suit or proceeding, civil, criminal, administrative, investigative or other, whether brought by or in the right of the corporation or otherwise, in which he or she may be involved in any manner, as a party, witness or otherwise, or is threatened to be made so involved, by reason of such person being or having been a director or officer of the corporation or by reason of the fact that such person is or was serving at the request of the corporation as a director, officer, employee, fiduciary or other representative of another corporation, partnership, joint venture, trust, employee benefit plan or other entity (such claim, action, suit or proceeding hereinafter being referred to as "Action"); provided, that no such right of indemnification shall exist with respect to an Action initiated by an indemnitee (as hereinafter defined) against the corporation (an "Indemnitee Action") except as provided in the last sentence of this Article 10(a). Persons who are not directors or officers of the corporation may be similarly indemnified in respect of service to the corporation or to another such entity at the request of the corporation to the extent the Board of Directors at any time denominates any of such persons as entitled to the benefits of this Article. As used in this Article 10, "indemnitee" shall include each director and officer of the corporation and each other person denominated by the Board of Directors as

entitled to the benefits of this Article 10; "expenses" shall mean all expenses actually and reasonably incurred, including fees and expenses of counsel selected by an indemnitee, and "liabilities" shall mean amounts of judgments, excise taxes, fines, penalties, and amounts paid in settlement. An indemnitee shall be entitled to be indemnified pursuant to this Article 10(a) for expenses incurred in connection with any Indemnitee Action only (i) if the Indemnitee Action is instituted under Article 10(c) and the indemnitee is successful in whole or in part in such Action, (ii) if the indemnitee is successful in whole or in part in another Indemnitee Action for which expenses are claimed or (iii) if the indemnification for expenses is included in a settlement of, or is awarded by a court in, such other Indemnitee Action.

b. RIGHT TO ADVANCEMENT OF EXPENSES. Every indemnitee shall be entitled as of right to have his or her expenses in defending any Action, or in initiating and pursuing any Indemnitee Action for indemnity or advancement of expenses under Article 10(c) of this Article 10, paid in advance by the corporation prior to final disposition of such Action or Indemnitee Action, provided that the corporation receives a written undertaking by or on behalf of the indemnitee to repay the amount advanced if it should ultimately be determined that the indemnitee is not entitled to be indemnified for such expenses.

c. RIGHT OF INDEMNITEE TO INITIATE ACTION. If a written claim under Article 10(a) or Article 10(b) of this Article 10 is not paid in full by the corporation within thirty days after such claim has been received by the corporation, the indemnitee may at any time thereafter initiate an Indemnitee Action to recover the unpaid amount of the claim and, if successful in whole or in part, the indemnitee shall also be entitled to be paid the expense of prosecuting such Indemnitee Action. The only defense to an Indemnitee Action to recover on a claim for indemnification under Article 10(a) shall be that the indemnitee's conduct was such that under Delaware law the corporation is prohibited from indemnifying the indemnitee for the amount claimed, but the burden of proving such defense shall be on the corporation. Neither the failure of the corporation (including its board of directors and independent legal counsel) to have made a determination prior to the commencement of such Indemnitee Action that indemnification of the indemnitee is proper in the circumstances nor an actual determination by the corporation (including its board of directors and independent legal counsel) that the

indemnitee's conduct was such that indemnification is prohibited by Delaware law shall be a defense to such Indemnitee Action or create a presumption that the indemnitee's conduct was such that indemnification is prohibited by Delaware law. The only defense to an Indemnitee Action to recover on a claim for advancement of expenses under Article 10(b) shall be the indemnitee's failure to provide the undertaking required by Article 10(b).

d. **INSURANCE AND FUNDING.** The corporation may purchase and maintain insurance to protect itself and any person eligible to be indemnified hereunder against any liability or expense asserted or incurred by such person in connection with any Action, whether or not the corporation would have the power to indemnify such person against such liability or expense by law or under the provisions of this Article 10. The corporation may create a trust fund, grant a security interest, cause a letter of credit to be issued or use other means (whether or not similar to the foregoing) to ensure the payment of such sums as may become necessary to effect indemnification as provided herein.

e. **NON-EXCLUSIVITY; NATURE AND EXTENT OF RIGHTS.** The rights to indemnification and advancement of expenses provided for in this Article 10 shall (i) not be deemed exclusive of any other rights, whether now existing or hereafter created, to which any indemnitee may be entitled under any agreement or bylaw, charter provision, vote of shareholders or directors or otherwise, (ii) be deemed to create contractual rights in favor of each indemnitee who serves the corporation at any time while this Article 10 is in effect (and each such indemnitee shall be deemed to be so serving in reliance on the provisions of this Article) and (iii) continue as to each indemnitee who has ceased to have the status pursuant to which he or she was entitled or was denominated as entitled to indemnification under this Article 10 and shall inure to the benefit of the heirs and legal representatives of each indemnitee. Any amendment or repeal of this Article 10 or adoption of any Bylaw or provision of the Articles of the Corporation which has the effect of limiting in any way the rights to indemnification or advancement of expenses provided for in this Article 10 shall operate prospectively only and shall not affect any action taken, or failure to act by an indemnitee, prior to such amendment or repeal or such adoption Bylaw or other provision.

f. PARTIAL INDEMNITY. If an indemnitee is entitled under any provision of this Article 10 to indemnification by the corporation for some or a portion of the expenses or liabilities paid or incurred by the indemnitee in the preparation, investigation, defense, appeal or settlement of any Action or Indemnitor Action, but not, however, for the total amount thereof, the corporation shall indemnify the indemnitee for the portion of such expenses or liabilities to which the indemnitee is entitled.

g. APPLICABILITY OF ARTICLE. This Article 10 shall apply to every Action other than an Action filed prior to the date of incorporation with the Delaware Department of State, except that it shall not apply to the extent that Delaware law does not permit its application to any breach of performance of duty or any failure of performance of duty by an indemnitee occurring prior to the date of incorporation with the Delaware Department of State.

ARTICLE 11. AMENDMENTS

The Certificate of Incorporation and Bylaws may be amended, altered or repealed only by the affirmative vote of the Board of Directors, subject to the approval of the Founding Member.