AMENDED AND RESTATED BYLAWS OF GEORGIA ADVANCED TECHNOLOGY VENTURES, INC.

As Adopted August 27, 2003, and superseding those Bylaws of Georgia Advanced Technology Ventures, Inc. as in effect immediately prior thereto.

Amended August 4, 2009.

ARTICLE 1

NAME

The name of this organization is: GEORGIA ADVANCED TECHNOLOGY VENTURES, INC. (hereinafter "the Corporation").

ARTICLE 2

PURPOSES

The Corporation is organized and shall be operated exclusively as a supporting organization to and for the benefit of the Georgia Institute of Technology to foster and support education and scientific research and economic development throughout the State of Georgia by promoting the State of Georgia for the development of new high technology research and industry within the State of Georgia. The Corporation shall facilitate and coordinate relations between the traditional educational and research activities and projects conducted in non-profit educational institutions throughout the State of Georgia and the efforts of the high technology industry in the State of Georgia. The Corporation may conduct schools and engage in other methods of education, conduct laboratories, engage in scientific research, and distribute and disseminate information resulting from research. Such research may be engaged in for others and on behalf of the Corporation. The Corporation may provide technical and managerial support and other services needed to technology start-up companies in Georgia working with the Corporation. The Corporation may otherwise act to promote and support such other research and educational and charitable purposes as the Board of Directors shall determine in compliance with Section 501(c)(3) of the Internal Revenue Code of 1986, as amended (the "Code") which purposes are in accord with the charitable purposes of the Georgia Institute of Technology; provided, however, that all activities of the Corporation shall at all times be in compliance with the rules and requirements of Section 501(c) of the Code. It is intended that the Corporation shall have the status of a corporation which is exempt from Federal income taxation under Sections 501(a) and 509(a)(3) of the Code, as an organization described in Section 501(c) of the Code. These Bylaws shall be construed accordingly, and all powers and activities of the Corporation shall be limited accordingly. The Corporation shall be operated, supervised or controlled by the Georgia Institute of Technology.

ARTICLE 3

OFFICES

The Corporation shall at all times maintain a registered office in the State of Georgia and a registered agent at that address but may have other offices located within or outside the State of Georgia as the Board of Directors may determine.

ARTICLE 4

DIRECTORS

4.1 <u>Management</u>. Subject to these by-laws, the full and entire management of the affairs and business of the Corporation shall be vested in the Board of Directors, which shall have and may exercise all of the powers that may be exercised or performed by the Corporation.

4.2 <u>Number of Directors</u>. The Board of Directors shall consist of no less than seven (7) and no more than nine (9) Directors to be appointed by the then acting President of the Georgia Institute of Technology, Ex-Officio member (one of which may be, but is not required to be, the President of the Georgia Institute of Technology). Directors shall serve for a term of three (3) years and until their successors are selected in accordance with the procedure outlined above. The Chairman of the Board of Directors to lead all meetings of the Board of Directors and to otherwise act as provided herein shall be selected from amongst the Directors by the President of the Georgia Institute of Technology. All resolutions adopted and all business transacted by the Board of Director may resign his or her appointment at any time. A Director may be removed, with or without cause, upon the vote of a majority of the Directors in favor of such removal.

4.3 <u>Vacancies</u>. The place of any Director which becomes vacant prior to the expiration of his or her term shall be filled pursuant to Article 4.2, such appointment to continue until the expiration of the term of the Director whose place has become vacant.

4.4 <u>Meetings</u>. The Directors shall meet annually, within four (4) months of the end of each fiscal year of the Corporation, at such time and place and on such date as the President and Chief Executive Officer shall determine from time to time and as shall be specified in the notice of the meeting. Special meetings of the Directors may be called at any time by the President and Chief Executive Officer or by any two Directors, on five days' written notice to each Director, which notice shall specify the time and place of the meeting. Notice of any such meeting may be waived by an instrument in writing executed before or after the meeting. Directors may attend and participate in meetings either in person or by means of conference telephones or similar communications equipment by means of which all persons participating in the meeting can hear each other, and participation in a meeting by means of such communication equipment shall constitute presence in person at any meeting. Attendance in person at such meeting shall constitute a waiver of notice thereof.

4.5 <u>Place</u>. Meetings may take place inside or outside the State of Georgia.

4.6 <u>Action in Lieu of Meeting</u>. Any action to be taken at a meeting of the Directors, or any action that may be taken at a meeting of the Directors, may be taken without a meeting if a consent in writing, setting forth the action so taken, shall be signed by all a majority of the Directors and any further requirements of law pertaining to such consents have been complied with. An email or similar transmission by a Director, or a photographic, facsimile or similar reproduction of a writing signed by a Director, shall be regarded as signed by the Director for this purpose.

4.7 <u>Compensation</u>. Directors may be compensated for services rendered as Directors. The amount of compensation payable to each Director shall be determined at each annual meeting of the Board of Directors, or at a meeting with respect to which notice of such purpose is given.

4.8 <u>Committees</u>. In furtherance of and not in limitation of the powers conferred by the laws of the State of Georgia, the Board of Directors may establish one or more committees constituted and appointed by the Board of Directors from their number who shall meet when deemed necessary. They shall have the authority to exercise all of the powers of the Board of Directors which may be lawfully delegated and not inconsistent with these Bylaws, at any time when the Board of Directors is not in session. Each committee shall elect a chairman, and a majority of the whole committee shall constitute a quorum; and the act of the majority of the members present at a meeting at which a quorum is present shall be the act of the committee provided all members of the committee have had notice of such meeting or waived such notice. Meeting of a committee may be called by any committee member. Notice of meetings of a committee shall be the same as required for a special meeting of the Board of Directors.

4.9 <u>Ex-Officio Members.</u> The Directors shall have the right to create the position of ex-officio members of the Board of Directors and to appoint such persons as the Directors deem appropriate, including but not limited to any officer of the Corporation. Each ex-officio member so appointed shall be a non-voting member of the Board of Directors, be entitled to attend all meetings of the Board of Directors, and be charged with such other duties and powers as the Board of Directors may from time to time prescribe in a manner consistent with the Bylaws of the Corporation.

ARTICLE 5

OFFICERS

5.1 <u>General Provisions</u>. The officers of the Corporation shall consist of a President, a Secretary, and a Treasurer who shall be elected by the Board of Directors, and such other officers as may be elected by the Board of Directors or appointed as provided in these By-Laws. Each officer shall serve such office until removed by the Board of Directors or until the resignation of such office by the officer. Any two or more offices may be held by the same person, except the offices of President and Secretary.

5.2 <u>President / Chief Executive Officer</u>. The President shall be the Chief Executive Officer of the Corporation and shall have general and active management of the operation of the Corporation. The President shall be responsible for the administration of the Corporation, including general supervision of the policies of the Corporation and general and active management of the financial affairs of the Corporation, and shall execute bonds, mortgages or other contracts in the name and on behalf of the Corporation. The President will have sole signatory authority on contracts up to Fifty Thousand Dollars (\$50,000.00) other than for any contract with the Georgia Institute of Technology, which contract must be approved by the Board of Directors regardless of the purpose of the contract or expenditure in excess of Fifty Thousand Dollars (\$50,000.00) must be approved by the Board of Directors before being executed or authorized by the President.

5.3 <u>Secretary</u>. The Secretary shall keep minutes of all meetings of the Directors and have charge of the minute books and seal of the Corporation and shall perform such other duties and have such other powers as may from time to time be delegated to him or her by the Executive Director or the Board of Directors. The Secretary shall also serve as an ex-officio member of the Board of Directors.

5.4 <u>Treasurer</u>. The Treasurer shall be charged with the management of the financial affairs of the Corporation, shall have the power to recommend action concerning the Corporation's affairs to the President, and shall perform such other duties and have such other powers as may from time to time be delegated to him or her by the President or Board of Directors. The Treasurer shall at all times maintain records evidencing the property owned by the Corporation and its receipts and disbursements, and shall present a report of the same to the annual meeting of the Directors. The Treasurer shall also serve as an ex-officio member of the Board of Directors.

5.5 <u>Assistant Secretaries and Treasurers</u>. Assistants to the Secretary and Treasurer may be appointed by the President or elected by the Board of Directors and shall perform such duties and have such powers as shall be delegated to them by the President or the Board of Directors.

5.6 <u>Vice Presidents</u>. The Corporation may have one or more Vice Presidents, elected by the Board of Directors, who shall perform such duties and have such powers as may be delegated by the President or the Board of Directors.

5.7 <u>Compensation</u>. Officers may be compensated for the performance of services in an amount to be determined at the annual meeting of the Board of Directors, or at a meeting with respect to which notice of such purpose is given.

ARTICLE 6

SEAL

The seal of the Corporation shall be in such form as the Board of Directors may from time to time determine. In the event it is inconvenient to use such a seal at any time, the signature of the Corporation followed by the word "Seal" enclosed in parentheses or scroll shall be deemed the seal of the corporation. The seal shall be in the custody of the Secretary and affixed by the Secretary or by the Secretary's assistants on appropriate papers.

ARTICLE 7

AMENDMENT

These By-Laws may be amended by an affirmative vote of six (6) Members of the Board of Directors of the Corporation.

ARTICLE 8

INDEMNIFICATION

8.1 <u>Director Indemnification</u>. The Corporation shall indemnify its directors and shall provide advances for expenses incurred by any of them in connection with any proceeding, to the fullest extent allowed under the Georgia Nonprofit Corporation Code (the "Code"), as it exists now or as hereafter may be amended, and under other applicable law. Such indemnification and advances for expenses shall be made in accordance with the Code, as it exists now and as hereafter may be amended, and subject to the conditions and limitations provided therein, including, without limitation, any condition that the director to be indemnified or provided advances for expenses has met applicable standards of conduct.

8.2 Officer and Employee Indemnification. The Corporation shall indemnify its officers, employees and agents, and shall provide advances for expenses incurred by any of them in connection with any proceeding, to the fullest extent allowed with respect to directors of the Corporation under the Code, as it exists now or as hereafter may be amended, and under other applicable law. Such indemnification and advances for expenses shall be made in accordance with the Code, as it exists now and as hereafter may be amended, and subject to the conditions and limitations provided therein with respect to indemnification and advancement of expenses to directors, including, without limitation, any condition that the officer, employee or agent to be indemnified or provided advances for expenses has met standards of conduct that are the same as or comparable to standards of conduct applicable to directors.

8.3 <u>Insurance</u>. The Corporation may purchase and maintain insurance on behalf of any such persons whether or not the Corporation would have the power to indemnify such persons against any liability under the Code.

ARTICLE 9

ACCOUNTING PERIOD

The annual accounting period of the Corporation shall be determined by the Board of Directors.