



SMART LIGHTING ENGINEERING RESEARCH CENTER

The Right Light Where and When You Need It

NSF Smart Lighting Engineering Research Center

BYLAWS

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Rensselaer



NYSTAR



The Smart Lighting Engineering Research Center (“CENTER”) is established by the National Science Foundation (“NSF”) to pursue breakthrough research activities in fundamental science, enabling technologies, and system demonstration of highly efficient and controllable solid-state light sources and systems. The CENTER is engaged in core research, non-core research, education and technology transfer activities. Important objectives of the CENTER are the transfer of technology to Industrial Members of the CENTER and ultimately to the public so that consumers and humanity may enjoy the wide-ranging benefits of Smart Lighting Technology. Furthermore, the CENTER seeks to integrate Smart Lighting research with an extensive education and outreach program.

Article 1 – CENTER Constituency

1.1 Core Academic Members

Core Academic Members in the CENTER consist of Rensselaer Polytechnic Institute (hereinafter “LEAD UNIVERSITY”), as the lead institution, and core partner universities. The core partner universities are Boston University and The Regents of The University of New Mexico (each referred to individually as a “CORE PARTNER UNIVERSITY” and collectively as “CORE PARTNER UNIVERSITIES”). The Core Academic Members are responsible for all activities leading to reaching the goals of the CENTER.

1.2 Other Academic Relations

It is anticipated that additional academic institutions may wish to join the CENTER, either as academic members or in some other capacity. This includes those entities who collaborate in educational activities under subawards and other contractual relationships under the NSF Cooperative Agreement, such as Outreach Institutions Howard University, Morgan State University and Rose-Hulman Institute of Technology, as well as international academic partners. Specific terms of other academic relationships will be governed by the respective memoranda of understanding or agreements, and any Core Research, as defined in Section 7.1 herein, will be conducted with terms consistent with these Bylaws.

1.3 Industrial Members

Industrial Membership is open to any organization that is not prohibited from conducting business in the US and is engaged in advancing the Smart Lighting field. Organizations meeting such criteria who intend to become Industrial Members will become Industrial Members after signing the *Smart Lighting ERC Industrial Membership Agreement*. Two tiers of industrial membership are available, as outlined below. The membership year starts on September 1st of each year.

1.3.1 Full Members

Full Industrial Members of the CENTER pay an annual membership fee of \$30,000.00 to support Core Research carried out through the CENTER, CENTER operation and technology transfer activities. Full Industrial Members who have executed the *Smart Lighting ERC Industrial Membership Agreement* and are in good standing receive the following benefits:

- Influence on CENTER research direction: voting participation in the Industrial Advisory Board with voting rights described in Section 2.4.1 hereof.
- Opportunity to participate in research programs that are carried out with the use of CENTER resources

- Early notice of invention disclosures and preferential licensing rights to CENTER conceived and developed intellectual property in accordance the Intellectual Property Policy set out herein in Article 7
- Ability to send researchers to CENTER facilities for research, knowledge transfer and new product development. The terms and conditions for such visits by researchers will be set forth in written visiting scientist agreements between such Member and the Core Academic Member which owns or controls the facilities where the visit will occur
- Access to annual report of Core Research conducted through the CENTER
- Access to highly skilled CENTER students, including the ability to hire them as co-ops, interns, or permanent employees, as coordinated with the applicable Core Academic Member
- Access to available educational programs including short courses, distance courses, workshops, training seminars, research symposia, and web-courses offered by and conducted through the CENTER
- Access and opportunity to negotiate reduced rates for technical facilities use
- Global connections through other CENTER members
- Attend meetings of the CENTER where results of Core Research Programs are reported
- Reduced registration rates for CENTER events
- Take advantage of the university as a stimulating environment for meetings, networking and intercompany functions
- Marketing opportunities through CENTER activities

1.3.2 **Affiliate Members**

Affiliate Members of the CENTER pay an annual membership fee of \$5,000.00 to support Core Research carried out in the CENTER, CENTER operation and technology transfer activities. Affiliate Industrial Members who have executed the *Smart Lighting ERC Industrial Membership Agreement* and are in good standing receive the same benefits as Full Industrial Members, except that their voting representation in the IAB is prorated as described in Section 2.4.1 hereof, and they have reduced licensing rights to CENTER conceived and developed Intellectual Property in accordance the Intellectual Property Policy Regarding Core Research set out herein in Article 7.

Article 2 – Organizational Structure and Operations

2.1 **Core Academic Members**

The LEAD UNIVERSITY shall appoint the Director of the CENTER (the “Director”), and each CORE PARTNER UNIVERSITY shall appoint its own Associate Director to act as liaison for ongoing operational issues of the CENTER. Each Core Academic Member is responsible for its compliance with all export control laws and regulations, including the Export Administration Regulations (EAR), the International Traffic and Arms Regulations (ITAR), and regulations, executive orders and other sanctions programs administered by the Office of Foreign Assets Control (OFAC) of the U.S. Department of Treasury.

- 2.1.1 CENTER policy and practice should promote the capability of Core Academic Members and Other Academic Members to invite Full and Affiliate Members to participate in the CENTER. Such Full and Affiliate Members shall be considered members of the CENTER as a whole rather than of an individual Core Academic Member.
- 2.1.2 Each Core Academic Member and Other Academic Member should report any proposed Full or Affiliate Member for the CENTER to the Director and Associate Director(s). Core Academic Members shall immediately advise the Director and Associate Director(s) of any termination of the membership of a Full and Affiliate Member. The Director shall, in turn, advise all Other Academic Members of such termination.
- 2.1.3 Core Academic Members shall incorporate these Bylaws in the Smart Lighting ERC Industrial Membership Agreement for all Full and Affiliate memberships in the CENTER. The *Smart Lighting ERC Industrial Membership Agreement* may not be modified without the approval of all Core Academic Members.

2.2 **Director of the CENTER**

The Director is responsible for leading the CENTER and administering the NSF Award in accordance with the terms and conditions of the Cooperative Agreement issued by NSF. In particular, without limitation, the Director shall: (a) select, focus and direct research activities; (b) coordinate research and educational projects; (c) allocate research funds; (d) institute procedures to facilitate maximum usefulness of shared CENTER facilities; and (e) select, plan, execute and evaluate educational, outreach and diversity goals. The Director reports to the Dean of the School of Engineering of LEAD UNIVERSITY, subject to the rules and regulations of LEAD UNIVERSITY, in regard to those specific legal obligations incurred by LEAD UNIVERSITY as the lead institution and fiscal agent for the NSF ERC Award and any CENTER legal obligations.

2.3 **Council of Deans**

The Council of Deans is an academic entity that provides strategic advice and counsel to the Director to insure conformance with core academic rules and regulations. The Council of Deans consists of the following voting members: the Dean of the LEAD UNIVERSITY'S School of Engineering, who serves as Chair; similarly, for each Core Academic Member, the Dean of Engineering or equivalent position, as determined by Core Academic Members in their discretion; and the Vice President for Research at LEAD UNIVERSITY. Non-voting members include the Director.

2.4 **Other Advisory Bodies**

Three advisory bodies will provide advice and counsel to the Director. These are: the Industrial Advisory Board, the Scientific Advisory Board, and the Student Leadership Council.

2.4.1 **Industrial Advisory Board (IAB)**

The Industrial Advisory Board provides strategic review and counsel to the Director and the Associate Directors on (a) the research activities of the CENTER, (b) the apportionment of resources to these activities, and (c) CENTER operating procedures. Each Full and Affiliate Member is represented on the IAB by one individual (together with a designated alternate). Each Full and Affiliate Member in good standing will have voting rights in the IAB based upon a weighted voting system. Each Full Member shall have one full vote in the IAB and eligibility to serve as IAB chair or vice chair. Each Affiliate Member shall have a vote in the IAB weighted at 20% of a Full Member's vote. For the purpose of

conducting IAB business, a quorum shall consist of those Industrial Members present whose combined votes constitute a majority of the votes held by all Industrial Members of the CENTER. The IAB:

- Receives annual reports of the CENTER
- Makes policy recommendations
- Reviews all Core-Research proposals and recommends priorities based on the above voting provisions to the Director/Associate Directors on an annual basis
- Attends the semi-annual meetings of the CENTER and receives progress reports
- Performs a Strengths-Weaknesses-Opportunities-Threats (SWOT) analysis of the CENTER in conjunction with the Annual Meeting
- Makes recommendations to the LEAD UNIVERSITY and CORE PARTNER UNIVERSITIES about patenting of inventions created by CENTER research
- Forms working groups to advise the CENTER
- Elects the IAB Chair who will coordinate the IAB meetings. A Vice-Chair will also be elected. The vice chair will fill in for the Chair in case he/she cannot attend.
- The IAB Chair shall serve a two year term. The Vice-Chair will become Chair – succession planning
- Elections shall occur at the Annual meeting or as required to fill vacancies

2.4.2 Scientific Advisory Board

The Scientific Advisory Board provides general review and counsel to the Director and the Associate Directors on the research and educational activities of the CENTER. The members of the Scientific Advisory Board consist of external individuals from organizations that are not members of the CENTER who are committed to addressing these issues. Core Academic Members are asked to provide nominations of individuals to serve on this Board. The Scientific Advisory Board will convene at least once a year to evaluate the CENTER's research direction.

2.4.3 Student Leadership Council

The Student Leadership Council is a CENTER-wide body that provides review and counsel to the Director and Associate Directors on (a) student involvement in CENTER programs; (b) the Smart Lighting ERC Strategic Plan and (c) collaboration among the CENTER Members. The members of the Student Leadership Council are elected among the graduate students participating in CENTER research. The Student Leadership Council will convene as needed to conduct business relevant to student research and educational outreach.

2.5 Organizational Structure

The organizational structure of the CENTER and key positions in the CENTER are illustrated in the attached **Appendix A**.

Article 3 – Core Research Programs

- 3.1 Core Research Programs are financially supported by funds from NSF, Core Academic Members, membership fees, and other sources. Core Research Programs of the CENTER will be conducted by the CENTER faculty, students and staffs from LEAD UNIVERSITY and CORE PARTNER UNIVERSITIES. The policies governing ownership of intellectual property and publications are discussed in Articles 7 and 9, respectively.

Article 4 – Non-Core Research Projects

- 4.1 Each Core Academic Member is free to negotiate and sign separate sponsored research agreements for separate research projects, upon additional payment terms, with any Industrial Member, as well as other businesses and industry and other non-profits. Core Academic Members can also subcontract research work from these separate projects, as appropriate, to other members of the CENTER. Such separate sponsored research agreements are not considered part of the CENTER's Core Research. The development of intellectual property under such separate sponsored research agreements shall be governed by the terms of those agreements.

Article 5 – Intellectual Property Protection Fund (IPPF)

- 5.1 The CENTER establishes the Intellectual Property Protection Fund (IPPF) as a resource to be used to secure protection associated with the most promising disclosure of inventions created by CENTER Core Research supported with NSF funds and membership fees. IPPF is funded by a deduction from each Full Industrial Member's annual membership fee as determined by the CENTER Director.

Article 6 – Amendment Policy

- 6.1 These Bylaws may be amended only by the unanimous vote of the LEAD UNIVERSITY and the CORE PARTNER UNIVERSITIES.

Article 7 – Intellectual Property Policy Regarding Core Research

- 7.1 Definitions.

7.1.1 "Core Research" means research that is: (a) conducted through the CENTER by CENTER faculty, students and staff from LEAD UNIVERSITY and/or CORE PARTNER UNIVERSITIES, and (b) financially supported by funds from NSF, Core Academic Members, membership fees and other sources.

7.1.2 "Intellectual Property" means any patent information, inventions, discoveries, or software, conceived and first reduced to practice, or copyrighted works of authorship first created, in the performance of Core Research. Nothing in these Bylaws shall be deemed to supersede the intellectual property and/or technology transfer policies of any Core Academic Member. In the event of a conflict between these Bylaws and such policies, the Core Academic Member's policy shall control.

7.1.3 "CENTER Personnel" means any Core Academic Member employee or student who receives funding from the CENTER for Core Research.

- 7.2 Title to Intellectual Property conceived and first reduced to practice, or first created (in the case of copyrighted works of authorship), in the performance of Core Research during the existence of the CENTER by the CENTER Personnel of a Core Academic Member shall be retained by that Core Academic Member. Upon request, such Core Academic Member will grant a Full Industrial Member a non-exclusive, royalty-free, license upon other terms to be negotiated to such Intellectual Property for only non-

commercial, internal research use (hereinafter an "Internal Use License"), provided that (a) such Intellectual Property was conceived and first reduced to practice, or first created (in the case of copyrighted works of authorship), during the Full Industrial Member's membership in the CENTER and (b) the Full Industrial Member has fully paid its annual membership fee.

- 7.3 Title to Intellectual Property conceived and first reduced to practice, or first created (in the case of copyrighted works of authorship), in the performance of Core Research during the existence of the CENTER by the CENTER Personnel of more than one Core Academic Member(s), or by the CENTER Personnel of one or more Core Academic Member(s) together with employees of one or more Industrial Member(s) in the performance of Core Research during the existence of the CENTER shall be jointly owned by such involved Core Academic Member(s) and/or Industrial Member(s), and such joint ownership shall be determined in accordance with appropriate U.S. law. The inventing Core Academic Member shall control the preparation, filing, and prosecution of patent applications concerning such jointly owned Intellectual Property.
- 7.4 In the event that an invention is conceived and first reduced to practice in the performance of Core Research by the CENTER Personnel of a Core Academic Member, that Core Academic Member shall promptly provide a copy of an invention disclosure for review to its technology transfer office (hereinafter "Disclosed Invention"). A non-confidential version of the Disclosed Invention shall be disclosed by the inventing Core Academic Member to the CENTER Director, Associate Directors, Industrial Collaboration and Innovation Director and Industrial Members within 30 days (hereinafter "Non-confidential Disclosure"). Those Full and Affiliate Industrial Members interested in the Disclosed Invention can review the full, confidential disclosure of the Disclosed Invention upon signing a Nondisclosure Agreement with the inventing Core Academic Member. Within four months from the date of such Non-confidential Disclosure, the IAB shall make recommendations to all Core Academic Members regarding IPPF support in patenting of the Disclosed Invention. The CENTER may reimburse the patent prosecution and maintenance costs using IPPF funds up to \$10,000 per invention.
- 7.5 Full Industrial Members shall have an option to acquire a royalty-bearing license to make, have made, use and sell products or processes embodying or produced through use of such Disclosed Invention for commercial purposes, said license to be exclusive among those Full Industrial Members (hereinafter a "Limited Exclusive License") who exercise the option. The option must be exercised by written notice to the Director (or Associate Director) of the inventing Core Academic Member within three (3) months from the date of such Non-confidential Disclosure, and such option may only be exercised by those Full Industrial Members who have paid their annual membership fees. Those Full Industrial Members exercising the option will share the patent prosecution and maintenance costs beyond the amount paid from the IPPF.
- 7.6 If no Full Industrial Member exercises its option to acquire a Limited Exclusive License (as described above in Section 7.5 of this Article 7), then the inventing Core Academic Member shall notify all Affiliate Industrial Members of same in writing. Within thirty (30) days of receipt of such notice, an Affiliate Industrial Member (who has paid its annual membership fee) may elect, by written notice to the Director (or Associate Director) of the inventing Core Academic Member and the Inventing Core Academic Member's Technology Transfer Office, to negotiate a royalty-bearing license to make, have made, use and sell products or processes embodying or produced through the use of such

Disclosed Invention for commercial purposes. Affiliate Industrial Members making such an election will fully share the patent prosecution and maintenance costs without any contribution from the IPPF.

- 7.7 If no Industrial Member has expressed an interest in a license as described above in Sections 7.5 and 7.6, after a four (4) month period from the date of such Non-confidential Disclosure, the inventing Core Academic Member is free to make such Disclosed Invention available to any company for a royalty-bearing license to make, have made, use and sell products or processes embodying or produced through the use of such Disclosed Invention for commercial purposes.
- 7.8 All policies in this Article 7 that apply to the filing, prosecution, maintenance and licensing of patents in the U.S. also apply to filing, prosecution, maintenance and licensing of patents in any other country on a country-by-country basis.
- 7.9 All CENTER Industrial Members acknowledge and agree that their respective rights under this Article 7 shall be subject to the CENTER's and Core Academic Members' obligations to and the rights of the United States Government, if any, as subject to the provisions of 35 U.S.C. 200, et seq., 37 C.F.R. Part 401, and other applicable laws and regulations.

Article 8 – Confidentiality Policy

- 8.1 For the purpose of Articles 8 and 9 herein, the following terms shall have the following meanings:
- 8.1.1 “**CENTER Member**” means any Core Academic Member, Other Academic Member, or Industrial Member of the CENTER.
- 8.1.2 “**Disclosing CENTER Member**” means a CENTER Member, its employees, faculty, staff and students, furnishing Confidential Information.
- 8.1.3 “**Receiving CENTER Member**” means a CENTER Member, its employees, faculty, staff and students, receiving Confidential Information.
- 8.2 For the purpose of this Article 8, “**Confidential Information**” includes, but is not limited to, all technical, corporate, financial, economic, legal or other information or knowledge generally concerning a CENTER Member or any of its affiliates, whether disclosed orally, or in the form of written material, computer data or programs, and including information respecting models, mechanisms, processes, photographs, intellectual property, inventions, invention disclosures, know-how, or otherwise, howsoever obtained, and which is clearly and obviously identified in writing at the time of disclosure by an appropriate legend, marking, stamp or other positive written identification on the face of the document or item, or if oral, which is confirmed as confidential by a writing submitted by the Disclosing CENTER Member to the Receiving CENTER Member within thirty (30) days of the disclosure except information that:
- 8.2.1 is disclosed lawfully to the Receiving CENTER Member by a third party who has no obligation of confidentiality to the Disclosing CENTER Member with respect to the disclosed information;

- 8.2.2 is, or becomes, generally known to the public, other than by a breach by a Receiving CENTER Member of its obligations hereunder;
- 8.2.3 is already known by the Receiving CENTER Member before disclosure by the Disclosing CENTER Member hereunder as can be proved by evidence of the Receiving CENTER Member, and which is not the subject of a previous confidentiality agreement between the Disclosing CENTER Member and the Receiving CENTER Member; or
- 8.2.4 is developed by the Receiving CENTER Member independently of the disclosure by the Disclosing CENTER Member.
- 8.3 For a period of three (3) years after the disclosure of any given item of Confidential Information, the Receiving CENTER Member shall maintain each such item of Confidential Information in strict confidence and shall not disclose that information, except to the extent necessary for the performance of a Core Research Program, to any third party, except with the prior written consent of the Disclosing CENTER Member. The obligations of this Article 8 shall continue with respect to any Confidential Information for said three (3) year period, regardless of the termination or expiration of a CENTER Member's membership in the CENTER. Notwithstanding the provisions of this Article 8, a Receiving CENTER Member may disclose Confidential Information to the extent required to comply with applicable laws, governmental regulations, subpoena, or court order, provided that prior notice is promptly delivered to the Disclosing CENTER Member in order to provide it with an opportunity to seek a protective order or other similar order with respect to such Confidential Information and the Receiving CENTER Member thereafter discloses only the minimum information reasonably required to be disclosed in order to comply with the request, whether or not a protective order or other similar order is obtained by the Disclosing CENTER Member.
- 8.4 In the course of carrying out the work of the CENTER, the CENTER does not expect to receive any confidential information other than invention disclosures from Full or Affiliate Industrial Members. If, to benefit the Core Research program of the CENTER, it becomes necessary for a Full or Affiliate Industrial Member to divulge proprietary information to any member of the staff of the CENTER (including students), such divulgence shall be made in writing, or if made orally, confirmed in written summary within thirty (30) days of disclosure. It will be the responsibility of the individual(s) involved in such transaction to keep the information confidential.

Article 9 – Publications and Presentations

- 9.1 Each CENTER Member recognizes that the results of Core Research will be published and that researchers engaged in Core Research shall be permitted to present at symposia and international, national or regional professional meetings, and to publish in journals, the Internet, theses, or dissertations, or otherwise of their own choosing, the methods and results of Core Research. Publication and presentation materials will be subject to the standard internal review consistent with the practices and policies of the Core Academic Members technology transfer office.

- 9.2 All publications arising from CENTER research shall contain an acknowledgment that the work was funded in part by the NSF Cooperative Agreement.

Article 10 – Communications Policy

- 10.1 The CENTER will maintain a web presence so that knowledge generated can be provided to the public. Members agree the CENTER will use Member names on the CENTER website and in marketing materials. The CENTER will use primarily emails to exchange information with Members. The CENTER may also publish electronic newsletters to highlight the latest accomplishments of the CENTER. The CENTER will make effort to the best of its ability to establish a secure portal for exchanging any sensitive information among Members.
- 10.2 The annual NSF review and CENTER symposium will be hosted by the LEAD UNIVERSITY or a CORE PARTNER UNIVERSITY campus. This meeting will present an executive summary of the year's accomplishments. Scientific results from the CENTER are included in presentations, posters, testbeds and lab tours. Graduate students, postdoctoral fellows and research associates will be utilized as appropriate.
- 10.3 The CENTER will publish an Annual Report in which CENTER research, education and outreach accomplishments, and prospects for the future are reviewed. This report will be distributed to members before the CENTER's annual conference
- 10.4 At least one IAB meeting will be held each year in conjunction with the annual NSF review and CENTER symposium.

Article 11 – Compliance with United States Antitrust and Competition Laws

- 11.1 The CENTER includes among its members parties who are business competitors. It is the policy of the CENTER to comply with United States antitrust and competition laws that apply to each of its members and to encourage its members to do so as well. Accordingly, in connection with any meeting or activity sponsored by the CENTER, no members shall reach any agreement or exchange any information concerning cost or pricing information, sales or marketing strategies, terms and conditions of purchase or sale, the allocation of customers or territories. All members shall avoid even the appearance of such agreements or exchanges of information. If discussions prohibited by this rule take place in any such meeting or activity, all members should cease participation immediately. In order to minimize the likelihood of such an occurrence, all meetings and activities sponsored by the CENTER shall be conducted in accordance with a published agenda and shall be documented in appropriate meeting minutes.

Article 12 – Export Controls

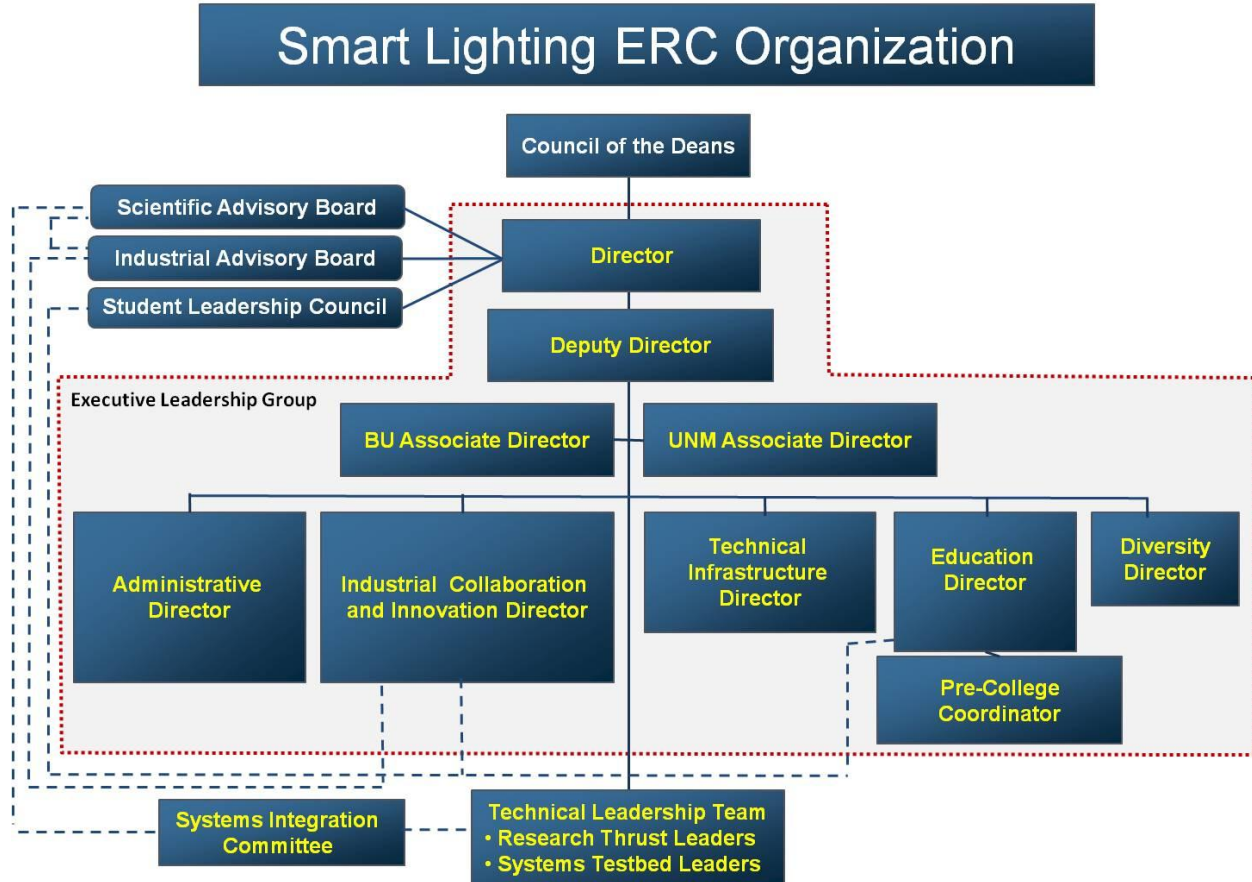
- 12.1 It is understood by all members of the CENTER that the research conducted by the CENTER and the individual Core Academic Members is anticipated to be of the type which qualifies for the Fundamental Research Exclusion under applicable U.S. export laws and regulations (including the Arms Export Control Act, as amended, and companion regulations, the International Traffic in Arms Regulations, the Export Administration Act of 1979, and companion regulations, the Export Administration Regulations). Notwithstanding the foregoing, all members of the CENTER shall abide by

all applicable laws and regulations concerning the export or re-export of technical data, computer software, laboratory prototypes and other commodities.

Article 13 – Termination

- 13.1 The Director, in consultation with the Council of Deans, may terminate the CENTER upon written notice to the Core Academic Members, Other Academic Members and all Industrial Members if the NSF award is terminated or if conditions otherwise preclude continuation of the CENTER, and in such case, uncommitted fees shall be returned to the Industrial Members on a pro rata basis. Articles 7, 8, 9, 12 and 13 of these Bylaws shall survive the termination of the CENTER and/or the expiration or termination of any agreement which, by reference or otherwise, incorporates these Bylaws.

APPENDIX A: Smart Lighting ERC Organizational Structure



Key leadership positions within the CENTER are as follows:

- **Director:** Overall vision and goals, strategic planning, center management.
- **Deputy Director:** Operation and research coordination
- **Associate Directors:** Resource allocation and project administration at core partner universities
- **Administrative Director:** Financial and information management, human resource
- **Industrial Collaboration and Innovation Director:** Industrial membership program, marketing, entrepreneurship
- **Technical Infrastructure Director:** Space planning and equipment acquisition and access)
- **Education Director:** Overall education activities, including university, pre-college, outreach and assessment
- **Pre-College Education Coordinator:** Assists Education Director with outreach activities
- **Diversity Director:** Diversity plan for leadership, faculty, staff, students
- **Executive Leadership Group:** Coordination of center operation and resource allocation
- **Systems Integration Committee:** Coordination of testbed development and technology transfer. Monitoring and assessment of state of art in smart lighting applications
- **Technical Leadership Team:** Testbed and thrust leaders; project evaluation and

- oversight, recommendation on project selection and termination
- **Council of the Deans (Deans from core partners, RPI VPR):** Overseer of center operation, ultimate dispute resolution
 - **Industrial Advisory Board (Industrial members):** Input on research relevance to industry and commercialization potential
 - **Scientific Advisory Board (Scientific leaders):** Input on scientific merits of research projects and directions
 - **Student Leadership Council:** Student input & liaison
 - **Academic Policy Board (Director, campus directors, ED):** Coordinating academic affairs between ERC & campuses