



WIND HAZARD IMPACT PERFORMANCE (WHIP) CENTER BY-LAWS

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WIND HAZARD IMPACT PERFORMANCE CENTER
1009 Canton Avenue – Lubbock, TX 79409-3155

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Center for Wind Hazard and Infrastructure Performance (WHIP)

Bylaws

Article 1: Introduction and Definitions

1. The following Bylaws will be used to guide the Wind Hazard and Infrastructure Performance Center (“WHIP” or “Center”), an Industry–University Cooperative Research Center (“IUCRC”) funded by the National Science Foundation (“NSF”).
2. These Center Bylaws are subordinate to the IUCRC program guidelines for operating an IUCRC (including relevant NSF solicitation). If a conflict is identified, the IUCRC guidelines shall be followed. These Center Bylaws are also similarly subordinate to the WHIP membership agreement and MOU. If a conflict is identified, the WHIP membership agreement and MOU shall be followed.
3. The Center is a consortium initially comprised of the following universities, either as individual sites (SITE) or as affiliate sites (AFFILIATE SITE), collectively known hereafter as “Academic Institutions”:
 - a) Texas Tech University (TTU), SITE
 - b) Florida International University (FIU), SITE
 - c) Florida Institute of Technology (FIT), AFFILIATE SITE

Additional university sites or affiliate sites may be added to the center following the NSF IUCRC guidelines.

4. Definitions:
 - a) A SITE is any college or university (i.e. an Institution) that joins the Center by award from NSF for participating in activities of the Center. An AFFILIATE SITE is any Institution that joins the CENTER through a subcontract from a SITE for the purposes of participating in activities of the Center.

- b) Site Directors are appointed by their respective universities and are usually the PIs of the NSF IUCRC awards.
- c) The Center Director is appointed by the Academic Leadership Team and is chosen from either the Site Directors or faculty members from one of the Sites. The Center Director must have significant background and experience in the discipline of wind engineering.
- d) The Academic Leadership Team is comprised of the Site Directors, the Center Director and the IAB Chair.
- e) A University Policy Committee for each Site is comprised of individuals from the Institution Administration. These committees facilitate the operation of the Site while ensuring compliance with the policies of their respective universities. Each University Policy Committee meets as necessary to discuss and resolve Center-related issues. The University Policy Committees shall not have any overlap with the members of the Center Academic Leadership Team.
- f) An “Industrial Member” is any industrial firm or organization (including non-profits), or non-NSF Federal agency that joins the Center as a member by signing the WHIP Center Membership Agreement countersigned by an authorized representative of a Site (or in the case of Federal agencies, via Military Interdepartmental Purchase Request [MIPR] or Interagency Agreement [IAA] with NSF) and timely paying annual membership fees pursuant to said WHIP membership agreement. Other categories of industrial entities, for example, individuals or state/local government agencies, may also be eligible for membership.
- g) Full Industrial Members (“Full Members”) are defined as any Industrial Member who pays at least a \$50,000 membership fee per year to support research at the Center.
- h) The “Industrial Advisory Board” (“IAB”) is comprised of industry representatives, one appointed by each Industrial Member, with an elected Chair. The IAB reviews and recommends all research activities funded totally or in part by membership fees. The IAB also approves Center bylaws.

Article 2: Purpose

1. Vision Statement: a research consortium within the discipline of wind engineering that involves government, private industry and academic entities to create methods and tools that will ultimately help prevent future windstorm hazards from becoming disasters.
2. Mission Statement: to contribute to the nation's research infrastructure base by developing long-term partnerships among industry, academia and government to address important challenges within the field of wind engineering and to provide meaningful solutions to these problems.
3. Research focus: The Center's research will focus on the needs of the members and the capabilities of the universities in various areas of wind engineering. The major research themes are:
 - Characterization of wind hazards
 - Assessment of exposure and vulnerability of buildings and infrastructures
 - Improvement of community resilience

Article 3: Membership

1. Participants in the Center include Academic Institutions, and Full Members.
2. Academic Institutions may only join the Center as SITE through award of an IUCRC grant from NSF or through subcontract from an existing SITE as AFFILIATE SITE, with a minimum of two-third agreement among the existing Site Directors and with simple majority agreement of the Center's IAB.
3. Full Members join the Center through the WHIP IUCRC Membership Agreement (Exhibit A) executed with a Site within the Center. Federal Agencies have the option of joining the Center by entering into a MIPR or IAA with NSF, without signing the membership agreement.

4. Companies, federal research and development organizations, government owned contractor operated laboratories, small businesses and related entities (“New Members”) may request, or be requested, to join the Center as Full Members at a Site. New members may join the Center upon signature of the Membership Agreement or, in the case of government agencies, a MIPR or IAA with NSF, acceptance of the current Bylaws, and payment of the applicable prorated annual membership fee. For prorating purpose, the membership year is from March 1 to last day of February of the next year. Application of new or additional membership fees may be made at the Site to existing research programs or new interim proposals approved by the Center’s Academic Leadership Team in consultation with the IAB or held in reserve for project funding until the next Center annual meeting. New members’ rights to continued funding and intellectual property are subject to the same provisions in these Bylaws as existing members.
5. If a member decides to leave the Center as permitted by the Membership Agreement, there is no prorated return of the membership fee.

Article 4: Organization and Governance

1. The Center shall be governed, as set forth below, by: (a) the NSF IUCRC guidelines (including solicitation and membership agreement); (b) the Industrial Advisory Board; (c) the Center Director; and (d) the Site Director(s), and (e) the University Policy Committees for each Site.
2. Industrial Advisory Board. Each Full Member organization is entitled to have one representative on the IAB for every paid membership fee (\$50,000). A Member organization contributing \$100,000 or more membership fees is entitled to a maximum of two votes. All votes of Member organization shall be placed in the hands of a single voting representative. A Member organization wishing to join with more than \$100,000 will be subjected to acceptance by the majority of current IAB.

The IAB shall meet twice annually as per IUCRC guidelines to fulfill its responsibilities hereunder.

- a) The IAB shall select a Chair and a Chair-Elect for a two-year term at the first meeting of the IAB and then for one-year terms at each annual meeting thereafter. The IAB

Chair and Center Director shall work together as needed to manage Center activities.

- b) All Industrial Members - their appointed representatives or designated alternates - shall participate through the IAB in the strategic planning of the Center. The IAB shall assist the Center Director, Site Directors, and participating faculty in identifying pre-competitive, wind hazard-related research problems; recommend, via voting process, research projects for future work; identify appropriate internship opportunities for graduate students. The IAB shall also assist the Center Director and Site Directors in identifying new members; review the research and educational accomplishments of the Center; and recommend restructuring and/or redirecting of ongoing programs to meet the Industry Members' needs and address the Industry Members' concerns.
 - c) At all meetings of the IAB, two-thirds of the Full Members of the IAB will constitute a quorum for the transaction of business.
 - d) All IAB Members may participate in discussions of all matters before the Board. Full Members may vote on issues before the IAB.
3. Center Director: The Center Director is the primary decision-maker for the Center and shall have the responsibility and authority for all aspects of the Center's operation and performance. The designated Center Director oversees all operating and management aspects of the Center. The Center Director will be advised by the IAB Chair.
4. Site Directors:
- a) The Site Directors are responsible for Center activities at their universities and report directly to their respective University Policy Committees and to the Center Director. The Site Directors serve as a liaison between the Center and the Project Principal Investigators, and other personnel at their Sites.
 - b) Funds are defined as NSF funds provided to the sites, plus all funds (program income) from IAB members recruited by the Sites. The Site Directors controls the funds at their Site.
5. The WHIP MOU is an agreement among Academic Institutions participating in the Center, describing how Sites interact as part of the Center. The agreement addresses sharing of

administrative and managerial responsibilities, handling of the collection and allocation of membership fees after project selection, the arrangement for annual certification of the collected membership fees and their sources at each Site, and intellectual property issues. The MOU shall be posted on the public portion of the Center's website.

6. The University Policy Committee at each Site is available to resolve administrative issues related to the operation of the Center at that Site. A University Policy Committee for each Site consists of individuals from the Institution Administration that facilitates the operation of the Site/Center while ensuring compliance with the policies of their respective universities.
7. Other Participants in the Center include but are not limited to:
 - a) Project Principal Investigators. Project Principal Investigators manage specific research projects funded by the Center and report directly to the appropriate Site Director, university administrator (e.g. Chair of respective department), and the Project Mentor. Project Principal Investigators shall be identified in specific project proposals.
 - b) Administrative Support Staff. The Academic Researchers/Institutions shall provide a reasonable level of clerical and accounting support for the operation of the Center.
 - c) Project Mentor is a technical sponsor who advises on a funded research project. A mentor may be a member of the IAB or another employee from the Industrial Member. In case where there are more than one Project Mentors, one of them will be designated as primary.
 - d) An Assessment Coordinator provides an independent assessment of the operation of the Center as to the NSF Program Officer for the Center, as per NSF guidelines. The support of the NSF-appointed assessment coordinator is managed independently by NSF. Centers are required to provide all necessary data and materials to the Center assessment coordinator in a timely fashion, so that the assessment coordinator can fulfill his/her responsibilities.

Article 5: Administration

1. The IAB, Center Director and Site Directors shall develop strategic plans for the Center and

for recruiting new Industrial Members and Academic Institutions to the Center.

2. The Center Director, in coordination with the Site Directors, with consideration of recommendations of the IAB, and in accordance with provisions of prevailing membership agreements, shall authorize the use of membership fees by the Project Principal Investigators in support of Center research.

Article 6: Meetings

1. The Center Director, in consultation with the Site Directors and the IAB Chair, shall establish the schedule of activities and meetings for the Center including establishing the agenda for the semi- annual IAB meetings.
2. The participating universities and IAB members for the Center shall meet twice a year; once in the fall and once in the spring. The annual meeting (Spring) requires in-person participation; it can be virtual meeting in case of 'Act of God' situation. The semi-annual meeting (Fall) may be organized via telepresence. The date and location of future meetings shall be determined at the previous IAB meeting, or at least three months in advance.
3. IAB members are expected to:
 - a) Attend annual IAB meetings, in person (barring circumstances out of their control). Video- or tele-conference participation during project selection procedures is discouraged but may be acceptable under rare circumstances;
 - b) Participate in the process of reviewing and recommending research to be funded; and
 - c) Vote on research projects and other research matters before the IAB.
4. Center meetings are closed to the public. Attendance is limited to representatives of member companies; faculty, staff and students of Sites and Affiliated Sites; and the Assessment Coordinator and other NSF personnel. In the event a prospective member would like to attend, that organization must sign a non-disclosure agreement (NDA) and would not participate in IAB voting.

Article 7: Research Project Selection

1. Research Projects shall be proposed to the IAB by Site Directors at the annual IAB meetings, and project funding allocations shall be determined based on IAB project selection recommendations and Academic Leadership Team input. IAB Members shall recommend projects by voting, based on the amount of their individual membership contribution, for their preferred projects, which may occur at one or more Sites in the Center. Where conflicts exist in matching voted allocation to project funding requirements, the Academic Leadership Team shall work with the IAB to support IAB Member needs at all Sites and to optimize the Center-wide impact of funding decisions.
2. Proposed new projects and continuation of existing projects are reviewed annually by the IAB. On project decisions each IAB Member is allocated votes with which to influence project selection and resource allocation priorities. Each member paying a membership is allocated 10 working votes. Working votes may be distributed across Sites and projects in any manner the Member selects, from all votes on one project to some votes on many or all projects. Projects with the most votes will be selected for funding irrespective of Site or Affiliate Site.
3. Project budgets may be adjusted based on fund availability and the balancing of the overall portfolio.
4. The research projects are conducted by students (undergraduate, graduate, and/or postdoctoral), technical staff, and faculty at one or more of Sites and Affiliate Sites.
5. Each funded project shall have at minimal one Project Mentor.

Article 8: Intellectual Property (Patents, Copyrights and Licensing / Royalty Agreements)

Administration of intellectual property shall follow the rules and program guidelines of the NSF

IUCRC and the Membership Agreement. Intellectual property that results from Center-funded research shall be the property of the research site or sites where the work was performed.

4. If invention or discovery is made resulting from Center-funded research, the Project Principal Investigator (PPI) shall submit an invention disclosure to the relevant department or office (i.e. Technology Transfer Office) associated with their Site. The PPI, in conjunction with technology transfer office and/or university shall then forward the invention disclosure to the Center Director who shall then forward the disclosure to all of the currently paid Members.
2. Members shall have 90 days from the filing of a provisional patent to notify the disclosing University of the Member's desire to enter into a non-exclusive royalty-free license.
3. Patent rights eligibility is contingent upon having an active membership at the time of the invention disclosure. Industrial Members who join the Center after a disclosure has been filed are not eligible to the same patent rights as those Industrial Members who were active at the time of the invention's discovery. This also applies to the Industrial Members who have lapsed membership and rejoin the Center at a later date.

Article 9: Project Reports and Management

1. The Center Director shall provide at least an annual report to the Members and the NSF. This report will be available in electronic form for download over the Internet.
2. For each project funded within the Center, the Project Principal Investigator (PPI) shall provide an IUCRC project description with technical objectives and milestones to the members in the proposal of the project.
3. For each project funded within the Center, the PPI shall provide a written semiannual report to the Center Director that will be forwarded to IAB members and the relevant project mentors.
4. Interim project reports shall be provided to Mentors via regular teleconference briefings or

short written reports. The form and frequency of reports for each project shall be determined by the PPI and the project mentors, though a frequency of biweekly is recommended.

5. All administrative issues, concerns, or conflicts regarding the activities of research and reporting are the responsibility of the Center Director.
6. All reports shall be provided to Industrial Members as PDF files and will be marked “confidential.”
7. Project Mentor(s) who determine a PPI is not meeting the reporting and progress requirements shall alert the Center Director for possible sequestration of research funding. The Chair of the IAB must approve all funding sequestrations and notify Industrial Members if a project is identified as not meeting the requirements.
 - The Project Mentor(s) shall submit the issue(s) to the Site and Center Directors and IAB Chair in writing.
 - The Center Director and IAB Chair shall report the issue(s) to the PPI, detailing actions that are required to solve the issue(s) within two weeks.
 - If the issues are not resolved within the allotted time, the Site and Center Director(s) and IAB Chair shall formalize the action until the issue is resolved
8. The PPI is responsible for managing the use of allocated fund in compliance with all applicable university operational procedures.
9. Final reports are due to Center Director 4 weeks after the project ends. The reports shall be cumulative and detail all of the results of the project.
10. PPI is required to attend or have a CO- PPI participate in semi-annual meetings. Travel expenses shall be paid from their project fund.
11. No-cost extension: A PPI can request a one-time no-cost extension for current projects in accordance with the guidelines below:
 - The PPI is required to submit a one paragraph justification for the request, one month

prior to the initial ending date of the project to the Site Director.

- The PPI may request a 4-month-maximum extension

The no-cost extension shall be approved or disapproved by the IAB with majority of voting members by paper (or e-mail) ballot.

- Any funds remaining after the project expiration date shall be returned to the Center earmarked for the following year.
- A final report is required at the end of the no-cost extension, if approved.

12. In case of ‘Act of God’ situation where the Center or an Institution is not functioning, automatic extension of project(s) shall be granted as determined by the leadership.

13. Major changes to current projects shall be requested in writing as the revised project summary by the PPI. These shall include, but are not limited to:

- Change of PPI
- Change of deliverables
- Transfer-out of fund not included in the initial proposal
- Others that could significantly alter the initial scope of work

The revised project summary shall be reviewed and approved by Academic Leadership Team in consultation with the Project Mentor(s).

Article 10: Miscellaneous

These Bylaws may be amended at any time by an affirmative vote of the Academic Leadership Team, with the consent of two-thirds of the Industrial Advisory Board, as hereinafter defined.

Record of Adoptions, Amendments, Corrections, Etc.

1. Original document approved July 15, 2020 by e-mail vote of IAB member representatives listed: Eric Haefli, State Farm Insurance; Guido Lori, Permasteelisa Group; Karthik Ramanathan, AIR-Worldwide; Kevin McGrath, GAF; Maurizio Savina, SCOR; and Tim Doggett, Berkshire Hathaway Specialty Insurance.
2. Article 4: Organization and Governance amended April 2, 2021, by vote, over Zoom of IAB member representatives listed; Eric Haefli, State Farm Insurance; Daniel Diaz, USAA; Karthik Ramanathan, AIR-Worldwide; Kevin McGrath, GAF; Maurizio Savina, SCOR; and Tim Doggett, Berkshire Hathaway Specialty Insurance. By-Laws Change necessary per NSF Solicitation NSF 17-516

Attachment A – Membership Agreement

IUCRC WHIP Membership Agreement for Industry Partners

This Agreement is made this day of (to be filled in by company), 2021 by and between the following UNIVERSITY SITES:

- a. Texas Tech University (hereinafter "TTU")
- b. The Florida International University Board of Trustees (hereinafter "FIU")

and "to be filled in by company" (hereinafter called "COMPANY") for the Center comprising and acting through the Center for Wind Hazard and Infrastructure Performance (WHIP), which is defined as all *Wind Hazard and Infrastructure Performance (WHIP)* Research Sites funded by the Industry/University Cooperative Research Center Program of the National Science Foundation.

WHEREAS, the UNIVERSITY SITES have established an Industry/University Cooperative Research Center for *Wind Hazard and Infrastructure Performance (WHIP)* (hereinafter called "CENTER") and the parties to this Agreement intend to join together in a cooperative effort to support the CENTER to maintain a mechanism whereby the UNIVERSITY SITE environment can be used to perform research to provide sustained and coordinated funding opportunities to multidisciplinary teams of researchers and practitioners for enhancing our nation's capacity to manage the risk of future windstorms, the parties hereby agree to the following terms and conditions:

- A. CENTER will be operated by certain faculty, staff, and students at the UNIVERSITY SITES. For the first five years, the CENTER will be supported jointly by industrial firms, Federal Laboratories, the National Science Foundation (NSF), the State, and the UNIVERSITY SITES. It is possible that the UNIVERSITY SITES may receive support from NSF for an additional ten years.
- B. Any COMPANY, Federal Research and Development organization, or any Government-owned Contractor Operated laboratory may become a member of the CENTER, consistent with applicable state and federal laws and statutes.

CENTER may only identify COMPANY as a participant in the WHIP Center.

- C. COMPANY agrees to contribute \$50,000 annually in support of the CENTER and thereby becomes a full member with one vote on the CENTER's Industrial Advisory Board (IAB) pursuant to the CENTER Bylaws. Payment of these membership fees shall be made to the UNIVERSITY SITE as a lump sum effective March 1, 2022. Checks from COMPANY should be mailed to Sheralyn Mathison, Business Manager, National Wind Institute, Texas Tech University, 1009 Canton Ave, MS 3155, Lubbock, TX 79409-3155 and made payable to Texas Tech University. Because research of the type to be done by the CENTER takes time and research results may not be obvious immediately, COMPANY should join CENTER with the intention of

remaining a fee-paying member for at least two years. However, the COMPANY may terminate this Agreement by giving TTU and FIU 90 days written notice prior to the termination date.

- D. There will be an Industrial Advisory Board composed of one representative from each CENTER member. This board makes recommendations on (a) the research projects to be carried out by the CENTER (b) the apportionment of resources to these research projects, and (c) changes in the bylaws.
- E. UNIVERSITY SITES reserve the right to publish in scientific or engineering journals the results of any research funded by the CENTER. COMPANY, however, shall have the opportunity to review any paper or presentation containing results of the research program of CENTER prior to publication of the paper, and shall have the right to request a delay in publication for a period not to exceed ninety (90) days from the date of submission of the proposed publication to COMPANY, provided that COMPANY makes a written request and justification to the applicable UNIVERSITY SITE(s) for such delay within thirty (30) days from the date the proposed publication is submitted by certified mail to COMPANY.
- F. All patents derived from inventions conceived or first actually reduced to practice in the course of research conducted by the CENTER shall belong to the UNIVERSITY SITE(s) that generated the invention(s). Said UNIVERSITY SITE(s), pursuant to chapter 18 of title 35 of the United States Code, commonly called the Bayh-Dole Act, will have ownership of all patents developed from this work, subject to "march-in" rights as set forth in this Act.
- G. UNIVERSITY SITES agree that all such CENTER members are entitled to a nonexclusive royalty-free license to patent rights derived from CENTER funded research. COMPANY will have the right to sublicense its subsidiaries and affiliates. COMPANIES that wish to exercise rights to a royalty-free license agree to pay patent application and maintenance costs.
- H. After a period of one year after the UNIVERSITY SITE has filed a patent application, if only one COMPANY has requested a license, that COMPANY may negotiate an exclusive royalty bearing license and have the right to sublicense the patent rights to third parties.
- I. Copyright registration shall be obtained by UNIVERSITY SITE for software funded by CENTER. COMPANY shall be entitled to a nonexclusive, royalty-free license to all registered software. COMPANY will have the right to enhance and to re-market enhanced or unenhanced software with royalties due to UNIVERSITY SITE to be negotiated, based on the worth of the initial software, but not to exceed 10% of a fair sale price of the enhanced software product sold or licensed by COMPANY.
- J. Any royalties and fees received by a UNIVERSITY SITE under this Agreement, over and above expenses incurred, will be distributed 75% to the UNIVERSITY SITE and 25% to the CENTER, or 100% to the UNIVERSITY SITE in the event that CENTER is no longer in operation.

UNIVERSITY SITE shall distribute to their inventor(s) from their proceeds in accordance with the UNIVERSITY SITE's policy.

- K. With respect to any information or materials supplied by one party to another under the CENTER, no warranty or representation of any kind is made, given or implied as to the sufficiency or fitness for purpose nor, as to the absence of any infringement of any proprietary rights of third parties. The recipient party shall in all cases be entirely and solely liable for the use to which it puts such information and materials. Any item, information, services, or technology provided by a party hereunder is provided on an "as is" basis without warranty of any kind.

Except where this exclusion or restriction of liability would be void or ineffective under applicable law, no party, its affiliates and their respective directors, officers, employees and agents shall be liable to another party or its affiliates or any director, officer, employee or agent of such party or its affiliates, for any incidental, punitive, exemplary, consequential or special damages that arise out of, relate to, or are otherwise attributable to any act of any party, or of any other participant, group of participants resulting from their lawful activities with the CENTER.

- L. If a UNIVERSITY SITE is the defendant in a suit, the choice of law, venue, and jurisdiction shall be in the UNIVERSITY SITE's home state. No UNIVERSITY SITE can be subject to another state's jurisdiction through counterclaim or joinder unless that UNIVERSITY SITE voluntarily submits to another state's jurisdiction.