ASCEND^{R} Research Grant Program Competition (Y1)
Call for Proposals Supplementary Document

ASCEND^{R} Research

1. Expanded Description of Research/SOW

This is a competitively funded DOD research program that is aligned to the U.S. National Defense Science and Technology Strategy and the DOD Critical Technology Areas. Current areas for this effort include **Advanced Materials, Human-Machine Interfaces, and Space Technology.**

a. **Advanced Materials:** Advanced materials explore innovative new materials and novel manufacturing techniques that can dramatically improve many of the Department's capabilities. Materials that have higher strength, lighter weight, higher efficiency, and can handle more extreme temperatures will have the potential to better protect our service members and enhance their ability to accomplish their missions.
b. **Human-Machine Interfaces:** Human-Machine Interface refers to technologies related to human-machine teaming and augmented and virtual reality. Rapid advancements in this technology will have many benefits for our service members. Highly immersive, realistic training environments provide real-time feedback to enhance warfighter performance. Intuitive and interactive human-machine interfaces enable rapid mission planning and mission command by providing a common operational picture to geographically distributed operations.
c. **Space Technology:** Space technologies include Space flight, Space Communication, human space flight, cognitive reasoning, space power, and other technologies needed to maintain space operations. With rising threats and increasing dependence on space-based systems, the Department's space strategy must shift away from exquisite satellites to a more robust and proliferated architecture. Novel space technologies are necessary to enable resilient cross-domain operations. The space strategy must incorporate technologies that enhance the Department's adaptive and reconfigurable capabilities in space situational awareness, space control, communication path diversity, on-orbit processing, and autonomy.

Through this competitively funded research program, HSRU Alliance members leverage research in emerging technology while integrating graduate student researchers. This research program will have the aims to (1) expose both faculty and students to military operations and defense and national security real-world challenges, (2) deploy and enhance the research environments conducive for the successful progression and participation of the students in the process (e.g. mentoring, professional development, and financial support), and to (3) conduct research and deliver research outcomes to meet DOD technical challenges/gaps.

2. ASCEND^{R} Leadership Program

The ASCEND^{R} Leadership Program is designed to introduce distinguished HSRU faculty to national security challenges and the defense enterprise through military operational engagements and experiences; interactions with top-level DOD officials, senior military commanders; participation in defense leadership innovation roundtables and other informative activities with the purpose of exposing faculty to the complex military operations, existing

challenges that creates a defense-informed research faculty group postured to offer new innovative solutions and research pathways. This program will broaden faculty researchers' engagement with DOD while also building support for serving as effective mentors to other faculty and graduate students in these types of partnerships. More information on this program as well as the engagement requirements can be found at the following site: https://www.hsru.org/initiatives/ascendr/research.

3. **Allowable Use of Funds.**
    a. All requested funds (e.g., student support, consumables) must be integral to the research and not available within the department, college, institute, or center.
    b. Funding requests for PI/Co-PI(s) are allowed as a percentage of effort up to two summer months equivalents.
    c. Funds may be used for travel to attend conferences, workshops, or meetings specifically aligned with research.
    d. Funds may not be used for dual compensation or overload.
    e. Proposers are encouraged to ensure they request funds within the allowable range that matches the need for the proposed work.
    f. Cost Share is allowed but not required.
    g. Allowable indirect cost per Federal negotiated rate.
    h. Graduate Research Assistant support must be included, which could be salary, tuition remission, travel support, or other financial support to fund their participation.
    i. The subrecipient cannot acquire any real property or equipment under the subaward.

4. **Submission Instructions**
    - Submission should be completed through the HSRU InfoReady portal available through the HSRU website.
    - Applications should be submitted by a designated individual authorized by the member institution, following completion of the internal competition.
    - New users will need to create an account.

5. **Deliverables**
    - Recipients of funding for this program must submit bi-annual interim progress report and a final report 30 days after the end of the award period. Instructions will be provided after the award.
    - Requests for budget modifications or no-cost extensions must be submitted no later than 90 days before the end of the award period for approval.
    - Failure to comply with the indicated deliverables may result in disqualification or participation in seed funding programs in the future. Additional guidance will be provided through the awarding process.

Please use this form to submit your questions: ASCENDR Research - Open Question Period Form