



Space Research Initiative (SRI) Call for UF-Led Proposals

Announcement and Guidelines Release Date: 4/1/2022

Proposal Due Date: July 31, 2022

UF Research, in collaboration with the Florida Space Institute (FSI), requests research, development, and demonstration proposals for the Space Research Initiative (SRI). The SRI supports proposals for **one year**, UF-only projects in any area of space-related research and development (see below for list of areas).

This call for proposals aims to expand the UF NASA and space-related community, prioritizing PIs who have not previously been funded by NASA and whose seed efforts will lead to new external funding in 2023/2024/2025. This call places particular emphasis on efforts that have promise to win federal awards or industry sponsorships.

This call encourages inclusion of NASA scientists/programs and alignment with NASA priorities identified in the NASA Technology Taxonomy: (<https://www.nasa.gov/offices/oct/taxonomy/index.html>).

Any UF faculty member (PI) may submit a proposal if they are eligible to submit to external funding agencies (see *Policy on Eligibility to Submit Proposals*: <https://research.ufl.edu/dsp/proposals/eligibility-to-submit-a-proposal-for-external-funding.html>). Courtesy, Adjunct, Visiting, and OPS faculty; Assistant In, Associate In, Senior Associate In; Research Associates; and Postdoctoral Associates are not eligible to be PIs on Florida Space Institute awards.

Principal Investigators who have not previously been funded by NASA or the SRI/FSI are strongly encouraged to apply. New PIs are encouraged to partner with a PI who is an established NASA or space science investigator who will serve as mentor to the new investigator. Awardees are required to travel to AIAA, ASGSR, or other national space society meetings and the mentor will receive \$5,000 of the award to enable joint travel to the meeting or NASA centers for introductions. A list of funded space researchers on the UF campus is available from UFRsearch.

PIs who have already received SRI Seed Fund awards **are not allowed to submit** another SRI Seed Fund proposal as the PI **for one year after completion of the first award**.

Proposals will be accepted for budget requests up to \$100K. **Awards will be for one year. Project descriptions should contain clear deliverables.**

The earliest start date will be Nov 15, 2022.

Research, development, demonstration, and project preparation are encouraged for efforts in the following areas plus NASA priorities identified in the 2020 NASA Technology Taxonomy (see link above):

- The solar system, the Sun, and the cosmos.
- Earth science.
- Microgravity science.
- Life and microgravity sciences (including life support technology).
- Space operations including reusable or expendable launch vehicles.
- Research that relates to the development of research-related space instrumentation.
- Management of fluid systems.
- Space commercialization.
- Human factors and systems engineering.
- Spacecraft systems and subsystem for satellites.
- In support of miniaturization, innovative materials, cryogenics, and other technology enabling long-duration space flight.

Areas from 2020 NASA Technology Taxonomy

- TX01: Propulsion Systems
- TX02: Flight Computing and Avionics
- TX03: Aerospace Power and Energy Storage
- TX04: Robotic Systems
- TX05: Communications, Navigation, and Orbital Debris Tracking and Characterization Systems
- TX06: Human Health, Life Support, and Habitation Systems
- TX07: Exploration Destination Systems
- TX08: Sensors and Instruments
- TX09: Entry, Descent, and Landing
- TX10: Autonomous Systems
- TX11: Software, Modeling, Simulation, and Information Processing
- TX12: Materials, Structures, Mechanical Systems, and Manufacturing
- TX13: Ground, Test, and Surface Systems
- TX14: Thermal Management Systems
- TX15: Flight Vehicle Systems
- TX16: Air Traffic Management and Range Tracking Systems
- TX17: Guidance, Navigation, and Control (GN&C)

Other areas of space-related research and development may also be proposed.

Proposals should demonstrate strong potential for specific future funding opportunities, and/or the possibility of garnering industry support for their research, and those funding prospects should be specifically identified and justified in the proposal.

Additionally, proposals are expected to reflect NASA's commitments to diversity and equity. To keep with NASA's funding objectives, proposals must prioritize diversity and supportive partnerships with historically underserved and underrepresented individuals in STEM.

PROPOSAL REVIEW

All proposals received will be reviewed by an ad hoc UF faculty committee. The Vice President for Research at UF, in conjunction with the FSI Director will make all award decisions following these reviews. All information submitted in a proposal will be treated as confidential.

The **evaluation criteria** for proposals will be:

1. **Significance/Innovation of the Project and Approach (30 points):**
 - Goals, merit, clarity, and feasibility of the proposed project.
 - Are the conceptual framework, design, methods, and analyses adequately developed, well integrated, well-reasoned, and appropriate to the aims of the project?
 - Does the applicant acknowledge potential problem areas and consider alternative tactics?
 - Is there alignment with NASA technology plans?
2. **Likelihood of obtaining external support (25 points):** The merit, win likelihood, and strategic importance of the associated external funding opportunity/opportunities associated with the proposed project.
3. **Commitment to Diversity:** Does the proposal promote teaching, training, and learning or broaden participation of underserved and underrepresented groups in science or technology **(10 points)**.
4. **Investigators (15 points):** Qualification of PIs and team as evidenced by related refereed publications and past award success with the target funding agencies and their reflection of NASA's commitments to diverse research teams.
5. **Project Management Plan/Project Schedule (10 points)**
6. **Research Environment/Facilities (10 points):**
 - Do the proposed studies benefit from unique features of the scientific environment or employ useful collaborative arrangements?
 - Do the PIs have the additional resources (e.g., equipment) to successfully accomplish their goals?
7. Does the proposed research have the potential for current commercial or industrial applications or the development of intellectual properties? **(NOT scored)**

After evaluation, these proposals will be assigned as “strongly support,” “support,” “support, if possible,” and “do not support,” for final funding recommendations.

GUIDELINES FOR SUBMISSION

- 1- **Proposals must be submitted through UFIRST and IRR.** For uploading to **InfoReady**, please login using your **Gatorlink** account. Clicking on the Apply button next to the opportunity details will display information to be uploaded.
- 2- Proposals must be uploaded in PDF format only, as ONE file (please name file as 2022_SRI/PI last name). PLEASE DO NOT UPLOAD MULTIPLE VERSIONS OF THE PROPOSAL OR SCANNED FILES.
- 3- Proposals submitted will go through the standard approval process: PI, Department Chair, and Dean. Signatures for investigators outside UF do not need to be obtained at the proposal stage, though they will need to go through the regular routing of proposals at their own institutions.

Formatting: Proposals should be at least in 11 point font or greater, with at least 0.5 inch margins throughout. Figure legends and tables can be in 10 point font.

Proposals should consist of the following materials in this sequence:

1. **Cover Page** containing the following:

Proposal Title: **OR-DRPD-SRI2022:**

Principal Investigator/Institutional, College and Departmental Affiliation:

Telephone:

E-mail:

Co-Investigators:

[INSERT NAME, AFFILIATION(S), & CONTACT INFO FOR EACH]

Project Start and End Dates:

Proposed Cost to SRI: \$

2. **For previously funded SRI awardees- Please provide the following information relating to awards/proposal submissions which have resulted due to your previous SRI award:**

Agency	Total Amount	Title and Status (Funded/Proposed)	UF Proposal #/Award #

- 3. Abstract/Overview.** Start as a new page and limit to one (1) page, summarizing each proposal element below.
- 4. Project and Approach.** Up to five (5) pages of text MAXIMUM describing the project. If proposals are longer than 5 pages, only the first 5 pages will be reviewed. Figures and tables are included in the 5 page limit; references are not included. Project description must include the following: Describe the proposed project, its technical content, context, strategic value to UF, and each task within the project. Address how the project aligns with the priorities listed in the 2020 NASA Technology Taxonomy (<https://www.nasa.gov/offices/oct/taxonomy/index.html>) as well as NASA's commitments to diversity.
- 5. Management Plan.** Limit to two (2) pages. Include a project schedule, by task, and show deliverables (if applicable).
- 6. Facilities, Software Tools, and Equipment.** Describe the required facilities and equipment for the proposed project, making clear what facilities, software tools, and equipment are already available and what must be procured/otherwise obtained to carry out the proposed project. Limit to two (2) pages.
- 7. PI and Team.** Describe the qualifications of the PI and each Co-I, limited to one (1) page for each person; include URLs of PI and team web pages on their bios.
- 8. External Funding Opportunities.** Include the specific funding agency/company and the specific opportunities planned for submission, by 11/2023, as a result of the proposed SRI funding, the win likelihood for each, the proposer's past experience with this specific agency/company and their strategic importance to UF's space portfolio. **Proposals that do not address this fully will not be selected.** Limit to two (2) pages.
- 9.** The investigator(s) should describe any potential for commercialization. How may the research relate to current commercial or industrial applications? Could the research lead to new products and markets? If possible, estimate the time to market, including all certification steps. Proposals should be explicit whether successful results will be published. How will progress toward potential commercial application be measured? Describe funding received to date, and give an estimate of funding required to advance the product to market. List any potential opportunities for the development of intellectual properties. Describe the impact of your results relevant to economic evaluation; including humanitarian impact.
- 10. References** should be cited together at the end of the proposal.
- 11. Budget.** Start as a new page and describe the budget to support your project by providing detailed budget table. The budget may include all normally allowable costs of research.

Include the following breakdown:

1. *Labor* – List investigators, graduate students, and support staff and percent effort of each.
2. *Equipment* – Identify equipment that will be purchased under this award, if applicable.
3. *Subcontract Costs* – Identify consultants or subcontracts, if applicable.
4. *Materials* – List materials that will be purchased under this award.
5. *Travel* – List locations, approximate dates and justification of travel.

Notes:

- All the usual categories that go into Federal budgets are allowed in the budget.
- Facilities & Administrative costs – **No F&A** is allowed for these projects. Industry funds will be subject to the standard UF F&A rate for industry-sponsored research.
- Cost Share – No cost share is required for this effort.
- Collaborators from other organizations are allowed as long as their budget comes from their organizations.

12. Budget Justification

DEADLINES

The deadline for submission of full proposals through **UFIRST and InfoReady Review Portal** is **5 PM EST, July 31, 2022**. Questions about this call for proposals may be addressed to Dr. Kyle Bohunicky at kbohunicky@ufl.edu and Dr. Sobha Jaishankar at sjaishan@ufl.edu.

Receipt of proposals will be confirmed with the principal investigator via an automated e-mail notification from InfoReady Review.

NOTIFICATION OF AWARD

Every effort will be made to notify Principal Investigators of their award status by **Oct 15, 2022**. The earliest start date will be Nov 15, 2022.

CHANGES TO THE PROJECT

If there is a change in the proposed execution of the project, a formal proposal request is needed (1 page is sufficient) that explains the rationale for the change.

REPORTING AND REQUIREMENTS

Awarded grants will be required to submit reports:

1. **Project End Date report:** Comprehensive report at project end date with milestones achieved is required.
2. **Final Report:** A final report two year after the termination of the project is required.

Award PIs are **required** to attend a NASA or space science related national meeting that is new to their experience. Mentor PI is encouraged to co-attend for the purposes of introducing the new PI to the community.

Proposal submissions that result from these grants are **required** to be directly reported to UFResearch in order to track the future outcomes and returns from the SRI grant.

Report template will be sent to the PIs prior to the reporting due dates.